



Bharuch District
Government of Gujarat

OFF SITE EMERGENCY PLAN FOR DISTRICT OF BHARUCH GUJARAT STATE

EDITION NUMBER: 05
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Edition History

Table 1 Edition History

Edition Number	Date of Edition	Name of the District Collector – Bharuch for DEA	Name of the Factory Inspector in charge of the Bharuch District
01	15/03/2012	Mr. Roopwan Singh (IAS)	Mr. Vijay Patel
02	02/08/2014	Smt. Avantika singh (IAS)	Mr. D.K.Dave
03	01/10/2019	Mr. M.D.Modiya (IAS)	Mr. N.D.Vaghela
04	01/08/2023	Mr. Tushar sumera (IAS)	Mr. D.K.Vasava
05	08/06/2026	Dr. N.K.Gavhane (IAS)	Mr. D.B.Gamit & S.P.Pathak

Directory of Key Responders in the District

Table 2 Directory of Key Responders

Sr.	Authority	Name Of Current Office Holder	Address (O, R)	Telephone (O, R, M)	Email	Remark
1	a) District Collector (OR DEA)	Dr. N.K.Gavhane (IAS)	(O) District Collector Office, Bharuch (R) Civil Lines Edgah Road, Bharuch	(O) (02642) 240500, 240600 (R) (223701)223703 (M) 99784 06205	collector-bha@gujarat.gov.in	
2	Additional Collector	Shri Parth jaishwal	Bharuch	(O) 222332 (M) 99784 05177		
3	Alternate DM & Dy. Collector	Shri. M.N Manani	District Collector Office, Bharuch	(O) (02642) 241400, 241980 (R) (02642) 240162,		
4	SDM & Dy. Collector	Shri B.A. Jadeja	Sdm & Dy. Collector Office Ankleshwar	(O) (240045) (M) 75670 21674		
5	Superintendent Of Police	Mr. Akshay Raj	Civil Lions, Kali Talavadi, Bamba Khana Road, Bharuch	(O) (2642 223 303)		
6	Alternate	Mr. C.K. Patel	Civil Lions, Kali Talavadi, Bamba Khana Road, Bharuch	(O) 02642-223633		
7	Fire Department Chief	Mr. Vijay Asar	DPMC, Ankleshwar	(O) (02642) 220229 (M) 99259 79798		
8	Alternate	Mr. Pritesh Patel	DPMC, Ankleshwar	(O) (02642) 220229		
9	Dist. Health Officer	Dr. V.S. Tripathi		(O)02642243660 (M) 9727702155		
10	Alternate	Dr. Keshav kumar		(M) 9727702169		
11	Inspector Of Factories DY. D I S H, Bharuch	Mr. D.B.Gamit	Jilla Seva Sadan – 2, Nr. Court Bldg. Bharuch	(M) 9978262544		
	Inspector Of Factories DY. D I S H, Bharuch	Mr. S.P.Pathak	Jilla Seva Sadan – 2, Nr. Court Bldg. Bharuch	(M) 6354310155		
12	Pollution Control Board (Regional Officer)	Mr. K.N. Vaghamshi	Shed No. C-1/119/3, GIDC Phase-2, Narmadanagar, Opp. Narayan Kunj Society, Bharuch, Gujarat - 392015.	(O) 02642-246333	gpcb_bha@gujarat.gov.in	
13	Member					
14	Technical Experts	Mr. Pritesh Patel	DPMC Ankleshwar	(M) 9925979798		
15	b) Industries Representative	Mr. P.S. Keshvani	GNFC Bharuch	(M) 9428722726		
	c) Industries Representative	Mr. Somnath Sarkar	OPAL Bharuch	(M) 9099007516		

Sr.	Authority	Name Of Current Office Holder	Address (O, R)	Telephone (O, R, M)	Email	Remark
	d) Industries Representative	Mr. Jignesh Patel	Reliance Industries Ltd, Dahej	(M) 9998001088		
	e) Industries Representative	Mr. M.B.Patel	Dahej Industrial Association	(M) 9909029646		
	f) Industries Representative	Dr. Mahesh Vashi	Coloutex Industries Ltd	(M) 9898014674		
	g) Industries Representative	Mr. Jarvik Munshi	UPL ltd Jhagadia	(M) 9825280799		
	Trade Union Representative					
16	Transport Provider Regional Transport Officer	Mr. Pankaj padhiyar		(O) 02642233102		
17	Mutual Aid Group	Smt. Shobhnaben		(M) 75670 52767		
18. Media						
(a)	Gujarat Mitra	Mr. Y S Agnihotri	Sevashram Road, Mohmadpura, Bharuch.	(O) 261 2599991		
(b)	Sandesh	Mr. Parthiv Falgunbhai Patel	Satyesh Bhavan, Bahucharaji Road, Karelibaug, Vadodara – 390018 (covers Bharuch)			
(c)	Gujarat Samachar	Mr. Jignesh Patel	R.K. Casta, behind Patel Super Market, Station Road, Bharuch.	(O) +91 79 25508001		
(d)	Times Of India	Mr. Yagnesh Bharat Mehta	Maruti Plaza Complex, Modi Compound, Panch Batti Circle, Bharuch - 392001.	(M) +91 98306 29298		
(e)	Indian Express	Mr. Parimal A. Dabhi	804, Dwarkesh Complex, R.C. Dutt Road, Alkapuri, Vadodara – 390007 (Manages Bharuch as well)	(O) +91 265 235 2851		
(f)	Divya Bhaskar	Mr. Mrugank Patel	Ratan Nagar Complex, Aagman Flat, Railway Station Road, Moficer Jin Compound, Bharuch, Gujarat 392001.			
(g)	Navgujarat Times	Mr. Ajay Umat	108/B, Prithvi Trade Centre, Panch Batti, Station Road, Bharuch - 392001	(O) +91 79 6777 3500		
19. Railways						

Sr.	Authority	Name Of Current Office Holder	Address (O, R)	Telephone (O, R, M)	Email	Remark
(a)	Supritendent	Mr. D.K. Raju	Railway Station, Bharuch	(O) 267347 (M) 97240 98417		
(b)	Dy. Second Sup.	Mr. D.M.Jagtap	Railway Station, Bharuch	(O) 02642-240969 (R) 02642-240969 (M) 97240 98417		
20	Dy. Second Sup.		Railway Station, Bharuch	(O) 240969 (M) 97240 98417		
	Other Members of Dcg, Coast Guards and Other Authorities As May Be Applicable					

1. Enforcement of Plan

1.1 Statement by the District Collector (or the DEA)

“This document has been prepared in close cooperation with the local authorities and with the support of MAH installations in the area. I, hereby, declare the plan to be affected”.

Dr. N.K.Gavhane (IAS)
District Collector,
Bharuch District

1.2 Statement by the Officer Appointed to Carry Out the Maintenance and Upkeep tasks of the Plan (See Section 6.1 of Part-a)

“I take responsibility for the maintenance and upkeep of the plan and shall:
Possess Master Copy of this Plan and always ensure that it is up-to-date Ensure
distribution of the latest plan copy to the key responders

- Maintain signatures of the responders in the Master Copy of the plan
- Communicate changes in the plan to all the possessors of the plan (see Annex.3)
- Initiate revision of plan whenever it is due

**and perform other tasks that may needed for up-to-date
maintenance and sufficiency of this plan”**

Mr. D.B. Gamit & S.P. Pathak
Dy. Director Industrial Safety & Health,
Bharuch

SIGNATURE, SEAL AND DATE

1.3 Commitment of Responders

“I accept to fulfil the roles and responsibilities assigned to me for effective implementation of offsite plan”

(See Roles and Responsibilities in Chapter 7)

Table 3 Commitment of Responders

Sr.	Authority Designation	Name of Office Holder	Date	Signature
1	District Collector (OR DEA)	Dr. N.K.Gavhane (IAS)		
2	Alternate SDM & Dy. Collector	Mr. Parth Jaishwal		
3	SDM & DY. Collector	Mr. M.N Manani		
4	Superintendent Of Police	Mr. Akshay Raj		
5	Alternate	Mr. C.K. Patel		
6	Fire Department Chief	Mr. Vijay Aasar		
7	Alternate	Mr. Pritesh Patel		
8	Dist. Health Officer	Dr. V.S. Tripathi		
9	Alternate	Dr. Keshav kumar		
10	Inspector Of Factories Dy. D I S H, Bharuch	Mr. D. B. Gamit		
		Mr. S. P. Pathak		
11	Pollution Control Board (Regional Officer)	Mr. K.N. Vaghamshi		
12	Member			
13	Technical Experts			
	h) Industries Representative	Mr. Pritesh Patel		
	i) Industries Representative	Mr. P. S. Keshvani		
	j) Industries Representative	Mr. Somnath Sarkar		
	k) Industries Representative	Mr. Jignesh Patel		
	l) Industries Representative	Mr. M. B. Patel		
	m) Trade Union Representative	Dr. Mahesh Vashi		
14	Transport Provider Regional Transport Officer	Mr. Pankaj Padhiyar		
15	Mutual Aid Group	Smt. Shobhnaben		
16	Media			
	Gujarat Mitra	Mr. Y S Agnihotri		
	Sandesh	Mr. Parthiv Falgunbhai Patel		
	Gujarat Samachar	Mr. Jignesh Patel		

Sr.	Authority Designation	Name of Office Holder	Date	Signature
	Times of India	Mr. Yagnesh Bharat Mehta		
	Indian Express	Mr. Parimal A. Dabhi		
	Divya Bhaskar	Mr. Mrugank Patel		
	Navgujarat Times	Mr. Ajay Umat		
17	Railways			
	Railway Station, Bharuch	Mr. D. K. Raju		
	Railway Station, Ankleshwar			
	Railway Station, Panoli			
18	Other Members of DCG, Coast Guards and Other Authorities as May Be Applicable			

2. Introduction, Use and Control of Off-site Emergency Plan

2.1 Background to Off-site Emergency

Manufacture, storage and use of hazardous substances pose a serious risk to industry, people in the neighbourhood and the environment. Accidental release of hazardous chemicals, which are flammable, explosive or toxic, may lead to emergencies. Depending upon the nature of the substance and magnitude of the release, emergency could either be confined within the industry (On-site Emergency) or could transgress the boundary of the industry and affect the public in the neighbourhood in which case it would be an Off-site Emergency. The Off-site emergency Plan is a document detailing how emergencies relating to a possible major accident involving a hazardous chemical in an industry, which may have ramifications outside the boundary walls of that industry will be dealt with.

The rule 14(1) of MSIHC Rules read with Schedule 5 requires the District Authorities to prepare an Offsite Emergency Plan in consultation with the Chief Inspector of Factories and assistance from the Chief Controller of Explosives.

The details to be furnished in the Off-site Emergency Plan are given in Schedule 12 of the Rules. These are:

- The type of accidents and release to be taken into account.
- Organizations involved including key personnel and responsibilities and liaison arrangements between them.
- Information about the site including likely locations of dangerous substances, personnel and emergency control rooms.
- Technical information such as chemical and physical characteristics and dangers of the substances and plant.
- Identification of the facilities and transport routes.
- Contact for further advice e.g. meteorological information, transport, temporary food and accommodation, first aid and hospital services, water and agricultural authorities.
- Communications links including telephones, radios, and standby methods.
- Special equipment including firefighting materials, damage control and repair items.
- Details of emergency response procedures.
- Notification to the public.
- Evacuation arrangements.
- Arrangements for dealing with the press and other media interests.
- Long term clean up.

Transportation of hazardous chemical by road or pipeline may pose a threat to the population and environment. Such accidents also belong to the category of off-site emergency. The definition of major chemical accident includes accidents during transportation vide rule 2(f) of the CA (EPPR) Rules

2.2 Off-site Emergency

The chemical release, fire, explosion or spillage in an industrial unit including isolated storages that may have ramifications outside the boundary of that particular industrial unit or such a chemical release, fire, explosion or spillage during the transportation of hazardous chemicals by road or by pipeline, all of which may pose a threat to life and property of public at large, is a situation qualifying to be an offsite emergency. With the declaration to this effect by the DEA.

2.3 Off-site Emergency Plan and its Use

Off-site Emergency Plan foresees the possible emergency scenarios leading to Off-site Emergency Plan. The following are the use of Off-site Emergency Plan

2.3.1 Pre-Emergency Use

- The plan identifies the resources required for dealing with likely emergencies and draws attention to additional resources that may be required.
- The plan helps to inform the necessary authorities and stake-holders of their responsibilities during the emergency.

2.3.2 During Emergency Use

The plan gives the procedures to be executed by various roles during the off-site emergency for its control and mitigation. The plan serves as a ready-reckoned for all vital and factual information that is required during emergency.

2.3.3 Post-Emergency Use

The plan gives procedures for prevention of damage in the long term that may arise as effect of an emergency. The plan lays for review of emergency to draw necessary observations and lessons for self-enrichment of plan for future emergencies.

2.4 Scope of Off-site Emergency Plan

The Off-site Emergency Plan applies to the entire district. The Off-site Emergency Plan compiles all the possible emergency scenarios pertaining to industrial or transportation hazards that may arise within the district boundaries and provides for the response mitigation of the same. The inter-relationship Off-site Emergency Plan is depicted in the diagram below

List of MAH unit of Bharuch District

LCG Group 1 (Amod/ Jambusar, Bharuch Taluka)

TML Ltd.
PI Industries
Gujarat Narmada Valley
Fertilisers Co. Ltd.
Kabson Industries Ltd.
Keshav Nitro Chem Ltd
National Thermal Power
Corp. Ltd.
Aarti Industries Limited
Alkyl Amines Chemicals Ltd.
Aries Colorchem Pvt. Ltd.
Bodal Chemicals Ltd. (Unit-5)
Clairvoyance Industries
Pvt. Ltd.
Dai- Ichi Karkaria Ltd
Deepak Chem Tech Ltd
Deepak Phenolics Ltd
Dharti Enterprise
Dmcc Speciality Chemical
Limited
Gujarat Alkalies & Chemicals
Ltd.
Gujarat Chemical Port
Terminal Company Ltd.
Gujarat Fluorochemicals Ltd.
Hemani Industries Ltd. (Unit-
III)
Jubilant Life Science Ltd
Jubilant Infrastructure Ltd
Krishna Antioxidants Pvt. Ltd.
Meghmani Fine Chem
Ltd (Epigral)
NaCl Spec-chem Limited
New India Acid (Baroda) Pvt.
Ltd.
ONGC
ONGC Petro-additions
Limited
Organic Industries Pvt. Ltd.
Phthal Science
Piramal Pharma Ltd.
Reliance Industries Ltd.
Sanjana Cryogenic Storage
Ltd.
Shiva Pharmachem Limited
SRF Limited
Styrenix Pvt Ltd
Tagros Chemicals (Unit -
1&2)
Unitop Chemicals Pvt. Ltd
(Unit -1&2)
Viswaat Chemicals Ltd
Gail India Limited
IOCL

LCG Group 2 (GIDC - Ankleshwar, Panoli & Village Piludhara & Kharach)

Shri Khedut Sahakari
Khand Udhog Mandal
Ltd.
Amal Ltd.
Amal Speciality Ltd
Birla Cellulosic
Dhanveen Pigments Pvt
Ltd
Gujarat Insecticides Ltd.
Hemani Industries Ltd.
Impro Interchem Pvt. Ltd.
Indorama Ventures Oxides
Ankleshwar Pvt Ltd
Jayshree Aromatics Pvt
Ltd. Plot
Macson Products (Unit-2)
Minolacide & Chemical (P)
Ltd.
Navjeevan-o-chem
Panoli Products Pvt. Ltd.
Panorama Aromatics Ltd.
Pi Industries
Sajjan India Pvt.
Ltd. (Cohizon) (Unit 1 & 2)
Savla Chemicals Ltd.
Shilpa Chemical Industries
Shivam In Corporation
Shyam Chemicals
Siddhi Samrat Dye-chem
Pvt. Ltd.
Sukha Chemical Industries

LCG Group 3 (Jaghadia & Valia Taluka)

Aarti Industries Limited
Air Liquid India Holding
Pvt. Ltd.
Chemie Organic
Chemicals
Gujarat Borosil Ltd.
Saint Gobain Glass Pvt
Ltd.
Shriram Alkali &
Chemicals (A Unit Of
Dcm Shriram
Consolidated Ltd.
Vardhman Acrylics Ltd.
Apcotex (Omnova)
Solutions (India) Pvt Ltd.
Gujarat Guardian Ltd.
Shri Ganesh Khand
Udhog Sahkari Mandal
Ltd.
Century ENKA Ltd.
Borosil Renewable Ltd.
Galaxy Surfactants Ltd.
KLJ Organic Ltd
KLJ Petroplast Ltd
Panoli Intermediated
India Pvt Ltd.
Privi Speciality Chemicals
Ltd

LCG Group 4 Dahej

Aarti Industries Limited
Alkyl amines chemicals Ltd.
Anugrah Industries Pvt Ltd
C2, C3 & C4 extraction plant oil and natural
gas corporation Ltd.
Clairvoyance Industries Private Limited
Dai-ichi Karkaria Limited
Deepak Fertilisers and Petrochemicals
Corporation Limited
Dharti Enterprise
Dmcc Speciality Chemicals Limited
Epigral Limited
Expanded Polymer Systems Pvt. Ltd.
Glomet Technologies Pvt. Ltd.
Gujarat Alkalies & Chemical Ltd.
**Gacl-nalco alkalies and chemicals Pvt.
Ltd.**
Gujarat Chemical Port Limited
Gujarat Fluorochemicals Limited
Gujarat Fluorochemicals Limited
Hemani Intermediates Pvt. Ltd.
Hindalco Industries Limited, [Unit: Birla
Copper]
Indo Baijin Chemicals Pvt. Ltd.
NaCl Spec-Chem Limited
New India Acid (Baroda) Pvt Ltd
Ongc Petro Additions Ltd.
Organic Industries Private Limited
Payal Polyplast Pvt. Ltd.
Petronet Ing Limited
Reliance Industries Limited
Sanjana Cryogenic Storage Ltd
Shiva Pharmachem Limited.
SRF Limited
Sterling Auxiliaries Pvt. Ltd.
Styrenix Performance Materials Limited
Tagros Chemicals India Pvt. Ltd.
Unitop Chemicals Private Limited
Viswaat Chemicals Limited, Dahej
Yashashvi Rasayan Pvt. Ltd.
Gujarat Narmada Valley Fertilizers and
Chemicals Ltd.
Deepak Chem Tech Limited
Deepak Phenolics Limited

Declaration of Off-site Emergency and Enforcement of Plan

The responsibility and the power of declaring the off-site emergency in the district vests with the DEA. In his absence, the responsibility and power vests with the authority appointed in lieu of the DEA. The declaration of emergency shall be made via Annexure 1.

2.5 Possessors of the Off-site Emergency Plan and the Maintenance Officer of the Off-site Emergency Plan

The copy of the off-site plan must be possessed by all the responders who contribute in the off-site planning process or in mitigation response. The list of all the possessors of the off-site plan is as following: The District Collector (or the DEA) is responsible for the maintenance and upkeep of the Off-site Emergency Plan. He may designate one officer to carry out the tasks pertaining to this role. This officer should be indicated in the 'Remarks' column of the table above.

Table 4 Possessors of Off-Site Emergency Plan

Sr.	Authority	Name Of Current Office Holder	Address (O, R)	Telephone (O, R, M)	Email	Remark
1	District Collector (OR DEA)	Dr.N.K.Gavhane (IAS)	(O) District Collector Office, Bharuch (R) Civil Lines Edgah Road, Bharuch	(O) (02642) 240500, 240600 (R) (223701) 223703 (M) 99784 06205	collector-bha@gujarat.gov.in	
2	Additional Collector	Mr. N.R. Dhadhal	Bharuch	(O) 222332 (M) 99784 05177		
3	Alternate SDM & Dy. Collector	Mr. M.N Manani	District Collector Office, Bharuch	(O) (02642) 241400, 241980 (R) (02642) 240162,		
4	SDM & Dy. Collector	Mr. B.A. Jadeja	Sdm & Dy. Collector Office Ankleshwar	(O) (240045) (M) 75670 21674		
5	Superintendent Of Police	Mr. Akshay Raj	Civil Lions, Kali Talavadi, Bamba Khana Road, Bharuch	(O) (2642 223 303)		
6	Alternate	Mr. C.K. Patel	Civil Lions, Kali Talavadi, Bamba Khana Road, Bharuch	(O) 02642-223633		
7	Fire Department Chief	Mr. Vijay Asar	DPMC, Ankleshwar	(O) (02642) 220229 (M) 99259 79798		
8	Alternate	Mr. Pritesh Patel	DPMC, Ankleshwar	(O) (02642) 220229 (M) 99259 79798		
9	Dist. Health Officer	Dr. V.S. Tripathi		(O) 02642-243660 (M) 9727702155		
10	Alternate	Dr. Keshav kumar		(M) 9727702169		
11	Inspector Of Factories Dy. DISH, Bharuch	Mr. D.B.Gamit	Jilla Seva Sadan – 2, Nr. Court Bldg. Bharuch	(M) 9978262544		

Sr.	Authority	Name Of Current Office Holder	Address (O, R)	Telephone (O, R, M)	Email	Remark
	Inspector Of Factories Dy. D I S H, Bharuch	Mr. S.P.Pathak	Jilla Seva Sadan – 2, Nr. Court Bldg. Bharuch	(M) 6354310155		
12	Pollution Control Board (Regional Officer)	Shri K.N. Vaghamshi	Shed No. C-1/119/3, GIDC Phase-2, Narmadanagar, Opp. Narayan Kunj Society, Bharuch, Gujarat - 392015.	(O) 02642-246333	gpcb_bha@ gujarat.gov.i n	
13	Member					
14	Technical Experts	Mr. Pritesh Patel	DPMC Ankleshwar	(M) 9925979798		
15	n) Industries Representative	Mr. P.S. Keshvani	GNFC Bharuch	(M) 9428722726		
	o) Industries Representative	Mr. Somnath Sarkar	OPAL Bharuch	(M) 9099007516		
	p) Industries Representative	Mr. Jignesh Patel	Reliance Industries Ltd, Dahej	(M) 9998001088		
	q) Industries Representative	Mr. M.B.Patel	Dahej Industrial Association	(M) 9909029646		
	r) Industries Representative	Dr. Mahesh Vashi	Colourtex Industries Ltd	(M) 9898014674		
	s) Industries Representative	Mr. Jarvik Munshi	UPL Ltd Jhagadia	(M) 9825280799		
	t) Trade Union Representative u)					
16	Transport Provider Regional Transport Officer	Mr. Pankaj Padhiyar		(O) 02642233102		
17	Mutual Aid Group	Smt. Shobhnaben		(M) 75670 52767		
18. Media						

Sr.	Authority	Name Of Current Office Holder	Address (O, R)	Telephone (O, R, M)	Email	Remark
(a)	Gujarat Mitra	Mr. Y S Agnihotri	Sevashram Road, Mohmadpura, Bharuch.	(O) 261 2599991		
(b)	Sandesh	Mr. Parthiv Falgunbhai Patel	Satyesh Bhavan, Bahucharaji Road, Karelibaug, Vadodara – 390018 (covers Bharuch)			
(c)	Gujarat Samachar	Mr. Jignesh Patel	R.K. Casta, behind Patel Super Market, Station Road, Bharuch.	(O) +91 79 25508001		
(d)	Times Of India	Mr. Yagnesh Bharat Mehta	Maruti Plaza Complex, Modi Compound, Panch Batti Circle, Bharuch - 392001.	(M) +91 98306 29298		
(e)	Indian Express	Mr. Parimal A. Dabhi	804, Dwarkesh Complex, R.C. Dutt Road, Alkapuri, Vadodara – 390007 (Manages Bharuch as well)	(O) +91 265 235 2851		
(f)	Divya Bhaskar	Mr. Mrugank Patel	Ratan Nagar Complex, Aagman Flat, Railway Station Road, Moficer Jin Compound, Bharuch, Gujarat 392001.			
(g)	Navgujarat Times	Mr. Ajay Umat	108/B, Prithvi Trade Centre, Panch Batti, Station Road,	(O) +91 79 6777 3500		
19. Railways						
(a)	Superintendent	Mr. D.K. Raju	Railway Station, Bharuch	(O) 267347 (M) 97240 98417		
(b)	Dy. Second Sup.	Mr. D. M. Jagtap	Railway Station, Bharuch	(O) 02642-240969 (R) 02642-240969 (M) 97240 98417		
20.	Dy. Second Sup.		Railway Station, Bharuch	(O) 240969 (M) 97240 98417		
	Other Members of DCG, Coast Guards and Other Authorities As May Be Applicable					

2.6 Review and Amendment of Plan

The Off-site Emergency Plan shall be distributed to all people listed in Annexure 2. It shall be the duty of the District Collector (or the DEA) to ensure distribution of up-to-date copy of this plan to all people listed in Annexure 2. It shall also be the duty of all authorities listed in Annexure 2 to see to it that they receive an up-to-date copy of subsequent versions of the plan.

This Off-site Emergency Plan is a dynamic document

and must at all times reflect the ground realities by changing when these change. For this purpose, the Off-site Emergency Plan is set to expire after a period of 2 years from the date on which it is affected. A new version of the plan shall be prepared, released and distributed before the expiry of the current version. Should there be any major changes such as upcoming of new industrial units, identification of new hazards among others or an instance of an off-site emergency the Off-site Emergency Plan shall be revised even before its due expiry. Should there be any minor changes such as changes in person(s) holding particular authorities, changes in phone numbers among others, these shall be communicated to all the possessors of the Off-site Emergency Plan via Annexure 3 by the DEA. The stakeholders of the plan undergoing change in positions or having changed their phone numbers should inform the same to the DEA via Annexure 4.

2.7 Dovetailing of On-site Emergency Plans with this Plan

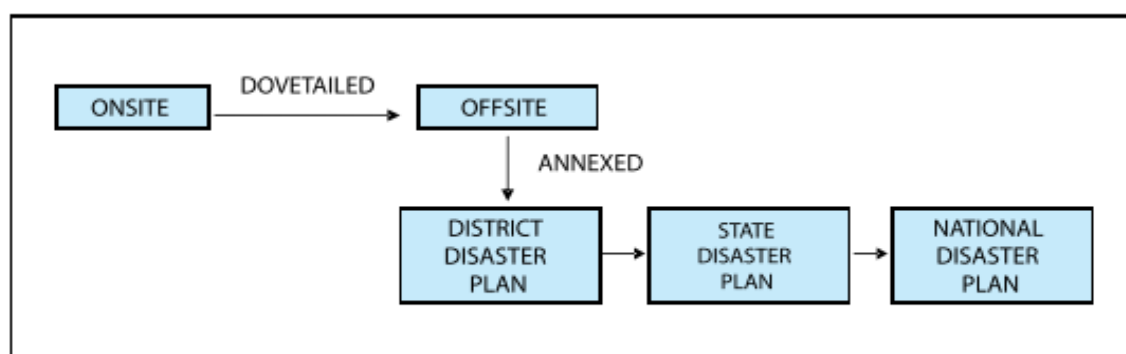
This Off-site Emergency Plan is use when an industrial on-site emergency is expected to or has already transcended the boundaries of the industrial unit. It is necessary that the actions enlisted in the on-site plan are consistent with the plan of action in this Off-site Emergency Plan. For this purpose, it is necessary for the MAH units to ensure that their plans agree to and is consistent with the Off-site Emergency Plan. The dovetailing to this effect needs to be ensured in the following areas among others:

- Communication to the District Authorities/Agencies (see Chapter 8: Emergency Scenarios)
- Line of command (See Chapter 7: Organisation of Roles)

2.8 Annexing of this Plan with District Disaster Management Plan

The offsite plan should be annexed to the district disaster management plan.

The diagram below shows the relation of offsite plan with in the schema of disaster management plans.



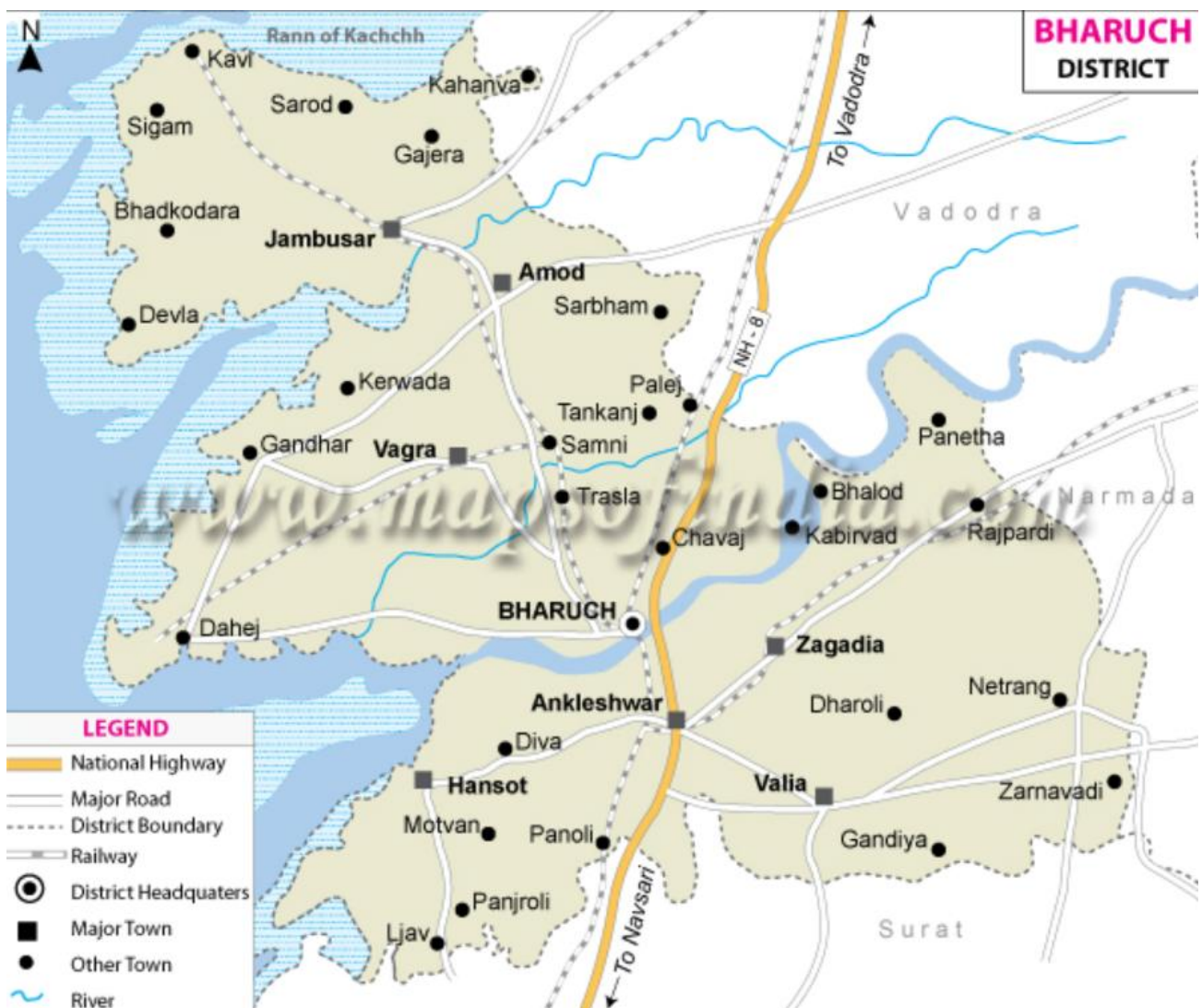
The Onsite Plans and Offsite Plans are chemical disaster plans as stipulated in the MSIHC Rules, 1989. The District Disaster, State Disaster and National Disaster Plans are general disaster plans as stipulated in the Disaster Management Act, 2005.

3. District Profile

3.1 Map of District

The map should be to scale 1:50000. The map should indicate political boundaries with neighbouring districts, talukas, major cities/villages within district, major roads, railways, rivers, wells and other important features. It should indicate the locations of MAH units and other hazardous areas. Police stations, Fire Services, Hospitals shall also be located on the map. Evacuation areas, Schools, Colleges, Community Centres around MAH units shall be identified and indicated on the map. Other resources useful in emergency mitigation such as Emergency Response Centres etc. shall be indicated. The routes of transportation of hazardous chemicals, pipelines transporting hazardous chemicals shall also be shown on the map

3.2 Description of Map and other Geographic Information



3.3 Demographic Information

Table 5 Population Distribution

Sr.	Taluka	Male	Female	Children	Total	Remarks
1.	Bharuch				452,517	
2.	Jhagadia				185,337	
3.	Jambusar				153,694	
4.	Valia				144,311	
5.	Vagra				100,044	
6.	Ankleshwar				(Data under review)	
7.	Hansot				(Data under review)	
8.	Amod				(Data under review)	

3.4 Meteorological Information

The meteorological factors which govern the dispersion of toxic releases are temperature, humidity and wind-speed. It is important to record the indicative values of these for use of dispersion calculations. The maximum and minimum value for the district on whole is recorded. The maximum value of a parameter is the maximum value of that parameter observed anywhere in the district during the past 10 years. Same applies to the minimum value. Should there extreme variations in the above parameters suitable seasonal or geographic classifications shall be made.

Table 6 Meteorological Information

Sr.	Parameter	Maximum	Minimum
1.	Temperature	40-44 °c	15-17 °c
2.	Humidity	20%–30%	80%–95%
3.	Wind -Velocity	Approx. 9.3 km/h	approx. 21.7 km/h

The data pertaining to the table 5 may be obtained from the local meteorological department. The meteorological department shall provide the necessary data available for the district.

3.5 Important Activities/Events/Festive Events in District

Table 7 List of Important Events in the District

Sr	Event Name	Date	Location	Population Involved	Remarks
1.	Road Safety Week	1st To 7th January	All Industries & Traffic Dept.		
2	New Year's Day	1st January	All Industries		
3	Republic Day	26th January	All Industries & Gov. Organisation		
4	Basant Panchami	28th January	General Public		
5	Milad – Un –Nabi	4th February	All Industries		
6	Maha Shivratri	20th February	All Industries		
7	National Safety Day	4th March	All Industries		
8	Holi	8th March	All Industries & General Public		
9	Ram Navami	1st April	All Industries & General Public		
10	Mahavir Jayanti	5th April	General Public		
11	Good Friday	6th April	General Public		
12	Fire Services Day	14th April	All Industries		
13	Labour Day	1st May	All Industries		
14	Buddha Purnima	6th May	General Public		
15	World Environment Day	5th June	All Industries		
16	Raksha Bandhan	2nd August	All Industries & General Public		
17	Krishna Janmashtami	10th August	All Industries & General Public		
18	Independence Day	15th August	All Industries, Gov. Organisation & General Public		
19	Id-UI-Fitr	19th August	All Industries & General Public		
20	Ganesh Chaturthi	19th September	All Industries & General Public		
21	Gandhi Jayanti	2nd October	All Industries, Gov. Organisation & General Public		
22	Dashera	24th October	All Industries & General Public		
23	Id-UI-Zuha	26th October	All Industries & General Public		
24	Diwali	13th November	All Industries, Gov. Organisation & General Public		
25	Children Day	14th November	All Industries, Gov. Organisation, Schools & General Public		
26	Muharram	24th November	General Public		
27	Guru Nanak Jayanti	28th November	General Public		
28	Christmas Day	25th December	All Industries, Gov. Organisation, Schools, Colleges & General Public		

Table 8 Natural Disaster History

sr.	Natural Disaster Name and Location	Description, Magnitude and Effects	Remarks
1.	Earthquake- 2001		
2.	Flood - 2006		

3.6 Directory of Responders in the District

Table 9 Responder Directory

(See Chapter 4 of Part A)

Sr.	Authority	Name Of Current Office Holder	Address (O, R)	Telephone(O, R, M)	Email	Remark
1	District Collector (OR DEA)	Dr.N.K.Gavhane (IAS)	(O) District Collector Office, Bharuch (R) Civil Lines Edgah Road, Bharuch	(O) (02642) 240500, 240600 (R) (223701) 223703 (M) 99784 06205	collector-bha@gujarat.gov.in	
2	Additional Collector	Mr. Parth Jaishwal	Bharuch	(O) 222332 (M) 99784 05177		
3	Alternate SDM & Dy. Collector	Mr. M.N Manani	District Collector Office, Bharuch	(O) (02642) 241400, 241980 (R) (02642) 240162,		
4	SDM & Dy. Collector	Mr. B.A. Jadeja	Sdm & Dy. Collector Office Ankleshwar	(O) (240045) (M) 75670 21674		
5	Superintendent Of Police	Mr. Akshay Raj	Civil Lions, Kali Talavadi, Bamba Khana Road, Bharuch	(O) (2642) 223 303)		
6	Alternate	Mr. C.K. Patel	Civil Lions, Kali Talavadi, Bamba Khana Road, Bharuch	(O) 02642-223633		
7	Fire Department Chief	Mr. Vijay Asar	DPMC, Ankleshwar	(O) (02642) 220229 (M) 99259 79798		
8	Alternate	Mr. Pritesh Patel	DPMC, Ankleshwar	(O) (02642) 220229		
9	Dist. Health Officer	Dr. V.S. Tripathi		(O) 02642-243660 (M) 9727702155		
10	Alternate	Dr. Keshav Kumar		(M) 9727702169		
11	Inspector Of Factories Dy. D I S H, Bharuch	Mr. D.B.Gamit	Jilla Seva Sadan – 2, Nr. Court Bldg. Bharuch	(M) 9978262544		
	Inspector Of Factories Dy. D I S H, Bharuch	Mr. S .P .Pathak	Jilla Seva Sadan – 2, Nr. Court Bldg. Bharuch	(M) 6354310155		

Sr.	Authority	Name Of Current Office Holder	Address (O, R)	Telephone(O, R, M)	Email	Remark
12	Pollution Control Board (Regional Officer)	Mr. K.N. Vaghamshi	Shed No. C-1/119/3, GIDC Phase-2, Narmadanagar, Opp. Narayan Kunj Society, Bharuch, Gujarat - 392015.	(O) 02642-246333	gpcb_bha@gujarat.gov.in	
13	Member					
14	Technical Experts	Mr. Pritesh Patel	DPMC Ankleshwar	(M) 9925979798		
15	v) Industries Representative	Mr. P.S. Keshvani	GNFC Bharuch	(M) 9428722726		
	w) Industries Representative	Mr. Somnath Sarkar	OPAL Bharuch	(M) 9099007516		
	x) Industries Representative	Mr. Jignesh Patel	Reliance Industries Ltd, Dahej	(M) 9998001088		
	y) Industries Representative	Mr. M.B.Patel	Dahej Industrial Association	(M) 9909029646		
	z) Industries Representative	Dr. Mahesh Vashi	Coloutex Industries Ltd	(M) 9898014674		
	aa) Trade Union Representative	Mr. Jarvik Munshi	UPL Ltd Jhagadia	(M) 9825280799		
16	Transport Provider Regional Transport Officer	Mr. Pankaj Padhiyar		(O) 02642233102		
17	Mutual Aid Group	Smt. Shobhnaben		(M) 7567052767		
18. Media						
a	Gujarat Mitra	Mr. Y S Agnihotri	Sevashram Road, Mohmadpura, Bharuch.	(O) 2612599991		
b	Sandesh	Mr. Parthiv Falgunbhai Patel	Satyesh Bhavan, Bahucharaji Road, Karelibaug, Vadodara – 390018			

Sr.	Authority	Name Of Current Office Holder	Address (O, R)	Telephone(O, R, M)	Email	Remark
			(covers Bharuch)			
c	Gujarat Samachar	Mr. Jignesh Patel	R.K. Casta, behind Patel Super Market, Station Road, Bharuch.	(O) +91 79 25508001		
d	Times Of India	Mr. Yagnesh Bharat Mehta	Maruti Plaza Complex, Modi Compound, Panch Batti Circle, Bharuch - 392001.	(M) +91 98306 29298		
e	Indian Express	Mr. Parimal A. Dabhi	804, Dwarkesh Complex, R.C. Dutt Road, Alkapuri, Vadodara – 390007 (Manages Bharuch as well)	(O) +91 265 235 2851		
f	Divya Bhaskar	Mr. Mrugank Patel	Ratan Nagar Complex, Aagman Flat, Railway Station Road, Moficer Jin Compound, Bharuch, Gujarat 392001.			
g	Navgujarat Times	Mr. Ajay Umat	108/B, Prithvi Trade Centre, Panch Batti, Station Road, Bharuch - 392001	(O) +91 79 6777 3500		
19. Railways						
(a)	Supritendent	Mr. D.K. Raju	Railway Station, Bharuch	(O) 267347 (M) 97240 98417		
(b)	Dy. Second Sup.	Mr. D.M.Jagtap	Railway Station, Bharuch	(O) 02642-240969 (R) 02642-240969 (M) 97240 98417		
20	Dy. Second Sup.		Railway Station, Bharuch	(O) 240969 (M) 97240 98417		

Sr.	Authority	Name Of Current Office Holder	Address (O, R)	Telephone(O, R, M)	Email	Remark
	Other Members of DCG, Coast Guards and Other Authorities As Applicable					

4. Identification of Hazards

4.1 Introduction to Hazards

Hazard is the existence of a situation that can potentially lead to disaster. The offsite emergency plan identifies the hazards that can lead to a chemical disaster. The hazards identified are primarily the MAH installations including isolated storages. However, hazards are not restricted to MAH installations alone. Therefore, identification of hazards other than those at MAH installations is important as well. This chapter identifies the hazards in the district.

4.2 MAH Unit Installations

All MAH units including isolated storages have been listed and detailed in the table below:

Table 10 Information on MAH unit Installation

Sr. No.	Industry Name & Address	Activity Carried Out	Hazardous Chemicals Handled With Quantities (MAH Chemical only)	Disasters Likely	Contact Person Name # (Occ, Fm.Si) With Phone:- Numbers (O,R,M)
1.	Air Liquid India Holding Pvt Ltd Plotno.38/1,GID C, Jhgadia Dist-Bharuch		Liquid Oxygen - 250 MT	Cold Burn	Mr. Dalbir Singh Rawat, (M) 9662002522
2.	Aarti Industries Limited Plot No: 758/1, 2 & 3, Survey No. 359, 360, 364, 358, 357, 356, 345, 348 GIDC Jhagadia, Dist-Bharuch, Gujarat - 393110	Nitration & Hydrogenation	Methanol- 154.84 MT Toluene - 337.12 MT Benzene- 511.56 MT	Fire/ Explosion	Occupier: Mr. Ajaykumar Gupta Phone: 9998953992 Residence: A-102, Samsara Flat Chhani Jakat Naka, TP13, Canal Road, Vadodara - 391740. Factory Manager: Mr. Dharmendra Kumar Phone: 9979766836 Residence: S/O-Mohanlal 401, Kavithadham society Opp. Madhuram Party Plot, Zadeshwar Road, Bharuch, Gujarat - 392011 Safety Manager: Mr. Dipak Sali Phone: 7043086002
3.	AARTI INDUSTRIES LIMITED Plot no. Z/103/C, SEZ-II, Dahej, Tal-Vagra, Dist-Bharuch	Sulphonation reaction and Nitration Reaction	2,5 Di-chloro nitro benzene 54.72 Metric Tons (MT)	Toxic Gas Release	Occupier: Mr. Ajay Kumar Gupta Phone: +91 9989539992 Residence : A-102, Samsara Flat Chhani Jakat Naka, TP13, Canal Road, Vadodara - 391740 Factory Manager: Mr. Rikesh Patel Phone: 6353959835

Sr. No.	Industry Name & Address	Activity Carried Out	Hazardous Chemicals Handled With Quantities (MAH Chemical only)	Disasters Likely	Contact Person Name # (Occ, Fm.Si) With Phone:- Numbers (O,R,M)
					Residence: A-11, R K County, Tavra Road, Opposite Narmada College, Shuklatirth Road, Zadeshwar, Bharuch. Safety Manager: Mr. Kirtikumar Parmar Phone: 635353590 Residence: 455/1 Alaknanda Park, Near Narayan Vidhyavihar School, Bholav, Bharuch 392015
4.	Alkyl Amines Chemical limited PLOT NO: D2/CH/149/2, GIDC Dahej-2, TA:Vagra, Dist:Bharuch, Gujarat – 392130	Chemical-synthetic organic manufacturing	Methanol-869 KL*2 tanks (80% Storage Only) Anhydrous Ammonia-155 KL*2 tanks (80% Storage Only) HCL-160 KL*2 tank Acetic Acid-240 KL*2 tanks Caustic Lye 46%-24 KL Methylamines (Mono, Di, Tri)-155 KL*4 tanks	Fire, Explosion & Spillage Toxic & Corrosive Fire, explosion, and spillage Toxic & Corrosive Toxic & Corrosive	Occupier: Rakesh Goyal Office. Plot No: D2/CH/149/2, GIDC Dahej-2, Ta: Vagra, Dist :Bharuch, Gujarat – 392130 Residence: 02267488225 Mobile: 9819265922 Factory Manager: Suresh Kumar Dash Phone: 9113950260 Safety Manager: Pavan Kumar M Phone: 8790191187

Sr. No.	Industry Name & Address	Activity Carried Out	Hazardous Chemicals Handled With Quantities (MAH Chemical only)	Disasters Likely	Contact Person Name # (Occ, Fm.Si) With Phone:- Numbers (O,R,M)
			Amine	Toxic & Corrosive	
			Hydrochloride -200 KL*2 tanks (320 KL storage only)	Toxic & Corrosive	
			Acetonitrile- 150 KL6 tanks (640KL storage only)	Toxic & Flammable	
			Sodium Acetate-38 KL (30 KL storage only)	Toxic	
5.	Amal Speciality Chemicals Limited. Plot No. 136/137, GIDC Estate, Ankleshwar, Dist.: Bharuch, Gujarat, Pin: 393002	Manufacturing of Sulfur dioxide and Sulfur trioxide	Sulfur trioxide: 90 MT	Toxic gas release	Occupier: Mr. Rajeev Kumar Mobile :9833960369 Factory Manager: Mr. Sridhar Korivi Office: +91 2632 230000 (Extn.6390) Mobile :7096422166 Safety Manager: Mr. Parth Malaviya Office: +91 70460 17147 (Extn.133) Mobile: 8306495297
6.	Amal Ltd. 136/137, GIDC, Ankleshwar Bharuch-393002		Oleum (Sulphur Trioxide)- 500 MT		Mr. Kiran Savaliya, (M) 9824116482
7.	Anshika polysurf Ltd	Mfg of chemicals like	Ethylene oxide – 7 MT	Leakage of ethylene oxide,	Occupier: Anubhav Jain

Sr. No.	Industry Name & Address	Activity Carried Out	Hazardous Chemicals Handled With Quantities (MAH Chemical only)	Disasters Likely	Contact Person Name # (Occ, Fm.Si) With Phone:- Numbers (O,R,M)
	Plot no : C-383/1, Argama industrial estate, Saykha GIDC, Ta: Vagra, Dist : Bharuch	surfactants & polymers	Propylene oxide – 7 MT	propylene oxide & Butadiene causes fire & explosion	Phone: 9810747272 Office: B-39/13-14, Site IV, industrial area Sahibabad, Dist : Ghaziabad, U.P-201010 Residence: S=254-A, 3rd floor, school block, shakarpor , Delhi- 110092 Mobile: 9810747272 Factory Manager: Chirag K Golwala Phone: 9599599091 Office: plot no : C-383/1, Argama industrial estate, Saykha GIDC, Bharuch Residence: A-18, Jalaram nagar, Diva Road, Ankleshwar – 393001, Bharuch Mobile: 9599599091 Safety Manager: Chirag K Golwala Phone: 6352698329 Office At post: Vahiya, near Ramji mandir, Ta: Vagra, Dist : Bharuch Residence At post : Vahiya, near Ramji mandir, Ta: Vagra, Dist : Bharuch Mobile: 635269832
8.	Anugrah Industries Private Limited Plot No. D3-26/1&2, GIDC Dahej – 392130, Tal. Vagra, Dist. Bharuch	Chlorination / Monochloride Acetic Acid, Sodium Monochloro Acetate	Chlorine Tonner 156nos	Toxic gas release	Occupier: Mr. Ambalal Patil Office: Plot No D3-26/1&2 GIDC Estate Vill.Sambheti Tal.; Vagra Dist Bharuch Dahej 392130 Residence : Block no C1/140 Ambe Valley Township, Kapodara Patiya, Valiya Road, Ankleshwar Mobile: 6352432642 Safety Manager: Nikunj Sutariya

Sr. No.	Industry Name & Address	Activity Carried Out	Hazardous Chemicals Handled With Quantities (MAH Chemical only)	Disasters Likely	Contact Person Name # (Occ, Fm.Si) With Phone:- Numbers (O,R,M)
					Office : Plot No D3-26/1&2 GIDC Estate Vill.Sambheti Tal.; Vagra Dist Bharuch Dahej 392130 Residence : A2/33 Mangalam Housing Soc.Nandelav Road Bharuch 392001 Mobile : 7990674906
9.	Aries Colorchem Pvt Ltd Plot No: DP-56 & DP-57, Saykha GIDC, Saykha Tehsil: Vagra, Dist: Bharuch Gujarat, 392 140	Dyes Intermediates	Ethylene Oxide-20 KL Methanol-25KL Oleum 65%-90KL	Toxic & corrosive & Flammable gas release	Occupier: Mr. Arish K Patel Residence: Ahmedabad, Gujarat Mobile: 9909993191 Factory Manager: Viral Kansara Phone: 9909916784 Residence: Bharuch Safety Manager: Jaymit Sharma Residence: Vadodara Mobile:9909993188
10.	Atul Ltd (Aromatics Business) Plot no 297, 297/1, GIDC estate, Ankleshwar, Dist- Bharuch	Manufacturing synthetic organics chemicals	SO3 - 100 MT SO2- 20 MT	Toxic gas release	Occupier: Mr. Vivek Gadre Office: 02632 230000 Residence: Atul,Valsad Mobile : 9824113349 Factory Manager: Mr. Syamal De Office 02646 229126 Residence: Atul colony, Gadkhol Mobile 9824361214 Safety Manager: Mr. Pratik Chavda Office 02646 229171 Residence: Bharuch Mobile 9725018048 /9824116482

Sr. No.	Industry Name & Address	Activity Carried Out	Hazardous Chemicals Handled With Quantities (MAH Chemical only)	Disasters Likely	Contact Person Name # (Occ, Fm.Si) With Phone:- Numbers (O,R,M)
11.	Bharat Glass Tube Ltd. Plot No.9208-9213, GIDC Ankleshwar		LPG – 16 T		Mr. Chauhan (M) 9824033822
12.	Birla Cellulosic (A Unit of Grasim Industries Ltd) Birladham, Village – Kharach, Near Kosamba, Tal – Hansot, District – Bharuch.	Viscose Staple Fiber Manufacturing	Carbon Di Sulphide (Maximum that can be stored-720 MT) Actually stored (including in process & handling 300MT)	Fire, explosion, toxic release	Occupier: Himanshu Kapania Phone: 02646 270001-005 Office: 02646 270001-005 Factory Manager: Mr. Vijayendra Babu Phone: 7693006555 Office 02646 270001 Residence: 769300655 Safety Manager: Mihir Bhatt Phone: 9088106998 Office – 02646 271264 Residence -02646 271539 Mobile -6357684958 DH-CS2-Acid: Jabbarsinh Chavda Deputy General Manager – Phone/ mobile: 9904203687. Office:- 02646 271172
13.	Bodal Chemicals Limited Plot No. 301 to 430+433 to 440/1, Juned Bhersam Estate, GIDC, Saykha TA: Vagra, Bharuch, Gujarat - 392140	Manufacturing of Chemicals (MCB / DCB / PNCB / ONCB / MNCB)	Chlorine 268 Nos Tonner (311400 Kg) Benzene – 426 KL	Toxic Gas Release, Fire or explosion	Occupier: Mr. Rajarshi Ghosh Mobile 9909950907 Factory Manager: Mr. Hemant Dahyabhai Patel Mobile 9909950803 Safety Manager: Mr. Vilas C Nikam Mobile 9998614318

Sr. No.	Industry Name & Address	Activity Carried Out	Hazardous Chemicals Handled With Quantities (MAH Chemical only)	Disasters Likely	Contact Person Name # (Occ, Fm.Si) With Phone:- Numbers (O,R,M)
14.	Borosil Renewables Limited Ankleshwar– Rajpipla Road, Village – Govali, Bharuch, Gujarat	Glass Sheet of Solar / Figured / Patterned / Wired / AR Coated / Tempered Glass/ Anti Reflective Coating Material	LPG 32 MT × 2 Tanks = 64 MT 5MT × 3 Tanks = 15 MT Total Capacity = 80 MT	Fire, Explosion, LPG Gas Leak,	Occupier: Shri. Sunil Roongta Phone: 02645-258150 Residence: Borosil Renewables Limited Factory Manager: Shri Sanjeev Jha Phone: 02645-258250 Residence: Borosil Renewables Limited Safety Manager: Mr Nirav patel Phone: 02645 258410/300. Residence: Bharuch Mobile9879682447/972 5324236
15.	C2, C3 & C4 EXTRACTION PLANT OIL AND NATURAL GAS CORPORATION LTD. PLOT NO.7/D, SEZ AREA, DAHEJ,		Ethane Propane Butane Ethyl Mercaptan	4189 m3 1950 m3 1150 m3 3520 Kg	Mr. Surendra Sharma (M) 9428007334
16.	Century ENKA Ltd. (Unit: Rajashree Polyfil), Rajashree Nagar, Post: Umalla , Tal: Jhagadia, Dist: Bharuch – 393120	Dipped Fabric	LNG- 35 MT	Fire and Explosion	Occupier: Shri. Suresh Sodani Office: +91 2066127301 Factory Manager: Mr. Rajeev Rathi Office: 2645208653 Residence:2645208714 Mobile: 9925015607 Safety Manager: Mr. Pannalal Soni Office:+91 2645208560

Sr. No.	Industry Name & Address	Activity Carried Out	Hazardous Chemicals Handled With Quantities (MAH Chemical only)	Disasters Likely	Contact Person Name # (Occ, Fm.Si) With Phone:- Numbers (O,R,M)
					Residence 2645208750 Mobile :9427169002
17.	Chemie organic Chemicals (I) Pvt. Ltd. Plot No. 758 G.I.D.C. – Jhagadia. Tal.: Jhagadia, Dist. Bharuch, Gujarat-393110	Chlorination, Nitration, Hydrogenation	Cl ₂ , H ₂ S/ Cyndie Poisoning, Chloroaniline, Benzene & its Derivatives, Sulphuric/ Nitric/ HCl acids	Toxic, Toxic gas release	Occupier: Sh. Mayank J. Shah Residence: 7th floor, plot no.19, Nutan Laxmi Society, Ville Parle (w) Juhu, Mumbai. 400049 Land line no. 022-42551201-02 Factory Manager: Sh. Arvind Dhorajia Mobile: 7096689477 Safety Manager: Mr. Subhash S. Yadav Residence: 716 Shree Indraprasth Residency Opp. Narmada gate hotel Vill: Andada (CT) Tal.: Ankleshwar Dist.: Bharuch Mobile: 8412007334
18.	Clairvoyance Industries Pvt Ltd D2 Ch 29 Phase II Dahej	Storage and use of Methanol and Ethylene oxide	Methanol 20 MT EO 17.5 MT	Fire explosion or	Occupier: Mahesh Chauhan Phone: 8000005303 Office Dahej Residence Vadodara Mobile 8000005303 Factory Manager: Suresh Mehta Phone: 7060082014 Office Dahej Mobile 7060082014 Safety Manager: Prakash Singh Phone: 9179909139 Office Dahej Residence Mobile 9179909139

Sr. No.	Industry Name & Address	Activity Carried Out	Hazardous Chemicals Handled With Quantities (MAH Chemical only)	Disasters Likely	Contact Person Name # (Occ, Fm.Si) With Phone:- Numbers (O,R,M)
19.	Cohizon Life Sciences Limited (Unit – 2) Plot No. 5809 - 5810, GIDC Estate, Ankleshwar, Gujarat - 393002	Manufacturing of Speciality Chemicals	Hydrogen Fluoride in Tonner (Anhydrous)(Qty. 66.6,) Chlorine Gas in Tonner (Qty. 75.6)	Toxic release	Occupier: Mr. CB Bhardwaj Office: 6357684904 (Ext. no. 102) Residence: 6357684904 Mobile: , 6357684904 Factory Manager: Mr. Hordoddi Santosh Chandrashekhar Office: 7069008033 Residence: 7069008033 Mobile: 7069008033 Safety Manager: Om Prakash Office: 7895937859 Residence: 7895937859 Mobile: 7895937859
20.	Cohizon Life Sciences Limited, Plot No 6102-03, 6117-19, GIDC Ankleshwar – 393002 Gujarat - India	Manufacturing intermediates for Agrochemicals , Pharma, Specialty chemicals and Perfumery.	Chlorine – 164 MT per month	Toxic	Occupier: Mr. CB Bhardwaj Office: 6357684904 Residence: 6357684904 Mobile: 6357684904 Factory Manager: Dr Dharmendra Mehra Phone: 9727755975 Office: 9727755975 Residence: 9727755975 Mobile: 9727755975 Safety Manager: Mr. Rinkesh Mehta Phone: 7069002014 Office: 7069002014 Residence: 7069002014 Mobile: 7069002014

Sr. No.	Industry Name & Address	Activity Carried Out	Hazardous Chemicals Handled With Quantities (MAH Chemical only)	Disasters Likely	Contact Person Name # (Occ, Fm.Si) With Phone:- Numbers (O,R,M)
21.	Coromandel International Limited Plot No. 3204, GIDC Indl. Estate, Ankleshwar Bharuch-383 002 Ficom Chowkadi, Ankleshwar	Manufacturing of technical product – Profenofos & Phenthoate	Bromine – (24*3) 72 KL	Toxic gas release	Occupier: Mr. S Sankarasubramanian Mobile: 9959022121 Factory Manager: Mr. Jaydeep Mondal Mobile: +91-951266011 Safety Manager: Mr. Rajesh Patel Mobile: +919909507187
22.	COROMANDEL INTERNATIONAL LIMITED (Old Name - SABERO ORGANICS GUJARAT LTD.) PLOT NO. Z/103/G, SEZ-II,	Unit Operation	160 KL	Fire Explosion Reactivity Pollution Health	Occupier: Mr. S Sankarasubramanian Mobile: +91-9959022121 Factory Manager: Mr. Jaydeep Mondal Mobile: +91-9512660113 Safety Manager: Mr. Rajesh Patel Mobile: +91909507187
		Unit Operation	100 KL	Fire Explosion Reactivity Health	
23.	Covestro (India) Pvt. Ltd. 3501-15, 6301-13 & 16 mtr road/B2, GIDC Industrial Estate, Ankleshwar – 393 002	Manufacturing of Synthetic Chemicals	Toluene Diisocyanate –250 MT	Toxic Release	Occupier: 7304989685 Factory Manager: Office: 02646 352001 Mobile: 9726467016 Safety Manager: Phone: 02646 352011 Mobile: 9904889975

Sr. No.	Industry Name & Address	Activity Carried Out	Hazardous Chemicals Handled With Quantities (MAH Chemical only)	Disasters Likely	Contact Person Name # (Occ, Fm.Si) With Phone:- Numbers (O,R,M)
24.	Dai-Ichi Karkaria Limited, Plot No. D2 / 20, GIDC Dahej-2, Taluka: Vagra, Dist.: Bharuch, Gujarat	Speciality chemical	EO- 38 MT PO- 38 MT	Explosion, Fire, Toxic gas release.	Occupier: Mrs. S.F Vakil. Office 2222077087 Factory Manager: Mr. Shrutikant Agnihotri Phone: (02616) 723504 Office (02616) 723504 Mobile 9081111201 Safety Manager: Mr. Irfan mansuri Phone: (02616) 723522 Office (02616) 723522 Mobile 9714777173
25.	DCM Shriram Ltd (Unit: Shriram Alkali & Chemicals) Plot no. 749, GIDC, Industrial estate, Jhagadia, Bharuch, Gujarat	Manufacturing of chemicals (Caustic lye, Chlorine, Hydrogen, ECH, H2O2, AICP, Sodium Hypochlorite)	Sodium Hydroxide 1100 M ³ × 3 Tanks Sodium Hydroxide 1923 M ³ × 2 Tanks Chlorine 100 MT × 4 Tanks Chlorine Tonners 900 Kg × 2016 Nos. Hydrogen Cylinders 1528 Cylinders Hydrochloric Acid 125 M ³ × 4 Tanks Hydrochloric Acid 265 M ³ × 2 Tanks Hydrochloric Acid	Chlorine (toxic gas) release, Hydrogen (Fire or explosion)	Occupier: K K Sharma Phone: 9968660606 Residence :S/O Hari Dutt Sharma, Flat no. 806, Tower 3, Purvanchal Royal Park society, Sector 137, Noida, Gautam Buddha Nagar, Uttar Pradesh- 201301 Factory Manager: Dr. RPS Chauhan Phone: 02645-222000 Ext:112 Safety Manager: Arpit S Nanavati Phone: 02645-222000 Ext:175 Mobile 8008579422

Sr. No.	Industry Name & Address	Activity Carried Out	Hazardous Chemicals Handled With Quantities (MAH Chemical only)	Disasters Likely	Contact Person Name # (Occ, Fm.Si) With Phone:- Numbers (O,R,M)
			225 M ³ × 2 Tanks Sodium Hypochlorite 132.7 M ³ × 2 Nos. Sodium Hypochlorite 265 M ³ × 1 No. Sodium Hypochlorite 225 M ³ × 2 Nos. Aluminium Chloride 2200 MT Epichlorohydrin 1500 M ³ × 1 No. Hydrogen Peroxide (H ₂ O ₂) 500 M ³ × 2 Nos. Hydrogen Peroxide (H ₂ O ₂) 220 M ³ × 1 No. Sulfuric Acid (98%) 75.4 M ³ × 1 Tank Sulfuric Acid (98%) 75.5 M ³ × 1 Tank		
26.	Deepak Chem Tech Limited Plot No. D-II/ 6/1 & D-II/6/1 ^a , Dahej- II Industrial Estate, Dahej, Village: Rahiyad, Tal: Vagra, Dtist: Bharuch —	Benzo Tri Chloride Benzotrifluoride Nitro Benzotrifluoride Amino Benzotrifluoride	1. Chlorine 2. Anhydro us Hydro Fluoride	Toxic Release	Occupier: Mr. Sandesh Kumar Anand Office: 0265-2765200/2765500 Mobile: 6354784607 Factory Manager: Mr. Bhagirathsinh K Jadeja Office: 7573004763

Sr. No.	Industry Name & Address	Activity Carried Out	Hazardous Chemicals Handled With Quantities (MAH Chemical only)	Disasters Likely	Contact Person Name # (Occ, Fm.Si) With Phone:- Numbers (O,R,M)
	392130, Gujarat, India	O/M/P Toludine O-Chloro P-nitro toluene Mithyl Iso Butyle Carbinol Methyl Isobutyl Ketone 3-Fluoro benzotri Fluoride			Mobile: 7573004763 Safety Manager: Bharat Hingladia Phone: 6354784607 Mobile: 6354784607
27.	Deepak Fertilisers and Petrochemical Corporation Limited Address: Plot No. D/II/7/A, Dahej GIDC Area, Village Rahiyad, Taluka Vagra, District Bharuch – 392130 (Gujarat).	Manufacturing Nitric acid of various concentrations ranging from 10% to 100% Purity	Liquid Ammonia – 600 MT	Corrosive / Toxic	Occupier: Madhumilan Parshuram Shinde Mobile: 9920092035 Factory Manager: Anurag Varshney Office - 02641-689101 Mobile: 9897466886 Safety Manager: Ameesh Patel Office - 02641-689131 Mobile: 9619586140
28.	Deepak Phenolics Limited Plot No. 12/B/1 + 12/B/2/2, GIDC Dahej, Village: Ambetha, Taluk: Vagra, District: Bharuch, 392130, Gujarat.	Phenol Acetone Iso propyl alcohol Cumene Alpha Methyl Styrene Crude Phenol Column Bottoms / Heavies Poly iso propyl benzene	Phenol 6756 M ³ Acetone 4864 M ³ Iso Propyl Alcohol 2220 M ³ Cumene 5342 M ³ Alpha Methyl Styrene 15 M ³ Heavies 357 M ³ Poly Iso Propyl Benzene 20 M ³ Propene 2444 M ³	Flammable, Corrosive,	Occupier: Mr. Kishor Jhalaria Phone: 0265 276 5500 Mobile: 7575050850 Factory Manager: Mr. Santosh Kumar Pandey Office: 02641-280713 Mobile: 7574804515 Safety Manager: Mr. Nirav Bhalara Mobile: 7069012651

Sr. No.	Industry Name & Address	Activity Carried Out	Hazardous Chemicals Handled With Quantities (MAH Chemical only)	Disasters Likely	Contact Person Name # (Occ, Fm.Si) With Phone:- Numbers (O,R,M)
		Propene	Benzene 6254 M ³		
			Propylene 7298 M ³		
29.	Dhanveen Pigments Pvt. Ltd Plot No.:3105/06 /07, GIDC Estate, Phase III, Panoli, Dist. – Bharuch, Gujarat, India.	Green Pigment manufacturing	Chlorine Tonner	Toxic gas leakage	Occupier: Mr. Bhupatbhai Ramolia Mobile: 99252 31700 Factory Manager: Mr. Jignesh Zalawadia Mobile: 9429334625 Safety Manager: Mr. Ankit Patel Mobile: 9737825282
30.	Dharti Enterprise D-2 / CH-326, Near ONGC Corridor, Vill. Jolwa, Dahej Ta. Vagra, Dt. Bharuch	Dyes, Dyes intermediates & Ethoxylates	Ethylene Oxide – 14 MT. Propylene Oxide-14 MT Aniline oil- 150 MT. Sulphuric Acid -150 MT.	Fire, Explosive	Occupier: Milanbhai D. Patel Mob. 9904850026 Factory Manager: Dhirendrabhai R. Patel Mobile - 9714625372
31.	DMCC SPECIALITY CHEMICALS LIMITED	Sulphation, Filtration drying	H2so4: 350 MTD CSA : 400 MTD	No fire risk but burning hazards.	9427931070
32.	Epigral Limited CH1, CH2,CH/1+2B GIDC Industrial Estate, Dahej, Tal. Vagra, Bharuch - 392 130 Gujarat, India	Chemical	Chlorine Gas 335 MT Hydrogen Gas 120 Cylinders Methyl Chloride 39.94 KL Methanol 1425 MT	Toxic Flammable Flammable Flammable	Occupier: Mr. Kaushal Soparkar Mobile: 9825308047 Factory Manager: Mr. Vijay Vasudeva Mobile: 9825308047

Sr. No.	Industry Name & Address	Activity Carried Out	Hazardous Chemicals Handled With Quantities (MAH Chemical only)	Disasters Likely	Contact Person Name # (Occ, Fm.Si) With Phone:- Numbers (O,R,M)
			Cyclohexane 174 KL	Flammable	Safety Manager: Mr. Ranveer Thakur Mobile: 6357435840
			O-Xylene 185 KL	Flammable	
			Toluene 570 KL	Flammable	
33.	Expanded Polymer Systems Pvt.Ltd	Manufacturing of Polyols. The project falls under project activities -5(e) "Petrochemical based processing (processes other than cracking & reformation and not covered under the complexes)" & Category – "B" as per EIA notification vide Gazette No. S.O. 1533 dated 14th September 2006 and its latest amendments	Ethylene Oxide-; 28 MT Propylene Oxide:144 MT Acrylonitrile: - 55 MT	Toxic gas release Fire Explosion	Occupier: Mr.Mukesh Bhuta Phone: 8511179298 Factory Manager: Paresh Bodar Phone: 8511178922 Safety Manager: Pravin Khant Mobile 8511178929
34.	Gail (India) Limited, Gandhar, Po. - Rozatankaria, Tal.Amod, Dist.Bharuch, Gujarat, Pin-392140	Processing of Natural Gas and extraction of value-added products such as LPG, Naphtha and Pentane	Sulfuric Acid - 13 KL Ethyl Mercaptan - 6.4 KL Chlorine - 400 Kgs	Fire & explosion, formation of vapour cloud due to leakage of lpg, pentane & naphtha from storage or pipelines and Toxic gas release while	Occupier: Arindam Das Office: 2641-231002, Ext No.: 871510 Residence: 2641-231002, Ext No.: 77510 Mobile: 7086023407 Factory Manager: Neeraj Kathuria Office: 2641-231002, Ext No.: 871460

Sr. No.	Industry Name & Address	Activity Carried Out	Hazardous Chemicals Handled With Quantities (MAH Chemical only)	Disasters Likely	Contact Person Name # (Occ, Fm.Si) With Phone:- Numbers (O,R,M)
			Methanol - 22 KL	handling chlorine & ethyl mercaptan	Residence: 2641-231002, Ext No.: 77460 Mobile: 9924341500 Safety Manager: Sanjiv V Rodi Office: 2641-231002, Ext No.: 871440 Residence: 2641-231002, Ext No.: 77440 Mobile: 9881097278
35.	Galaxy Surfactants Ltd. Plot No. 892, Jhagadia Industrial area, Tal: Jhagadia, Dist: Bharuch, Gujarat- 393 110	Manufacturers of surfactants Ethylene Oxide (76 MT)	Ethylene Oxide (76 MT)	BLEVE, Jet fire, pool fire, Flash fire, vapors cloud explosion, Toxic gas release	Occupier: Mr. Vajjanath Kulkarni Phone: 9867253987 Factory Manager: Mr. Shashank Dhote Phone: 7738070219 Safety Manager: Mr. Yogesh Sankhe Phone: 99235 85097
36.	Ganesh LPG Bottling Plant At & Post Plot No.19, GIDC Panoli, GIDC, Ankleshwar, Bharuch, Gujarat-394116.	LPG Gas Felling	LPG Gas	Fire or Explosion	Occupier: Jagmalbhai Maradiya Residence. 17, Kalindi Twin Bungalows, Pashbhai Park, Near Natubhai Circle, Gotri Road, Racecourse, Vadodara, Gujarat- 390007 Mobile. 98258 02092 Factory Manager: Mr. Bhavendrasinh Panjrolia Residence. 59, Jalaram Society, Valia, Bharuch, Gujarat- 393135. Mobile. 9998956062
37.	Glomet Tech Pvt.Ltd.		Chlorine – 18T		Mr. Ankitbhai

Sr. No.	Industry Name & Address	Activity Carried Out	Hazardous Chemicals Handled With Quantities (MAH Chemical only)	Disasters Likely	Contact Person Name # (Occ, Fm.Si) With Phone:- Numbers (O,R,M)
	Z-22, Sez, Dahej				(M) 9879229219
38.	GUJARAT ALKALIES & CHEMICAL LTD. Vagra Bharuch-392 130		Chlorine	1290 MT	Mr.M B Patel (M) 9909029646
39.	GACL-NALCO Alkalies And Chemicals Pvt. Ltd. Plot No D/II/9/1 & D/II/9/2, GIDC Dahej, Taluka : Vagra, Dist – Bharuch, Gujarat	Chlorine Gas	500 MT in Storage tank + 250 MT in Cylinder Total 750 MT	Toxic Gas Release Fire Explosion Chemical Spillage / Leakage	Occupier: Mr. Nikhil Bhargava Phone: 99090 29496 Office: 99090 29496 Residence: Vadodara Mobile: 9909029496 Factory Manager: Mr. Keshav Khairnar Phone: 9824909395 Office: 9824909395 Residence: Ankleshwar Mobile: 98249 09395 Safety Manager: Mr. Minesh Patel Phone:99095 04410 Office: 99095 04410 Residence: Vadodara Mobile: 99095 04410
40.	GNFC D-2/8, GIDC Vill Rahiyad	Manufacturing of Chemical	TDI	Flammable liquid, Fire & explosion	Factory Manager- Mr.V C Bhatt (M) 9898063460
41.	Grasim Industries Limited Plot No.1. GIDC Vilayat, Tal-Vagra, Dist-Bharuch	Manufacturing of Chemical	Chlorine - 1340 MT Carbon Disulphide- 3405 MT	Toxic gas release, Fire or Explosion	Factory Manager- Mr. Sanjay Dhar (M) 9904409127
42.	Gujarat Chemical Port Limited P.O.- Lakhigam, Via- Dahej, Tal-	Only Receipt, Storage and Dispatch of liquid & gaseous chemicals	Naphtha 13350 M ³ (14 Series) Naphtha 19280 M ³ (14 Series)	Fire and explosion Toxic gas release,	Occupier: Pawan Mishra Phone: 02641-261002 Office: P.O.- Lakhigam,

Sr. No.	Industry Name & Address	Activity Carried Out	Hazardous Chemicals Handled With Quantities (MAH Chemical only)	Disasters Likely	Contact Person Name # (Occ, Fm.Si) With Phone:- Numbers (O,R,M)
	Vagra, Dist- Bharuch, Gujarat-392130.	through port and terminal to facilitate its export/import as per customer requirements. No manufacturing/ Production is carried out at GCPL.	Propane 45000 M ³ Butane 27000 M ³ LPG 2310 M ³ P.O. 2970 M ³ Para Xylene 37640 M ³ Ortho Xylene 4400 M ³ Ethane No storage, only pipeline transportation (Pipeline Volume: 5252 KL) PY Gas 9218 M ³ Styrene 5702 M ³ Acetic Acid 8000 M ³		Via-Dahej, Tal- Vagra, Dist- Bharuch, Mobile: 9998011567 Factory Manager: Venkataraman Karri Phone: 02641-261105 Office: P.O.- Lakhigam, Via-Dahej, Tal- Vagra, Dist- Bharuch, Gujarat-392130 Residence: Mobile: 7892747064 Safety Manager: Hemant Kumar Singh Phone: 02641-261036 Office: P.O.- Lakhigam, Via-Dahej, Tal- Vagra, Dist- Bharuch, Gujarat-392130 Mobile: 6352691989
43.	Gujarat Fluorochemicals Limited, 12/A GIDC Dahej Industrial Estate, Taluka Vagra, District Bharuch 392130, Gujarat	Specialty Chemical / Fluorochemicals Manufacturing Company	Liquid Chlorine Max. 315 m ³ Actual.179 m ³ Hydrogen Gas 100000 Nm ³ Anhydrous Hydrofluoric Acid (AHF) Max.18.07 MT Actual.13 MT	Toxic Gas Release	Occupier: Mr. Niraj Agnihotri Phone: 02641 618031 Residence7861812701 Factory Manager: Dr. Sunil Bhatt Phone: 02641 618031 Residence9099941862 Safety Manager: Dr. Uday Pagedar Phone: 02641 618031 Residence7069621471
44.	GUJARAT FLUOROCHEMICALS LIMITED Plot No D-2-CH-173 + D-2-CH-	Grinding, Extrusion and Milling Steam Generation	1.Chlorine – 26 Tonners	Toxic Gas risk	Occupier: Mr. Niraj Kishor Agnihotri Phone: Bangla No1, Rausar kothi,united

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	222 Village- Jolva GIDC Dahej Industrial Estate	Polymerizati on on Chlorination Cracking Compression VDF Receiving Compressor Operation High Pressure Polymerizati on on Extrusion Operation			sprints,rosa,rausar,Shahj ahanpur,Uttar Pradesh 242001 Office: GFL A Residence: Bharuch Mobile: +91 9909013721 Factory Manager: Mr. Shesh Narayan Pandey Phone: 9316754266 Residence: T-144, R.K County, Tavra road, zadeshwar, Bharuch 392011, Gujarat Mobile: 9316754266 Safety Manager: Mr. Vilas Gurav Residence: Bharuch Mobile;9099005387
45.	Gujarat Guardian Ltd. State Highway – 13, Valia Road, Ankleshwar, Dist. Bharuch, Gujarat – 393001	Manufacturing of Float Glass and/or Mirror and/or Lacquered Glass and/or Coater Glass	LPG – 240 MT (04 bullets – 60 MT each)	Fire & Explosion	Occupier: Mr. A. M. Surana Phone: 2643257200 Residence: M/s. Gujarat Guardian Ltd. State Highway – 13, Valia Road, Ankleshwar, Dist. Bharuch, Gujarat – 393 001 Mobile: 98989 08707 Factory Manager: Mr. Akshat Sahay

Sr. No.	Industry Name & Address	Activity Carried Out	Hazardous Chemicals Handled With Quantities (MAH Chemical only)	Disasters Likely	Contact Person Name # (Occ, Fm.Si) With Phone:- Numbers (O,R,M)
					Phone: +91 2643 257 308 Residence: M/s. Gujarat Guardian Ltd State Highway – 13, Valia Road, Ankleshwar, Dist. Bharuch, Gujarat – 393 001 Mobile: 8511146481 Safety Manager: Mr. Saurabh Singh Phone: +91 2643 257 269 Residence: M/s. Gujarat Guardian Ltd. State Highway–13, Valia Road, Ankleshwar, Dist. Bharuch, Gujarat – 393 001 Mobile: 9316789293
46.	Gujarat Insecticides Ltd. 805/806, GIDC Ankleshwar, Bharuch		Chlorine – 10 MT Bromine – 60 MT		Mr.H R Patel (M) 9925035228
47.	Gujarat Narmada Valley Fertilizers & Chemicals Ltd. (GNFC) Address: GNFC, Narmadanagar, Bharuch – 392015, Gujarat, India.	Gujarat Narmada Valley Fertilizers & Chemicals Ltd. (GNFC) is engaged in the fertilizer and chemical manufacturing sector,	Methanol – 1,85,000 MTPA	Toxic Gas Release Fire Hazard – Fire due to flammable chemicals like Methanol, Hydrogen Explosion – Possible	Occupier: D C Rana Office 3650 Residence :230897 Mobile: 9898030897 Factory Manager: P K Purohit

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		producing products such as Neem Coated Urea, Ammonia, Nitric Acid, Ammonium Nitro phosphate (ANP), Methanol, Formic Acid, Acetic Acid, Toluene Di-Isocyanate (TDI), and other industrial chemicals, along with IT services through its N Code division.	TDI – 67,000 MTPA Aniline - 40,000 MTPA	explosion in chemical reactors, storage tanks, boilers. Chemical Spill / Leakage – Nitric Acid or other corrosive chemicals. Process Plant Accident	Office 2366 Residence 232343 Mobile : 9898419492 Safety Manager: A N Modi Office ; 3792 Mobile : 9898906155
48.	Hemani Industries Limited. Plot No: CH/5, GIDC Industrial estate Dahej Tehsil: Vagra, Dist.: Bharuch Gujarat, 392130	Storage and use of Bromine and Chlorine	Bromine: 90 MT Chlorine: 50 MT.	Toxic & corrosive gas release	Occupier: Mr. Ramachandrudu Phone: 9687021707 Office: Plot No: CH/5, GIDC Industrial estate Dahej Tehsil: Vagra, Dist.: Bharuch Gujarat, 392130 Residence: Near Shravan Chowkdi, Bharuch Mobile: 9687021707 Factory Manager: Mr. Somkumar Shukla Phone: 8155966663 Office: Plot No: CH/5, GIDC Industrial estate Dahej Tehsil: Vagra, Dist.: Bharuch Gujarat, 392130 Residence: Plot No: CH/5, GIDC Industrial estate Dahej Tehsil:

Sr. No.	Industry Name & Address	Activity Carried Out	Hazardous Chemicals Handled With Quantities (MAH Chemical only)	Disasters Likely	Contact Person Name # (Occ, Fm.Si) With Phone:- Numbers (O,R,M)
					Vagra, Dist.: Bharuch Gujarat, 392130 Mobile: 8155966663 Safety Manager: Mr. Rajesh Singh Phone: 9081555104 Office: -- Plot No: CH/5, GIDC Industrial estate Dahej Tehsil: Vagra, Dist.: Bharuch Gujarat, 392130 Residence: Ankleshwar, Gujarat Phone: 9081555104
49.	Hemani Industries Limited. (Unit 2) Plot No. 3207/A & B, 3208/1&2, 3202/A/1, GIDC Industrial Estate, Ankleshwar - 393002, Gujarat	Storage and use of Bromine and Chlorine	Bromine: 70 MT. Hexane: 25 MT	Toxic & corrosive gas release	Occupier: Mr. Ramachandrudu Phone: 9687021707 Office: Plot No. 3207/A & B, 3208/1&2, 3202/A/1, GIDC Industrial Estate, Ankleshwar - 393002, Gujarat Residence: Near Shravan Chowkdi, Bharuch Mobile: 9687021707 Factory Manager: Mr. Sanjay Pandey Phone: 9099959001 Office: Plot No. 3207/A & B, 3208/1&2, 3202/A/1, GIDC Industrial Estate, Ankleshwar - 393002, Gujarat Mobile: 9099959001

Sr. No.	Industry Name & Address	Activity Carried Out	Hazardous Chemicals Handled With Quantities (MAH Chemical only)	Disasters Likely	Contact Person Name # (Occ, Fm.Si) With Phone:- Numbers (O,R,M)
					Safety Manager: Mr. Rishabh Jani Phone: 8200942694 Office:- Plot No. 3207/A & B, 3208/1&2, 3202/A/1, GIDC Industrial Estate, Ankleshwar - 393002, Gujarat Residence: Ankleshwar, Gujarat Phone: 8200942694
50.	Hikal Limited Plot No. 629/630-B GIDC Estate, Post: Panoli.	Manufacturing of Pharmaceutica I intermediates, Active Pharmaceutica I Ingredients (API) & Fine chemicals.	Bromine 50 MT	Toxic gas release.	Occupier: Mr. S. Suresh Address : Jp Nagar, Bangalore India. Phone No. - 080-67356100 Extn: 9213. Factory Manager: Mr. Subrat Satpathy Address: Plot No. 629/630-B GIDC Estate, Post: Panoli. Phone: 02646 302100. Ext. 5201 Safety Manager: Mr. Manish Sheth Address: Plot No. 629/630-B GIDC Estate, Post: Panoli. Phone: 02646 302100. Ext. 5286
51.	Hindalco Ind. Ltd. Unit: Birla Copper, Dahej Lakhigam, Dist. Bharuch P.O.	Manufacturing of Chemical	Propane - 292 MT Naphtha- 440 MT Ammonia- 10000 MT	Flammable liquid, Fire & explosion, Toxic Gas Release	Factory Manager- Mr. Anil Tipne (M) 8722804677
52.	Hindustan Petroleum Corpn., Ltd.	Manufacturing of Petro-Chemical	LPG - 777 T	Fire & Explosion	----

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	Piludra, Nr. Ongc Ctf Unit Ankleshwar, Bharuch				
53.	Impro Interchem Pvt. Ltd. Plot No.414, GIDC Panoli, Bharuch	Manufacturing of Chemical	Ethylene Oxide - 7 MT	Fire & Explosion	Factory Manager- Mr. Modi (M) 9427518021
54.	Indian Oil Corp. Ltd. Village Rojatankaria Dist Bharuch, Amod-392410	Manufacturing of Petro-Chemical	LPG - 2000 MT	Flammable liquid , Fire & explosion	Factory Manager- Mr. Ramarao (M) 9426416092
55.	Indo Baijin Chemicals Pvt. Ltd. Plot No. Z/7/1, SEZ-1 Area, Dahej SEZ Ltd. Tal - Vagra, Dist. - Bharuch - 392130, Gujarat, India.	Manufacturing of Carbon Disulphide (CS2)	3217 M3 X 01 Nos 90 M3 X 02 Nos	Fire / Explosion / Toxic gas release	Occupier: Mr. Kaushal Bisen Phone: 02641 277200 Residence Mumbai Factory Manager: Mr. Milind Vaidya Phone: 02641 277204 Residence Bharuch Mobile 8980042784 Safety Manager: Mr. Sumeet Garvalia Phone: 02641 277315 Residence Bharuch Mobile: 9099974663
56.	Indofil Industries Limited (Unit-1) Plot No. Z-8, SEZ-1, GIDC, Dahej, Tal. - Vagra, Dist: Bharuch, Gujarat - 392130, India.	Manufacturing of Pesticide / Pesticide Formulation	Carbon Di-Sulphide-100 MT	Toxic gas release, Fire or explosion	Occupier: Mr. Ramakrishnan SRG Phone: 8657031592 Residence: 8657031592 Mobile :8657031592 Factory Manager: Mr. Aniket Haldankar Phone: 9930359129 Office: 02641)282237, (02642)650137

Sr. No.	Industry Name & Address	Activity Carried Out	Hazardous Chemicals Handled With Quantities (MAH Chemical only)	Disasters Likely	Contact Person Name # (Occ, Fm.Si) With Phone:- Numbers (O,R,M)
					Residence: 9930359129 Mobile: 9930359129 Safety Manager: Mr. Mihir Pandya Phone: 6357971090 Office: (02641)282271, (02642)650183 Residence: 357971090 Mobile:6357971090
57.	INDORAMA VENTURES OXIDES ANKLESHWAR PVT. LTD. Ankleshwar Pvt. Ltd. Plot No. 321, GIDC Panoli, Ankleshwar, Bharuch.	Manufacturing of Synthetic Organic Chemicals	1. Ethylene Oxide 2. Propylene Oxide	Toxic Gas Release Fire Explosion	Occupier: Mr. Chad Alan Anderson Phone: 8097721935 Office: 02646-660729 Mobile: 8097721935 Factory Manager: Mr. Arvindkumar Tiwari Phone: 8097721935 Office: 02646-660729 Residence: Ankleshwar Mobile: 8097721935 Safety Manager: Mr. Hiren Gohil Phone: 9924982454 Office: 02646-660729 Residence: Bharuch Mobile:924982454
58.	Industrial Solvent & Chemical Pvt Ltd.	Manufacturing of Chemicals	SO3 : 210 MTD	Toxic Gases: SO3 & SO2	Occupier: B J Pandit Phone: 02646 249549 Mobile 9327353253 Factory Manager: S I Prajapati Phone: 02646 249549 Mobile : 9377571503 Safety Manager: Rahul V Patil Phone: 02646 249549 Mobile 7574861583

Sr. No.	Industry Name & Address	Activity Carried Out	Hazardous Chemicals Handled With Quantities (MAH Chemical only)	Disasters Likely	Contact Person Name # (Occ, Fm.Si) With Phone:- Numbers (O,R,M)
59.	Ion Exchange (India) Limited, Plot No. 5811-12-13 GIDC Estate, Ankleshwar	Resin Manufacturing	Oleum (Sulphur Trioxide) Qty: 120 MT	Fire, Explosion, Toxic	Occupier: Mr. Indraneel Dutt Mobile 8800677229 Factory Manager: Mr. Arvind D Patel Mobile 8511100260 Safety Manager: Mr. Rajdipsinh D Vansia Mobile 9428158138
60.	Jal aqua international llp, Plot no:620 road no.06, GIDC estate panoli, Dist-Bharuch	Calcium hypochlorite granules, Hi-chloren	Chlorine – 62 MT	Toxic gas release, Fire Explosion	Occupier: Mr. Suresh Patoliya Residence: C-1202, Shreepad Park, Arena, Pal, Surat Mobile: 9825128111 Factory Manager: Mr. Jayesh Bhuva Residence: A-1/407, Vraj-Bhumi, Sector-1, Sarthana jakat naka, Surat Mobile: 7575008633 Safety Manager: Mr. Baldev chavda Residence: A/2/110, sarita residency vadadla Bharuch Mobile: 9601516872
61.	Jayshree Aromatics Limited Plot No. 4703,4704,4705 /1/2,3&4, GIDC, Ankleshwar, Gujarat-393002	Chlorination Distillation Esterification Hydrolysis Hydrogenation	Chlorine (43200 Kg) Toluene (100 KL) Methanol (20 KL) Ethanol (20 KL)	Fire Toxic gas release Explosion	Occupier: Hasmukhbhai J Patel Phone: 9825031253 Office 9825031253 Residence 9825031253 Mobile 9825031253 Factory Manager: Hiren P. Bhuva

Sr. No.	Industry Name & Address	Activity Carried Out	Hazardous Chemicals Handled With Quantities (MAH Chemical only)	Disasters Likely	Contact Person Name # (Occ, Fm.Si) With Phone:- Numbers (O,R,M)
			HCL (150 KL)		Phone: 9727711325 Office 9727711325 Residence 9727711325 Mobile 9727711325 Safety Manager: Shubhankar Patidar Phone: 6354288797 Office 6354288797 Residence 6354288797 Mobile 6354288797
			Benzyl Chloride (250 KL)		
			Hydrogen (212 Nos.)		
			Acetaldehyde (20 KL)		
62.	Jubilant Ingrevia Limited & Jubilant Infrastructure Limited Plot No. P1-L13 to P1-L16, Jubilant SEZ, Plot No.5, Vilayat GIDC	Fine chemicals & Vitamins manufacturing	Chlorine tonner – 134 nos. of 900 Kg each Ammonia gas storage – 220 MT Highly flammable liquid – 4000 KL	Toxic gas release Toxic gas release, fire & explosion Toxic gas release	Occupier: Mr. Vijay Kumar Shrivastava Phone: 01204958033 Office: 01204958033 Residence: 119, Sun city paradise, B/H Vishwamitri Township, Munj Mahuda, Manjalpur, Vadodara-390011 Mobile: 01204958033 Factory Manager: Mr. Gurish Khosla Phone: 02641281502 Office: 02641281502 Residence: 55, Shreehari bungalows, Bhayli Road, Opp. Bright school, Vadodara, Gujarat - 390007 Mobile: 9428520198 Safety Manager: Mr. Pradeep Kumar Nagar

Sr. No.	Industry Name & Address	Activity Carried Out	Hazardous Chemicals Handled With Quantities (MAH Chemical only)	Disasters Likely	Contact Person Name # (Occ, Fm.Si) With Phone:- Numbers (O,R,M)
			Propylene Oxide- 10 MT		Phone: 7600101745 Office: 02441281602 Residence:7-X, Trivera apartment, Block C, Flat no. C-504, Tawara Road, Zadeshwar, Bharuch:
			Formaldehyde- 50 KL		
63.	JUBILANT LIFE SCIENCE LIMITED (UNIT-2)(FORMERLY JUBILANT ORGANOSYS LTD)	Fine chemicals & Vitamins manufacturing	Chlorine tonner – 134 nos. of 900 Kg each 1. Ammonia gas storage – 220 MT 2. Highly flammable liquied – 4000 KL	Toxic gas release 1. Toxic gas release, fire & explosion Toxic gas release	Occupier: Mr. Vijay Kumar Shrivastava Phone: 01204958033 Office: 01204958033 Residence: 119, Sun city paradise, B/H Vishwamitri Township, Munj Mahuda, Manjalpur, Vadodara-390011 Mobile: 01204958033 Factory Manager: Mr. Gurish Khosla Phone: 02641281502 Office: 02641281502 Residence: 55, Shreehari bungalows, Bhayli Road, Opp. Bright school, Vadodara, Gujarat - 390007 Mobile: 9428520198 Safety Manager: Mr. Pradeep Kumar Nagar Phone: 7600101745 Office: 02441281602 Residence:7-X, Trivera apartment,

Sr. No.	Industry Name & Address	Activity Carried Out	Hazardous Chemicals Handled With Quantities (MAH Chemical only)	Disasters Likely	Contact Person Name # (Occ, Fm.Si) With Phone:- Numbers (O,R,M)
					Block C, Flat no. C-504, Tawara Road, Zadeshwar, Bharuch: Mobile:
64.	KABSONS INDUSTRIES LIMITED Plot No. 706&708, GIDC, Palej Industrial estate, Dist.-Bharuch, Pin-392220	LPG REFILLING	LPG	Leakage, Spillage, Fire or Explosion	Occupier: Mr. rajiv kabra Residence : D NO.7-1-59/10,Dharam karan road,Ameerpetl, Hyderabad,Andra Pradesh Pin-500016 Mobiole:9849110132. Factory Manager: Mr. Santosh Shukla Residence : H no-132 Sai sarjan society,Kharjan,vadodara Mobile : 9090197539
65.	Kanoria Chemicals & Industries Ltd. Plot No. 3407, GIDC Industrial Estate Ankleshwar , Dist. Bharuch, Gujarat – 393001	Organics & Inorganics Chemicals	Formaldehyde 1600 kl	Toxic & fire	Occupier: R. V. Kanoria Mobile :9904097239 Factory Manager: Sanjay Kumar Ojha Mobile:93275 38421 Safety Manager: Anil D Mishra Mobile: 7041939554
66.	KESHAV NITRO CHEM LLP	A melt converted in to solid	-	-	Factory Manager: HETAL PATEL Phone: 9925844080 Office Residence Mobile
67.	KLJ Organic Limited Plot No-769, GIDC Estate, At&Po: Jhagadia, Ta: Ankleshwar Dist-Bharuch	Chlorination of HNP	Chlorine - 90 MT	Exothermic Reaction/Fire/ Toxic release	Occupier: Shri Shantilal Dugar Phone: 635885843 Factory Manager: Mr. Rajendra Maurya Mobile: 9377299631 Safety Manager: Nikunj Patel

Sr. No.	Industry Name & Address	Activity Carried Out	Hazardous Chemicals Handled With Quantities (MAH Chemical only)	Disasters Likely	Contact Person Name # (Occ, Fm.Si) With Phone:- Numbers (O,R,M)
					Mobile: 6354910966
68.	KLJ PETROPLAST LIMITED Plot No. 909, 909/1 & 764, Village: Jhagadia, GIDC-Jhagadia, District-Bharuch, Gujarat – 393110	Manufacturing of Petrochemical Products	O-Xylene – 9028.8 MT Ethanol – 7110 MT Methanol – 355.5 MT Pentylol – 1458 MT N-Butanol – 360 MT I-Butanol – 364.5 MT Sabutol – 3061.8 MT Diesel – 11.34 MT	Toxic gas release, Fire or explosion	Occupier: Mr. K. G. Vadivel Phone: 011-25459706 Factory Manager: Mr. R.K. Nahata Phone: 02645-226046 Mobile: 02646-222122 Safety Manager: Anant rohit Phone: 02645-226046 Mobile: 8511100738
69.	Krishna Antioxidants Pvt Ltd Plot No.: D-3/24/1, GIDC Dahej Phase – III, Village Samatpor, Taluka Vagra Dahej, Dist. Bharuch (Gujarat) – 392130	Manufacture of Synthetic Organic Chemicals	Ethylene Oxide – 39 MT Styrene – 41 MT	Hazardous gas Release, Fire or Explosion	Occupier: Sanjay Jotiba Wandre Mobile : 9833871950 Factory Manager: Sanjay Jotiba Wandre Mobile : 9833871950 Safety Manager: Vasishtha Javkar Mobile : 9820453387
70.	LANXESS India Pvt. Ltd, Plot No. 748/2/A, 748/3 & 748/4/B +748/4/A/1, GIDC Estate, Jhagadia – 393110, Dist. Bharuch.	Manufacturing of speciality chemicals	Oleum 65%, 50 Tons Acrylonitrile, 75 Tons	Toxic gas release, Fire, or explosion	Occupier: Mr. Balaram Govind Khot Mobile: 8657554120 Factory Manager: Mr. Utpal Kachchhi Office: 2645 224237 Mobile: 9979117904 Safety Manager: Mr. Naresh Mude Office: +91 2645224259 Mobile: 6356033300
71.	MACSON PRODUCTS (UNIT-2)		Ethylene Oxide	7.5 MT	

Sr. No.	Industry Name & Address	Activity Carried Out	Hazardous Chemicals Handled With Quantities (MAH Chemical only)	Disasters Likely	Contact Person Name # (Occ, Fm.Si) With Phone:- Numbers (O,R,M)
72.	Meghmani Organic Ltd Plot No.- 5001/B,GIDC, Ankleshwar	Manufacturer of Organic Chemicals, Pesticides and Pigments	Acrylonitrile- 52 KL	Fire & Explosion	Factory Manager- Mr. M.A. Haniya (M) 9979882207
73.	Meridian Chem Bond Private Limited Plot No-5906/04 GIDC Ankleshwar	Mono Chloro Acetic Acid (MCAA) "Monochloroacetic Acid (MCAA) and its derivatives for the Agrochemical and Pharmaceutica l sectors."	Chlorine-300 MT Mono Chloro Acetic Acid - 1000 MT	Toxic Gas release	Occupier: Mr. S.K Nair Office 02646-225131 Residence: GIDC, Ankleshwar Mobile- 932746740 Factory Manager: Mr. Dinesh Sharma Office :02646-225131 / 325603 Residence: Bharuch Mobile -814105242 Safety Manager: Mr. Mehulkumar P Bhagat Office : 02646-225131 / 325603 Residence: Bharuch Mobile - 816088458
74.	Meridian Chem-Bond Private Limited Plot No. 3209, GIDC Estate, Ankleshwar – 393002, Dist. Bharuch, Gujarat	Manufacturing of Mono Chloro Acetic Acid (MCAA) through chlorination of Acetic Acid	Chlorine – 55 MT Acetic Acid – 200 MT	Toxic Gas Release (Chlorine Leakage)	Occupier: Mr. S.K Nair Office 02646-225131 Residence: GIDC, Ankleshwar Mobile- 932746740 Factory Manager: Mr. Dinesh Sharma Office :02646-225131 / 325603 Residence:

Sr. No.	Industry Name & Address	Activity Carried Out	Hazardous Chemicals Handled With Quantities (MAH Chemical only)	Disasters Likely	Contact Person Name # (Occ, Fm.Si) With Phone:- Numbers (O,R,M)
			HCl- 300 MT		Bharuch Mobile -814105242 Safety Manager: Mr. Mehul Kumar P Bhagat Office: 02646-225131 / 325603 Residence: Bharuch Mobile - 816088458
75.	Minol Acids and Chemicals Pvt. Ltd. Plot No. 5904/1, Nr. Kanoria Chemicals, G.I.D.C., Ankleshwar.	Manufacturing of Chemicals	Oleum 65% - 15 KL	Toxic Release	Occupier: Mr. Sanjay P. Shah Office Residence A-3, Vardhman Park, Opp. Rajesh Tower, Gotri, Vadodara. Mobile 9825028238 Factory Manager: Mr. Govindbhai R. Akbari Residence 10, Shrijathji krupa co. op. ha. So.ltd., Nr. Golden Point, GIDC, Ankleshwar. Mobile 9879010274
76.	National Thermal Power Corporation Ltd. Village : Jhanor Bharuch	Generating and selling electricity to state power utilities	Chlorine - 10 T 100 T		Factory Manager- Mr. Manoranjan Sarangi (M) 9437107884
77.	NACL SPEC-CHEM LIMITED Plot No. D-2/11/B/3/2, Dahej-II, Tal. Vagra, PIN-392 130, Dist. Bharuch, Gujarat, INDIA.	Technical Agrochemicals & Intermediate manufacturing	Chlorine – 30X900 Tonners = 27 MT Bromine – 3X10 = 50 MT		Occupier: Mr. Amit Taparia Factory Manager: Mr. Kaushik kumar Manji Phone : 02641650801 Office : 8485950799

Sr. No.	Industry Name & Address	Activity Carried Out	Hazardous Chemicals Handled With Quantities (MAH Chemical only)	Disasters Likely	Contact Person Name # (Occ, Fm.Si) With Phone:- Numbers (O,R,M)
					Residence : Industrial Estate Dahej-II Plot No: D-2/11/B/3/2, Tal., - Vagra, Dist., - Bharuch PIN-392 130, Gujarat, India Mobile : 8485950799 Safety Manager: Mr. Maulik SHAH Phone: 02641650822 Office : 74860 31630 Residence : Mobile : 74860 31630
78.	Navjeevan-O-Chem 5903/1, GIDC Estate ankleshwar, Bharuch-393 002	Manufacturer of In-organic Chemicals	Chlorine - 20 T	Toxic gas release, Fire or Explosion	Factory Manager- Mr. Kirit Patel (M) 9825039426
79.	New India Acid (Baroda) Pvt. Ltd.	Chemicals	Hydrochloric Acid: 3744 Mt/Year Dilute Sulphuric Acid: 800 Mt/Year		Occupier: Mr. Anjesh R. Patel Residence: Vadodara Mobile: 9327917533 Factory Manager: Mr. Sukhdevsinh Gohil Residence: Vav, Dahej

Sr. No.	Industry Name & Address	Activity Carried Out	Hazardous Chemicals Handled With Quantities (MAH Chemical only)	Disasters Likely	Contact Person Name # (Occ, Fm.Si) With Phone:- Numbers (O,R,M)
			Mother Liquor of MCA: 650 Mt/Year		Mobile: 9374865339 Safety Manager: Mr. Sukhdevsinh Gohil Residence: Vav, Dahej Mobile: 9374865339
80.	Omkar Chemical Industries Pvt Ltd Plot No.406, GIDC. Estate , Panoli-394116, Ankleshwar, Dist. Bharuch.	Manufacturing of surfactant and specialty chemicals	Ethylene Oxide-30 KL Propylene Oxide-27 KL	Toxic Gas Release, Chemical Leakage, Fire and Explosion Hazard Due To Handling of Flammable and Corrosive Chemicals.	Occupier: Mr. Bhima shanker Patil Residence - Green Ambe Ankleshwar GIDC Mobile: 9898078763 Factory Manager: Mr. Bhima shanker Patil Residence - Green Ambe Ankleshwar GIDC Mobile: 9898078763 Safety Manager: Mr. Jaypalsinh Chavda Residence -511 Gujarat housing Board ankleshwar Mobile: 7567586462
81.	OMNOVA SOLUTIONS INDIA PVT LTD(Old name Apcotex)		Acrylonitrile 1,3-Butadiene	100 MT 290 MT	Mr. Uday Desai (M) 9825320805
82.	ONGC Petro additions Limited Plot #Z-1 & Z-83 C/o, Dahej SEZ Ltd., P.O Dahej, Taluka Vagra, District Bharuch, Gujarat – 392130, India	Butane, Chlorine, Hydrogen, Naphtha, Hexane, Butadiene, Pentane, Ethylene, Benzene, Hydrogenated pygas (HPG), C9 cut, Propylene, C4 Mix, Butene-1, C6 Oligomer, C6 Cut, RPG, Ethane,	Ethylene, Propylene, Butadiene, Butene-1 Benzene fuel Gas C9+ fraction C6+, Pyrolysis	Toxic gas Release Fire Explosion	Occupier: Shri Gurinder Singh Office: (02641)667001 Mobile: 6357167333 Factory Manager: Shri Arup Jhampri Office: (02641)667002 Mobile: 8128664215 Safety Manager: Shri Somnath Sarkar Office: (02641)667026 Mobile: 9099007516

Sr. No.	Industry Name & Address	Activity Carried Out	Hazardous Chemicals Handled With Quantities (MAH Chemical only)	Disasters Likely	Contact Person Name # (Occ, Fm.Si) With Phone:- Numbers (O,R,M)
		Propane, PFO/CBFS	Gasoline		
83.	Organic Industries Pvt. Ltd S/163. GIDC, Dahej, Vagra, Bharuch	IN-Organic Chemicals Pottasium Permanganate Boric Acid Calcium Hypochlorite	Chlorine – 16000 MT per Month	Chlorine Tonner	Occupier: Anand Monappa Shetty Phone: 6358025670 Residence 1801, Odyssey – 1, 18th Floor, Hiranandani Gardens, A.S. Marg, Powai, Mumbai– 400 076 Factory Manager: Babu Pathanjali Phone: 6358025670 Residence 21-22, Akshat Bunglows, Zadeshwar, Bharuch Mobile 6358025670 Safety Manager: Harendra Kumar Phone: 6358879403
84.	Panoli Intermediates (India) Pvt Ltd, Plot No 778/1 & 756/1, GIDC Jhagadia, Dist- Bharuch	Chlorination & Hydrogenation	Chlorine-225 Mt Hydrochloric Acid-350 MT Dichloro Nitro Benzene-600 MT Benzene-450 MT	Flammable & Toxic & Corrosive	Occupier: Surendra Kumar Goyal Phone: 9377226697 Mobile 9377226697 Factory Manager: Phone: 9377237174 Mobile: 9377237174 Safety Manager: Phone: 7228009997 Mobile 7228009997
85.	Panoli Products Pvt. Ltd.	MCA	Chlorine = 60 Tanners	Gas Release	Occupier: Mr. Amit Sharma

Sr. No.	Industry Name & Address	Activity Carried Out	Hazardous Chemicals Handled With Quantities (MAH Chemical only)	Disasters Likely	Contact Person Name # (Occ, Fm.Si) With Phone:- Numbers (O,R,M)
			HCL = 200 Mt (Storage Capacity)		Mobile: 72111-62221 Factory Manager: Mr. Diapk Panchal Mobile: 82382-12552 Safety Manager: Mr. Chirag Modi Mobile: 87359-39289
86.	Panorama Aromatics Ltd. Plot No. 2908-2911, Phase-Iii, Gidc Panoli-394116, Tal.-Ankleshwar, Dist.-Bharuch	Manufacturing Of Chemicals	Liq. Chlorine 19.800 Mt	Toxic Vapour release	Occupier: Patel Mukeshkumar Atmaram Office : GIDC Panoli Residence Ankleshwar Mobile :- 9825033576 Factory Manager: Malla Amrit Office : GIDC Panoli Residence : Sanjali Mobile : 9909925979 Safety Manager: Mishra Ramesh Office: GIDC Panoli Residence: Shreedhar Soc, Kosamdi. Mobile : 9879915485
87.	PAYAL POLYPLAST PVT.LTD Plot No. D-2/Ch-II, Dahej GIDC , Tal-Vagra, Dist-Bharuch	Production of plasticizers, chlorinated paraffins, and PVC compounds	Chlorine- 600 MT	Flammable liquid, Fire & explosion	Factory Manager- Mr. Damodar Patil (M) 7574851684
88.	Petronet LNG Limited. Dahej Terminal	Receiving, Storage & Regasification of LNG, Dispatch of Rlng and LNG.	Liquefied Natural Gas (LNG)/ Natural Gas Handling with LNG storage tank capacity of 12,72,000 m3 in 8 Nos.	LNG/NG leakage and lead to fire scenario	Occupier: Mr. Pramod Narang (Director- Technical) Phone: Office: 011-71233508 Residence Mobile

Sr. No.	Industry Name & Address	Activity Carried Out	Hazardous Chemicals Handled With Quantities (MAH Chemical only)	Disasters Likely	Contact Person Name # (Occ, Fm.Si) With Phone:- Numbers (O,R,M)
			of LNG full containment storage tanks and Terminal Regasification name plate capacity is 22.5 MMTPA, including regasification expansion project.		Factory Manager: Mr. Sanjay Kumar GGM& President (Plant Head) Phone: Office: 02641-670299/201 Mobile: 9662526281 Safety Manager: Sushil B Machhi Chief Manager (HSE) Office: 02641-670252 Mobile :9662526295
89.	Phthalo Science at Plot No. DP-112, GIDC Sayakha, Ta.: Vagra, Bharuch, Gujarat – 392165, India	Manufacturing of Pigments	Aluminium Chloride Granules – 317 MT Cupric Chloride (Anhydrous) – 6MT C.P.C. – 38.90MT Caustic Soda – 22.40MT	No major incident has occurred till date. All required safety measures are implemented including PPE usage, fire-fighting equipment, and emergency contact systems (fire station, police, Hospitals etc.).	Occupier: Mr. Pooran Singh V. Rathore Phone: 9099087912 Office: Vapi office Residence: Vapi Mobile: 9099087912 Factory Manager: Lichhman Ram Phone: 7486824204 Office: Sayaka, In Factory Residence: Sayakha, Near Factory Mobile: 7486824204 Safety Manager: Lichhman Ram Office: Sayakha, In Factory Residence: Sayakha, Near Factory Mobile: 7486824204
90.	PI Industries Ltd	Manufacturing agricultural	Chlorine-10.8 MT	Release of Toxic & Corrosive	Occupier: Mr. Rajnish Sarna Office; 0124-6790000

Sr. No.	Industry Name & Address	Activity Carried Out	Hazardous Chemicals Handled With Quantities (MAH Chemical only)	Disasters Likely	Contact Person Name # (Occ, Fm.Si) With Phone:- Numbers (O,R,M)
	237, GIDC Estate Panoli 394 116 Dist. Bharuch, Gujarat	and fine chemicals	Formaldehyd e- 20 MT	Chemicals Fire & Explosion	Residence: 0124-6790000 Factory Manager: Mr. Ram Murti Rai Office:02646618278 Residence :922756233 Mobile: 922756233 Safety Manager: Mr. Yashvant Singh Office: 02646618413 Residence: 6357434536 Mobile: 635743453
			Bromine-42.76 MT		
			Ethion-205 KL		
91.	PI Industries Ltd. SPM-29/2, Sterling SEZ, At – Sarod, Ta – Jambusar, Dist. – Bharuch	Manufacturing	Isobutylene: - 23.16 MT	Release of Toxic & corrosive chemicals Fire or Explosion	Occupier: Mr. Rajnish Sarna Phone:124 – 6790000 Office: 0124-5081244 Factory Manager: Mr. Vishwajeet Kumar Singh Phone: 9925046695 Office: 02644225803 Safety Manager: Mr. Varun Raulji Office: 02644228541 Office: 6357240072
			Chlorine: - 30.6 MT.		
			Liquified Natural Gas (LNG): - 97.47 MT		
92.	Piramal Pharma Limited Plot No. D-2/11/A1, GIDC Industrial Estate,Phase-II, Vil:Dahej, Ta:Vagra 392130,Bharuch , Gujrat,India	Syntatic Organic Chemicals Anhydrious Hydrogen Fluoride 40 MT	Anhydrious	Toxic Gas Release	Occupier: Vivek Valsaraj Office: 02641679866 Residence: - Thane Mobile: NA Factory Manager: Anil Hilpara
			Hydrogen		

Sr. No.	Industry Name & Address	Activity Carried Out	Hazardous Chemicals Handled With Quantities (MAH Chemical only)	Disasters Likely	Contact Person Name # (Occ, Fm.Si) With Phone:- Numbers (O,R,M)
			Fluoride 40 M		Office: 02641669840 Residence: Ankleshwar Mobile: 9998225970 Safety Manager: Office: 02641669865 Residence: Bharuch Mobile : 9736829475
93.	Privi Speciality Chemicals Limited, Plot No. 765, Road No.2, GIDC Jhagadia – 393 110 Dist. Bharuch	Manufacturing of Aroma chemicals & Speciality chemicals	CS2 133	Fire & Explosion	Occupier: Mr. D B Rao Office: 9979888841 Mobile: 9979888841 Factory Manager: Mr. Devendra Singh Raghava Office: 9825115899 Mobile: 9825115899 Safety Manager: Mr. Vishwajeet Singh Office: 7276735263 Mobile: 7276735263
94.	Reliance Industries Ltd. Dahej Manufacturing Division Dahej, Bharuch	Manufacturing of Petrochemicals, Caustic & Chlorine	Naphtha 56,147 Ethane 165,000 Ethylene Oxide 252.8 Propylene 6,705 Chlorine 282 VCM 6,000 EDC 6,800 Ethylene 23,192 Propane 1,596 Para Xylene 10,800	Toxic gas release, Fire or Explosion	Occupier: Mr. Hital R. Meswani Factory Manager: Mr. Shailesh Nigam Safety Manager: Vinayak Paranjape Safety Officer: Jignesh P Patel

Sr. No.	Industry Name & Address	Activity Carried Out	Hazardous Chemicals Handled With Quantities (MAH Chemical only)	Disasters Likely	Contact Person Name # (Occ, Fm.Si) With Phone:- Numbers (O,R,M)
95.	Styrenix Performance Materials Limited, 4-G.I.D.C Dahej, Tal: Vagra Dist: Bharuch	Polymer	Styrene – 5562 KL Ethyle Benzene- 50 M3	Fire or explosion	Occupier: Mr. Ravishankar Mobile : 9825033214 Factory Manager: Mr. Jayesh Patel Phone: 02641 663313 Mobile: 7359099973 Safety Manager: Vinod Tank Phone: 02641 663318 Mobile: 6353533581
96.	SAINT-GOBAIN INDIA PRIVATE LTD 36, GIDC Jhagadia , Dist- Bharuch		LPG	15 T	Mr.Hemant Modi (M) 9898734174
97.	SANJANA CRYOGENIC STORAGES LTD		Ammonia	72000 MT	Mr.S K Fozdar (M) 9434454024
98.	Savla Chemicals Ltd. Plot No: 26-A, GIDC, IndustrialEstate, Panoli-394116, Ankleshwar, Dist- Bharuch, Gujarat.	Manufacturing of High Purity Methyl Tert-Butyl Ether, Isobutylene and Methanol (by product) (Petroleum Products)	1)Methyl Tert- Butyl Ether:1500 m3 (02 tanks) 2)Isobutylene : 175 m3 (02 tanks) 3) Methanol: 50 m3(01 tank)(By Product) 4) High Purity Methyl Tert-Butyl Ether: (50 m3 -02 tanks and 20 m3-01 tank)	Fire or Explosion	Occupier: Mr. Narendra C Trivedi Mobile 9323878999 Factory Manager: Mr. Bhupendra Prajapati Office 02646-272622/633 Mobile 9016387942 Safety Manager: Mr. Bhupendra Prajapati Office 02646-272622 /633 Mobile 9016387942

Sr. No.	Industry Name & Address	Activity Carried Out	Hazardous Chemicals Handled With Quantities (MAH Chemical only)	Disasters Likely	Contact Person Name # (Occ, Fm.Si) With Phone:- Numbers (O,R,M)
99.	Schott Glass India Pvt. Ltd Block No. 1351/1, 1352/2 Vill: Ankhi, Tal: Jambusar Dist : Bharuch	Manufacturing of Glass Tubing	LNG	Fire & Explosion Toxic Fire	Occupier: Mr. Pawan Kumar Shukla Office: 02644253203 Residence: Vadodara Mobile: 6351022333 Factory Manager: Mr. Vishal Anand Office: 02644253288 Residence: Vadodara Mobile: 7874633733 Safety Manager: Ms Mugdha Vedanti Office: 02644253200 Residence: Vadodara Mobile: 9909025460
			Oxygen		
			Arsenic Trioxide		
100.	Shiva Pharma chem Limited Dahej	Acid / Alkyl Chlorides and Other Speciality Intermediates	Chlorine - 23.4	Gas release Gas release Toxic gas release, Fire or explosion Chemical spill, fire, or industrial accident fire or explosion Gas release Chemical spill and Skin burning Gas release Fire or explosion	Occupier: Mr. Jagmohan Jalani Phone: 9825040747 Factory Manager: Mr. Amit Joshi Phone: 9975859386 Safety Manager: Mr. Jignesh Patel Phone: 7203080999
			Hexane - 22		
			Hydrogen cylinder - 32		
			Methanol - 22		
			Propylene - 39.8		
			Sulphur Dioxide - 23.4		
			Sulphuric Acid - 10		
			Thionyl Chloride - 96		
			Toluene - 22		

Sr. No.	Industry Name & Address	Activity Carried Out	Hazardous Chemicals Handled With Quantities (MAH Chemical only)	Disasters Likely	Contact Person Name # (Occ, Fm.Si) With Phone:- Numbers (O,R,M)
101.	SHILPA CHEMICAL INDUSTRIES. PLOT NO. 4777 – 4778 G.I.D.C, ANKLESHWAR	Manufacturing of EHTYLENE OXIDE CONDENSAT E & TEXTILE CHEMICALS	ETHYLENE OXIDE	Leakage, Spillage, Fire or Explosion	Occupier: MRS RUPALI VORA Residence : 83 VASU KAMAL BORIVLI (W) MUMBAI - 400092 Mobile :- 9321029496 Factory Manager: VIKAS SHAH Residence :- BLU SPARSH PAL SURAT Mobile :- 9426134682
102.	Sanghvi Organics P. Ltd Plot no. 3516, phase III, GIDC, Panoli (Gujarat)	Benzyl chloride, Benzyl Alcohol, Benzaldehyde	Benzyl chloride - 600ton/month	Toxic Gas Release (Chlorine), Vapor Cloud Fire (Toluene), Toxic Release (Benzyl Chloride), Tanker Leakage, Reactor Runaway	Occupier: Jigenesh A Shah Office: 9724079044 Residence Mumbai Mobile 9820084519 Factory Manager: M.K. Pillai Residence - Vadodara Mobile - 9725001334 Safety Manager: Promod Kumar Residence Ankleshwar Mobile - 8866851722
103.	Shivam Incorporation Plot No 521, L-1801, L-1802 & 665, GIDC Estate, Panoli, Dist.: Bharuch, Taluka:	Handling, storage and use of Chlorine for chemical manufacturing process.	Chlorine (Cl ₂) – 40 MT (Stored in Tonners under PESO Licensed Facility)	Toxic gas release Major chlorine leakage Fire (secondary due to reaction) Exposure	Occupier: Gabani Rameshbhai Devjibhai Mobile: 93775 22525 Factory Manager: Mr. Sunil Patel Mobile: +91 95371 10077

Sr. No.	Industry Name & Address	Activity Carried Out	Hazardous Chemicals Handled With Quantities (MAH Chemical only)	Disasters Likely	Contact Person Name # (Occ, Fm.Si) With Phone:- Numbers (O,R,M)
	Ankleshwar, Gujarat-394116			hazard to workers and nearby area	Safety Manager: Mr. Ankit Patel Mobile +91 97378 25282
104.	Shree Sulphuric Ltd. 2801, GIDC, Ankleshwar Dist. Bharuch	Manufacturer of Chemicals	Oleum (Sulphur Trioxide) – 172MT	Toxic gas release, Fire or Explosion	Occupier: Mr. A K Gandhi (M) 9374672334
105.	Shri Ganesh Khand Udhog Sahkari Mandali Ltd. Vataria, Valia	Manufacturer of Refined sugar	Industrial Alcohol - 1193 KL Ethanol - 1190 KL	Flammable liquid, Fire & explosion	Factory Manager- Mr.Raju bhai (M) 9408703081
106.	Shri Khedut Sahakari Khand Udiyog Mandli Ltd At-Pandvai, Tal-Hansot, Dist-Bharuch	Manufacturer of Refined sugar	Industrial Alcohol – 1193 KL Ethanol-1190 KL	Flammable liquid, Fire & explosion	Factory Manager- Mr. Iswarbhai Patel
107.	Shyam Chemicals Pvt.ltd 6004, GIDC Ankleshwar	Manufacturing of Copper & Salt	Chlorine 20MT	Toxic Gas Release	Occupier: Mr. Vishal somani Phone: 9820047767 Factory Manager: Mr. Vijay Jha Residence: Shyam residency GIDC ankleshwar Mobile: 9723916456 Safety Manager: Mr. Pradeep Shah Mobile: 9924777174
108.	Siddhi Samrat Dye-Chem Pvt. Ltd. Pl.No.6450, GIDC Estate, Ankleshwar		Ethylene Oxide- 8 T	Fire Explosive	Occupier: Mr. Nilesh Bhai (M) 9824106450
109.	Solvay Specialities	Manufacturing: High	Sulphur Trioxide	Toxic vapor release	Occupier: Mr. Amlanabha Das

Sr. No.	Industry Name & Address	Activity Carried Out	Hazardous Chemicals Handled With Quantities (MAH Chemical only)	Disasters Likely	Contact Person Name # (Occ, Fm.Si) With Phone:- Numbers (O,R,M)
	India Pvt Ltd, Panoli Plot No: 3526-27, G.I.D.C., Panoli, District: Bharuch, Gujarat (394116)	performance Polymers and Monomers	(SO3) 36.3 MT (Storage: 29.4MT In process: 6.9MT)		Phone: 22 6663 7104 Office: Syensqo specialties India private limited, equinox bus. park, tower-4/9th floor Mumbai 400070 India. Residence: P-541, Raja Basanta Roy Road Sarat Bose Road, West Bengal – 700029, Kolkata. Mobile: 97692 27444 Factory Manager: Mr. Himanshu Gondaliya Phone: 02646-615310 Office: Solvay Specialities India Pvt Ltd, Panoli. Plot no :3526-27, G.I.D.C. Estate, Panoli, District: Bharuch, Gujarat (394116) Residence: 9/903-A, Zadeshwar Road, R.K. Habitat, B/H Inox Multiplex, Bharuch – 392 001\ Mobile: 99241 48975 Safety Manager: Mr. Ashish Naik Phone: 02646 615317 Office: Solvay Specialities India Pvt Ltd, Panoli. Plot no :3526-27, G.I.D.C. Estate, Panoli, District: Bharuch, Gujarat (394116) Residence: A-06, Ambe-Green Society, Valia Road, Ankleshwar Mobile: 9924148976
110.	SRF Limited D-2/1, GIDC Phase II, PCPIR, Dahej ,District	Specialty Chemicals Fluorochemicals (including refrigerants & fluorospecialty	Chlorine 700 MT (in Bullet) Chlorine 291 MT (in Tonnes)	Toxic & Gas release Fire	Occupier: Pramod Gopaldas Gujarathi Mobile 9825143794

Sr. No.	Industry Name & Address	Activity Carried Out	Hazardous Chemicals Handled With Quantities (MAH Chemical only)	Disasters Likely	Contact Person Name # (Occ, Fm.Si) With Phone:- Numbers (O,R,M)
	Bharuch, Gujarat - 392 130.	products) Fluoropolymers (PTFE and intermediates) Industrial Chemicals & Solvents Pharmaceutical & agrochemical intermediates	Anhydrous Hydrofluoric Acid (AHF) 2218 KL (Bullet) Anhydrous Hydrofluoric Acid (AHF) 6.24 KL (in Tonnes) Anhydrous Hydrochloric Acid (AHCl) 6 MT Ethylene Dichloride 407.15 KL Bromine 96 MT (48 MT × 2 Tanks) Carbon Disulphide Not Specified HSD 140 KL Methanol 62 KL (31 KL × 2 Tanks) Ethanol 33 KL Acetone 50 KL Toluene 70 KL Hexane 35 KL Heptane 70 KL (35 KL × 2 Tanks) Xylene 70 KL (35 KL × 2 Tanks) Methanol 1184 KL (740 KL × 2 Tanks) Methyl Chloride 63.6 MT (1 Tank) R32		Factory Manager: Sanjay Patidar Office: 91-2641-289201 / 202 Mobile: 9687001442 Safety Manager: Vikas Yadav Office: 91-2641-289201/ 202 Mobile: 9978445120

Sr. No.	Industry Name & Address	Activity Carried Out	Hazardous Chemicals Handled With Quantities (MAH Chemical only)	Disasters Likely	Contact Person Name # (Occ, Fm.Si) With Phone:- Numbers (O,R,M)
			225 MT (2 Tanks – 84 MT & 141 MT) R600a 29.5 MT R142b 376 MT (4 Tanks × 94 MT)		
111.	Sterling Auxiliaries Pvt. Ltd, Dahej, Taluka – Vagra, Dist- Bharuch	Ethoxylation Process Propoxylation Process Polymerization Process Polymerization Process Ethoxylation Process Polymerization Process Liquid Phosphite Methylation Process Ethoxylation / Distillation Process Ethoxylation / Distillation Process Esterification & Polymerization Process	Ethylene Oxide 30 MT Propylene Oxide 18 MT Acrylonitrile 15 MT Methyl Methacrylate 35 MT MMA Anhydrous / Monomethylamine (100%) 60 MT Styrene Monomer 28 MT Phosphorous Trichloride (PCl ₃) 1 MT Formaldehyde 25 MT Methyl Di Ethanol Amine 340 MT Phenoxy Ethanol 150 MT CPPD 12 MT	Runaway Reaction and Explosion Flammable, Carcinogenic Toxic, Carcinogenic Flammable, Irritant Flammable, Corrosive Flammable, Neurotoxic Corrosive, Toxic Toxic, Carcinogenic Corrosive / Irritant Skin & Eye Irritation Skin & Eye Irritant Harmful If Swallowed Flammable Toxic Vapors (Inhalation Hazard) Skin & Eye Irritant	Occupier: Nikhil Agrawal Mobile 9909287465 Factory Manager: Amit Kumar Mobile 7211109772 Safety Manager: Shree Niwas Upadhyay Phone: 7359271445 Office 9638011742 Residence 7359271445 Mobile 7359271445

Sr. No.	Industry Name & Address	Activity Carried Out	Hazardous Chemicals Handled With Quantities (MAH Chemical only)	Disasters Likely	Contact Person Name # (Occ, Fm.Si) With Phone:- Numbers (O,R,M)
			Ethyle Benzene- 50 M3		
112.	Sudarshan Gujarat MFG Private Limited, Unit-1, Plot No. 9002-9010, Phase VI, GIDC Estate, Ankleshwar – 393002, Gujarat, India	Chlorine Bromine Xylene	Tonner & 117Nos MSGL Tank & 22KL MS Tank & 70KL	Toxic gas release Toxic gas release Fire or Explosion	Occupier: Mr. D K Rana (O) 02646 – 222083 /153 (R)9879533460 Residence: Flat No. 102, Plot No. 3093/15, The Pioneer Plastic Co-Op. Ho. Society, Nathdwara, B/h. 500 Quarters,G.I.D.C., Ankleshwar – 393 002, Dist.: Bharuch. (Gujarat Factory Manager: Mr. B P Gupta Residence: B-146 Garden City, Kosambdi, Ankleshwar, Dist.- Bharuch, Gujarat- 393001 Mobile9825403246 Safety Manager: Prathmesh D Bhatt Residence: C 704 SLD Nirvana, Bharuch Mobile: 7069002450
113.	Sukha chemicals Industries Unit -II 2925,Village/Town - Panoli, City- Ankleshwar,Dist	Ferric Chloride	Liquid Chlorine tonner 55 nos	Toxic gas release	Occupier: Dharmesh Dobaria Office: 9924275444 Mobile: 9924275444

Sr. No.	Industry Name & Address	Activity Carried Out	Hazardous Chemicals Handled With Quantities (MAH Chemical only)	Disasters Likely	Contact Person Name # (Occ, Fm.Si) With Phone:- Numbers (O,R,M)
	istrict- Bharuch, State - Gujarat-394116				Factory Manager: Sanjay Gadhavi Office: 9924275444 Residence: 8401328001 Mobile: 9924275444 Safety Manager: Viralkumar Joshi Office: 9924775444 Residence :9428811419 Mobile: 9924775444
114.	Sun Chloride Pvt. Ltd. 603, GIDC, Panoli Bharuch	manufactures and supplies industrial chemicals and copper salts	Chlorine- 20 T	Toxic gas release, Fire or Explosion	Occupier: Mr. Lav Patel (M) 9825466444
115.	SUPERFORM CHEMISTRIES LIMITED PLOT NO: 3405, 3406, 3460/A, 3460/B, 3461, GIDC ANKLESHWAR, DIST: BHARUCH		Ter. Butyl Mercaption (TBM)- Phorate	40 KL	Mr. Paresh Adhvaryu (M) 9909994534
116.	SUPERFORM CHEMISTRIES LIMITED PLOT NO.117, GIDC ANKLESHWAR DIST- BHARUCH		Chlorine Carbon Disulhide	22 TONNERS OF 900 KGS 30 TON	Mr. Rana Bhai (M) 9909994369
117.	Superform Chemistries Limited (Unit - 92) Plot No- D 3 / 6 GIDC III , Kadodara Ta-	Manufacturing Of Speciality Chemicals And Agro Chemicals	Natural Gas Ammonia (125 KL* 3) Caustic Soda Na OH (250 KL* 2) H 2 SO 4 (40 KL)	Fire Toxic Release Corrosive Corrosive	Nitin Irande Plant Head (9420062555) Abhimanyu Singh Plant Head (8401463088)

Sr. No.	Industry Name & Address	Activity Carried Out	Hazardous Chemicals Handled With Quantities (MAH Chemical only)	Disasters Likely	Contact Person Name # (Occ, Fm.Si) With Phone:- Numbers (O,R,M)
	Vagara, Dist. Bharuch		HCl (30 %) 10 KL	Corrosive	Sandip Savsani Plant Head (8401463088)
			Fe Cl 2 (32 KL)	Corrosive	
			Ammonium Sulphate (148 KL* 2)	Toxic	
			Sodium cyanide(70 KL* 2)	Toxic	
			Sodium ferrocyanide (144 MT)	Toxic	
			CO 2 (20 KL* 2 , 50 KL* 2)	Asphyxiation	
			O2 (19 . 4 KL, 20 KL)	Asphyxiation	
			Cl 2 (204 * 9 TON)	Toxic Release	
			Acetonitrile (33 . 5 KL)	Fire & Toxic Release	
			Methanesulfonyl chloride (30 KL)	Toxic Release	
			Picoline (33 . 5 KL)	Fire & Toxic Release	
			Phenol (30 KL)	Corrosive	
			Aniline (35 KL)	Toxic Release	
			DMF (18 KL)	Fire	
			Ethylene Di Chloride (EDC) (18 KL)	Fire	
			Caustic (35 KL)	Corrosive	
			Toluene (74 KL)	Fire	
			Methanol (74 KL)	Fire	
			Thionyl Chloride (25 KL)	Corrosive, reactive	
			Propargyl Alcohol (45 KL)	Flammable, Toxic and Corrosive	
			EHA (7 . 2 Ton)	Toxic, Flammable	

Sr. No.	Industry Name & Address	Activity Carried Out	Hazardous Chemicals Handled With Quantities (MAH Chemical only)	Disasters Likely	Contact Person Name # (Occ, Fm.Si) With Phone:- Numbers (O,R,M)
118.	Superform Chemistries Limited. Plot No.750, GIDC, Jhagadia, Dist- Bharuch, 393110, Gujarat, India	Manufacturing & Dispatch of Industrial & Speciality Chemicals, And Technical Grade Pesticides and Their Formulations.	Chlorine 400 MT Carbon Disulphide 2300 MT Acrylonitrile 30 MT Hydrogen 2122 Acrolein 60 MT Chloroacetal Chloride 200 MT Methyl Chloride 175 MT Phosphorous Oxychloride 100 MT Phosphorous 3200 MT Phosphorous Trichloride 300 MT Sodium Cyanide 276 MT Sulphuric Acid 100 MT Hydrochloric Acid 150 MT Sodium Hydroxide (NaOH) 400 MT	Toxic, fire, Explosion, Toxic Gas release	Occupier: Mr. Raj Kumar Tiwari Phone: 9930829725 Factory Manager: Mr. Deepak Garg Mobile: 9909994527 Safety Manager: Gopal Patil Mobile: 9099981096
119.	TML Industries Limited At & post- Piludra-391810, Tal-Jambusar, Dist- Bharuch	Acid Chlorides Manufacturing	Sulphur Dioxide- 45 Tonners	Toxic gas release	Occupier: Mr. Avtar Singh Office: 9558819257 Mobile: 98726 00005 Factory Manager: Mr. Kismat Patel Office: 9558819257 Mobile: 9898508387

Sr. No.	Industry Name & Address	Activity Carried Out	Hazardous Chemicals Handled With Quantities (MAH Chemical only)	Disasters Likely	Contact Person Name # (Occ, Fm.Si) With Phone:- Numbers (O,R,M)
					Safety Officer: Mr. Sahil Patel Office: 9558819257 Mobile: 8490946989
120.	Tagros Chemicals India Pvt. Ltd. Plot no.43/1, Amod Road, GIDC Dahej-1, Tal: Vagra, Dist: Bharuch-392130	Manufacturing of Agrochemical – Sulfentrazone Herbicide	Chlorine – 64 Tonner- 57.6 MT	Toxic gas release	Occupier: Mr. Sunish K Nair Phone: 7043999575 Mobile 9377687000 Factory Manager: Mr. H M Parmar Phone: 7043999576 Mobile 9377608290 Safety Manager: Mr. Sanjeev Triar Phone: 7043999576 Mobile 7283835768
121.	TAGROS CHEMICALS INDIA PVT.LTD PLOT NO.2901 TO 2906 & 2806 G.I.D.C. PANOLI	Agrochemical and crop protection sector	Chlorine Tonner- 57.6 MT	Toxic gas release	Occupier: Sunish K Nair Phone: +91 9377687000 Office +91 9377687000 Residence +91 8000044422 Mobile +91 8000044422 Factory Manager: Rahul Kumar Phone: +91 9227540399 Office: +91 9227540399 Residence: +91 9227540399 Mobile: +91 922754039

Sr. No.	Industry Name & Address	Activity Carried Out	Hazardous Chemicals Handled With Quantities (MAH Chemical only)	Disasters Likely	Contact Person Name # (Occ, Fm.Si) With Phone:- Numbers (O,R,M)
					Safety Manager: Dr. Gopal Pishe Phone: +91 7283835746 Office: +91 7283835746 Residence: +91 9904432575 Mobile: +91 9904432575
122.	Unitop Chemicals Pvt Ltd. D2/CH-342,343, GIDC Phase II, Vill. Jolwa, Dahej, Bharuch	Synthetic Organic Chemicals	Ethylene Oxide - 38 KL Petroleum Class A in bulk- 30 KL Petroleum Class B in bulk - 75 KL	Fire or Explosion, Toxic Gas release	Occupier: Mr. Prasad Gadkari Phone: 9979874629 Factory Manager: Mr. Prakash Donagare Phone: 9712976983 Safety Manager: Mr. Rohitsingh Kachhawa Phone: 7987473658
123.	Vardhman Acrylics Ltd. 755 GIDC Mega Estate Jhagadia, Dist. Bharuch	production of Acrylic Fiber and Acrylic Tow	Acrylonitrile-2160 T	Fire Explosive	Occupier: Mr. Jignesh Parmar (M) 8128652905
124.	Viswaat Chemicals Limited, D-3/10, Dahej Phase III, GIDC, Dahej, Taluka – Vagra, Dist. – Bharuch, Gujarat – 392130	Manufacturing of Synthetic Organic Chemicals	Ethylene Oxide (19 MT * 2 Tanks)	Fire & Explosion, Toxic Gas release	Occupier: Mr. Vinesh Shetty Phone: 022 – 6909 5430 Mobile: 98210040081 Factory Manager: Mr. Jignesh Dave Phone: 8291991536 Office: 02641-692001 Residence 8291991536 Mobile: 8291991536 Safety Manager: Mr. Bharat Monpara Phone: 8655615083 Office: 02641-692001 Residence 9909988013 Mobile: 9909988013

Sr. No.	Industry Name & Address	Activity Carried Out	Hazardous Chemicals Handled With Quantities (MAH Chemical only)	Disasters Likely	Contact Person Name # (Occ, Fm.Si) With Phone:- Numbers (O,R,M)
125.	VITAL CHEMTECH LIMITED	Manufacturing of Chlorine, Phosphorus intermediate chemical (PCL3 / POCL3)	Chlorine, Phosphorus	Leakage, Spillage, Fire or Explosion	Occupier: Mr. Vipul Bhatt Residence : Plot No. D3/151 & 158, GIDC, Dahej III, Ta-Vagra, Dist.-Bharuch, Pin-392130 Mobile : 98240 37446 Factory Manager: Mr. Santosh Shukla Phone: Mobile : 93166 32488
126.	Wanksons Chemical Industries Pvt. Ltd. Plot No. 518, GIDC Panoli Tal. Ankleshwar, Bharuch	Manufacturing of Chemical	Chlorine - 50 T	Toxic gas release, Fire or Explosion	Factory Manager- Mr. I H Parmar (M) 7878844736
127.	Yashashvi Rasayan Pvt. Ltd Plot No. Z/96/E, SEZ-II, Dahej Industrial Estate, Village Luvara, Taluka Vagra, District Bharuch, Gujarat, 392130.	Manufacturing of herbicides	SO2-47 Nos Tonners	Toxic gas release	Occupier: Harsh Patel Phone: 9825142515 Mobile: 9825142515 Factory Manager: Pravin Pande Mobile: 9099113883 Safety Manager: Jatinkumar Bhatt Mobile: 6359890982

4.3 Transportation of Hazardous Goods

Table 11 Information on Hazmat Transportation by Road

Sr.	Industry Name & Address	Road no. from- to	length (Km)	Details of Hazardous chemicals Flow with Quantity	Villages / Towns Enroute	Remarks
1.	Aarti Industries Limited Plot No: 758/1, 2 & 3, Survey No. 359, 360, 364, 358, 357, 356, 345, 348 GIDC Jhagadia, Dist-Bharuch, Gujarat - 393110	Mumbai to Jhagadia	354 KM	Methanol (Underground) (154.84 MT)	Thane, Surat, Daman	
		Hazira to Jhagadia	97.7 KM	Toluene (Underground) (337.12 MT)	Surat, Ankleswar, Kosamba	
		Hazira to Jhagadia	97.7 KM	Benzene (Underground) (511.56 MT)	Surat, Ankleswar, Kosamba	
2.	Alkyl Amines Chemical limited PLOT NO: D2/CH/149/2, GIDC Dahej-2, TA: Vagra, Dist: Bharuch, Gujarat – 392130	Dahej to JNPT Mumbai	420 Km	Methyl Amines, Acetonitrile	Via Bhuaruch, Ankaleshwar, Kamrej, Navasri (by-pass), Vapi, Bhilad, Achad, Talasri, Thane, JNPT	
		Dahej to Kurkumbh, Dhaund	570 Km	Amine Hydrochloride	Via Bharuch, Ankaleshwar, Kamrej, Navasri (by pass), Chikhli, Dharampur, bharpuda, kumbhale, Nashik, Sangamner (by-pass), ralegan Siddhi, kedgaon station,	
		JNPT Mumbai to Dahej	420 km	Ammonia, Methanol (export)	Via JNPT, Thane, Talasri, Achad, Bhilad, Vapi, Navasri (by-pass), Kamraj, Ankleshwar, Bharuch	
		Surat to Dahej	85 Km	Acetic acid, Hydrochloric acid	Via Kamrej, Bharuch - Dahej	
3.	Amal Speciality Chemicals Limited. Plot No. 136/137, GIDC Estate, Ankleshwar, Dist.: Bharuch, Gujarat, Pin: 393002	Ankleshwar to Atul	140 km	Sulfur Trioxide, 15 MT	Panoli, Kamrej, Navsari, Valsad	

Sr.	Industry Name & Address	Road no. from- to	length (Km)	Details of Hazardous chemicals Flow with Quantity	Villages / Towns Enroute	Remarks
4.	Anshika polysurf ltd Plot no : C-383/1, Argama industrial estate, Saykha GIDC, Ta: Vagra, Dist : Bharuch	RIL Dahej or RIL Hazira to APL unit Saykha GIDC	40-100 KMS	Ethylene oxide – 7 MT tanker Propylene oxide – 7 MT tanker Butadiene – 10 MT tanker	Dahej, rahiyad, vagra, ankot, bharuch, Ankleshwar	
5.	Anugrah Industries Private Limited Plot No. D3-26/1&2, GIDC Dahej – 392130, Tal. Vagra, Dist. Bharuch	Bharuch to Jhagadia	70	Chlorine Tonner – 156 Nos.	Bharuch	
6.	Aries Colorchem Pvt Ltd Plot No: DP-56 & DP-57, Saykha GIDC, Saykha Tehsil: Vagra, Dist: Bharuch Gujarat, 392 140	Hazira to Saykha	90 km (Approx)	Ethylene Oxide 7mt tanker	Surat, Bharuch	
7.	Atul Ltd (Aromatics Business) Plot no 297, 297/1, GIDC estate, Ankleshwar, Dist- Bharuch	Ankleshwar/Dahej/ Nandeshri to Ankleshwar	110	SO3 – 15 MT SO2- 5 MT	Vadodara, Karjan, Palej, Bharuch, Ankleshwar	
8.	Birla Cellulosic (A Unit of Grasim Industries Ltd) Birladham, Village – Kharach, Near Kosamba, Tal – Hansot, District – Bharuch.	BC-kharach to Grasim Vilayat	61 KM	Carbon Di Sulphide 25 MT	Amod-Kosamba, Bharuch	
		BC-kharach to Superfoam Jhagadia	54 KM		Amod-Kosamba, Ankleshwar	
		BC-kharach to Grasim Nagda	440 KM		Amod-Kosamba, Bharuch, Karjan – Chota Udaipur, Jhambua	
		BC-kharach to Sarigam	167 KM		Amod-Kosamba, Bhilad-Sarigam	
		BC-kharach to	321 KM		Amod-Kosamba, Barhanpur-	

Sr.	Industry Name & Address	Road no. from- to	length (Km)	Details of Hazardous chemicals Flow with Quantity	Villages / Towns Enroute	Remarks
		NOCIL Mumbai.			Maharashtra, Somate-Maharashtra, Khadkawane-Maharashtra, Dhekale-Maharashtra	
		BC-kharach to Tagros Tamilnadu	1726 KM		Amod-Kosamba, Chala-Vapi, Satara-Maharashtra, Kittur-Karnataka, Krishnagar-TNV annivedu-TN, Tindivanam-TN	
		BC-kharach to Grasim Harihar	1033 KM		Amod-Kosamba, Chala-Vapi, Satara-Maharashtra, Kittur-Karnataka	
9.	Bodal Chemicals Limited Plot No. 301 to 430+433 to 440/1, Juned Bhersam Estate, GIDC, Saykha TA: Vagra, Bharuch, Gujarat - 392140	Saykha to Kalol, Gandhinagar Saykha to Dahej Saykha to Thane, Maharashtra	223Km	Distillation Residue (2000 MT/Year)	Karjan, Vadodara, Anand, Nadiad, Ahmedabad, Gandhinagar Vahiyal, Galenda Bharuch, Navsari, Vapi, Daman, Silvassaa, Virar	
		Saykha to Magnad, Jambusar	32 Km	ETP Waste (7000 MT/Year)	Vagra, Amod	
		Saykha to Vapi Saykha to Mahesana or Kalol	188 Km	Hydrochloric Acid (62000 MT/Year)	Bharuch, Surat, Navsari, Valsad Karjan, Vadodara, Anand, Nadiad, Ahmedabad, Gandhinaga	
10.	Borosil Renewables Limited Ankleshwar-Rajpipla Road, Village – Govali, Bharuch, Gujarat	Ankleshwar to Dahej Hazira to Borosil Renewables Ltd.	62 Km 96 Km	LPG (Liquefied Petroleum Gas) – approx. 12-13 MT per tanker	Dahej, Bharuch, Govali, Borosil Renewables Ltd Surat (Hazira), Kim, Kosamba, Ankleshwar, Bharuch, Kharchi, Govali. Borosil Renewables Ltd	

Sr.	Industry Name & Address	Road no. from- to	length (Km)	Details of Hazardous chemicals Flow with Quantity	Villages / Towns Enroute	Remarks
11.	Century ENKA Ltd. (Unit: Rajashree Polyfil), Rajashree Nagar, Post: Umalla , Tal: Jhagadia, Dist: Bharuch – 393120	IOCL Dahej to Century Enka Ltd., Umalla	100 KM	Liquified Natural Gas (LNG)	Dahej – Jolva – Gumandev – Jhagadiya – Rajpardi – Umalla	
12.	Cohizon Life Sciences Limited (Unit – 2) Plot No. 5809 - 5810, GIDC Estate, Ankleshwar, Gujarat - 393002	Dahej & Ankleshwar (from different companies) to Cohizon-Ankleshwar	20 to 64	Chlorine (Approx Avg. 482 Mt) Per Month		
		Ankleshwar & Tamil nadu to Cohizon-Ankleshwar	72 to 1670	Hydrogen Fluoride (Approx Avg . 114 Mt) Per Month)		
13.	Cohizon Life Sciences Limited, Plot No 6102-03, 6117-19, GIDC Ankleshwar – 393002 Gujarat - India	Dahej & Ankleshwar (from different companies) to Cohizon-Ankleshwar	20 to 64	164 MT per month		
14.	Covestro (India) Pvt. Ltd. 3501-15, 6301-13 & 16 mtr road/B2, GIDC Industrial Estate, Ankleshwar – 393 002	Ankleshwar ICD to Coventro Ankleshwar Site	6	Toluene Diisocyanate 25T net in ISO Tainer	Ankleshwar	
		Nava-Seva Port to Covestro Ankleshwar Site	370		Panvel, Vapi, Surat	
15.	Dai-Ichi Karkaria Limited, Plot No. D2 / 20, GIDC Dahej-2, Taluka: Vagra, Dist.: Bharuch, Gujarat		20 km	EO- 38 MT	Lakhigam	
			20 km	PO- 38 MT	--	

Sr.	Industry Name & Address	Road no. from- to	length (Km)	Details of Hazardous chemicals Flow with Quantity	Villages / Towns Enroute	Remarks
16.	DCM Shriram Ltd (Unit: Shriram Alkali & Chemicals) Plot no. 749, GIDC, Industrial estate, Jhagadia, Bharuch, Gujarat	Ahmedabad, Vapi		Caustic lye, Chlorine, Hydrogen, ECH, H2O2, Glycerine	Ankleshwar & Bharuch	
17.	Deepak Chem Tech Limited Plot No. D-II/ 6/1 & D-II/6/1 ^a , Dahej-II Industrial Estate, Dahej, Village: Rahiyad, Tal: Vagra, Dtist: Bharuch – 392130, Gujarat, India	Hazira To Dahej	111 Km	18 Mt- An-Hydrous Hydrofluoride	Surat-Kim-Kosamba-Ankleshwar-Bharuch	
		Vilayat To Dctl Dahej	40 KM	19 Tonners-Chlorine	Bharuch	
		Dahej To Dctl Dahej	10 KM			
		Kandla To Dahej	514 Km	30 MT Toluene	Halvad-Dhrangadhra-Sanand-Nadiad-Anand-Vasad-Padra	
		Dpl Dahej To Dctl Dahej	15 Km	30 MT Acetone	Nil	
		DCTL TO Vapi	203 Km	Methyl Iso Butyl Ketone- 30 MT	Bharuch-Surat-Navsari	
		DCTL To Vadodara	111 KM		Padara-Vadodara	
		DCTL To Ahemeda bad	214 Km		Padra-Vadodara-Vasad-Anand-Nadiad	
18.	Deepak Fertilisers and Petrochemical Corporation Limited Address: Plot No. D/II/7/A, Dahej GIDC Area, Village Rahiyad, Taluka Vagra, District Bharuch – 392130 (Gujarat).	Taloja – Navi Mumbai to Dahej	375	Liquor Ammonia – 200 MT in transit	Vapi, Valsad, Surat, Ankleshwar, Bharuch, Dahej	
		Kota to Dahej	500		Vadodara, Nadiad, Ghandhinagar, Himatnagar, Shamlaji, Shishod, Balicha	
		Surat to Dahej	150		Surat, Ankleshwar, Bharuch, Dahej	
19.	Dharti Enterprise D-2 / CH-326, Near ONGC Corridor, Vill. Jolwa, Dahej Ta. Vagra, Dt. Bharuch	Dahej Reliance to Jolwa	13	Ethylene Oxide	Dahej to Bharuch Highway	
		Hajira Reliance to Jolwa	135	Ethylene Oxide	N.H No.8	

Sr.	Industry Name & Address	Road no. from- to	length (Km)	Details of Hazardous chemicals Flow with Quantity	Villages / Towns Enroute	Remarks
		Dahej Expended Polymer to Jolwa	06	Propylene Oxide	Dahej to Bharuch Highway	
20.	DMCC SPECIALITY CHEMICALS LIMITED	Dahej to Amdavad	230KM	H2so4: 30 MT	Amod,Padra,Vadodara,	
		Dahej to Amdavad	230 km	CSA:25 MT	Amod,Padra,Vadodara	
21.	Epigral Limited CH1, CH2,CH/1+2B GIDC Industrial Estate, Dahej, Tal. Vagra, Bharuch - 392 130 Gujarat, India	North: Dahej to Vadodara, Ahmedabad, Mehsana, Siddhpur, Gandhidham	331	Hydrogen – Maximum transport capacity: 3630 NM3 to 4430 NM3	Bharuch, Vadodara, Anand, Nadiad, Ahmedabad	
		South: Dahej to Surat, Vapi, Thane, Dombivli, Ulhasnagar, Tarapu, Mahad	515		Bharuch, Surat, Navsari, Vapi, Palghar, Vasai, Thane	
		East / SE: Dahej to Jambusar, Ankleshwar, Panol, Jhagadia, Jalgaon, Aurangabad, Pune.	501		Bharuch, Surat, Navsari, Vapi, Palghar, Vasai, Thane, Lonavala	
		NE: Dahej to Ratlam, Ujjain	453		Bharuch, Vadodara, Godhra, Dahod, Jambua, Badnawar	
		Dahej to Saykha	35		Bharuch, Vadodara, Anand, Nadiad, Ahmedabad	
		South: Dahej to	515		Bharuch	
				Chlorine - Maximum		

Sr.	Industry Name & Address	Road no. from- to	length (Km)	Details of Hazardous chemicals Flow with Quantity	Villages / Towns Enroute	Remarks
		Hazira, Mahad		transport capacity 15 to 20 tons		
		East: Dahej to Ankleshwar, Panoli	70	Methyl Chloride – Maximum transport capacity 10 to 17 MT	Bharuch, Ankleshwar, Surat, Navsari, Valsad, Vapi, Daman, Dahanu, Palghar, Mumbai, Panvel, mangaon, Mahad	
		West: Dahej to Khambhat	110		Bharuch, Ankleshwar	
		North: Dahej to Vadodara, Ahmedabad, Jaipur	850		Bharuch, Jambusar	
		Dahej to Ankleshwar	60		Bharuch, Vadodara, Ahmedabad, Udaipur, Chittorgarh, Bhilwara, Ajmer	
22.	Expanded Polymer Systems Pvt.Ltd	Dahej to Dahej	7	Ethylene oxide-7 MT	Dahej	
		Dahej to Dahej	10	Propylene oxide-18.5 MT	Lakhigam	
		Kandla to Dahej	519	Acrylonitrile -20 MT	Vadodara, Limdi, Vasad	
23.	Gail (India) Limited, Gandhar, Po. Rozatankaria, Tal.Amod, Dist.Bharuch, Gujarat, Pin-392140	Gandhar to Mangalia	420	LPG- 18 MT	Amod,Baroda, Dahod, Jhabua, Indore	
		Gandhar to Jalgaon	410	LPG -18 MT	Bardoli, Navapur, Dhule	
		Gandhar to Hazira	130	LPG -18 MT	Kim, Olpad	
		Gandhar to Mumbai	370	Pentane -18 MT	Bharuch, Kim, Chikili, Malwada, Borivali	
		Gandhar to Vadodara	80	Naphtha -22 KL	Amod	
		Gandhar to Dahej	42	Naphtha -22 KL	Paldi, Mular, Aladar, Dahej	
24.	Galaxy Surfactants Ltd. Plot No. 892, Jhagadia Industrial area, Tal:	Reliance Industry Limited, Hazira	129 km	Ethylene Oxide and 7 MT & 14 MT	Palsana, Ankleshwer, Jhagadia	

Sr.	Industry Name & Address	Road no. from- to	length (Km)	Details of Hazardous chemicals Flow with Quantity	Villages / Towns Enroute	Remarks
	Jhagadia, Dist: Bharuch, Gujarat- 393 110	To Galaxy Surfactants Limited, Jhagadia				
25.	GUJRAT NARMADA VALLY FERTILISERS & CHEMICALS LIMITED (GNFC) P.O Narmada Nagar Bharuch-392015, Gujarat	Toluene (Reliance vadodara to Bharuch GNFC)	75	800m3		
		Benzene (Reliance vadodara to Bharuch GNFC)	75	1500m3		
		Chlorine (GACL to Bharuch GNFC)	55	200 tonner		
26.	Grasim Industries Limited Plot No.1. GIDC Vilayat, Tal-Vagra, Dist-Bharuch	Vilayat (Bharuch) to Dahej	50	Carbon disulphide (CS2)	Ankleshwar, Surat, Navsari, Vapi, Palghar, Virar, Kalyan etc.	
		Vilayat (Bharuch) to Thane (Maharashtra)	330	Quantity: 2651 MT Approx. (Ref. dispatch of 2024-25)		
		Vilayat (Bharuch) to Tamil nadu	1693		Ankleshwar, Surat, Dhule, Malegaon, Sanbhajinagar, Solapur, Vijayapura, Bagalkote, Koppal, Chitradurga, Tumakuru, Madavara, Bengaluru, Hosur, Dharmapuri, Vazhapadi, Thammappatti, etc.	
		Vilayat (Bharuch) to Udaipur (Rajasthan)	450	Sulphuric Acid (H2SO4) Quantity: 3624 MT	Karjan, Vadodara, Halol, Godhara, Lunawada, Modasa, Dungarpur, Kherwara, Zawar, Udaipur etc.	
		Vilayat (Bharuch) to Dahej (Bharuch)	50	Approx. (Ref. dispatch of 2024-25)	Bharuch, Dahej	

Sr.	Industry Name & Address	Road no. from- to	length (Km)	Details of Hazardous chemicals Flow with Quantity	Villages / Towns Enroute	Remarks
		Vilayat (Bharuch) to Ankleshwar (Bharuch)	40		Bharuch, Ankleshwar	
		Vilayat (Bharuch) to Indore (MP)	430		Karjan, Vadodara, Halol, Godhara, Limkheda, Dahod, Jhabua, Rajgarh, Dhar, Pithampur, Indore etc.	
27.	Gujarat Chemical Port Limited P.O.- Lakhigam, Via-Dahej, Tal- Vagra, Dist-Bharuch, Gujarat-392130.	GCPL, Dahej to Ahmedabad Gandhar, Hazira, Bhavnagar, Gandhinagar	221 31 137 319 243	LPG (Tanker capacity 18 to 21 MT)	NA	
		GCPL Dahej to Bhopal, Indore, Jabalpur, Prithampur	650 454 957 433			
		GCPL Dahej To Gonda, Varanasi, Unnao, Lakhimpur, Sitarganj, Sultanpur, Gorakhpur, Jhansi, Agra	1466 1446 1163 1393 1357 1497 1670 906 1016			
		to Kota, Ajmer, Bikaner,	647 736 878			

Sr.	Industry Name & Address	Road no. from- to	length (Km)	Details of Hazardous chemicals Flow with Quantity	Villages / Towns Enroute	Remarks
		Pindwara	466			
		GCPL, Dahej to Aurangabad, Nasik, Nagpur, Jalgaon,	472 323 922 461			
		GCPL, Dahej to Patna	1745			
		GCPL Dahej to Silvassa, Hazira, Patalgangra, Sarigam, Daman, Mumbai, Anand, Aurangabad, Bengaluru, Barabanki, Vadodara, Kutch, Chennai, Coimbatore, Hoshiarpur,	162 137 610 153 169 783 154 472 1340 1377 121 565 1674 1596 1377	MEG/Acetic acid (Tanker capacity 20 to 35 KL)	NA	
		GFL-A, Dahej to Ankleshwar	70 km	Liquid Chlorine in Chlorine tonners	Bharuch	
		GFL-A, Dahej to Ankleshwar	70 km	Hydrochloric Acid (31%)	Bharuch	
		GFL-A, Dahej to Mumbai	400 km	Methylene Dichloride Chloroform	Bharuch, Surat, Vapi and Boisar	

Sr.	Industry Name & Address	Road no. from- to	length (Km)	Details of Hazardous chemicals Flow with Quantity	Villages / Towns Enroute	Remarks
		GFL-A, Dahej to Mumbai	400 km	Carbon Tetrachloride (CTC)		
		GFL-A, Dahej to Mumbai	400 km	Hydrogen Gas Anhydrous HF		
28.	Gujarat Guardian Ltd. State Highway – 13, Valia Road, Ankleshwar, Dist. Bharuch, Gujarat – 393001	HPCL, Hazira to Gujarat Guardian Ltd., Ankleshwar	80	LPG	Hazira -> Magdalla -> Surat-Dumas Rd -> Surat City -> NH48 -> Ankleshwar.	
29.	Gujarat Narmada Valley Fertilizers & Chemicals Ltd. (GNFC) Address: GNFC, Narmadanagar, Bharuch – 392015, Gujarat, India.	Toluene (Reliance Vadodara to Bharuch GNFC)	75	800m ³		
		Benzene (Reliance Vadodara to Bharuch GNFC)	75	1500m ³		
		Chlorine (GACL to Bharuch GNFC)	55	200 toner		
30.	Hemani Industries Limited. Plot No: CH/5, GIDC Industrial estate Dahej Tehsil: Vagra, Dist.: Bharuch Gujarat, 392130	Gandhidham to Dahej	500	Bromine (In tanker)- 90 MT	Gandhidham Gujarat,	
		Vilayat to Dahej	54	Chlorine (In Tonnes)- 50 MT	Vilayat Bharuch, Gujarat,	
31.	Hemani Industries Limited. (Unit 2) Plot No. 3207/A & B, 3208/1&2, 3202/A/1, GIDC Industrial Estate, Ankleshwar - 393002, Gujarat	Gandhidham to Ankleshwar	490	Bromine (In tanker) - 400 MT	Gandhidham Gujarat,	
		Vilayat to Ankleshwar	50	Chlorine (In Tonnes) - 200 MT	Vilayat Bharuch, Gujarat,	

Sr.	Industry Name & Address	Road no. from- to	length (Km)	Details of Hazardous chemicals Flow with Quantity	Villages / Towns Enroute	Remarks
32.	Hikal Limited Plot No. 629/630-B GIDC Estate, Post: Panoli.	Akleshwar To Panoli	15 km	Bromine - 10 MT	Ankleshwar	
		Vadodara To Panoli	120 km		Karjan, Bharuch, Ankleshwar	
		Saykha to Panoli	45		Bharuch, Ankleshwar	
		Nanabors ara to Panoli	10		Panoli	
		Kutch To Panoli	621 km		Bhuj, gandhidham, Bhachau, samkhiyari, Limdi, Khambhat, anand, Vado dara, Karjan, palej, Bharuch, Ankleshwar	
33.	Indo Baijin Chemicals Pvt. Ltd. Plot No. Z/7/1, SEZ-1 Area, Dahej SEZ Ltd. Tal - Vagra, Dist. - Bharuch - 392130, Gujarat, India.	Dahej to Dahej	10 Km	Carbon Di-sulphide CS2 25.5 MT/Tanker	Dahej	
		Dahej to Ankleshwar	60 Km		Bharuch, Ankleshwar	
		Dahej to Mumbai	600 Km		Bharuch, Ankleshwar, Surat, Vapi, Valsad	
		Dahej To Andhra Pradesh	1400 Km		Maharashtra, Karnataka, Telangana, Andra Pradesh	
34.	INDORAMA VENTURES OXIDES ANKLESHWAR PVT. LTD. Ankleshwar Pvt. Ltd. Plot No. 321, GIDC Panoli, Ankleshwar, Bharuch.	Dahej to Panoli				
		Hazira to Panoli				
35.	Industrial Solvent & Chemical Pvt Ltd.	Ankleshwar to Mumbai	350	DMA, DMS	Surat, Navsari, Vapi, Mumbai	
36.	Jal aqua international llp,	Jhagadia to panoli	23 km	Chlorine - 103	NH-48 to panoli GIDC	

Sr.	Industry Name & Address	Road no. from- to	length (Km)	Details of Hazardous chemicals Flow with Quantity	Villages / Towns Enroute	Remarks
	Plot no:620 road no.06, GIDC estate panoli, Dist-Bharuch					
37.	Jayshree Aromatics Limited Plot No. 4703,4704,4705/1/2,3&4, GIDC, Ankleshwar, Gujarat-393002	Ankleshwar to Ankleshwar		Hydrogen		
		Vilayat to Ankleshwar		Chlorine		
		Dahej to Ankleshwar				
38.	Jubilant Ingrevia Limited & Jubilant Infrastructure Limited	Kota to vilayat	650 KM	21 MT Ammonia	Kota, Ahmedabad, Vadodara, Bharuch, Vilayat	
		Jhagadia to vilayat	60 Km	15.3 MT Chlorine	Jhagadia, Bharuch, Vilayat	
		Hazira to Vilayat	380 Km	40 MT Acetic Acid	Hazira Port, Dahej, Bharuch, Vilayat	
39.	JUBILANT LIFE SCIENCE LIMITED (UNIT-2)(FORMERLY JUBILANT ORGANOSYS LTD)		650 KM	Ammonia -21 MT	Kota, Ahmedabad, Vadodara, Bharuch, Vilayat	
			60 Km	Chlorine 15.3 MT	Jhagadia, Bharuch, Vilayat	
			380 Km	Acetic acid 40 MT	Hazira Port, Dahej, Bharuch, Vilayat	
40.	Kanoria Chemicals & Industries Ltd. Plot No. 3407, GIDC Industrial Estate Ankleshwar, Dist. Bharuch, Gujarat - 393001	Across to India	Across to India	Ammonia (3500/-P. A) Methanol (65000/-P. A) Formaldehyde (84000/-P. A)		
41.	KLJ PETROPLAST LIMITED	Hazira Port to Jhagadia	95-100	O-Xylene- 25-35 MT	Surat, Kim, Kosamba, Ankleshwar	
		Ahemdna gar ~ Jhagadia	445-452	Ethanol 35-40 KL	Mumbai	
		Mundra (Kachchh)	560-570	Methanol 25-35 MT	Morbi, Rajkot, Ahmedabad, Baroda, Bharuch	

Sr.	Industry Name & Address	Road no. from- to	length (Km)	Details of Hazardous chemicals Flow with Quantity	Villages / Towns Enroute	Remarks
		~ Jhagadia				
		Hazira Port to Jhagadia	95-100	Pentylol 25-35 MT	Surat, Kim, Kosamba, Ankleshwar	
		Hazira Port to Jhagadia	95-100	N-Butanol 25-35 MT	Surat, Kim, Kosamba, Ankleshwar	
		Hazira Port to Jhagadia	95-100	I-Butanol 25-35 MT	Surat, Kim, Kosamba, Ankleshwar	
		Hazira Port to Jhagadia	95-100	Sabutol 25-35 MT	Surat, Kim, Kosamba, Ankleshwar	
42.	KLJ Organic Limited Plot No-759, GIDC Estate, Jhagadia, Ankleshwar Bharuch At&Po: Ta: Dist-	Vilayat to Jhagadiya	44.1 km	Chlorine	Bharuch	
		Dahej to Jhagadiya	69.2 km			
43.	Krishna Antioxidants Pvt Ltd Plot No.: D-3/24/1, GIDC Dahej Phase – III, Village Samatpor, Taluka Vagra Dahej, Dist. Bharuch (Gujarat) – 392130	Dahej to Dahej	18.3 KM	Ethylene Oxide – 14 MT	Jolva, Samatpor	
		Kandla to Dahej	450 KM	Styrene - 20 MT	Gandhidham, Samakhiali, Viramgam, Ahmedabad, Vadodara, Bharuch	
44.	LANXESS India Pvt. Ltd, Plot No. 748/2/A, 748/3 & 748/4/B +748/4/A/1, GIDC Estate, Jhagadia – 393110, Dist. Bharuch.	Kandla Port to Jhagadia	514	Acrylonitrile	Gandhidham, Bhachau, Samakhilai, Mali, Halvad, Dhrangadra, Pipli, Viramgam, Sanand, Nadiad, vasad, Karjan dehgham, Bharuch	
		Baroda To Jhagadia	124	Oleum 65%	Por, Karjan, Bharuch	
		Dahej To Jhagadia	70	Oleum 65%	Dehgham, Bharuch	
45.	Meridian Chem Bond Private Limited	Dahej To Ankleshwar	60 KMS	Chlorine	Dahej, Lakhigam, Suva, Ambheta, Bharuch, Zadeshwar, Ankleshwar	

Sr.	Industry Name & Address	Road no. from- to	length (Km)	Details of Hazardous chemicals Flow with Quantity	Villages / Towns Enroute	Remarks
	Plot No-5906/04 GIDC Ankleshwar	Jhagadia To Ankleshwar	20 KMS		Jhagadia, Rajpardi, ValiaChokdi, Ankleshwar	
46.	Meridian Chem-Bond Private Limited Plot No. 3209, GIDC Estate, Ankleshwar – 393002, Dist. Bharuch, Gujarat	Dahej To Ankl. Bharuch To Ankl Jhagadia To Ankl	60 Kms 25 Kms 20 Kms	Chlorine Acetic Acid Chlorine	Dahej, Lakhigam, Suva, Ambheta, Bharuch, Zadeshwar, Ankleshwar Bharuch, Zadeshwar, Bholav , Ankleshwar Jhagadia, Rajpardi, ValiaChokdi, Ankleshwar	
47.	Minol Acids and Chemicals Pvt. Ltd. Plot No. 5904/1, Nr. Kanoria Chemicals, G.I.D.C., Ankleshwar.	Shree Sulphuric Ltd. Ankleshwar to Minol Acid	2 km.	Oleum 65% - 12Mt.	Only GIDC Estate	
48.	New India Acid (Baroda) Pvt. Ltd.	Dahej To Chhatral Dahej To Sanand	200 Km 160 Km	3744 Mt/Year 800 Mt/Year	Bharuch, Vadodara, Ahmedabad Bharuch, Vadodara, Nadiad	
49.	NACL Spec-Chem Limited Plot No. D-2/11/B/3/2, Dahej-II, Tal. Vagra, PIN-392 130, Dist. Bharuch, Gujarat, INDIA.	GACL Dahej to NACL Dahej Kutch to Dahej	7.2 KM 530 KM	Chlorine Bromine	Jolva,vadala Mahesana,Ahmedabad, Vadodara,Amod,Jolva, Dahej	
50.	Omkar Chemical Industries Pvt Ltd Plot No.406, GIDC. Estate , Panoli-394116,Ankleshwa, Dist. Bharuch.	Omkar To Ankleshwar Beil	Omkar To Ankleshwar Beil	Hazardous Waste Water As Per Manifest Quantity	Ankleshwar GIDC road	
51.	ONGC Petro additions Limited Plot #Z-1 & Z-83 C/o, Dahej SEZ Ltd., P.O Dahej, Taluka Vagra, District Bharuch, Gujarat – 392130, India	OPAL Dahej to IMC Pipavav(Existing Deliveries)	450 KMS approx	1,3 Butadiene (Quantity : 21 MT per Truck Tanker bullet type; Monthly	OPAl Dahej (Bharuch)-> Muler -> Amod -> Vasad via NE4(Anand) - > Borsad -> Tarapur Chowkdi-> Vataman Chowkdi (Ahmedabad District) ->Pipali -> Dholera -> Nari	

Sr.	Industry Name & Address	Road no. from- to	length (Km)	Details of Hazardous chemicals Flow with Quantity	Villages / Towns Enroute	Remarks
				Transport up to 9000 MT approx.)	Chowkdi (Bhavnagar) -> Bhudel -> Talaja -> Mahuva bypass -> IMC Pipavav Port (Rajula, Amreli)	
52.	Organic Industries Pvt. Ltd S/163. GIDC, Dahej, Vagra, Bharuch	Dahej	3 KM	Chlorine - 16000	Dahej	
53.	Panoli Products Pvt. Ltd.	IGCL	160	HCL 25 TO 30 Mt	Kamrej –Nvs.-Vapi.	
		Rahul Intermediate	3	HCL 20 TO 25 Mt	GIDC, Panoli.	
54.	Panorama Aromatics Ltd. Plot No. 2908-2911, Phase-Iii, Gidc Panoli-394116, Tal.-Ankleshwar, Dist.-Bharuch	Jaghadiya To Panoli	35 Km	Liq. Chlorine	Ankleshwar	
		Vilayat To Panoli	65 Km		Bharuch	
55.	PAYAL POLYPLAST PVT.LTD Plot No. D-2/Ch-II, Dahej GIDC , Tal-Vagra, Dist-Bharuch	Dahej to Dahej	10 to 15 Km	Chlorine (In tonnes)		
56.	Petronet LNG Limited. Dahej Terminal	PLL to PAN India	Varies	Tanker owner have dedicated emergency plan include route covered.	Liquefied Natural Gas (LNG) is loaded into customer LNG tankers with tanker capacity varies up to 20 MT and is transported by tanker owners to customers across PAN India.	
57.	Phthalo Science at Plot No. DP-112, GIDC Sayakha, Ta.: Vagra, Bharuch, Gujarat – 392165, India	Aluminium Chloride Cupric Chloride C.P.C. Caustic Soda	With in area	As per required	From near by area	

Sr.	Industry Name & Address	Road no. from- to	length (Km)	Details of Hazardous chemicals Flow with Quantity	Villages / Towns Enroute	Remarks
58.	PI Industries Ltd 237, GIDC Estate Panoli 394 116 Dist. Bharuch, Gujarat	Dahej to Panoli	80 KM	Chlorine	Bharuch & Ankleshwar	
		Nandesari GIDC to Panoli	160 KM	Formaldehyde	Vadodara, Bharuch & Ankleshwar	
		Bhuj to panoli	550 KM	Bromine	Gandhidham, Ahmedabad, Vadodara, Bharuch & Ankleshwar	
		Manufactured at PI Industries Ltd	4 KL	Ethion	Panoli GIDC	
59.	PI Industries Ltd. SPM-29/2, Sterling SEZ, At – Sarod, Ta – Jambusar, Dist. – Bharuch	Khed to Jambusar	613	Isobutylene	Panvel, Vapi, Surat, Bharuch	
		Dahej to Jambusar	58	Chlorine	Amod	
		Dahej to Jambusar	58	Liquified Natural Gas (LNG)	Amod	
60.	Piramal Pharma Limited Plot No. D-2/11/A1, GIDC Industrial Estate, Phase-II, Vil: Dahej, Ta: Vagra 392130, Bharuch, Gujrat, India	Dahej to Surat	108KM	Hydrofluoric Acid	Surat, Ankleshwar	
		Dahej to Tamil nadu	Approximately 1500 Km			
61.	Privi Speciality Chemicals Limited, Plot No. 765, Road No.2, GIDC Jhagadia – 393 110 Dist. Bharuch	Taiwan to Jhagadia	5000	Name of Chemical: Propylene Oxide Transportation: Tanker Quantity Transport: 17 to 20 MT	Mumbai, Surat, Vapi	
		Tamil Nadu to Jhagadia	1450	Name of Chemical: Propylene Oxide Transportation: Tanker	Mumbai, Surat, Vapi	

Sr.	Industry Name & Address	Road no. from- to	length (Km)	Details of Hazardous chemicals Flow with Quantity	Villages / Towns Enroute	Remarks
				Quantity Transport: 17 to 20 MT		
62.	Reliance Industries Ltd. Dahej Manufacturing Division Dahej, Bharuch	Gujarat and Maharashtra State	—	CS Lye	Gujarat and Maharashtra State	
		Gujarat, Maharashtra & UP State	—	Ethylene Oxide	Gujarat, Maharashtra & UP State	
		Gujarat and Maharashtra State	—	HCL	Gujarat and Maharashtra State	
		Gujarat, Maharashtra & Punjab	—	Mix Oil	Gujarat, Maharashtra & Punjab	
		Gujarat State	—	C4 MIX	Gujarat State	
		Gujarat State	—	RARFS	Gujarat State	
63.	Styrenix Performance Materials Limited, 4-G.I.D.C Dahej, Tal: Vagra Dist: Bharuch	Dahej (GCPL) to Dahej (Styrenix), Hazira to Dahej (Styrenix),	5 Km 125 Km	Styrene- 35 MT Styrene- 35 MT	No Kim, Kosamba, Ankleshwar, Bharuch	
		NHAVA Seva Mumbai to Dahej (Styrenix),	~ 420 Km	Ethyl Benzene- 20 MT	Navsari, Vapi, Ankleshwar, Bharuch	
64.	Savla Chemicals Ltd. Plot No: 26-A, GIDC, Industrial Estate, Panoli-394116, Ankleshwar, Dist- Bharuch, Gujarat.	Panoli to Sachin	69 km	Isobutylene (7.0 mt)	Kamraj , Palsana	
		Panoli to Jambusar	87 km	Isobutylene (6.5 mt)	Bharuch, Amod	
		Panoli to Saykha	48 km	Isobutylene (6.5 mt)	Bharuch	
65.	Schott Glass India Pvt. Ltd	Dahej to Ankhi	90 Km	LNG	Padra	

Sr.	Industry Name & Address	Road no. from- to	length (Km)	Details of Hazardous chemicals Flow with Quantity	Villages / Towns Enroute	Remarks
	Block No. 1351/1, 1352/2 Vill: Ankhi, Tal: Jambusar Dist : Bharuch	Aurangabad to ankhi	492 km	Oxygen	Dhule, Bardoli, Jambusar	
		Bhiwandi to Ankhi	385 Km	Arsenic Trioxide	Anjurphata, Vasai, Vapi, Surat, Ankleshwar, Bharuch, Ankhi	
66.	Shiva Pharma chem Limited Dahej	Ahmedabad To Dahej	217	Hexane – 16	Vadodara, Jambusar	
		Ankleshwar to Dahej	57	Hydrogen cylinder – 32 CYL (224 M3)	Bharuch	
		Ankleshwar to Dahej	57	Methanol – 7	Bharuch	
		Dahej to Dahej	7	Propylene – 11.4	Dahej	
		Luna to Dahej	90	Sulphur Dioxide – 7.2	Dahej	
		Vadodara to Dahej	116	Sulphuric Acid – 27.2	Jambusar	
		Inhouse	-	Thionyl Chloride -96	-	
		Ankleshwar to Dahej	57	Toluene – 23.2	Bharuch	
		Inhouse	-	Thionyl Chloride -96	-	
		Ankleshwar to Dahej	57	Toluene – 23.2	Bharuch	
67.	Shivam Incorporation Plot No 521, L-1801, L-1802 & 665, GIDC Estate, Panoli, Dist.: Bharuch, Taluka: Ankleshwar, Gujarat-394116	Dahej to Panoli	30km	Chlorine – 15.300 MT	Bharuch, Ankleshwar	
68.	Shyam Chemicals Pvt.ltd 6004, GIDC Ankleshwar	Jhagadia to ankleshwar	25 Km	Chlorine		
69.	Solvay Specialities India Pvt Ltd, Panoli Plot No: 3526-27, G.I.D.C., Panoli,	Jhagadia to panoli	34.4	8. 2 MT	Ankleshwar	

Sr.	Industry Name & Address	Road no. from- to	length (Km)	Details of Hazardous chemicals Flow with Quantity	Villages / Towns Enroute	Remarks
	District: Bharuch, Gujarat (394116)					
70.	SRF Limited D-2/1, GIDC Phase II, PCPIR, Dahej ,District Bharuch, Gujarat - 392 130.	i. Mehसा na to Dahej ii. Nagda to Dahej iii. Vadod ara to Dahej iv. Vilayat to Dahej Dahej to Dahej	300 451 100 70 20	Chlorine - 24 Tonners max (of 900Kg) in a truck	Ahmedabad, Vadodara, Anand, Nadiad, Bharuch Kota, Nagda, Halol, Kalol, Dahod, Godhara, Vadodara, Bharuch Vadodara , Padra , Jambusar , Dahej Vilayat to Dahej Dahej to Dahej	
		Kudlur (Andhra Pradesh) to Dahej.	1100 Kms	Anhydrous Hydrofluoric Acid (of 900Kg tonner) – 24 tonners max in a truck	Kurnool, Hyderabad , Solapur , Pune , Mumbai , Surat , Bharuch , Dahej	
		Hazira to Dahej Gandhidam to Dahej	150 520	Ethylene dichloride - 35 KL max in a tanker	Hazira, Surat , Kosamba , Hansot , Bharuch , Luwara , Dahej Gandhidham , Bhachau , Ahmedabad , Nadiad , Vadodara , Bharuch , Dahej	
		Dahej to Dahej	10	Carbon disulphide – 18 MT in a tanker	Dahej	
		Kutch to Dahej Ahmedabad to Dahej Nhava sheva to Dahej	550 240 380	Bromine - 17 MT max in a tanker	Kutchh, Bhachau , Ahmedabad , Nadiad , Vadodara , Bharuch , Dahej. Ahmedabad, Nadiad , Anand , Vadodara , Bharuch , Dahej Nhava Sheva, Panvel, Vapi , Valsad , Surat , Kosamba, Bharuch , Dahej	

Sr.	Industry Name & Address	Road no. from- to	length (Km)	Details of Hazardous chemicals Flow with Quantity	Villages / Towns Enroute	Remarks
		Jamnagar to Dahej	500	HSD - 25 KL max in a tanker	Jamnagar, Rajkot, Surendranagar, Ahmedabad, Nadiad, Vadodara, Bharuch, Dahej	
		Hazira to Dahej	150	Methanol - 35 KL max in tanker	Surat Hazira, Surat, Kosamba, Hansot, Bharuch, Luwara, Dahej	
		Sachin GIDC to Dahej	125	Ethanol - 35 KL max in tanker	Sachin GIDC (Surat), Kosamba, Hansot, Bharuch, Luwara, Dahej	
		Ankleshwar to Dahej Ahmedabad to Dahej	60 240	Acetone - 35 KL max in tanker	Ankleshwar, Bharuch, Luwara, Dahej Ahmedabad, Nadiad, Anand, Vadodara, Bharuch, Dahej	
		Gandhidham to Dahej Ahmedabad to Dahej	520	Toluene - 35 KL max in tanker	Gandhidham, Bhachau, Ahmedabad, Nadiad, Vadodara, Bharuch, Dahej Ahmedabad, Nadiad, Anand, Vadodara, Bharuch, Dahej	
		Gandhidham to Dahej	520	Hexane - 35 KL max in a tanker	Gandhidham, Bhachau, Ahmedabad, Nadiad, Vadodara, Bharuch, Dahej	
		Nhava sheva to Dahej	380	Heptane - 35 KL max in a tanker	Nhava Sheva, Panvel, Vapi, Valsad, Surat, Kosamba, Bharuch, Dahej	
		Gandhidham to Dahej	520	Xylene - 35 KL max in a tanker	Gandhidham, Bhachau, Ahmedabad, Nadiad, Vadodara, Bharuch, Dahej	
		Dahej	65			
		Vilayat	35			
71.	Sukha chemicals Industries Unit -II	Jhagadia	40			
		Dahej	65			

Sr.	Industry Name & Address	Road no. from- to	length (Km)	Details of Hazardous chemicals Flow with Quantity	Villages / Towns Enroute	Remarks
	2925, Village/Town - Panoli, City- Ankleshwar, District- Bharuch, State -Gujarat- 394116	Vilayat	35			
72.	Superform Chemistries Limited (Unit – 92) Plot No- D 3 / 6 GIDC III , Kadodara Ta- Vagara, Dist. Bharuch (Gujarat)- 392110	Dahej to Ankleshwar	60	Ammonium Sulphate	-	
		Dahej to Dahej	15	Sodium Cyanide (30 %)	Bharuch	
		Dahej to Jhagadia	80	HCl (30 %)	Bharuch	
73.	Superform Chemistries Limited. Plot No.746/750, GIDC, Jhagadia, Dist- Bharuch, 393110, Gujarat, India	Jhagadia – Dahej	70	Chlorine - 23 MT		
		Dahej – Jhagadia	70	Carbon disulphide – 26 MT		
		Jhagadia – Gujarat/ Mumbai/ Vishakapatnam	353 / 1616	Carbon disulphide – 26 MT		
		Hazira / Kandla – Jhagadia	104/ 514	Acrylonitrile – 20 MT		
		Jhagadia – Jhagadia	1	Hydrogen – 4 MT		
		Dahej – Jhagadia	70	Propylene – 16.5 MT		
		Mumbai – Jhagadia	353	Acetone – 10.3 MT		
		Kandla – Jhagadia	514	Acetonitrile – 20 MT		
		Jhagadia – Mumbai Port	353	Acrolein – 18 MT		
		Dahej – Jhagadia	70	Aniline – 27.3 MT		
		Dahej – Jhagadia	70	Chloroacetal Chloride – 26.4 MT		

Sr.	Industry Name & Address	Road no. from- to	length (Km)	Details of Hazardous chemicals Flow with Quantity	Villages / Towns Enroute	Remarks
		Maharashtra/Gujarat – Jaghadia	477	Ethanol – 31.5 MT		
		Kandla/Hazira – Jaghadia	514/104	Methanol – 32 MT		
		Dahej – Jaghadia	70	Methyl Chloride – 17.5 MT		
		Bharuch/Dahej – Jaghadia	27	Nitric Acid – 30 MT		
		Dahej/Kandla – Jaghadia	70/514	Phenol – 26 MT		
		Hazira/Nava Sheva – Jaghadia	104/381	Phosphorous – 27 MT		
		Jaghadia – Mumbai / Panoli	353/35	Phosphorous Oxychloride – 20 MT		
		Jaghadia – Solapur / Vishakhapatnam / Mumbai/ Ankleshwar	723/1616/353/17	Phosphorous Trichloride – 25 MT		
		Dahej – Jaghadia	70	Sodium Cyanide – 12.6 MT		
		Kandla/Hazira – Jaghadia	514/104	Toluene – 23 MT		
		Ankleshwar/Dahej – Jaghadia	17/70	Sulphuric Acid – 47 MT		
		Vilayat/Jaghadia – Jaghadia	47	Hydrochloric Acid – 24 MT		
		Jaghadia – Dahej	70	NaOH – 40 MT		

Sr.	Industry Name & Address	Road no. from- to	length (Km)	Details of Hazardous chemicals Flow with Quantity	Villages / Towns Enroute	Remarks
74.	Sterling Auxiliaries Pvt.Ltd, Dahej, Taluka –Vagra, Dist-Bharuch	Dahej – Dahej	5	Propylene Oxide - 16 Mt	Bharuch, Vagra	
		Dahej – Dahej	5	Propylene Oxide - 16 Mt	Bharuch, Vagra	
		Surat – Dahej	120	Acrylonitrile - 8 Mt	Ankleshwar, Bharuch	
		Kachchh - Dahej	600	Methyl Methacrylate - 20 Mt	Ahmedabad, Vadodara	
		Jamnagar - Dahej	500	Methyl Methacrylate - 20 Mt	Ahmedabad, Vadodara	
		Bharuch - Dahej	10	Mma Anhydrous / Monomethyl amine 100% - 13.5 Mt	Bharuch, Vagra	
		Bharuch - Dahej	40	Mma Anhydrous / Monomethyl amine 100% - 13.5 Mt	Bharuch, Vagra	
		Surat – Dahej	120	Styrene Monomer - 16.5 Mt	Ankleshwar, Bharuch	
		Ahmedabad - Dahej	220	Styrene Monomer - 16.5 Mt	Vadodara, Bharuch	
		Bharuch - Dahej	15	Phosphorous Trichloride (PCl ₃) - 1 Mt	Bharuch, Vagra	
		Valsad – Dahej	175	Phosphorous Trichloride (PCl ₃) - 1 Mt	Navsari, Surat, Bharuch	
		Valsad – Dahej	180	Formaldehyde -18 Mt	Navsari, Surat, Bharuch	

Sr.	Industry Name & Address	Road no. from- to	length (Km)	Details of Hazardous chemicals Flow with Quantity	Villages / Towns Enroute	Remarks
		Vadodara - Dahej	120	Formaldehyde -18 Mt	Palej, Bharuch	
		Dahej - Kochi	1600	Methyl Ethanol Amine - 30 Mt	Kolhapur, Manglore	
		Dahej - Bangalore	1300	Methyl Ethanol Amine - 3 Mt	Pune , Hubali	
		Dahej - Keshwana	570	Methyl Ethanol Amine - 3 Mt	Ahmedabad, Abu	
		Dahej - Howrah	2000	Methyl Ethanol Amine - 4 Mt	Nagpur , Raipur	
		Dahej - Vishakapatnam	1700	Methyl Ethanol Amine - 30 Mt	Shambhajinagar, Vijaywada	
		Dahej - Bathinda	1300	Methyl Ethanol Amine - 30 Mt	Ahmedabad, Jodhpur	
		Dahej - Barauni	1800	Methyl Ethanol Amine - 25 Mt	Kota, Varanasi	
		Dahej - Haldia	2100	Methyl Ethanol Amine - 25 Mt	Nagpur, Raipur	
		Dahej - Panipat	1150	Methyl Ethanol Amine - 30 Mt	Godhra, Alwar	
		Dahej - Manglore	1200	Methyl Ethanol	Pune , Hubali	

Sr.	Industry Name & Address	Road no. from- to	length (Km)	Details of Hazardous chemicals Flow with Quantity	Villages / Towns Enroute	Remarks
				Amine - 25 Mt		
		Dahej - Mumbai	350	Methyl Di Ethanol Amine - 12 Mt	Surat, Vapi	
		Dahej - Banglore	1300	Phenoxy Ethanol - 0.5 Mt	Pune , Hubali	
		Dahej - Navi Mumbai	370	Phenoxy Ethanol - 5 Mt	Surat, Vapi	
		Dahej - Tarapur	250	Phenoxy Ethanol - 0.5 Mt	Surat, Vapi	
		Dahej - Dahej	5	Propylene Oxide - 16 Mt	Bharuch, Vagra	
		Dahej - Dahej	5	Propylene Oxide - 16 Mt	Bharuch, Vagra	
		Surat - Dahej	120	Acrylonitrile - 8 Mt	Ankleshwar, Bharuch	
		Kachchh - Dahej	600	Methyl Methacrylate - 20 Mt	Ahmedabad, Vadodara	
		Jamnagar - Dahej	500	Methyl Methacrylate - 20 Mt	Ahmedabad, Vadodara	
		Bharuch - Dahej	10	MMA Anhydrous / Monomethyl amine 100% - 13.5 Mt	Bharuch, Vagra	
75.	Tagros Chemicals India Pvt. Ltd. Plot no.43/1, Amod Road, GIDC Dahej-	GACL, Dahej to Tagros Dahej	3	Chorine Tonner	Dahej	

Sr.	Industry Name & Address	Road no. from- to	length (Km)	Details of Hazardous chemicals Flow with Quantity	Villages / Towns Enroute	Remarks
	1, Tal: Vagra, Dist: Bharuch-392130					
76.	TAGROS CHEMICALS INDIA PVT.LTD PLOT NO.2901 TO 2906 & 2806 G.I.D.C. PANOLI	Dahej to Panoli	70 KM	Chlorine – 08 Tonner – 7.2MT (Each 900Kg)	Dahej, Bharuch, Ankleshwar, Panoli	
77.	Unitop Chemicals Pvt Ltd. D2/CH-342,343, GIDC Phase II, Vill. Jolwa, Dahej, Bharuch	Dahej to Jolwa	12	Ethylene Oxide - 14 KL & 7.5 KL Tanker	Dahej to Jolwa	
		Hazira to Jolwa	140	Methanol - 16 KL Tanker	Surat to Bharuch to Jolwa	
78.	Vital Chemtech Limited Plot No. D3/151 & 158, GIDC, Dahej III, Ta-Vagra, Dist.-Bharuch, Pin-392130	Epigral Limited, Dahej	10 KM	Chlorine	Vadadla	
79.	Viswaat Chemicals Limited, D-3/10, Dahej Phase III, GIDC, Dahej, Taluka – Vagra, Dist. – Bharuch, Gujarat – 392130	RIL- Hazira to Viswaat - Dahej	90 KM	Ethylene Oxide with 7 Ton & 14 Ton tankers	Surat, Bharuch	
		RIL- Dahej to Viswaat - Dahej	10 KM	Ethylene Oxide with 7 Ton & 14 Ton tankers	Dahej	
80.	Yashashvi Rasayan Pvt. Ltd Plot No. Z/96/E, SEZ-II, Dahej Industrial Estate, Village Luvara, Taluka Vagra, District Bharuch, Gujarat, 392130.	Ankleshwar To Dahej	65	10800KG	Ankleshwar – Bharuch- Dahej	
		Khambhat To Dahej	174	15300KG	Khambhat-Baroda- Bharuch- Dahej	

Table 12 Information on Hazmat transportation by rail

Sr.	Name of MAH unit	Stretch From –to	Length	Details of Hazardous Chemicals Flow with Quantity	Stations enroute	Remarks
1.	Covestro (India) Pvt. Ltd.	Nav seva port to Ankleshwar	370	Toluene Diisocyanate 25T net in ISO Tainer	Panvel, Vapi, Surat	

Sr.	Name of MAH unit	Stretch From -to	Length	Details of Hazardous Chemicals Flow with Quantity	Stations enroute	Remarks
	3501-15, 6301-13 & 16 mtr road/B2, GIDC Industrial Estate, Ankleshwar – 393002					
2.	Gujarat Narmada Valley Fertilizers & Chemicals Ltd. (GNFC) Address: GNFC, Narmadanagar, Bharuch – 392015, Gujarat, India	HVFO Oil (Mathura IOC to Bharuch GNFC)	964 KM	2650 mT by rail (32000 KL in plant storage)	— —	

Table 13 Information on Hazmat transportation by Water

Sr.	Name of MAH unit	Stretch From -to	Length	Details of Hazardous Chemicals flow with Quantity	Coastal Areas Enroute	Remarks
1.	Covestro (India) Pvt. Ltd. 3501-15, 6301-13 & 16 mtr road/B2, GIDC Industrial Estate, Ankleshwar – 393 002	Shanghai Port, China to Neva-Seva Port	6400	Toluene Diisocyanate 25T net in ISOTainer	Not defined, mostly comes directly to Nava-Seva Port	
		Leverkusen, Germany to Neva-Seva Port	13500	Toluene Diisocyanate 25T net in ISOTainer	Egypt, Singapore, Colombo, Oman	
		Dormagen, Germany to Neva-Seva Port	13500	Toluene Diisocyanate 25T net in ISOTainer	Egypt, Singapore, Colombo, Oman	
		Baytown, USA to Neva-Seva Port	22200	Toluene Diisocyanate 25T net in ISOTainer	Malesiya, Bhusan, Singapore, Shanghai, Oman	
2.	Gujarat Chemical Port Limited P.O.- Lakhigam, Via- Dahej, Tal-Vagra, Dist-Bharuch, Gujarat-392130.	Sikka (India) – Dahej (India)	360 NM	Px, Meg, Naphtha (Approx. 2.65 LMT/Month)	Sikka (India) – Dahej (India)	
		Houston (USA) - Dahej (India)	12428 NM	Ethane (Approx. 0.92 LMT/Month)	Houston (USA) - Dahej (India)	
		Ruwais (UAE) - Dahej (India)	1294 NM	Propane & Butane (Approx. 1.00 LMT/Month)	Ruwais (UAE) - Dahej (India)	
		Singapore - Dahej (India)	2635 NM	PO (Approx. 2000 MT/Month)	Singapore - Dahej (India)	
		Mumbai (India) - Dahej (India)	216 NM	Naphtha (Approx. 33000 MT/Month)	Mumbai (India) - Dahej (India)	

Sr.	Name of MAH unit	Stretch From -to	Length	Details of Hazardous Chemicals flow with Quantity	Coastal Areas Enroute	Remarks
		Qinzhou (China) - Dahej (India)	4018 NM	Acetic Acid (Approx. 6000 MT/Month)	Qinzhou (China) - Dahej (India)	
		Al Jubail (Saudi Arabia) - Dahej (India)	1394 NM	Styrene (Approx. 4000 MT/Month)	Al Jubail (Saudi Arabia) - Dahej (India)	
3.	Petronet LNG Limited. Dahej Terminal	LNG transported to Ship with long term contract from Qatar and spot cargo around the world	Qatar to PLL (Approx. 2735 Kms) and varies as per load port	Liquefied Natural Gas (LNG) with ship size varies from 65,000 M3 to 2,66,000 M3	Dahej Port, Shell Hazira Port	
4.	Privi Speciality Chemicals Limited, Plot No. 765, Road No.2, GIDC Jhagadia - 393 110 Dist. Bharuch	Taiwan to Jhagadia	5000	Propylene Oxide 17 to 20 MT	Mumbai, Surat, Vapi	
5.	Superform Chemistries Limited. Plot No. 746/750, GIDC, Jhagadia, Dist- Bharuch, 393110, Gujarat, India	Kazakhstan – Mumbai		Phosphorous – 27 MT		
		Mumbai - France/USA		Acrolein – 18 MT		
		China – Mumbai		Aniline – 27.3 MT		
		Mumbai - Indonesia/USA		Phosphorous Oxychloride – 20 MT		
		Mumbai - Brazil/ South Korea /USA		Phosphorous Trichloride – 25 MT		
		Qinzhou (China) - Dahej (India)	4018 NM	Acetic Acid (Approx. 6000 MT/Month)	Qinzhou (China) - Dahej (India)	
		Al Jubail (Saudi Arabia) - Dahej (India)	1394 NM	Styrene (Approx. 4000 MT/Month)	Al Jubail (Saudi Arabia) - Dahej (India)	
6.	Reliance Industries Ltd. Dahej Manufacturing	Dahej to Hazira & during monsoon up to Mumbai	Hazira 64 KM / Mumbai 286 KM	Ethylene (Approx. 1000 MT parcel size)	Through Sea Route	

Sr.	Name of MAH unit	Stretch From -to	Length	Details of Hazardous Chemicals flow with Quantity	Coastal Areas Enroute	Remarks
	Division Dahej, Bharuch	—	—	Propylene (Approx. 600 to 1000 MT parcel size)	Through Sea Route	—
		—	—	VCM (Approx. 600 to 1000 MT parcel size)	Through Sea Route	—
7.	Sterling Auxiliaries Pvt.Ltd, Dahej, Taluka –Vagra, Dist-Bharuch	Dahej Gujarat, India - Egypt	5,700 Km	Cpdp 420/450/500 - 14 Mt	(Nhava Sheva/India) To (Alexandria)	
		Dahej Gujarat, India - Cameroon	8,900 Km	Cpdp 420/450/500 - 15.3 Mt	(Nhava Sheva/India) To (Douala)	
		Dahej Gujarat, India-Thailand	3,100 Km	Cpdp 420/450/500 - 14 Mt	(Nhava Sheva/India) To (Leam Cha Bang)	
		Dahej Gujarat, India-Saudi Arabia	2,000 Km	Methyl Di Ethanol Amine - 18.9 Mt	(Hazira/India) To (Daman)	
		Dahej Gujarat, India-Kuwait	2,400 Km	Methyl Di Ethanol Amine - 16.8 Mt	(Hazira/India) To (Kuwait)	
		Dahej Gujarat, India - Qatar	2,100 Km	Methyl Di Ethanol Amine - 18.9 Mt	(Hazira/India) To (Qatar)	
		Dahej Gujarat, India - Korea	10,500 Km	Methyl Di Ethanol Amine - 20 Mt	(Nhava Sheva/India) To (Busan)	
		Dahej Gujarat, India - Saudi Arabia	2,000 Km	Methyl Di Ethanol Amine - 18.9 Mt	(Nhava Sheva/India) To (Dammam)	
		Dahej Gujarat, India - Russia	6,800 Km	Methyl Di Ethanol Amine - 18.9 Mt	(Nhava Sheva/India) To (Novorossiysk)	
		Dahej Gujarat, India - Japan	9,600 Km	Methyl Di Ethanol Amine - 16.7 Mt	(Nhava Sheva/India) To (Osaka)	
		Dahej Gujarat, India - Malasiya	~3,300 Km	Methyl Di Ethanol Amine - 20 Mt	(Nhava Sheva/India) To (Port Klang)	
		Dahej Gujarat, India - Singapore	3,600 Km	Methyl Di Ethanol Amine - 20 Mt	(Nhava Sheva/India)To (Singapore)	
		Dahej Gujarat, India - Spain	6,500 Km	Phenoxy Ethanol - 24 Mt	(Hazira/India) To (Barcelona)	

Sr.	Name of MAH unit	Stretch From -to	Length	Details of Hazardous Chemicals flow with Quantity	Coastal Areas Enroute	Remarks
		Dahej Gujarat, India - Italy	6,300 Km	Phenoxy Ethanol - 22 Mt	(Hazira/India) To (Genova)	
		Dahej Gujarat, India - Brasil	13,800 Km	Phenoxy Ethanol - 19.8 Mt	(Hazira/India) To (Paranagua)	

Table 14 Information on Hazmat transportation by pipeline

Sr.	Pipeline Stretch From-to	Company Name with Address and Phone:- Number	Length	Details of Hazmat Flow with Quantity	Villages / Towns / Vulnerable Points Enroute	Remarks
1.	Indobaijin, Dahej to Indofil Unit-1, Dahej	M/s. Indofil Industries Limited (Unit-1) Plot No. Z-8, SEZ-1, GIDC, Dahej, Tal. – Vagra, Dist: Bharuch, Gujarat - 392130, India.	130 mtr	Carbon Di-Sulphide-100 MT (Flow-13000 Kg/Hr)	NA	
2.	GFL-A Dahej to NOCIL	Gujarat Fluorochemicals Limited, 12/A GIDC Dahej Industrial Estate, Taluka Vagra, District Bharuch 392130, Gujarat	1 km	Hydrogen	Neighbouring Industry	
	GFL-A Dahej to Deeepka Phenolics Limited Dahej		1 km	Hydrogen	Neighbouring Industry	
	GFL-A Dahej to Deeepka Nitrite Limited Dahej		1 km	Hydrogen	Neighbouring Industry	
3	Chlorine	Superform Chemistries Limited. Plot No. 746/750, GIDC, Jhagadia, Dist-Bharuch, 393110, Gujarat, India	1 Km	35 MT	Jaghadia-GIDC	
	Hydrogen		1 Km	25000 NM3/Day	Jaghadia - GIDC	
4.	GCPL to RIL DMD, Dahej	Gujarat Chemical Port Limited P.O.- Lakhigam, Via- Dahej, Tal-Vagra, Dist-Bharuch, Gujarat- 392130.	9 Km	Ethane (2626 x 2 = 5252 KL)	Lakhigam	
	GCPL to RIL DMD, Dahej		4 Km	PX (291 KL)	Lakhigam	
	GCPL to RIL DMD, Dahej		6 Km	MEG (194 KL)	Lakhigam	
	GCPL to RIL DMD, Dahej		6 Km	Naphtha (304 KL)	Lakhigam	
	GCPL to RIL DMD, Dahej		4 Km	Propane (129 KL)	Lakhigam	

Sr.	Pipeline Stretch From-to	Company Name with Address and Phone:- Number	Length	Details of Hazmat Flow with Quantity	Villages / Towns / Vulnerable Points Enroute	Remarks
	GCPL to OPAL, Dahej		12 Km	Propane (389 KL), Naphtha (608 KL)	Lakhigam	
	IOCL, Koyali Vadodara to GCPL, Dahej		140 Km	Naphtha/HSD (13904 KL)	Lakhigam, Jambusar,	
5.	ONGC C2C3 plant, Dahej to OPAL, Dahej	ONGC Petro additions Limited Plot #Z-1 & Z-83 C/o, Dahej SEZ Ltd., P.O Dahej, Taluka Vagra, District Bharuch, Gujarat – 392130, India	8.33	C2(Ethane)	Jogeshwari, Luwara	
	ONGC C2C3 plant, Dahej to OPAL, Dahej		10.2	C3(Propane)	Jogeshwari, Luwara	
	ONGC C2C3 plant, Dahej to OPAL, Dahej		10.2	C4(Butane)	Jogeshwari, Luwara	
	GCPL, Dahej to OPAL, Dahej		10.685	Naphtha	Jogeshwari, Luwara	
	GCPL, Dahej to OPAL, Dahej		11.5	LPG	Jogeshwari, Luwara	
	ONGC, Hazira to OPAL, Dahej		99	Naphtha	Gothan, Sayan, Kim, Kharoch, Matiyad, Kanva, Bhadbut, Kasva, Suva	
6.	Epigral Limited to payal polyplast private limited, shivtek industries, MOL Unit-3	Epigral Limited CH1,CH2,CH/1+2 B GIDC Industrial Estate, Dahej, Tal. Vagra, Bharuch - 392 130 Gujarat, India	--	Chlorine (Hold: 200 Kg)	--	
	Epigral Limited to Meghmani LLP, Aarti Industries		13	Hydrogen (Hold: 1500 NM3)	---	
7.	OPAL to DPL Dahej	M/s Deepak Phenolics Limited, Plot No. 12/B/1 + 12/B/2/2, GIDC Dahej, Village: Ambetha, Taluk: Vagra, District: Bharuch, 392130, Gujarat	2.8 Km	Benzene	It's in GIDC notify area only.	

Sr.	Pipeline Stretch From-to	Company Name with Address and Phone:- Number	Length	Details of Hazmat Flow with Quantity	Villages / Towns / Vulnerable Points Enroute	Remarks
8.	Dahej To Dahej	M/S. Payal Polyplast Pvt. Ltd Plot No. 2, Dahej 2, Bharuch - Dahej Rd, Gujarat 392130		9.5MT/Hrs. ---- 200MT/D (Average)		
9.	GPU Gandhar to IOCL bottling Plant	Gail (India) Limited, Gandhar, Po. - Rozatankaria, Tal .Amod, Dist. Bharuch, Gujarat, Pin-392140	1.4	LPG. Capacity : 45000 MT/Year.	Nil	
10 .	Dahej – RIL to Vadodra RIL	Reliance Industries Ltd. Dahej Manufacturing Division Dahej, Bharuch	105	Naphtha – 116 m³/hr supply rate as per requirement	All the pipelines are underground & pass through several industrial areas and villages	
	Dahej – RIL to Vadodra RIL		105	Propylene – 76 m³/hr supply rate as per requirement		
	Dahej – RIL to Vadodra RIL		105	Ethylene – 10 tph supply rate as per requirement		
	ONGC / GAIL Gandhar to Dahej – RIL		35	Semi Rich Gas – Supply as per requirement		
	Dahej – RIL to ONGC / GAIL Gandhar		35	Semi Rich Gas – Supply as per requirement		
	Dahej – RIL to ONGC / GAIL Hazira		98	Lean Gas – Supply as per requirement		
	RGTIL, Dhamka to HDPL extension (16")		3	Lean Gas – Supply as per requirement		
	HDPL ext. RGTIL, Dhamka (12")		3	Lean Gas – Supply as per requirement		
	DMD to NMD / a spur line to HMD		434 & 55	Liquid Ethane – 12 tph supply rate as per requirement		

Sr.	Pipeline Stretch From-to	Company Name with Address and Phone:- Number	Length	Details of Hazmat Flow with Quantity	Villages / Towns / Vulnerable Points Enroute	Remarks
	GCPL to Dahej – RIL (2 Lines – 24")		9	Liquid Ethane – 12 tph supply rate as per requirement		
	GCPL to Dahej – RIL		4	Paraxylene – Supply as per requirement		
	GCPL to Dahej – RIL		6	MEG – Supply as per requirement		
	GCPL to Dahej – RIL		6	Naphtha – Supply as per requirement		
	GCPL to Dahej – RIL		4	Propane – Supply as per requirement		
	Dahej – RIL to GCPL		5	Caustic – Supply as per requirement		
	Dahej – RIL to RDMT		4	MEG – Supply as per requirement		
	RDMT to Dahej – RIL		5	Caustic – Supply as per requirement		
	RDMT to Dahej – RIL		5	VCM – Supply as per requirement		
	RDMT to Dahej – RIL		4	Naphtha – Supply as per requirement		
	RDMT to Dahej – RIL		5	Propylene – Supply as per requirement		

5. Identification of Emergency Scenarios and Delineation of Vulnerable Zones

5.1 Introduction to Emergency Scenarios and Vulnerable Zones

Emergency Scenarios Major industrial hazards are generally associated with the potential for toxic chemical release, fire or explosion

Events involving release of toxic materials

- Slow or intermittent release of toxic substance from a leaking valve,
- Rapid release for limited duration due to fracture of pipe leading to a toxic cloud which may travel or dissipate,
- Massive release of toxic substance due to failure of large storage or process vessel or uncontrolled chemical reaction.
- Loss of containment for a plant threatened by a fire

Events involving spillage of flammable liquids or loss of containment of flammable gases

- Confined spill
- Unconfined spill

Major fires with no danger of explosion Hazards from high levels of thermal radiation and smoke, for example:

- Pool fire,
- Flash fire,
- Jet fire etc
- Explosion
- Explosion Events

Hazards from blast waves, flying debris, high level of thermal radiation. Serious emergencies that can be envisaged are

- Confined explosions,
- Unconfined vapour cloud explosion,
- BLEVE

Assessment of possible incidents is to be carried out for each MAH installation, in terms of:

- The quantity of hazardous material which could be released
- The rate of release
- Effects of such a release
- Thermal radiation from a fire at different distances
- Blast over-pressures due to an explosion as function of distance from the incident spot
- Toxic effects affecting the vulnerable zone (circle showing concentrations)
- Number of people likely to be affected

Methodology for Calculation of Vulnerable Zones Prescribed by MOEF

The injury criteria or level of concern is used to determine vulnerable zones. The consequence distances for Toxic Release, Fire and Explosion scenario are worked out as per micro-methodology evolved by the MOEF.

Toxic Exposure

The IDLH (immediately dangerous to life and health) concentration value is taken as the criterion for identifying vulnerability zone. Accidents giving rise to toxic clouds from each of the

MAH units in the area need to be considered. The calculations for consequence distances should be done for weather stability class D with wind speed of 3 m/s and also for class F with wind speed of 1 to 2 m/s. The circles with radii equal to the consequence distances should be drawn on maps to indicate vulnerable zones for planning and preparedness purpose. The toxic cloud arrival and departure time should also be indicated on the map for each circle.

Heat Radiation (Pool Fire, Flare, BLEVE)

The heat radiation equal to 10 kW/m produces second-degree burns on unprotected parts of the human body. The heat radiation of 5 kW/m² produces first-degree burns. These intensities of radiation are chosen as the limit value to identify vulnerable zones. The radiation intensity of 10 kW/m is taken as a limit value to identify fatality zone and that of 5 kW/m is taken for the injury zone.

Explosion 2

It is assumed that everyone inside an area in which the peak over-pressure is greater than 0.1 bar will be wounded. This area is and will be represented by a circle drawn around the explosion centre and having radius equal to the (calculated) distance from explosion centre at which peak over-pressure = 0.1 bar is expected.

In the case of a vapour cloud explosion, the explosion centre, which coincides with the cloud centre, will vary depending upon the prevailing weather conditions and the time when it gets source of ignition.

Use of Vulnerability Templates

The Maps showing the location of likely emergencies and corresponding vulnerable zones are to be included in the Plan. The maps are useful for planning and preparing, in advance, for the likely emergencies. The maps are also useful to identify area under threat in an actual emergency. To assess the impact of toxic release, use of computer software along with the real time input of meteorological data would be an ideal method to identify the area under threat. However, it may not be always possible to have such sophisticated facility available at every place. Under such circumstances, transparent “Templates” can be developed and used to assess the effects of spread of the toxic cloud with concentration levels as function of distance from the point of origin. The transparent templates for each scenario which are to be used in the following manner.

Place the transparency on the relevant map with

- The toxic release source on the map and the plume source on the transparency coinciding.
- The X-axis of the plume pointing in the prevailing wind direction.
- Injuries requiring medical attention will extend up to the contours of the transparency superimposed on the area map.

Templates should be developed for the Hazardous Chemicals used, stored or transported in the MAH Units to provide the District Emergency Authority and the Local Crisis Group with a tool for rapid assessment of vulnerable zones.

Templates should be drawn on transparent sheets and indicate the shape and extent of a vulnerable zone. The vulnerable zone in the event of a given toxic release scenario is assessed by using the appropriate template in conjunction with its associated map. The scale of the template needs to be the same as that of the map. It may be noted that the templates will be useful for identifying the vulnerability zone in case of toxic cloud.

Computer Models

MOEF in association with National Informatics Centre (NIC) is in process of evolving computer software model for calculation of vulnerable zone and its projection on digital maps. Wherever available this computerized model may be used for delineation of vulnerable zones.

Use of specific information

The use of specific information regarding wind velocity, temperature etc. at the site during the actual occurrence of emergency can be made

Wherever the computer software model is in use. In its absence the standard calculations of Class D with wind speed of 3 m/s and Class F with wind speed 1 to 2 m/s as prescribed by MOEF shall be used accordingly for delineation of vulnerable zones.

5.2 Emergency Scenarios in MAH Installations

L1: A district level disaster within the capabilities of the district administration to deal with.

L2: A state level disaster within the capabilities of the state government to deal with.

L3: A National level disaster requiring major direct intervention of the Central Government.

Also, the guidelines define fourth category 'L0' as 'No disaster situation. This is a level at which surveillance, preparedness and mitigation activities must be carried out.' Since the off-site plan is a district-level plan, the possible emergencies within a district of higher magnitude (L2,L3) should get identified in the off-site plan.

Table 15 Emergency Scenarios in MAH Installations

Sr.	Mah Unit Name	Hazardous Chemicals Handled	Disaster Scenarios	(L1 / L2 / L3)	Vulnerable Zone Dia. With Distinct Features Such As Schools Etc	Population In Vulnerable Zone
1.	Aarti Industries Limited Plot no. Z/103/C, SEZ-II, Dahej, Tal-Vagra, Dist-Bharuch, Gujrat, 392130	Sulphur Trioxide	25 mm Leak full bore rupture	L3	Vulnerable Zone Diameter - 0.84 km, Luvara Primary school, Primary School Lakhi gam	225
2.	Alkyl Amines Chemical limited Plot No: D2/CH/149/2, GI DC Dahej-2 ,Ta: Vagra, Dist: Bharuch, Gujarat – 392 130	Ammonia	catastrophic rupture (pool fire)	L2	0.2 Km	Near by industry
			catastrophic rupture (Flash Fire)	L2	0.18 Km	Near by industry
			Late ignition (over pressurization)	L2	1.5 Km	Vadala Village, Vav Village, Near By industry
			Catastrophic rupture (instant release)	L2	3.8 km to >10 km	Vadala Village, Vav Village, jolva, Riyadh, Dahej,

Sr.	Mah Unit Name	Hazardous Chemicals Handled	Disaster Scenarios	(L1 / L2 / L3)	Vulnerable Zone Dia. With Distinct Features Such As Schools Etc	Population In Vulnerable Zone
						Near By industry
			Catastrophic rupture (continuous release)	L2	1.1 km to >10 km	Vadala Village, Vav Village, jolva, Riyadh, Dahej, Near By industry
			10mm leakage (Flash Fire)	L2	0.002 Km	With in Industry
			20mm leakage (Flash Fire)	L2	0.004 Km	With in Industry
		Dimethyl Amine	catastrophic rupture (pool fire)	L2	0.5 km	Near by industry
			catastrophic rupture (Flash Fire)	L2	0.4 Km	Near by industry
			Late ignition (over pressurization)	L2	1.9 km	Vadala Village, Vav Village, Near By industry
			10mm leakage (Flash Fire)	L2	0.010 km	With in Industry
			10mm leakage (Jet Fire)	L2	0.014 km	With in Industry
			20mm leakage (Flash Fire)	L2	0.017 km	With in Industry
			20mm leakage (Jet Fire)	L2	0.041 km	With in Industry
			20mm leakage [Late ignition (over pressurization)]	L2	0.180 km	Near by industry
		Trimethyl Amine	catastrophic rupture (pool fire)	L2	0.58 km	Near by industry
			catastrophic rupture (Flash Fire)	L2	0.542 Km	Near by industry
			Late ignition (over pressurization)	L2	2.65 km	Vadala Village, Vav

Sr.	Mah Unit Name	Hazardous Chemicals Handled	Disaster Scenarios	(L1 / L2 / L3)	Vulnerable Zone Dia. With Distinct Features Such As Schools Etc	Population In Vulnerable Zone
						Village, Near By industry
			10mm leakage (Flash Fire)	L2	0.010 km	With in Industry
			10mm leakage (Jet Fire)	L2	0.018 km	With in Industry
			20mm leakage (Jet Fire)	L2	0.046 km	With in Industry
			20mm leakage (Flash Fire)	L2	0.018 km	With in Industry
			20mm leakage [Late ignition (over pressurization)]	L2	0.188 km	Near by industry
		Mono Methyl Amine	catastrophic rupture (Flash Fire)	L2	1.0 Km	Near by industry
			Late ignition (over pressurization)	L2	3.82 km	Vadala Village, Vav Village, jolva Village Near By industry
			10mm leakage (Flash Fire)	L2	0.009 km	With in Industry
			20mm leakage (Jet Fire)	L2	0.031 km	With in Industry
			20mm leakage (Flash Fire)	L2	0.016 km	With in Industry
			20mm leakage [Late ignition (over pressurization)]	L2	0.142 km	Nearby industry
		Methanol	catastrophic rupture (pool fire)	L2	0.51 Km	Nearby industry
			catastrophic rupture (Flash Fire)	L2	0.24 Km	Nearby industry
			Late ignition (over pressurization)	L2	1.67 Km	Vadala Village, Vav Village, Near By industry

Sr.	Mah Unit Name	Hazardous Chemicals Handled	Disaster Scenarios	(L1 / L2 / L3)	Vulnerable Zone Dia. With Distinct Features Such As Schools Etc	Population In Vulnerable Zone
			10mm leakage (Pool Fire)	L2	0.08 Km	With in Industry
			10mm leakage (Flash Fire)	L2	0.005 Km	With in Industry
			20mm leakage (Pool Fire)	L2	0.01 Km	With in Industry
			20mm leakage (Flash Fire)	L2	0.010 Km	With in Industry
		Acetic acid	Catostropic rupture (instant release)	L2	>10 Km	Vadala Village, Vav Village, jolva, Riyadh, Dahej, Near By industry
			Catostropic rupture (continuous release)	L2	5.3 to 10 km	Vadala Village, Vav Village, jolva, Riyadh, Dahej, Near By industry
			5mm leak	L2	0.05 to 0.8 km	Within industry to Near by industry
			10mm leak	L2	0.1 to 1.3 km	Within industry to Near by industry, Vadala Village, vav Village
			Catostropic rupture (instant release)	L2	0.5 to 2.0 km	Vadala Village, Vav Village, Near By industry
			Catostropic rupture (continuous release)	L2	0.1 to 0.6 km	Near by industry

Sr.	Mah Unit Name	Hazardous Chemicals Handled	Disaster Scenarios	(L1 / L2 / L3)	Vulnerable Zone Dia. With Distinct Features Such As Schools Etc	Population In Vulnerable Zone
			5mm leak	L2	0.01- 0.015 km	Within Industry
			10mm leak	L2	0.01 – 0.03 km	Within Industry
3.	M/s. Aarti Industries Limited Plot No: 758/1, 2 & 3, Survey No. 359, 360, 364, 358, 357, 356, 345, 348 GIDC Jhagadia, Dist- Bharuch, Gujarat - 393110	Methanol (Underground)	10mm leak	L2	0.01 – 0.03 km	Within Industry
		Toluene (Underground)	Full Bore Rupture	L2	Vulnerable zone - 104 mtr as per OEP (Vapor Cloud Explosion). No school, town hall, hospital in vulnerable zone	NA
		Benzene (Underground)	Full Bore Rupture	L2	Vulnerable zone - 105 mtr as per OEP (Vapor Cloud Explosion). No school, town hall, hospital in vulnerable zone	NA
4.	Amal Speciality Chemicals Limited. Plot No. 136/137, GIDC Estate, Ankleshwar, Dist.: Bharuch, Gujarat, Pin: 393002	Sulphur trioxide	10 mm leakage from tank	--	Wind Speed: 1 m/s Weather Class : F Threat Zone: Model Run: Heavy Gas Red : 306 meters --- (160 mg/(cu m) = AEGL-3 [60 min]) Orange: 2.0 kilometers --- (8.7 mg/(cu m) = AEGL-2 [60 min]) Yellow: greater than 10 kilometers -- (0.2 mg/(cu m) = AEGL-1 [60 min])	
		Sulphur Dioxide	Catastrophic Rupture of tonner	---	Wind Speed: 3 m/s Weather Class: D THREAT ZONE: Model Run: Heavy Gas Red: 1.3 kilometres - (100 ppm = IDLH) Orange: 5.0 kilometers - (3 ppm = ERPG-2)	

Sr.	Mah Unit Name	Hazardous Chemicals Handled	Disaster Scenarios	(L1 / L2 / L3)	Vulnerable Zone Dia. With Distinct Features Such As Schools Etc	Population In Vulnerable Zone
					Yellow: greater than 10 kilometers - 0.3 ppm = ERPG-1)	
		Sulphur Dioxide	10 mm leakage from tonner/tank	---	Wind Speed: 2 m/s Weather Class : F THREAT ZONE: Model Run: Heavy Gas Red : 452 meters - (100 ppm = IDLH) Orange: 4.3 kilometers - (3 ppm = ERPG-2) Yellow: greater than 10 kilometres - (0.3 ppm = ERPG-1)	
5.	Atul Ltd (Aromatics Business) Plot no 297, 297/1, GIDC estate, Ankleshwar, Dist- Bharuch	Sulphur trioxide	10 mm leakage from tank	L2		< 150 nos (Industrial area for red zone)
		Sulphur Dioxide	Catastrophic Rupture of tonner	L2		Between 500 to 1000 nos (Industrial area & public resident area for red zone)
		Sulphur Dioxide	10 mm leakage from tonner/tank	L2		< 150 nos (Industrial area for red zone)
6.	Birla Cellulosic (A Unit of Grasim Industries Ltd) Birladham, Village – Kharach, Near Kosamba, Tal – Hansot, District – Bharuch.	Cs2	CS2 release from Xanthator Minor Leak	L2	Not Reach as per QRA -NA	NA
			CS2 release from Xanthator Minor Leak	L3	Not Reach as per QRA -NA	NA
			CS2 release from Xanthator Line Rupture	L3	Not Reach as per QRA -NA	NA
			CS2 Primary Condenser Vessel Minor Leak	L2	Not Reach as per QRA -NA	NA

Sr.	Mah Unit Name	Hazardous Chemicals Handled	Disaster Scenarios	(L1 / L2 / L3)	Vulnerable Zone Dia. With Distinct Features Such As Schools Etc	Population In Vulnerable Zone
7.	Borosil Renewables Limited Ankleshwar– Rajpipla Road, Village – Govali, Bharuch, Gujarat	LPG (Liquefied Petroleum Gas)	Fire, Explosion, Gas Leak /BLEVE / Tank Rupture	L3	Within 1 km radius: NIL	NIL
8.	Century ENKA Ltd. (Unit: RajashreePolyfil), Rajashree Nagar, Post: Umalla, Tal: Jhagadia, Dist: Bharuch–393120	LNG	Explosion	L2	NA	NA
9.	Cohizon Life Sciences Limited, Plot No 6102-03, 6117-19, GIDC Ankleshwar – 393002 Gujarat - India	Chlorine 10mm leak	Toxic gas Leak	L1	714.006 m	
		Chlorine 20mm leak		L2	1545.51 m	
		Chlorine	Catastrophic Rupture	L3	4232.39 m (Motali, Jitali, Uchhali & Ankleshwar)	146854
10.	M/s Coromandel International Limited, Dahej Plot No. Z – 103/G, Dahej SEZ – II, Dahej – 392130, Tal. Vagra, Dist – Bharuch, Gujarat (India)	Carbon Disulphide	Leakage of chemical from storage tank, Carbon Disulfide (CS ₂). Leakage of chemical from Vehicle, Carbon Disulfide (CS ₂). Leakage of chemical from Pipeline, Carbon Disulfide (CS ₂).	L1	No	No
11.	M/s Coromandel International Limited, Dahej Plot No. Z – 103/G, Dahej SEZ – II, Dahej – 392130, Tal. Vagra, Dist – Bharuch, Gujarat (India)	Ethylene Diamine	Leakage of chemical from storage tank, Ethylenediamine (EDA). Leakage of chemical from Vehicle, Ethylenediamine (EDA). Leakage of chemical from Pipeline,	L1	No	No

Sr.	Mah Unit Name	Hazardous Chemicals Handled	Disaster Scenarios	(L1 / L2 / L3)	Vulnerable Zone Dia. With Distinct Features Such As Schools Etc	Population In Vulnerable Zone
			Ethylenediamine (EDA).			
12.	Covestro (India) Pvt. Ltd. 3501-15, 6301-13 & 16 mtr road/B2, GIDC Industrial Estate, Ankleshwar – 393 002	Spillage of toxic chemicals		L2	None	None
		Fire		L2	None	None
13.	DCM Shriram Ltd (Unit: Shriram Alkali & Chemicals) Plot no. 749, GIDC, Industrial estate, Jhagadia, Bharuch, Gujarat	Chlorine, Hydrogen, Caustic lye, ECH, H ₂ O ₂	QRA done scenarios	All three	In industrial estate area	In industrial estate area
14.	Deepak Chem Tech Limited Plot No. D-II/ 6/1 & D-II/6/1 ^a , Dahej- II Industrial Estate, Dahej, Village : Rahiyad, Tal: Vagra, Dtist: Bharuch - 392130, Gujarat, India	AHF	Toxic Release from 25 mm & Catastrophic Failure	L1/ L2/ L3	Village : Rahiyad, Primary School	1315
		Chlorine	Toxic Release from 25 mm & Catastrophic Failure			
15.	Deepak Fertilisers and Petrochemical Corporation Limited Address: Plot No. D/II/7/A, Dahej GIDC Area, Village Rahiyad, Taluka Vagra	Liquor Ammonia	Leakage of ammonia	L1, L2, L3	School – 500 Mtr, Village – 1 KM	School – 100 Nos, Village – 1600 Nos
16.	M/s Deepak Phenolics Limited, Plot No. 12/B/1 + 12/B/2/2, GIDC Dahej, Village:	Propylene butane	Leak		Tank farm Part of MAH Unit	
		Benzene tank T3105A/B and Or	Catastrophic Rupture			

Sr.	Mah Unit Name	Hazardous Chemicals Handled	Disaster Scenarios	(L1 / L2 / L3)	Vulnerable Zone Dia. With Distinct Features Such As Schools Etc	Population In Vulnerable Zone
	Ambetha, Taluk: Vagra, District: Bharuch, 392130, Gujarat	Cumene tank T-3104				
		Benzene line from OPAL to storage tank (Above ground section)	Leak		Tank farm Part of MAH unit	
		Propylene feed Guard bed V 0003A/B	FBR (Full Bore Rupture)			
		Alkylatio n reactor R-0001 leak	Leak		Cumene Plant	
		Depropa nizer C-0003	Leak			
		Benzene guard bed V-0008 / Column 0004	Leak			
		Degasse r drum V-2241 leak	Leak			
		Cleavag e reactor R2280	Leak		Phenol Plant	
		R-2224 oxidizer man hole	Runaway			
17.	Dhanveen Pigments Pvt. Ltd Plot No.: 3105/06/07, GIDC Estate, Phase III, Panoli, Dist. – Bharuch, Gujarat, India.	Chlorine Gas Tonner	Gas release	L1	NA	NA

Sr.	Mah Unit Name	Hazardous Chemicals Handled	Disaster Scenarios	(L1 / L2 / L3)	Vulnerable Zone Dia. With Distinct Features Such As Schools Etc	Population In Vulnerable Zone
18.	Dharti Enterprise, D-2 / CH-326, Near ONGC Corridor, Vill. Jolwa, Dahej Ta. Vagra, Dt. Bharuch	Ethylene Oxide - Explosive	Explosion	L3	1 KM.	5000
		Propylene Oxide - Explosive	Fire , Explosion	L3		
19.	Epigral Limited CH1,CH2,CH/1+ 2B GIDC Industrial Estate, Dahej, Tal. Vagra, Bharuch - 392 130 Gujarat, India	Chlorine Gas	Catastrophic rupture due to Instantaneous release of toxic area vapour cloud	L3		
		Hydrogen Gas	Catastrophic rupture due to Instantaneous release of Flammable area vapour cloud	L2		
		Methyl Chloride	Catastrophic rupture	L2		
		Methanol	Catastrophic rupture due to Instantaneous release of Flammable area vapour cloud	L2		
		Cyclohexane	Catastrophic rupture	L2		
		O-Xylene	Catastrophic rupture	L2		
		Toluene	Catastrophic rupture	L2		
20.	Expanded Polymer Systems Pvt. Ltd	Ethylene oxide	Catastrophic failure of Ethylene Oxide of capacity 16368 KG	L2	No school,Town hall, Hospital within 1 km distance	NA, GIDC area
		Propylene oxide	Continuous release of Propylene Oxide from PO pipeline of size 75 mm	L2	No school,Town hall, Hospital within 1 km distance	NA, GIDC area
		Acrylonitrile	Pipeline rupture leading to flash fire	L2	No school,Town hall, Hospital within 1 km distance	NA, GIDC area
21.	Gail (India) Limited, Gandhar, Po. - Rozatankaria,	Mercaptan	Mercaptan Dosing Tank on Fire	L-1	NIL	N/A
		Methanol from storage	Full Bore Rupture	L-2	NIL	N/A

Sr.	Mah Unit Name	Hazardous Chemicals Handled	Disaster Scenarios	(L1 / L2 / L3)	Vulnerable Zone Dia. With Distinct Features Such As Schools Etc	Population In Vulnerable Zone
	Tal.Amod, Dist.Bharuch, Gujarat, Pin-392140	to injection				
		LPG Mounded Storage	Catastrophic Rupture	L-3	NIL	N/A
		Pentane Bullet	Catastrophic Rupture	L-3	NIL	N/A
		Naphtha Tanker	Catastrophic Rupture	L-2	NIL	N/A
22.	Grasim Industries Limited, Cellulose Division Plot No. 1, GIDC Industrial Estate, Vil. Vilayat, Tal. Vagra, Dist. Bharuch, Gujarat	Carbon Dysulphide (CS2)	CS2 Primary Condenser Vessel Catastrophic Rupture	L3	Nil	NA
		Carbon Dysulphide (CS2)	CS2 release from Xanthator Line Rupture	L3	Nil	NA
		Carbon Dysulphide (CS2)	CS2 Primary Condenser Vessel Major Leak	L2	Nil	NA
		Sulphuric Acid	Rupture of storage tank	L1	Nil	NA
		Sulphuric Acid	Rupture of Pipeline	L1	Nil	NA
23.	GACL-NALCO Alkalies And Chemicals Pvt. Ltd. Plot No D/II/9/1 & D/II/9/2, GIDC Dahej, Taluka: Vagra, Dist – Bharuch, Gujarat	Chlorine Gas	Toxic Gas Release	L3	Village : Rahiyad, Atali, Koliyad	5000
24.	Galaxy Surfactants Ltd. Plot No. 892, Jhagadia Industrial area, Tal: Jhagadia, Dist: Bharuch, Gujarat-393 110	Ethylene Oxide	Catastrophic rupture of EO storage bullet	L2	Primary School, Talodara	100 People
		Ethylene Oxide	EO unloading hose failure	L2	--	--
		Ethylene Oxide	Catastrophic failure of pipeline carrying EO Plant	L2	--	--

Sr.	Mah Unit Name	Hazardous Chemicals Handled	Disaster Scenarios	(L1 / L2 / L3)	Vulnerable Zone Dia. With Distinct Features Such As Schools Etc	Population In Vulnerable Zone
25.	Gujarat Chemical Port Limited P.O.- Lakhigam, Via- Dahej, Tal- Vagra, Dist- Bharuch, Gujarat-392130.	Naphtha	Tank collapse, pipe rupture, overflow	L2	Lakhigam (1 Km), Luvara (2 Km)	650, 350
		PY Gas	Tank collapse, pipe rupture, overflow	L2		
		Butane	Catastrophic failure of sphere	L2		
		Propane	Catastrophic failure of sphere	L2		
		Acetic acid	Tank collapse, pipe rupture, overflow	L2	Lakhigam (1 Km), Luvara (2 Km)	650, 350
		LPG	Catastrophic, failure of sphere	L2		
		Caustic	Pipe rupture, Tank overflow	L2		
26.	Gujarat Fluorochemicals Limited, 12/A GIDC Dahej Industrial Estate, Taluka Vagra, District Bharuch 392130, Gujarat	Liquid Chlorine	Toxic gas release due to tank/pipeline rupture	L3	Vulnerable Zone Diameter: 1 km(Approx), covering Ambetha Village and neighbouring industries including NOCIL, Deepak Phenolics Limited, Deepak Nitrite Limited, and ISGEC.	3000
		Hydrochloric Acid (31%)	Adequate capacity dyke has is provided.	---	---	---
		Methylene Dichloride	Adequate capacity dyke has is provided.	---	---	---
		Chloroform	Adequate capacity dyke has is provided.	---	---	---
		Carbon Tetrachloride (CTC)	Adequate capacity dyke has is provided.	---	---	---
		Hydrogen Gas	Release of H2 gas from Electrolyser	L1	CA Plant (GFL_A)	50

Sr.	Mah Unit Name	Hazardous Chemicals Handled	Disaster Scenarios	(L1 / L2 / L3)	Vulnerable Zone Dia. With Distinct Features Such As Schools Etc	Population In Vulnerable Zone
			outlet pipeline – Flash fire/Jet Fire			
		Anhydrous HF	Adequate capacity dyke has is provided. Adequate capacity scrubber is provided for that facility.	---	---	---
		Dilute HF	Adequate capacity dyke has is provided.	---	---	---
27.	Gujarat Fluoro Chemicals Limited Plot No D-2-CH-173 + D-2-CH-222 Village -Jolva GIDC Dahej Industrial Estate Taluka : Vagra Distt: Bharuch 392130	Chlorine	Chlorine Tonner - Catastrophic Rupture	L3	The industry located in GIDC Industrial estate where there is no any school, Town hall and Hospital located within 1 KM vicinity	Not Applicable
28.	Gujarat Narmada Valley Fertilizers & Chemicals Ltd. (GNFC) Address: GNFC, Narmadanagar, Bharuch 392015, Gujarat, India	Ammonia	Toxic gas release due to storage tank leakage	L3	GNFC Township, GNFC School, GNFC Hospital, nearby residential area	Approx. 500–1800 persons
		Phosgene and Chlorine	Phosgene and chlorine leakage	L3	Industrial units and GNFC Township area	Approx. 400–900 persons
		Methanol	Fire in storage tank / pool fire	L2	Plant operational area and nearby township	Approx. 1000–1500 persons
		Nitric Acid	Chemical leakage from pipeline or storage tank	L2	Process plant area	Approx. 500–800 persons
		Hydrogen	Gas leakage leading to flash fire or explosion	L2	Nearby plant area and township	Approx. 600–1800 persons
		TDI (Toluene Di-Isocyanate)	Toxic vapor release from process unit	L3	GNFC Township, GNFC School, GNFC Hospital, nearby residential	Approx. 800–1800 persons

Sr.	Mah Unit Name	Hazardous Chemicals Handled	Disaster Scenarios	(L1 / L2 / L3)	Vulnerable Zone Dia. With Distinct Features Such As Schools Etc	Population In Vulnerable Zone
		te)			area	
29.	Gujarat Guardian Ltd. State Highway – 13, Valia Road, Ankleshwar, Dist. Bharuch, Gujarat –393001	LPG	Fire & Explosion	L2	Nil	Nil
30.	Hemani Industries Limited. Plot No: CH/5, GIDC Industrial estate Dahej Tehsil: Vagra, Dist.: Bharuch Gujarat, 392130	Bromine	If catastrophic rupture of bromine tank 6.4 MT occurs then Br2 gas may travel to distance 1800 s meters: at IDLH	L-3	Model Run: Heavy Gas Red: 397 meters, IDLH (1800 s)	
		Chlorine	Chlorine 900 kg tonner leakage (10 mm)	L-2	Model Run: Heavy Gas Red: 44.85 meters, IDLH (600 s)	
31.	Hemani Industries Limited. Unit 2 Plot No. 3207/A & B, 3208/1&2, 3202/A/1, GIDC Industrial Estate, Ankleshwar - 393002, Gujarat	Bromine	If catastrophic rupture of bromine tank 6.4 MT occurs then Br2 gas may travel to distance 1800 s meters: at IDLH	L-3	Model Run: Heavy Gas Red: 397 meters, IDLH (1800 s)	< 50 nos. (No vulnerable zones fall within the threat zone.Only industrial areas are located within the threat zone.)
32.	Hikal Limited Plot No. 629/630-B GIDC Estate, Post: Panoli	Bromine	10 mm Leakage from tank	L2	Panoli GIDC	---
			Catastrophic rupture	L3	Panoli GIDC	---
33.	Indo Baijin Chemicals Pvt. Ltd. Plot No. Z/7/1, SEZ-1 Area, Dahej SEZ Ltd. Tal - Vagra, Dist - Bharuch - 392130, Gujarat,	CS2	Fire /Explosion/Toxic gas release	L3	A&V Trauma centre	10

Sr.	Mah Unit Name	Hazardous Chemicals Handled	Disaster Scenarios	(L1 / L2 / L3)	Vulnerable Zone Dia. With Distinct Features Such As Schools Etc	Population In Vulnerable Zone
34.	M/s. Indofil Industries Limited (Unit-1) Plot No. Z-8, SEZ-1, GIDC, Dahej, Tal. – Vagra, Dist: Bharuch, Gujarat - 392130, India.	CS2	1.2" IBJ CS2 receiving line jet fire at 5.7 m height on pipe rack. 2.CS2 leakage & delayed ignition explosion. 3.CS2 storage tank leakage & 1 min rapid evaporation 4.CS2 storage tank leakage & pool fire. 5.CS2 day storage explosion. 6.H2S leakage from scrubber tank.	--	NA as located in Dahez- SEZ-1	NA
35.	Indorama Vevnture Oxides Ankleshwar Pvt. Ltd. Plot No. 321, GIDC Panoli, Ankleshwar , Bharuch.	Ethylene Oxide Toxic Gas Release	Ethylene Oxide Toxic Gas Release	L2	Not Available in 1 km distance	
		Fire/Explosion	Fire/Explosion	L2	Not Available in 1 km distance	
36.	Industrial Solvent & Chemical Pvt Ltd.	So ₃ , Aniline	Fire, Gas Leakage, Liquid leakage	L2	NA	NA
37.	Ion Exchange (India) Limited, Plot No. 5811-12-13 GIDC Estate, Ankleshwar	Oleum	Fire	L1	Within 500m – Tanker unloading area	100
			Toxic	L2	Within 500m – Nearby industry and internal road	1000
			Explosion	L3	Within 1km – Nearby industry & sarangpur village	5000
38.	Jal aqua international llp,Plot no:620 road no.06, GIDC estate panoli,Dist- Bharuch	1	Chlorine	L3	Maharja town, sanjali village, Welcare hospital kharod	

Sr.	Mah Unit Name	Hazardous Chemicals Handled	Disaster Scenarios	(L1 / L2 / L3)	Vulnerable Zone Dia. With Distinct Features Such As Schools Etc	Population In Vulnerable Zone
39.	Jubilant Ingrevia Limited & Jubilant Infrastructure Limited	Ammonia	Catastrophic rupture	L2	Within site	NA
		Chlorine	Catastrophic rupture	L2	Within site	NA
		Acetic acid	Catastrophic rupture	L2	Within site	NA
40.	Kanoria Chemicals & Industries Ltd. Plot No. 3407, GIDC Industrial Estate Ankleshwar, Dist. Bharuch, Gujarat –393001	Formaldehyde	Toxic release	L2	Industrial area	
41.	KLJ Organic Limited Plot No-759, GIDC Estate, At & Po: Jhagadia, Ankleshwar Dist.-Bharuch	Toxic Gas Release	Gas release	L2	2.5 KM	School
42.	Krishna Antioxidants Pvt Ltd Plot No.: D-3/24/1, GIDC Dahej Phase – III, Village Samatpor, Taluka Vagra Dahej, Dist. Bharuch (Gujarat) 392130	Ethylene Oxide	Release From Ethylene Oxide Storage Tank (Explosion/Overpressure)	L2		100-150 Nos. (Industrial Area)
		Styrene Storage tank	Release from Styrene Storage Tank (Pool Fire)	L2		2-3 Nos. `
43.	LANXESS India Pvt. Ltd, Plot No. 748/2/A, 748/3 & 748/4/B +748/4/A/1, Gidc Estate, Jhagadia – 393110, Dist. Bharuch.	Acrylonitrile		--	Within boundary GIDC	Acrylonitrile
44.	Meridian Chem Bond Private Limited	Chlorine	Tonner Leakage / Gas Cloud Dispersion	L2	Cohizon science, Life Refine lifescience, Naptuneindustries,k	100 to 3000

Sr.	Mah Unit Name	Hazardous Chemicals Handled	Disaster Scenarios	(L1 / L2 / L3)	Vulnerable Zone Dia. With Distinct Features Such As Schools Etc	Population In Vulnerable Zone
	Plot No-5906/04 Gidc Ankleshwar				anoria chemicals, Sudarshan Chem., Unit - 3 Shreeji Pigment (100 to 1000mtr)	
45.	Meridian Chem-Bond Private Limited Plot No. 3209, GIDC Estate, Ankleshwar – 393002, Dist. Bharuch, Gujarat	Chlorine	Tonner Leakage / Gas Cloud Dispersion	L2	UPL LIMITED UNIT-3, Hemani industries limited unit 2, Bharat Crop Chemicals Pvt LTD, Varda Life science LLP, RPG Life Science,	100 to 3000
		Acetic Acid	Acid Storage Tank / Spillage	L2		
		Hydrochloric Acid	Tank Overflow / Corrosive Fume Cloud	L2		
46.	New India Acid (Baroda) Pvt. Ltd.	Chlorine	Yes	L2	Hospital & Fire Station	No
		Methanol	Yes	L2	Hospital & Fire Station	No
47.	Omkar Chemical Industries Pvt Ltd Plot No.406, GIDC. Estate, Panoli-394116, Ankleshwar, Dist. Bharuch	Acid	Chemical Leakage During Transfer or Storage	L1	Nearby Industries and Internal Plant Area	Plant Workers
		Caustic Soda	Chemical Spill Causing Worker Exposure	L1	Plant Operational Area	Plant Workers
		Flammable Solvent	Fire Due To Leakage Or Ignition Source	L2	Nearby Industries / Gidc Road	Workers And Public Movement
48.	ONGC Petro additions Limited Plot #Z-1 & Z-83 C/o, Dahej SEZ Ltd., P.O Dahej, Taluka Vagra, District Bharuch, Gujarat – 392130, India	Hexane	Pool Fire	L2	Maximum Threat Area: 56 meters; However, there is no any effect to nearby community.	No
		Butane	Jet Fire	L2	Maximum Threat Area: 10 meters; However, there is no any effect to nearby community	No
		Benzene	Pool Fire	L2	Maximum Threat Area: 63 meters; However, there is no any effect to nearby community	No

Sr.	Mah Unit Name	Hazardous Chemicals Handled	Disaster Scenarios	(L1 / L2 / L3)	Vulnerable Zone Dia. With Distinct Features Such As Schools Etc	Population In Vulnerable Zone
		Propylene	Vapour Cloud	L2	Maximum Threat Area: 134 meters; However, there is no any effect to nearby community	No
		Hydrogen	Vapour Cloud	L2	Maximum Threat Area: 168 meters; However, there is no any effect to nearby community	No
		Pentane	Jet Fire	L2	Maximum Threat Area: 35 meters; However, there is no any effect to nearby community	No
49.	Organic Industries Pvt. Ltd S/163. GIDC, Dahej, Vagra, Bharuch	Chlorine	If chlorine gas leak dangerous to health	L2	Dahej (1 km)	Dahej(1k m)
50.	Panorama Aromatics Ltd. Plot No. 2908-2911, Phase-III, Gidc Panoli-394116, Tal. - Ankleshwar, Dist.-Bharuch	Liq. Chlorine	Realeas From Chlorine Tonner	L2	Hospital	Hospital
51.	Petronet LNG Limited. Dahej Terminal	Liquefied Natural Gas/ Natural Gas	LNG/NG leakage and fire	L1 to L3 as per leakage size	No school, villages are within 1 Km radius. As per QRA contour nearby industries may affect in case of major emergency.	Nearby Village Lakhigam, Luvara and Jageshwar village
52.	Piramal Pharma Limited Plot No. D-2/11/A1,Gidc Industrial Estate ,Phase-II, Vil:Dahej, Ta: Vagra 392130, Bharuch, Gujarat ,India	Hydrofluoric Acid	10 mm leakage from tank	--	Wind Speed: 1 m/s, Stability Class-F, Red Threat Zone-1.7KM	NA
53.	Panoli Products Pvt. Ltd.	Chlorine	Gas Licked	L2	Hospital – 1.5 Km	

Sr.	Mah Unit Name	Hazardous Chemicals Handled	Disaster Scenarios	(L1 / L2 / L3)	Vulnerable Zone Dia. With Distinct Features Such As Schools Etc	Population In Vulnerable Zone
54.	Privi Speciality Chemicals Limited, Plot No. 765, Road No.2, GIDC Jhagadia - 393 110 Dist. Bharuch	Leakage & Spillage	Tankers Leakage during unloading/filling of RM/FG	L2	No school, town hall or hospital are available in 1KM distance as Privi Speciality Chemicals Limited Unit-06 is in GIDC area	Not Applicable
		Fire	Fire in Hydrogen Gas cylinder yard	L2		
		Fire	Fire in Hazardous waste yard	L2		
55.	Reliance Industries Ltd. Dahej Manufacturing Division Dahej, Bharuch	Chlorine leakage (ERCP)	LOPC of chlorine vapor from CA to VCM plant pipeline	L2	NA (Impact within site only)	NA
		Ethylene Oxide	Loss of containment of liquefied EO from EO Storage Tank bottom flange	L2	NA (Impact within site only)	NA
		Ethane	Loss of containment from Ethane Storage Tank	L2	NA (Impact within site only)	NA
56.	Savla Chemicals Ltd. Plot No: 26-A, GIDC, Industrial Estate, Panoli-394116, Ankleshwar, Dist- Bharuch, Gujarat.	Methyl Tert- Butyl Ether	3000 m3	L2		
		Isobutylene	350 m3	L2		
		Methanol	50 m3	L2		
57.	Schott Glass India Pvt. Ltd Block No. 1351/1, 1352/2 Vill: Ankhi, Tal: Jambusar Dist.: Bharuch	LNG	LNG Leak & Vapour Cloud Fire & explosion Toxic or Flammable Gas Dispersion	L2/ L3	Upto to 1Km Radius: Near village/ Residential area Internal plant Roads Small Shops Nearby	Zen School, Benco
		Oxygen	Oxygen Leakage leading to Oxygen Rich atmosphere intense fire/ Fire escalation Cylinder Burst/ Explosion	L2/ L3	Upto 500m – Plant area Near By working area, Limited public accesses zone	

Sr.	Mah Unit Name	Hazardous Chemicals Handled	Disaster Scenarios	(L1 / L2 / L3)	Vulnerable Zone Dia. With Distinct Features Such As Schools Etc	Population In Vulnerable Zone
		Arsenic Trioxide	Toxic Dust Release Water contamination Transport Accident	L1	Up to 1 Km radius- Nearby Villages, Agricultural land, Drainage, Possible School Small Clinic	
58.	Shiva Pharmachem Limited Dahej	Sulphur Dioxide	- Small Leak - Catastrophic Rupture	L2		
		Chlorine	- Small Leak - Catastrophic Rupture - Full Bore Rupture	L2		
		Thionyl Chloride	- Small Leak - Catastrophic Rupture	L2		
		Hexane	- Small Leak - Catastrophic Rupture	L2		
		Toluene	- Small Leak - Catastrophic Rupture - Full Bore Rupture	L2		
		Hydrochloric acid	- Small Leak - Catastrophic Rupture	L2		
		Propylene	- Small Leak - Catastrophic Rupture	L2		
59.	Shyam Chemicals Pvt.Ltd 6004, GIDC Ankleshwar	Chlorine	Chlorine Gas Release	L2	Indigenous Area	Plant Workers
60.	SHILPA CHEMICAL INDUSTRIES. PLOT NO. 4777 – 4778 G.I.D.C, ANKLESHWAR	ETHYLENE OXIDE	Gas Leakage	--	NA	NA
61.	Solvay Specialities India Pvt Ltd, Panoli Plot No: 3526-27, G.I.D.C.,	Sulfur Trioxide (SO3) leakage	Leakage from tank	L2	Vulnerable Zone Dia.: 1Km 1. Nearby Industries: 500 mtr 2.Panoli Village :	1) 1000 - Population approx. 2) 4700 - Population

Sr.	Mah Unit Name	Hazardous Chemicals Handled	Disaster Scenarios	(L1 / L2 / L3)	Vulnerable Zone Dia. With Distinct Features Such As Schools Etc	Population In Vulnerable Zone
	Panoli, District: Bharuch, Gujarat				1.7 Km 3.Sanjali Village : 2.3 Km	approx. . 3) 7900 - Population approx .
			Leakage from pipeline	L2	Vulnerable Zone Dia.: 1Km 1. Nearby Industries : 500 mtr 2.Panoli Village : 1.7 Km 3.Sanjali Village : 2.3 Km	1) 1000 - Population approx . 2) 4700 - Population approx . 3) 7900 - Population approx .
			Catasphoric rupture tank	L2	Vulnerable Zone Dia.: 1Km 1. Nearby Industries : 500 mtr 2.Panoli Village : 1.7 Km 3.Sanjali Village : 2.3 Km	1) 1000 Population approx 2) 4700 Population approx 3) 7900 Population approx
			Catasphoric rupture of truck tanker	L2	Vulnerable Zone Dia.: 1Km 1. Nearby Industries : 500 mtr 2.Panoli Village : 1.7 Km 3.Sanjali Village : 2.3 Km	1) 1000 Population approx. 2) 4700 Population approx. 3) 7900 Population approx.
62.	SRF Limited D-2/1, GIDC Phase II , PCPIR, Dahej , District Bharuch, Gujarat - 392 130.	Chlorine	Rupture of bullet / Pipeline / Leakage from Tonner	L3	Jolwa Village Suva Village Dahej Village Vadadla Village Ambetha Village	1442 1920 13945 842 1522
		Anhydro us Hydroflu oric Acid (AHF)	Release from bullet in Storage Tank / Pipeline rupture	L3	Jolwa Village Suva Village Dahej Village Vadadla Village Ambetha Village	1442 1920 13945 842 1522

Sr.	Mah Unit Name	Hazardous Chemicals Handled	Disaster Scenarios	(L1 / L2 / L3)	Vulnerable Zone Dia. With Distinct Features Such As Schools Etc	Population In Vulnerable Zone
		Bromine	Release from Storage Tank / Pipeline rupture	L3	Jolwa Village Suva Village Dahej Village Vadadla Village Ambetha Village	1442 1920 13945 842 1522
		Methanol	Pool fire in Solvent Storage tank	L2	Jolwa Village Suva Village Vadadla Village Ambetha Village	1442 1920 842 1522
		Flammable Solvents	Pool fire in Solvent Storage tank (Toluene/Ethanol/Methanol/Hexane)	L2	Jolwa Village Suva Village Vadadla Village Ambetha Village	1442 1920 842 1522
63.	Styrenix Performance Materials Ltd, 4-G.I.D.C Dahej, Tal: Vagra Dist:Bharuch	Styrene	Fire, Explosion	L1	NA	
		Ethyl Benzene	Fire, Explosion	L1	NA	
64.	Sudarshan Gujarat MFG Private Limited, Unit-1, Plot No. 9002-9010, Phase VI, GIDC Estate, Ankleshwar – 393 002, Gujarat, India	Xylene	Xylene line leak from 2" line flange near hot oil line	L2	~500 m dia. (confined within plant boundary)	Nil – No residential area, village, market, hospital, school, cinema, jail within 1 KM
		Chlorine	Chlorine tonner outlet line valve failure	L3	~1000 m dia. (maximum toxic dispersion)	Nil – All receptors located 4 KM away
		Bromine	Bromine ISO tanker leak	L3	~800–900 m dia.	Nil – All receptors located 4

Sr.	Mah Unit Name	Hazardous Chemicals Handled	Disaster Scenarios	(L1 / L2 / L3)	Vulnerable Zone Dia. With Distinct Features Such As Schools Etc	Population In Vulnerable Zone
						Km away
65.	Sukha chemicals Industries Unit -II 2925,Village/Town - Panoli, City-Ankleshwar,District Bharuch,State -Gujarat-394116	Chlorine	Chlorine gas release 214 Kg per min @ 1m/s wind speed	L2	1.8 Km IDLH 10 ppm	Chlorine
		Chlorine	Chlorine gas release 214 Kg per min @ 3m/s speed	L2	2.2 Km IDLH 10 ppm	Chlorine
66.	Superform Chemistries Limited (Unit 92) Plot No- D 3 / 6 GIDC III ,Kadodara Ta-Vagara, Dist. Bharuch (Gujarat)- 392110	Chlorine	Instantaneous Chlorine leakage from vaporizer due to rupture disc broken (Pipeline Length – 25 meter & Dia.1.5 inch)	L3		Town, School
		Chlorine	Toxic effect of Chlorine Tonner Minor Leak of 10 mm	L3		Town, School
		Chlorine	Toxic effect of Chlorine Tonner Catastrophic rupture	L3		Town, School
		Chlorine	Toxic effect of Chlorine Vaporiser Minor Leak of 10 mm	L3		Town, School
		Chlorine	Toxic effect of Chlorine Vaporiser Catastrophic rupture Category	L3		Town, School
		Chlorine	Toxic effect of Chlorine vaporiser downstream Pipeline Leak of 10% NB	L3		Town, School
		Chlorine	Toxic effect of Chlorine vaporiser downstream Pipeline FBR	L3		Town, School
67.	Superform Chemistries Limited. Plot No. 746/750, GIDC, Jhagadia, Dist-Bharuch, 393110, Gujarat, Inida	Chlorine	Tank leakage & dispersion	L3	No school, Hospital and Town hall surrounding	No school, Hospital and Town hall surrounding
		Carbon disulphide	Tank leakage & dispersion Catch fire and cause toxic fumes	L2		

Sr.	Mah Unit Name	Hazardous Chemicals Handled	Disaster Scenarios	(L1 / L2 / L3)	Vulnerable Zone Dia. With Distinct Features Such As Schools Etc	Population In Vulnerable Zone
		Acrylonitrile	Tank leakage & dispersion Catch fire and cause toxic fumes	L2		
		Hydrogen	Tank leakage & dispersion Catch fire and cause toxic fumes	L2		
		Propylene	Tank leakage & dispersion Catch fire and cause toxic fumes	L2		
		Acetone	Tank leakage & dispersion Catch fire and cause toxic fumes	L2		
		Acetonitrile	Tank leakage & dispersion Catch fire and cause toxic fumes	L2		
		Acrolein	Tank leakage & dispersion Catch fire and cause toxic fumes			
68.	Tagros Chemicals India Pvt. Ltd. Plot no.43/1, Amod Road, GIDC Dahej-1,Tal: Vagra, Dist: Bharuch-392130	Chlorine	Chlorine pipeline leakage	L1, L2	Nil	Nil
			Chlorine Tonner valve joint leakage	L1, L2		
69.	Unitop Chemicals Pvt Ltd. D2/CH-342,343, GIDC Phase II, Vill. Jolwa, Dahej, Bharuch	Ethylene oxide	Toxic gas release	L1	No school/Town/Hospital	Ethylene oxide
		Propylene oxide	Fire and Explosion	L2	No school/Town/Hospital	Propylene oxide
		Isopropanol	Fire and Explosion	L2	No school/Town/Hospital	Isopropanol
		C9	Fire and Explosion	L2	No school/Town/Hospital	C9

Sr.	Mah Unit Name	Hazardous Chemicals Handled	Disaster Scenarios	(L1 / L2 / L3)	Vulnerable Zone Dia. With Distinct Features Such As Schools Etc	Population In Vulnerable Zone
70.	Viswaat Chemicals Limited, D-3/10, Dahej Phase III, GIDC, Dahej, Taluka – Vagra, Dist. – Bharuch, Gujarat 392130	Ethylene Oxide	In case of Flammable area vapour cloud due to Instantaneous release of Ethylene Oxide : Probable extent of damage due to Flammable area vapour cloud would be > 346 m	--	NA	NA
71.	Yashashvi Rasayan Pvt.Ltd Plot No. Z/96/E, SEZ-II, Dahej Industrial Estate, Village Luvara, Taluka Vagra, District Bharuch, Gujarat, 392130	Sulphur dioxide	Possible release due to leakage from SO2 tonner	L2	Within plant area	Only plant
		Sulphur dioxide	Catastrophic Rupture of SO2 tonner	L3	Camlin, Thermax, Petronet LNG Ltd, Godrej	

5.3 Effect Emergency Scenarios

Table 16 Domino Effects of Emergency Scenarios

Sr.	Name of MAH unit	Disaster Scenario	Triggered Scenario 1	Triggered Scenario 2	Triggered Scenario 3	Remarks
1.	Borosil Renewables Limited Ankleshwar– Rajpipla Road, Village – Govali, Bharuch, Gujarat	LPG Tank Fire / Leak/ Rupture / BLEVE	Heat radiation causes nearby LPG tank to overheat Formation of flammable vapor cloud	Potential BLEVE (Boiling Liquid Expanding Vapor Explosion) Release of toxic gas cloud / vapor cloud	Fire spreads to / nearby equipment, causing secondary explosions Impacts residential area or nearby public infrastructure	
2.	Century ENKA Ltd. (Unit: Rajashree Polyfil), Rajashree Nagar, Post:Umalla, Tal:Jhagadia, Dist:Bharuch – 393120	Fire & Explosion	Jet Fire	Pool Fire	Explosion	
3.	Chemieorganic Chemicals (I) Pvt. Ltd. Plot No. 758	Events involving release of toxic /	Slow or continuous release of substance from a	Major fires with no danger of explosion Hazards	Pool fire, Flash fire, Jet fire Explosion	

Sr.	Name of MAH unit	Disaster Scenario	Triggered Scenario 1	Triggered Scenario 2	Triggered Scenario 3	Remarks
	G.I.D.C. – Jhagadia. Tal.: Jhagadia, Dist. Bharuch, Gujarat-393110	flammable materials	leaking valve/ pipeline, Massive release of toxic substance due to failure of large storage or process vessel or BLEVE.	from high levels of thermal radiation and smoke, for example		
		Explosion Events	Hazards from blast waves, flying debris, high level of thermal radiation. Serious emergencies that can be envisaged. Direct impact of the explosion shock wave and blast pressure at the point of explosion. Blast overpressure damaging equipments Structural collapse of buildings Personnel injuries Flying	Confined explosions Unconfined vapor cloud explosion BLEVE Consequences caused by equipment damage, fires, and toxic release triggered by the primary blast. Fire and pool fire of flammable liquids Toxic gas release and chemical exposure Acid spills causing burns and corrosion Domino effect causing additional explosions	Long-term and extended impacts beyond the immediate explosion area affecting environment, operations, and community. Environmental pollution (air, soil, water) Worker health impacts from toxic exposure Production shutdown and economic loss Regulatory penalties and community impact	

Sr.	Name of MAH unit	Disaster Scenario	Triggered Scenario 1	Triggered Scenario 2	Triggered Scenario 3	Remarks
			debris /projectiles			
4.	Dai-Ichi Karkaria Limited, Plot No. D2 / 20, GIDC Dahej-2, Taluka: Vagra, Dist.: Bharuch, Gujarat	EO Explosion	On-site	Off-site	Off-site	
		PO Explosion	On-site	Off-site	Off-site	
5.	DCM Shriram Ltd (Unit: Shriram Alkali & Chemicals) Plot no. 749, GIDC, Industrial estare, Jhagadia, Bharuch, Gujarat	Toxic gas release	Chlorine tonner leak	Toxic cloud spreads and affects nearby equipment or operators	Nearby storage tank or pipeline fails due to corrosion	
6.	Deepak Chem Tech Limited Plot No. D-II/ 6/1 & D-II/6/1 ^a , Dahej- II Industrial Estate, Dahej, Village: Rahiyad, Tal: Vagra, Dtist: Bharuch - 392130, Gujarat, India	Toxic Release from 25 mm & Catastrophic Failure	Plant people and operation affected	Near By plant operation and people affected	Nearby villagers and Nearby factories affected	
7.	Deepak Fertilisers and Petrochemical Corporation Limited Address: Plot No. D/II/7/A, Dahej GIDC Area, Village Rahiyad, Taluka Vagra,	Release of Ammonia	Within 5 Kms Ammonia Exposure – 1500 ppm	Within 10Kms Ammonia Exposure – 150 ppm	Greater 10 Kms Ammonia Exposure – 25 ppm	
8.	Dhanveen Pigments Pvt. Ltd Plot No.: 3105/06/07, GIDC Estate, Phase III, Panoli, Dist. – Bharuch, Gujarat, India.	Gas leakage from tonner	Valve leakage	Human error	Eyes burn, beathing issues	
9.	Epigral Limited CH1, CH2, CH/1+2B GIDC Industrial Estate, Dahej, Tal. Vagra, Bharuch - 392 130 Gujarat, India	Chlorine Leakage Catastrophic Rupture Due To Continuous Release Of Toxic Area Vapour Cloud	Northward MOL Unit-3, Shivtech Limited Indofil Industries Unit-3 PPG Asian Paints, Vadadla Truptiben Patel – 9825266151 Anilsinh P Yadav - 7575863187 Southern			
10.	GACL-NALCO Alkalies And Chemicals Pvt. Ltd. Plot No D/II/9/1 & D/II/9/2, GIDC Dahej, Taluka: Vagra, Dist – Bharuch, Gujarat	Toxic Gas Realese	GACL CLM Plant	GNFC, Arti Industries Ltd., Deepak Chem Tech.	Rahiyad Village, Atali Village, Koliyad Village	
11.	Galaxy Surfactants Ltd.	Release of EO from	Catastrophic Rupture of	Catastrophic Rupture of		

Sr.	Name of MAH unit	Disaster Scenario	Triggered Scenario 1	Triggered Scenario 2	Triggered Scenario 3	Remarks
	Plot No. 892, Jhagadia Industrial area, Tal: Jhagadia, Dist: Bharuch, Gujarat- 393 110	EO Tank (Bullet) leading to Vapor Cloud Explosion	EO Tank first tank	EO Tank second tank since first tank is in vicinity		
		Release of EO from Reactor leading to Vapor Cloud Explosion	Catastrophic Rupture of one of the Reactors of Line 1 or Line 2	Catastrophic Rupture of another reactor since other reactor is in vicinity		
12.	Gujarat Narmada Valley Fertilizers & Chemicals Ltd. (GNFC) Address: GNFC, Narmadanagar, Bharuch – 392015, Gujarat, India	Ammonia storage tank leakage	Toxic gas cloud formation	Exposure to workers / nearby area	Plant shutdown and emergency evacuation	
		Chlorine tonner leakages and phosgene leakages.	Toxic gas cloud formation	Exposure to workers / nearby area	Plant shutdown and emergency evacuation	
		Methanol storage tank fire	Heat radiation to nearby tanks	Adjacent tank fire (domino fire)	Major plant fire emergency	
		Boiler or pressure vessel explosion	Shock wave and flying debris	Damage to nearby pipelines/equipment	Fire or chemical leakage	
		Nitric acid pipeline leakage	Corrosive chemical spill	Toxic fumes generation	Personnel injury and area contamination	
		Hydrogen gas leakage	Formation of flammable gas cloud	Ignition leading to flash fire	Explosion and equipment damage	
13.	Indo Baijin Chemicals Pvt. Ltd. Plot No. Z/7/1, SEZ-1 Area, Dahej SEZ Ltd. Tal - Vagra, Dist - Bharuch - 392130, Gujarat, India.	Fire in CS ₂ tank	Fire explosion &	Toxic gas release	1. Seviour burn 2. CNS damage 3. Dizziness 4. Headache	
14.	Indofil Industries Limited (Unit-1) Plot No. Z-8, SEZ-1, GIDC, Dahej, Tal. – Vagra, Dist: Bharuch, Gujarat - 392130, India	Vapor Cloud Explosion	Leakage from the CS ₂ storage tank due to valve failure, flange leak, or pipeline rupture.	CS ₂ vapours spread and form a flammable vapor cloud.	Ignition occurs→ Vapor Cloud Explosion.	

Sr.	Name of MAH unit	Disaster Scenario	Triggered Scenario 1	Triggered Scenario 2	Triggered Scenario 3	Remarks
15.	Industrial Solvent & Chemical Pvt Ltd.	Spillage From pipeline	Inform to plant HOD	Spillage Line Valve Close Plant Inside	Material Spill Area Covered	
16.	Ion Exchange (India) Limited, Plot No. 5811-12-13 GIDC Estate, Ankleshwar	Oleum leakage	Toxic fumes generate	Worker exposure	Plant Emergency Evacuation	
17.	Jal aqua international llp, Plot no:620 road no.06 ,GIDC estate panoli ,Dist-Bharuch	Chlorine leakage	Company employee	Neighboring company	Declare emergency and active emergency siren	
		Fire	Company employee	Neighboring company	Declare emergency and active emergency siren	
18.	KLJ Organic Limited Plot No-759,GIDC Estate, At&Po:Jhagadia, Ta:Ankleshwar Dist-Bharuch	Toxic gas release	Worker exposure – Worker inhalation injury	Nearby area contamination	Plant evacuation & Nearby area	
19.	Meridian Chem Bond Private Limited Plot No-5906/04 Gidc Ankleshwar	Chlorine Tonner Leak	Toxic cloud dispersion to neighboring industrial units.	Mass evacuation of neibours industries	Full district-level emergency response and regional traffic halt.	
20.	Meridian Chem-Bond Private Limited Plot No. 3209, GIDC Estate, Ankleshwar – 393002, Dist. Bharuch, Gujarat	Chlorine Tonner Leak	Toxic cloud dispersion to neighboring industrial units.	Mass evacuation of neibours industries	Full district-level emergency response and regional traffic halt.	
21.	Omkar Chemical Industries PVT Ltd Plote No.406, GIDC Estate, Panoli-394116, Ankleshwar, Dist. Bharuch	Chemical leakage	Toxic vapor cloud formation	Work exposure / health impact	Plant evacuation	
		Fire in storage tank	Health radiation to nearby tank	Adjacent tank fire	Major plant fire	
		Electrical short circuit	Fire in panel	Power failure in plant	Production shutdown	
22.	PI INDUSTRIES LTD 237, GIDC Estate Panoli 394 116 Dist. Bharuch, Gujarat	Leakage of Bromine from storage	Leakage from pipeline	Storage tank leakage	None	

Sr.	Name of MAH unit	Disaster Scenario	Triggered Scenario 1	Triggered Scenario 2	Triggered Scenario 3	Remarks
		tank				
		Leakage of Bromine	Leakage from pipeline	Cylinder Leakage	None	
23.	Privi Speciality Chemicals Limited, Plot No. 765, Road No.2, GIDC Jhagadia - 393110 Dist. Bharuch	Fire & Explosion in storage flammable solvents	Fire & Explosion	Fire & Structure collapse	Not likely	
		Fire & Explosion in storage flammable solvents underground tank	Fire & Explosion	Engineering storage	Not likely	
		Fire & Explosion in storage flammable solvents PO tank	Fire & Explosion	Boiler & Engineering	Not likely	
24.	Solvay Specialities India Pvt Ltd, Panoli Plot No: 3526-27, G.I.D.C., Panoli, District: Bharuch, Gujarat	So3 leakage due to rupture of the tank	Toxic cloud propagation	Wind can carry SO ₃ or acid mist to adjacent areas	Emergency plant shutdowns and evacuation.	
25.	Superform Chemistries Limited (Unit – 92) Plot No- D 3 / 6 Gidc I I I ,Kadodara Ta- Vagara, Dist. Bharuch (Gujarat)- 392110	Toxic Release	Exposure of plant employees	Exposure of plant employees & Surrounding area in plant	Toxic gas exposure of Surrounding residence area and Transport vehicle on the road.	
26.	Superform Chemistries Limited. Plot No. 746/750, GIDC, Jhagadia, Dist- Bharuch, 393110, Gujarat, Inida	Chlorine Toxic Release	Exposure employees of plant	Exposure employees of surrounding plant of & area in plant	Toxic gas exposure of surrounding industrial area and Transport vehicle on road based on wind direction	
		Carbon disulphide	Fire in the storage tank Exposure of plant employees	May fire travel in the surrounding manufacturing plant	Toxic gas was released due to a fire in a surrounding location	

Sr.	Name of MAH unit	Disaster Scenario	Triggered Scenario 1	Triggered Scenario 2	Triggered Scenario 3	Remarks
				Exposure of plant employees & the surrounding area in the plant	Toxic gas exposure of surrounding industrial area and Transport vehicle on road based on wind direction	
		Fire and Toxic Release				
27.	Unitop Chemicals Pvt Ltd. D2/CH-342,343, GIDC Phase II, Vill. Jolwa, Dahej, Bharuch	Toxic gas release	Exposure to toxic gas			
		Fire and Explosion	Damaged to nearby plant buildings			

5.4 Other Emergency Scenarios Including Fall-Outs of Natural Disasters

Table 17 Emergency Scenarios arising out of Natural Disasters

sr.	Natural Disasters Likely	Vulnerable MAH Unit, Disaster Scenario	Remarks
1	FLOOD		
2	CYCLONE		
3	STORM /CYCLONE		
4	EARTHQUAKE		
5	TSUNAMI		
6	LIGHTNING		

5.5 Development of Vulnerability Templates

Table 18 Vulnerability Template Catalogue

Sr.	MAH Unit Disaster Scenario Ref No: and Description	Vulnerability Template Identification No:	Map Identification No	Remarks

6. Identification of Emergency Resources

6.1 Introduction to Emergency Resources

Prompt availability of emergency resources is vital to mitigating an offsite emergency. The emergency resources required should be identified with the sources of their availability and the means to call for them. The emergency resources and their sources are identified in this chapter.

6.2 Police

Table 19 Police Information

Sr .	Police Station with Address and Phone Number	Designated Contact Persons with Address (O, R) And Phone: - Numbers (O, R, M)	Number Of # PI, SI, ASI, HC, PC, Total	Number Of Vehicles VAN, JEEP & Motor Cycles	Remarks

6.3 Fire

Table 20 Fire Department Information

Sr .	Fire Station with Address and Phone Number	Designated Contact Persons with Address (O, R) and Phone:- Numbers	Type and Numbers of Fire Tenders, (Water, Foam, Mist tenders)	Other equipments and materials (SCBA, PPE, Cry Chemical Powder Etc)	Number of Fire Man	Remarks

Table 21 Resources with MAH units forming part of Mutual Aid Resources

Name of MAH Unit	Contact person			Fire Water Tank		Emergency D. G. Set		Fire Pump Set		Fire Tender / Fire Trailer Pump	No. of Trained Person in fire fighting
	name	Phone No.									
		No.	Capacity Lit	No.	KVA	Type	LPM				
		O	R								
Aarti Industries Limited Plot no. Z/103/C, SEZ-II, Dahej, Tal-Vagra, Dist-Bharuch, Gujrat, 392130	Mr. Kirti Parmar	–	6353 5335 90	1	2460 KL	3 Nos	2000 KVA	2 nos. Jockey pump 2 nos. Electrical pump 2 nos. Diesel pump	300 LPM 6833 LPM 6833 LPM	Multipurpose Fire Tender, 1000 Ltrs Foam capacity & 5000 Ltrs water capacity	37 nos.
Aarti Industries Limited Plot No: 758/1, 2 & 3, Survey No. 359, 360, 364, 358, 357, 356, 345, 348 GIDC Jhagadia, Dist-Bharuch,	Mr. Dipak Sali	704308600 2	-	1	2500 KL	4 No's	1010 KVA each	2 No's of Jockey Pump 2 No's of Electrical Pump	833 LPM 6833 LPM 6833 LPM	1 no's Fire tender & 01 ERV vehicle	150 No's

Name of MAH Unit	Contact person			Fire Water Tank		Emergency D. G. Set		Fire Pump Set		Fire Tender / Fire Trailer Pump	No. of Trained Person in fire fighting
	name	Phone No.									
		O	R	No.	Capacity Lit	No.	KVA	Type	LPM		
Gujarat - 393110								1 No's of Diesel Pump			
Alkyl Amines Chemical limited Plot No: D2/CH/149/2, GIDC Dahej 2,TA:Vagra, Dist:Bharuch, Gujarat – 392 130	Suresh Kumar Dash Pavan Kumar M	02641350709 02641350724	9113950260 8790191187	2	2500 KL (Fire Hydrant tank) 1150 (Fire Sprinkler Tank)	1	1010	1.Hydrant Jockey pump (1W + 1S) 2. Electric main hydrant pump (1W + 1S) 3.Hydrant DG Pump 4.Sprinkler Jockey pump (	416.67 6833.33 6833.33 416.67 6833.33 6833.33	Fire tender – not available	58 no.s persons training in Fire & Emergency services

Name of MAH Unit	Contact person			Fire Water Tank		Emergency D. G. Set		Fire Pump Set		Fire Tender / Fire Trailer Pump	No. of Trained Person in fire fighting
	name	Phone No.									
		O	R	No.	Capacity Lit	No.	KVA	Type	LPM		
								2. Electric main Sprinkler pump 3.Sprinkler DG Pump			
Amal Speciality Chemicals Limited. Plot No. 136/137, GIDC Estate, Ankleshwar, Dist.: Bharuch, Gujarat, Pin: 393002	Mr Sridhar Korivi Mr Parth Malaviya	7046017147		1	350 M3 each	1	600KV	Electric Diesel	10.8 m3/hr, 171 m3/hr, 171 m3/hr	---	12 trained persons

Name of MAH Unit	Contact person			Fire Water Tank		Emergency D. G. Set		Fire Pump Set		Fire Tender / Fire Trailer Pump	No. of Trained Person in fire fighting
	name	Phone No.									
		O	R	No.	Capacity Lit	No.	KVA	Type	LPM		
Anshika Polysurf Ltd Plot no: C-383/1, Argama industrial estate, Saykha GIDC, Ta: Vagra, Dist: Bharuch	Pranav Patel From Kensai Nerolec Paints	8758453555	8758453555	1	800 KL	1 2	500 125	1 Jockey Pump Electric al Main Pump Diesel Pump	166 LPM 2833 LPM 3666 LPM	NA	25
Anugrah Indsutries Private Limited Plot No. D3-26/1&2, GIDC Dahej – 392130, Tal. Vagra, Dist. Bharuch	Mr. Ambala I Patil	9427582168		0	4.0 lakh	01	750	Zuki/El ectrical	280	--	10
Aries Colorchem Pvt Ltd Plot No: DP-56 & DP-57, Saykha GIDC,	Mr. Viral Kansar a Mr. Tushar Modi	+91 9909916784 +91 9909954633		1	10 Lakh Ltr + 50 Thousand LTR x 2 back up water.	2	1000KV	Electri cal Diesel	410 m3/hr, 410 m3/hr,	No	8 trained persons

Name of MAH Unit	Contact person			Fire Water Tank		Emergency D. G. Set		Fire Pump Set		Fire Tender / Fire Trailer Pump	No. of Trained Person in fire fighting
	name	Phone No.									
		O	R	No.	Capacity Lit	No.	KVA	Type	LPM		
Saykha Tehsil: Vagra, Dist: Bharuch Gujarat, 392 140											
Atul Ltd (Aromatics Business) Plot no 297, 297/1, GIDC estate, Ankleshwar, Dist- Bharuch	Mr Pratik Chavda Mr Syamal De	02646 229171 02646 229126		2	2000 M³ each	1	11 KV	Electric Diesel	20 m3/hr-4 nos, 171 m3/hr-2nos, 410 m3/hr-2 nos 410 m3hr -1nos 171 m3/hr -1 nos	---	48 trained person
Birla Cellulosic (A Unit of Grasim Industries Ltd) Birladham, Village – Kharach, Near Kosamba, Tal – Hansot, District – Bharuch.	Mihir Bhatt-DH Fire & Safety.	Phone: 9088106998 Office – 02646 271264 Mobile - 6357684958	Residence - 02646 271539	1 2	Fire water: Reservoirs:01 (2668 m3) Tanks:02 – (800 m3)	1	125 HP	Electric Driven (Main Pump-04 No's) Electric Driven (Jockey Pump-02 No's)	4550 LPM (273 m3/hr) 166.6 LPM (10 m3/hr)	02	149

Name of MAH Unit	Contact person			Fire Water Tank		Emergency D. G. Set		Fire Pump Set		Fire Tender / Fire Trailer Pump	No. of Trained Person in fire fighting
	name	Phone No.									
		O	R	No.	Capacity Lit	No.	KVA	Type	LPM		
Bodal Chemicals Limited Plot No. 301 to 430+433 to 440/1, Juned Bhersam Estate, GIDC, Saykha TA: Vagra, Bharuch, Gujarat - 392140	Mr. Vilas C Nikam	9998614318		9	3380 KL	2		Jockey pump = 36 cu. m./hr. Main Electric pump= 410 cu. m./hr. Diesel Gener ator pump= 410 cu.m./h r.	-	N/A	30 Nos
Borosil Renewables Limited Ankleshwar– Rajpipla Road, Village – Govali, Bharuch, Gujarat	Mr Nirav Patel	As above		2	1100 KI	5	1000 KVA:02 1500 KVA :03	Main pump/ Diesel /Jocke y	273 -M3/H 75-M3/H	NA	100

Name of MAH Unit	Contact person			Fire Water Tank		Emergency D. G. Set		Fire Pump Set		Fire Tender / Fire Trailer Pump	No. of Trained Person in fire fighting
	name	Phone No.									
			O	R	No.	Capacity Lit	No.	KVA	Type		
Century Enka Ltd. (Unit: Rajashree Polyfil), Rajashree Nagar, Post:Umalla, Tal:Jhagadia, Dist:Bharuch – 393120	Pannal al Soni	+91 2645208560	+91 2645208750	1		7		Centrifugal	7917	02	12
Chemieorganica Chemicals (I) Pvt. Ltd. Plot No. 758 G.I.D.C. – Jhagadia. Tal.: Jhagadia, Dist. Bharuch, Gujarat-393110	Sh. A.J Dhorajia		7096689477	2	1000 KL	3	1250 KVA 1000 KVA 500 KVA	Main Electric Pump:2 Nos. Fire D.G Pump:1 no. Jockey Pump: 1 no.	271 M3/hrs 271 M3/hrs 271 M3/hrs	No	56 employees and 106 Contract workmen

Name of MAH Unit	Contact person			Fire Water Tank		Emergency D. G. Set		Fire Pump Set		Fire Tender / Fire Trailer Pump	No. of Trained Person in fire fighting
	name	Phone No.									
			O	R	No.	Capacity Lit	No.	KVA	Type		
Clairvoyance Industries Pvt Ltd D2 Ch 29 Phase II Dahej	Prakash Singh	9179909139	9179909139	1.	2000 M3 Water	2	500 KVA	Disel			
Cohizon Life Sciences Limited, Plot No 6102-03, 6117-19, Gidc Ankleshwar – 393002 Gujarat - India	Fire & Safety	240	76988895	Water Tank Capacity	1200 KL	1		Jockey Pump Capacity (01 Nos.) Main Pump Capacity (02 Nos.) Diesel Pump Capacity (01 Nos.)	1) 250 2) 2850 2850	1	11
	Security Gate	162/163	7211172134 & 7069005323								
	Electrical Department	156	7698889595								

Name of MAH Unit	Contact person			Fire Water Tank		Emergency D. G. Set		Fire Pump Set		Fire Tender / Fire Trailer Pump	No. of Trained Person in fire fighting
	name	Phone No.									
		O	R	No.	Capacity Lit	No.	KVA	Type	LPM		
Cohizon Life Sciences Limited (Unit – 2) Plot No. 5809 - 5810, GIDC Estate, Ankleshwar, Gujarat - 393002	Fire & Safety Department	666	7069075985	1	1230 KL	2	975 KVA 1250 KVA	Jockey Pump A & B Main Pump A & B DG Pump	250 LPM 4550 LPM 4550 LPM	1 No. Fire Tender is available at Unit – 1 away from 500 Meter from Unit - 2	45 Nos. (Certified ERT Members)
	Security Gate	647/555	7069005323								
	Electrical Department	661	7069001334								
Coromandel International Ltd, Ficom Chowkadi, Ankleshwar	Mr Nilesh Sonawane (Safety dept) Mr Kalpesh Mathur	9081814033 8306011850	9970514033	02	1028 KL	-	-	02	273 m3/hr	NA	68

Name of MAH Unit	Contact person			Fire Water Tank		Emergency D. G. Set		Fire Pump Set		Fire Tender / Fire Trailer Pump	No. of Trained Person in fire fighting
	name	Phone No.									
				No.	Capacity Lit	No.	KVA	Type	LPM		
		O	R								
Coromandel International Limited, Dahej Plot No. Z – 103/G, Dahej SEZ – II, Dahej – 392130, Tal. Vagra, Dist – Bharuch, Gujarat (India)	Mr. Jaydeep Mondal	+91-9512660113		2	1400KL	1	1010KVA	Jokey Pump Main Electric	20.00m3/h 410.00m3/h	No	47Nos
Covestro (India) Pvt. Ltd.3501-15, 6301-13 & 16 mtr road/B2, GIDC Industrial Estate, Ankleshwar – 393 002	Arun Kumar Nandi			1	370 m3	2	2200 & 230	Jockey Diesel Electrical	10.8 273 273	One Fire Trailer Pump	11 Firemen & 33 Company employees
Dai-Ichi Karkaria Limited, Plot No. D2 / 20, GIDC Dahej-2, Taluka:	Mr. Irfan Mansuri	(02616)723522	9714777173	2	900 KI * 2 tanks	1	500 KVA	Electrical Pump -1 Electrical Pump -2 273 Jockey	273 m3/hr 273 m3/hr 25 m3/hr.	NO	25

Name of MAH Unit	Contact person			Fire Water Tank				Emergency D. G. Set		Fire Pump Set		Fire Tender / Fire Trailer Pump	No. of Trained Person in fire fighting
	name	Phone No.											
			O	R	No.	Capacity Lit	No.	KVA	Type	LPM			
Vagra, Dist.: Bharuch, Gujarat									Pump – 25 m3/hr. Diesel Pump	273 m3/hr			
DMCC SPECIALITY CHEMICALS LTD, DAHEJ BHARUCH	Prakash Patel		9427931070	00		1	1000 KVA	Jockey Main pump Diesel pump	180 6833 6833	00	30 ERT		
DCM Shriram Ltd (Unit: Shriram Alkali & Chemicals) Plot no. 749, GIDC, Industrial estare, Jhagadia, Bharuch, Gujarat	Roopesh Lohana	02645-222000 Ext:183	89801 05511	1	4000 KL	-	-	Electrical driven-7 nos. Diesel driven pump-2 nos.	273 M3/hrs 273 M3/hrs	2 nos.	30 person including all shift operation		
Deepak Chem Tech Limited Plot No. D-II/6/1 & D-II/6/1 ^a , Dahej-	Bharat Hingladi	6354784607	2	4000 x 2 nos.	05	1500 KVA 2000KV A	Diesel Engine Driven pumps	900 M3/ Hr. Fire Tender	86 trained as ERT 06 Fire crew people				

Name of MAH Unit	Contact person			Fire Water Tank			Emergency D. G. Set		Fire Pump Set		Fire Tender / Fire Trailer Pump	No. of Trained Person in fire fighting
	name	Phone No.										
				No.	Capacity Lit	No.	KVA	Type	LPM			
	O	R										
II Industrial Estate, Dahej, Village: Rahiyad, Tal: Vagra, Dtist: Bharuch – 392130, Gujarat, India						750 KVA 500KVA 20 KVA					available in shift.	
Deepak Phenolics Limited, Plot No. 12/B/1 + 12/B/2/2, GIDC Dahej, Village: Ambetha, Taluk: Vagra, District: Bharuch, 392130, Gujarat	Mr. Nirav Bhalaria	7069012651		01	12500 KL	01		Jockey Pump-nos. 02 Main Electric Pump-nos. 03 Diesel Pump-nos. 03	160 m3/hr 780 M3/hr 780 M3/hr	Fire Tender-01 nos.	23	
Deepak Fertilisers and Petrochemical	Shailesh Parmar	02641-689137		2	2500	1	1500	Electrical & Diesel	410 KL/hr.	01	08	

Name of MAH Unit	Contact person			Fire Water Tank			Emergency D. G. Set			Fire Pump Set		Fire Tender / Fire Trailer Pump	No. of Trained Person in fire fighting
	name	Phone No.											
		O	R	No.	Capacity Lit	No.	KVA	Type	LPM				
Corporation Limited Address: Plot No. D/II/7/A, Dahej GIDC Area, Village Rahiyad,													
Dhanveen Pigments Pvt. Ltd Plot No.: 3105/06/07, GIDC Estate, Phase III, Panoli, Dist. – Bharuch, Gujarat, India	Mr. Mahendra and Mr. Jignesh					01		Electric	20 HP	NA	12		
Dharti Enterprise, D-2 / CH-326, Near ONGC Corridor, Vill. Jolva, Dahej Ta. Vagra, Dt. Bharuch	Milanshbhai D. Pateldhirendrabhai R. Patel	- -	9904850026 9714625372	1	600 KL.	3	500 KVA 250 KVA 125 KVA	3	75 HP 12.5 HP 7.5 HP	-	3		

Name of MAH Unit	Contact person			Fire Water Tank		Emergency D. G. Set		Fire Pump Set		Fire Tender / Fire Trailer Pump	No. of Trained Person in fire fighting
	name	Phone No.									
			O	R	No.	Capacity Lit	No.	KVA	Type		
Epigral Limited CH1,CH2,CH /1+2B GIDC Industrial Estate, Dahej, Tal. Vagra, Bharuch - 392 130 Gujarat, India	Mr. Ranveer Thakur	6357435840		1 2	40000 KL 1200 KL 1200 KL	5	910 Kva 1500 Kva 1010 Kva 2200 Kva(2 Nos)	Fire Pump House-1 Jockey (2 Nos) Electrical (3 Nos) Diesel (1 Nos)	40/20 M3 273 M3 273 M3 35 M3 410 M3 410 M3	1 Fire Tender (Water 3000 Ltr, Foam: 500 Ltr)	28
Expanded Polymer Systems Pvt.Ltd	J B Patel			1	450000	4	1320	Electrical Driven, And Diesel Engine Driven Pumps	2850		40
GACL-NALCO Alkalies And Chemicals Pvt. Ltd. Plot No D/II/9/1 & D/II/9/2,	Mr. Minesh Patel	9909504410	9909504410	1	1100 M3	1	1000 KVA	Jokey Pump Electrical Pump Diesel Pump	267 4550 4550	Water tender & DCP Tendor	15 nos.

Name of MAH Unit	Contact person			Fire Water Tank			Emergency D. G. Set			Fire Pump Set		Fire Tender / Fire Trailer Pump	No. of Trained Person in fire fighting
	name	Phone No.											
				No.	Capacity Lit	No.	KVA	Type	LPM				
GIDC Dahej, Taluka Vagra, Dist Bharuch, Gujarat													
Gail (India) Limited, Gandhar, Po. - Rozatankaria , Tal.Amod, Dist.Bharuch, Gujarat, Pin-392140	Sh. Sanjiv Rodi	Office : (02641)-231002, Ext No.: 871440	Phone: 9881097 278	02	6333 KL each	03	750 – 01 Nos 250 – 02 Nos	2 Jockey pumps, 4 Diesel driven pumps and 2 Electric motor driven pumps	Capacity of each Jockey pump: 60 m³/hr. Capacity of each Diesel pump: 616 m³/hr. Capacity of each Electric motor driven pump:	2 no. of multipurpose Fire Tenders with water tank capacity 4000L/ 4500L, Foam tank capacity 1000L/ 240L and DCP vessel capacity 2 000kg/ 100 0kg	40 personnel (inclusive of 30 no.s of contract manpower)		

Name of MAH Unit	Contact person			Fire Water Tank			Emergency D. G. Set		Fire Pump Set		Fire Tender / Fire Trailer Pump	No. of Trained Person in fire fighting
	name	Phone No.										
		O	R	No.	Capacity Lit	No.	KVA	Type	LPM			
									616 m³/hr			
Galaxy Surfactants Ltd. Plot No. 892, Jhagadia Industrial area, Tal: Jhagadia, Dist: Bharuch, Gujarat-393 110	Mr. Mangesh Vishvakarma	+91 9714006900	9714006900	3	3600KL	3	750KV	1.Jockey Pump 2.Electrical Main Pump 3. Diesel Pump	1. 180 LPM 2. 4550 LPM 3. 4550 LPM	1.Fire Teller	44 people for ERT & 51 people for first Aider	
Ganesh LPG Bottling Plant At & Post Plot No.19, GIDC Panoli, GIDC, Akleshwar, Bharuch, Gujarat-394116.	Mr. Bhavendrasinh Panjrolia	9998956062		1	5,30,000 ltr	1	125 kva	Electric Pump-1 Nos. Jockey Pump-1 Nos. Diesel Pump-1Nos.	60 hp/70 ltr 7.5 hp/70 mtr 2000 lpm/70 mtr	1750 lpm/30 mtr	12	

Name of MAH Unit	Contact person			Fire Water Tank		Emergency D. G. Set		Fire Pump Set		Fire Tender / Fire Trailer Pump	No. of Trained Person in fire fighting
	name	Phone No.									
		O	R	No.	Capacity Lit	No.	KVA	Type	LPM		
Grasim Industries Limited, Cellulose Division Plot No. 1, GIDC Industrial Estate, Vil. Vilayat, Tal. Vagra, Dist. Bharuch, Gujarat	Mr Darpan Bhatt (DH – Fire & Safety)	+91 9904404605		2	1000000 Liter	02	1250 &1010	Jockey -02 Nos Electrical – 04 Nos Diesel – 03 Nos	45 M3/Hr 273 M3/Hr 273 M3/Hr	01 nos Multipurpose Fire tender	04 Fire Officer 14 Fire Crew Members
Gujarat Chemical Port Limited P.O.- Lakhigam, Via- Dahej, Tal- Vagra, Dist- Bharuch, Gujarat- 392130.	Hemant Kr. Singh	02641-261036	6352691989	02 reservoirs	7830 M3 each	NA	NA	NA	NA	02 Foam cum water Tender & 01 DCP Tender	35 No's (Fire team)
Gujarat Fluoro Chemicals Limited Plot No D-2-CH-	Mr.Vilas Gurav	2642678405	9099005387	2	7380 KL 50000 KL	5	1000	1. Jockey Pump-02 Nos.	2050 6833	1 No.	96 Nos.

Name of MAH Unit	Contact person			Fire Water Tank				Emergency D. G. Set			Fire Pump Set		Fire Tender / Fire Trailer Pump	No. of Trained Person in fire fighting
	name	Phone No.												
				No.	Capacity Lit	No.	KVA	Type	LPM					
173 + D-2-CH-222 Village-Jolva GIDC Dahej Industrial Estate Taluka: Vagra Distt: Bharuch 392130 Gujarat									2.Electrical Driven Main Pump- 06 Nos. 3. Diesel Driven Pump- 2 Nos.	6833				
Gujarat Fluorochemicals Limited, 12/A GIDC Dahej Industrial Estate, Taluka Vagra, District Bharuch 392130, Gujarat	Dr. Uday Page dar		+917069 621471	02 nos. of Water Lagoon on Ground 03 Nos. of FRP Tanks	2500 m3 508 m3				Pump House - A Electric Pump- 3 Nos. Diesel Pump- 1 No. Jockey Pump- 2 Nos. Pump House - B	273 m3 /Hr 273 m3 / Hr 78 m3 / Hr 273 m3 /Hr 273 m3 / Hr	Multi-Purpose Fire Tender- 2 Nos Mini Fire Tendor- 1 No.	237 Nos.		

Name of MAH Unit	Contact person			Fire Water Tank				Emergency D. G. Set			Fire Pump Set		Fire Tender / Fire Trailer Pump	No. of Trained Person in fire fighting
	name	Phone No.												
				No.	Capacity Lit	No.	KVA	Type	LPM					
									Electric Pump-2nos. Diesel Pump-1 Jockey Pump-1 No.	78 m3 / Hr				
Gujarat Guardian Ltd. State Highway – 13, Valia Road, Ankleshwar, Dist. Bharuch, Gujarat – 393001	Yatin Chhaya			3	1700 KL (Total Capacity)	-	-	-	-	-	01	55 (ERT)		
Gujarat Narmada Valley Fertilizers & Chemicals Ltd. (GNFC) Address: GNFC, Narmadanag	Shri. S N Warhathe	026422062801	7600028647	4	18941 M3	1		Electric, Diesel	71652	5	57 fireman with supervisor or includin			

Name of MAH Unit	Contact person			Fire Water Tank				Emergency D. G. Set			Fire Pump Set		Fire Tender / Fire Trailer Pump	No. of Trained Person in fire fighting
	name	Phone No.												
				No.	Capacity Lit	No.	KVA	Type	LPM					
ar, Bharuch – 392015, Gujarat, India													g all 3 shifts	
Hemani Industries Limited. Plot No: CH/5, GIDC Industrial estate Dahej Tehsil: Vagra, Dist.: Bharuch Gujarat, 392130	Mr. Rajesh Singh	+91 9081555104		01	600 m³	04	500, 1010, 1250, 1500 KV	Electrical Diesel	273 m3/hr, 273 m3/hr,	NIL	100 trained persons in fire fighting			
Hemani Industries Limited. Unit 2 Plot No. 3207/A & B, 3208/1&2, 3202/A/1, GIDC Industrial Estate, Ankleshwar -	Mr. Rishabh Jani	+91 8200942694		01	400 m3	02	1010, 1010, KVA	Electrical Diesel	171 m3/hr, 171 m3/hr,	NIL	25 trained persons in fire fighting			

Name of MAH Unit	Contact person			Fire Water Tank			Emergency D. G. Set			Fire Pump Set		Fire Tender / Fire Trailer Pump	No. of Trained Person in fire fighting
	name	Phone No.											
			O	R	No.	Capacity Lit	No.	KVA	Type	LPM			
393002, Gujarat													
Hikal Limited Plot No. 629/630-B GIDC Estate, Post: Panoli	Mr. Manish Sheth	02646 302100 Extn. 5286	1	1500000	1	500 (Stationary)	1.Jockey pump - 10.8 m3/hr 2.Main Ele. Pump - 273 m³/hr 3. Diesel operated-273 m³/hr pump	No	25	Mr. Manish Sheth	02646 302100 Extn. 5286		
Indo Baijin Chemicals Pvt. Ltd. Plot No. Z/7/1, SEZ-1 Area, Dahej SEZ Ltd. Tal - Vagra, Dist - Bharuch - 392130, Gujarat, India	Sumeet Garvalia	315	9099974663	2	1000 M3	2	1000	1. Jockey Pump 2.Electrical Pump 3.Diesel Pimp	1. 36 m3/hr 2.306m3 /hr 3.612m3 /hr	NA	38		
Indofil Industries Limited (Unit-1) Plot No. Z-8, SEZ-1,	Mr. Mihir Pandya	(02642)282283	6357971090	01	1092000	02	1500	Jockey Main	2004550	NA	29 Nos		

Name of MAH Unit	Contact person			Fire Water Tank				Emergency D. G. Set		Fire Pump Set		Fire Tender / Fire Trailer Pump	No. of Trained Person in fire fighting
	name	Phone No.											
		O	R	No.	Capacity Lit	No.	KVA	Type	LPM				
GIDC, Dahej, Tal. – Vagra, Dist: Bharuch, Gujarat – 392130									Deisel	4550			
Indorama Vevnture Oxides Ankleshwar Pvt. Ltd. Plot No. 321, GIDC Panoli, Ankleshwar, Bharuch.	Mr. Hiren Gohil Mr. Ashwin Prajapati	02646-660724 & 660770										05 Employees	
Industrial Solvent & Chemical Pvt Ltd.	Beil Infrasturcture Limited. Detox India Private Limited.	7575001962 9724328643		1	1000				1) Jockey Pump 2 Nos. 2) Main Pump 15 Hp 2 Nos 3) Main Pump 100hp/200hp	965LPM 965LPM 1200LPM/2400LP	-	35 Members	

Name of MAH Unit	Contact person			Fire Water Tank		Emergency D. G. Set		Fire Pump Set		Fire Tender / Fire Trailer Pump	No. of Trained Person in fire fighting
	name	Phone No.									
		O	R	No.	Capacity Lit	No.	KVA	Type	LPM		
Ion Exchange (India) Limited, Plot No. 5811-12-13 GIDC Estate, Ankleshwar	Mr. Arvind D. Patel Mr. Hemang K. Bhatt Mr. Rajdipsinh D. Vansi a	8511100260 8511100260		01	400 M3	02 nos	1250 & 437.5			No	20 nos.
Jal aqua international llp,Plot no:620 road no.06 ,GIDC estate panoli ,Dist-Bharuch	Panoli GIDC fire station	02646-272747		-	-	01		01		02 nos fire tendor	25 trained person inside company

Name of MAH Unit	Contact person			Fire Water Tank		Emergency D. G. Set		Fire Pump Set		Fire Tender / Fire Trailer Pump	No. of Trained Person in fire fighting
	name	Phone No.									
		O	R	No.	Capacity Lit	No.	KVA	Type	LPM		
Jayshree Aromatics Limited Plot No. 4703,4704,4705/1/2,3&4, GIDC, Ankleshwar, Gujarat-393002	Hiren P. Bhuva	9727711325		1	218500	2	500	Electrical	2850	-	20
Jubilant Ingrevia Limited & Jubilant Infrastructure Limited	Mr. Pradeep Kumar Nagar	02641281602	7600101745	1	4500000	4	400 KVA, 160 KVA*2 & 750 KVA	Jockey Pump, Main Pump & Diesel Pump	6833	1	210
Kanoria Chemicals & Industries Ltd. Plot No. 3407, GIDC Industrial Estate Ankleshwar, Dist. Bharuch,	Anil D Mishra		7041939554	4	2500 KL	1		3	171		20

Name of MAH Unit	Contact person			Fire Water Tank			Emergency D. G. Set			Fire Pump Set		Fire Tender / Fire Trailer Pump	No. of Trained Person in fire fighting
	name	Phone No.											
		O	R	No.	Capacity Lit	No.	KVA	Type	LPM				
Gujarat – 393001													
KLJ Organic Limited Plot No-759, GIDC Estate, At&Po:Jhagadia, Ta:Ankleshwar Dist-Bharuch	Mr R K Nahata	9825042991	02646-222122	1	560 KL						-	17	
Krishna Antioxidants Pvt Ltd Plot No.: D-3/24/1, GIDC Dahej Phase – III, Village Samatpor, Taluka Vagra Dahej, Dist. Bharuch (Gujarat) – 392130	Raj Kumar Gupta	9824330937		1	600000	1	600	Electric Diesel Jockey	2850 2850 180		-	18 Nos	
LANXESS India Pvt. Ltd, Plot No. 748/2/A, 748/3 & 748/4/B	NARESH MUDE	+91 2645 224259	6356033300	1	3000000	11	5001000	1 Electric Pump 2 Dg Pump	273M3/Hr 273M3/Hr	1		60	

Name of MAH Unit	Contact person			Fire Water Tank			Emergency D. G. Set		Fire Pump Set		Fire Tender / Fire Trailer Pump	No. of Trained Person in fire fighting
	name	Phone No.										
		O	R	No.	Capacity Lit	No.	KVA	Type	LPM			
+748/4/A/1, Gidc Estate, Jhagadia – 393110, Dist. Bharuch.												
Meridian Chem Bond Private Limited Plot No-5906/04 GIDC Ankleshwar	Mr. S.K.N air	02646)225131	01	80 KL Process Water	01	DG set of 625 KVA	Nil	Nil	Nil	10		
Meridian Chem-Bond Private Limited Plot No. 3209, GIDC Estate, Ankleshwar – 393002, Dist. Bharuch, Gujarat	Mr. Deven dra Singh	02646-225131 / 325603	01	120kl Process Water	01	DG set of 625 KVA	Nil	Nil	Nil	10		
Minol Acids And Chemicals Pvt. Ltd.	Shailesh maru											

Name of MAH Unit	Contact person			Fire Water Tank			Emergency D. G. Set			Fire Pump Set		Fire Tender / Fire Trailer Pump	No. of Trained Person in fire fighting
	name	Phone No.											
			No.	Capacity Lit	No.	KVA	Type	LPM					
Plot No. 5904/1, Nr. Kanoria Chemicals, G.I.D.C., Ankleshwar.	Hardik Ponkiya Ganesh Prajapati Sohan Bhambu												
New India Acid (Baroda) Pvt. Ltd.	Mr. Sukhdevsinh Gohil	9374865339		1	2 Nos Each 1,00,000 Ltr	1	125	1	1600 Lpm				
Omkar Chemical Industries PVT Ltd Plote No.406, GIDC.Estate, Panoli-	Jaypalsinh Chavda	7567586462		1	700 KL	1	500	Jockey Pump / Main Pump	10m3	-	10		

Name of MAH Unit	Contact person			Fire Water Tank			Emergency D. G. Set			Fire Pump Set		Fire Tender / Fire Trailer Pump	No. of Trained Person in fire fighting
	name	Phone No.											
		O	R	No.	Capacity Lit	No.	KVA	Type	LPM				
394116, Ankleshwar, Dist. Bharuch													
Organic Industries Pvt. Ltd S/163. GIDC, Dahej, Vagra, Bharuch	Haren dra Kuma r		6358879 403	1	5000 KL	1	125 KVA	3	273m3/h r,	One 5000 lpm	9 trained persons		
ONGC Petro additions Limited Plot #Z-1 & Z-83 C/o, Dahej SEZ Ltd., P.O Dahej, Taluka Vagra, District Bharuch, Gujarat – 392130, India	Mr. Somn ath Sarka r	909900751 6		2	25,000 M3 each	-	-	-	-	07/02	05 – Fire Officer0 4 -Fire Supervis or 58- Fire crew		
Phthalo Science at Plot No. DP-112, GIDC Sayakha, Ta.: Vagra,	Lichh man Ram	7486824204		Yes				Yes			4		

Name of MAH Unit	Contact person			Fire Water Tank			Emergency D. G. Set		Fire Pump Set		Fire Tender / Fire Trailer Pump	No. of Trained Person in fire fighting
	name	Phone No.										
		O	R	No.	Capacity Lit	No.	KVA	Type	LPM			
Bharuch, Gujarat – 392165, India												
Panoli Intermediates (India) Pvt Ltd,Plot No 778/1 & 756/1,Gidc Jhagadia, Dist-Bharuch	Pankaj Humad Vinod kumar M Rager	7228009997 9377237174		01	1100 KL	01	950	3	--	NA	25	
Panorama Aromatics Ltd. Plot No. 2908-2911, Phase-Iii, Gidc Panoli-394116, Tal.-Ankleshwar, Dist.-Bharuch	Mr. Mukesh Patel	9825033576		1 2	25000l tr 100000 ltr	1	200	Centifugal Pump	1500	NA	9 Person	
Payal Polyplast Pvt. Ltd Plot No. 2, Dahej 2, Bharuch -	Mr. Hitul Joshi	+91 8238021691		1	450KL	2	1010kva 910 KvA	Electrical & Diesel	273 m3/hr, & 273 m3/hr.		20 trained persons	

Name of MAH Unit	Contact person			Fire Water Tank		Emergency D. G. Set		Fire Pump Set		Fire Tender / Fire Trailer Pump	No. of Trained Person in fire fighting
	name	Phone No.									
		O	R	No.	Capacity Lit	No.	KVA	Type	LPM		
Dahej Rd, Gujarat 392130											
PI Industries Ltd 237, GIDC Estate Panoli 394 116 Dist. Bharuch, Gujarat	Ram murti Rai	02646618278	9227562335	1	450 KL	-	-	Diesel Pump	273 M3/hr	01	360 (ERT Members)
PI Industries Ltd. SPM-29/2, Sterling SEZ, At – Sarod, Ta – Jambusar, Dist. – Bharuch	Mr. Niraj Ranjan Mr. Rishiraj Chouhan	02644225841 02644225727	6357434583 6359911377	01	2100 KL	-	-	Jockey-01 Jockey-02 Electric Pump-01 Electric Pump-02 DG Pump	2266 2266 5833 5833 11333	1 Fire Tender	40
Piramal Pharma Limited Plot No. D-2/11/A1, GIDC Industrial	Mahesh Yeole	02641669865	9736829475	1	1100KL	1	72	Jockey Pump, Electrical Pump Diesel Pump	J: - 283.3 M: - 5166.6 D: - 5166.6	NA	27 Certified trainers

Name of MAH Unit	Contact person			Fire Water Tank				Emergency D. G. Set			Fire Pump Set		Fire Tender / Fire Trailer Pump	No. of Trained Person in fire fighting
	name	Phone No.												
				No.	Capacity Lit	No.	KVA	Type	LPM					
Estate, Phase-II, Vil:Dahej, Ta:Vagra 392130, Bharuch, Gujrat, India														
Petronet LNG Limited. Dahej Terminal	Sushil B Machhi Chief Manager (HSE)	02641-670252	+91 9662526295	2	9000 KL	2	1875 & 2500 KVA	1.Jockey Pump 02 Nos Diesel Driven Pump : 04 Nos Electric Fire Pumps : 02 Nos	1. 2083 LPM 2. 17500 LPM 17500 LPM	05 Nos fire tender and 01 no fire trailer pump	Total Fire Dept Strengt h 7 Fire officer of Petrone t 76 nos contract Fire man			
Privi Speciality Chemicals Limited, Plot No. 765, Road	Mr. Vishwaj Singh	7276735263		2	568000	1 2 3	2500 300 250	Jokey Main Diesel	250 4533 4533	Not Applicable	38			

Name of MAH Unit	Contact person			Fire Water Tank			Emergency D. G. Set			Fire Pump Set		Fire Tender / Fire Trailer Pump	No. of Trained Person in fire fighting
	name	Phone No.											
			O	R	No.	Capacity Lit	No.	KVA	Type	LPM			
No.2, GIDC Jhagadia – 393 110 Dist. Bharuch					596000								
Reliance Industries Ltd. Dahej Manufacturing Division Dahej, Bharuch	Nitin Gajghate	02641356006	+91-7016109787	1	24000 m³	NA	NA	NA	NA	• Foam tender – 04 • DCP Tender – 01 • Emergency Tender – 01 • Foam Nurser – 01	50		
Savla Chemicals Ltd. Plot No: 26-A, GIDC, Industrial Estate, Panoli-394116, Ankleshwar,	Mr. Bhupendra Prajapati	02646-272622/633	9016387942	01	800 m3	Diesel Pump 01 and 01 Electric pump	120 KVA	Vertical	---	---	40		

Name of MAH Unit	Contact person			Fire Water Tank			Emergency D. G. Set			Fire Pump Set			Fire Tender / Fire Trailer Pump	No. of Trained Person in fire fighting
	name	Phone No.												
			O	R	No.	Capacity Lit	No.	KVA	Type	LPM				
Dist- Bharuch, Gujarat														
SRF Limited D-2/1, GIDC Phase II ,PCPIR, Dahej , District Bharuch, Gujarat - 392 130.	Vikas Yadav	91-2641-289201/ 202	9978445120	02	29010 KL (27000 +2010)	16 (13+3)	24920 (21600+3320)	DG pump - 13	410 M3/Hr	Fire Tendor-1	Trained Fire-Fighters – 32 (8 per shift); Trained ERT 443 (in shifts)			
Schott Glass India Pvt. Ltd Block No. 1351/1, 1352/2 Vill: Ankhi, Tal: Jambusar Dist.: Bharuch	Sachin – Stearling Biotech	9879 4049 47		1	1200 KL	0		1)Jockey 2) Main 3) Diseal	1)10m³/h 2)273.88 3)273.88	1	11			
	M. A. Malik – PGP	7984 7851 79		1	600 KL	0		1)Jockey 2) Main	1)10m³/h 2)273.88 3)273.88	1	10			

Name of MAH Unit	Contact person			Fire Water Tank		Emergency D. G. Set			Fire Pump Set		Fire Tender / Fire Trailer Pump	No. of Trained Person in fire fighting
	name	Phone No.										
		O	R	No.	Capacity Lit	No.	KVA	Type	LPM			
								3) Diseal				
Shiva Pharmachem Limited Dahej	Mr. Jignesh Patel	9999 8058 967	7203080999	1	760	2	600	3	273 (m3/Hr)	1 (108 M3/Hr)	71	
Shivam Incorporation Plot No 521, L-1801, L-1802 & 665, GIDC Estate, Panoli, Dist.: Bharuch, Taluka: Ankleshwar, Gujarat-394116	Mr. Prakash Rathod	+91 9714 4 5682 6									08	
Sterling Auxiliaries Pvt.Ltd, Dahej, Taluka –	Shree Niwas Upadhyay	7359 2714 45	7359271445	02	320000 litres 30000	02	1010	2 no	450 m3/hr	02	ERT-48 Fireman and DCPO-18	

Name of MAH Unit	Contact person				Fire Water Tank			Emergency D. G. Set			Fire Pump Set		Fire Tender / Fire Trailer Pump	No. of Trained Person in fire fighting
	name	Phone No.												
		No.	Capacity Lit	No.	KVA	Type	LPM							
Vagra, Dist-Bharuch														
Styrenix Performance Materils Limited, 4-G.I.D.C Dahej, Tal: Vagra Dist: Bharuch	Mr. Bhavesh Rajput and Vinod Tank			02	2444.92 KL and 2446.56 KL	03	1.2 KW	Electirc al Pump (1 nos) and Diesel Pump (2 nos)	410 M3/Hr	Fire Pump Trailer	12 Person			
SHILPA CHEMICAL INDUSTRIES . PLOT NO. 4777 – 4778 G.I.D.C, ANKLESHWAR	Mr. VIKAS SHAH		9426134682	01	1.5 LAC Litter	1	62.5 KVA	2 NOS	900 LPM		6			

Name of MAH Unit	Contact person			Fire Water Tank		Emergency D. G. Set			Fire Pump Set		Fire Tender / Fire Trailer Pump	No. of Trained Person in fire fighting
	name	Phone No.										
				No.	Capacity Lit	No.	KVA	Type	LPM			
		O	R									
Superform Chemistries Limited (Unit – 92) Plot No- D 3 / 6 Gidc I I I ,Kadodara Ta- Vagara, Dist. Bharuch (Gujarat)- 392110	Gopal Patil	9099 9810 96		4	1500KL	7	910KVA/12 50KVA/111 0KVA	2 X Jockey Pump 4 X Main Pump 2 X Diesel Pump	583.3 LPM (Jockey pump) 6833.3 LPM (Main pump and Diesel Pump)	Available (1)	179(ER T + Fire Team)	
Superform Chemistries Limited. Plot No. 746/750, GIDC, Jhagadia, Dist- Bharuch, 393110, Gujarat, Inida	Mr. Sanjeev Bishnoi	8980 0189 06		8	164000 00	3	750 KV Each	Jockey Pump Main Pump Deisel Pump	1.500 2.6834 3.6834	Fire Tender – 1	220	
Sudarshan Gujarat MFG Private Limited, Unit-1, Plot No.	Mr. Prathmesh Bhatt		7069002450	1	525000	1	1500	3Electrical Pump 1 Jockey Pump	4550 416 4550	Not available	Fireman - 5nos	

Name of MAH Unit	Contact person			Fire Water Tank		Emergency D. G. Set		Fire Pump Set		Fire Tender / Fire Trailer Pump	No. of Trained Person in fire fighting
	name	Phone No.									
		O	R	No.	Capacity Lit	No.	KVA	Type	LPM		
9002-9010, Phase VI, GIDC Estate, Ankleshwar – 393 002, Gujarat,								1 Dg Pump			
Shyam Chemicals Pvt.ltd 6004, GIDC Ankleshwar	Vijay. V. Dua	9723 9164 56	----		NA		320 KVA			NA	15
Solvay Specialities India Pvt Ltd, Panoli Plot No: 3526 - 27, G.I.D.C., Panoli, District : Bharuch, Gujarat (394116)	Mr. Himanshu Gondaliya	(0264 6) 615 310	9924148975	1	2500 KL	3	1000 KVA: 2nos 1250 KVA : 1 no	3	2nos Of Dg Pumps: (567M3/hr. OR 9,450LTR /MI) for 1 Pump •1no Electrical pump 464 M3/hr. OR 7733 LTR/MIN	1	Total 58 Persons of Emergency Response Team (ERT)

Name of MAH Unit	Contact person			Fire Water Tank		Emergency D. G. Set			Fire Pump Set		Fire Tender / Fire Trailer Pump	No. of Trained Person in fire fighting
	name	Phone No.										
		O	R	No.	Capacity Lit	No.	KVA	Type	LPM			
									•1no Jocky pump: 28M3/hr.			
	Mr. Ashish Naik	(0264 6) 615 317	9924148976									
	Mr. Sanjay Chaudhary	(0264 6) 615 416	9924148965									
	Mr. Ashesh Mehta	(0264 6) 615 322	9924148969									
Tagros Chemicals India Pvt. Ltd. Plot no.43/1, Amod Road, GIDC Dahej-	Sanjeev Triar	7043 9995 75	7283835768	1	2200 KL	1	2250 KVA	Electric al	410 M3/Hr	0	78 Persons	

Name of MAH Unit	Contact person			Fire Water Tank		Emergency D. G. Set			Fire Pump Set		Fire Tender / Fire Trailer Pump	No. of Trained Person in fire fighting
	name	Phone No.										
		O	R	No.	Capacity Lit	No.	KVA	Type	LPM			
1,Tal: Vagra, Dist: Bharuch-392130								Diesel	410 M3/Hr			
Tagros Chemical Ind. Pvt. LTD. Plot No. 2901 to 2906 & 2806, GIDC, Panoli, Tal.: Ankleshwar, Dist.: Bharuch, Gujarat – 394 116.	Dr. Gopal Pishe	7283 8357 46	9904432575	1	1000 KL	4 Nos.	3370 KVA	ELE DG	9100 Lit	NA	60 Fire Fighters	
TML Industries Limited At & post-Piludra-391810, Tal-	Mr. Kismat Patel	9898 5083 87	9898508387	02	300 KL	02	1000 KVA 350 KVA	Jockey Pump-01 nos. Main Electric Pump-01 nos.	10 m3/hr 70M3/ hr 171 M3/hr	-	30	

Name of MAH Unit	Contact person			Fire Water Tank		Emergency D. G. Set		Fire Pump Set		Fire Tender / Fire Trailer Pump	No. of Trained Person in fire fighting
	name	Phone No.									
		O	R	No.	Capacity Lit	No.	KVA	Type	LPM		
Jambusar, Dist-Bharuch								Diesel Pump-01			
Unitop Chemicals Pvt Ltd. D2/CH-342,343, GIDC Phase II, Vill. Jolwa, Dahej, Bharuch	Mr. Prakash Dongare	0264 1-6777 02	~	1	1000 m3	2	500	Jocky Diesel Electrical	10 m3/hr 171 m3/hr 171 m3/hr	NA	47
Viswaat Chemicals Limited, D-3/10, Dahej Phase III, GIDC, Dahej, Taluka – Vagra, Dist. – Bharuch, Gujarat – 392130	Mr. Bharat Mopara Mr.Jaimin Vyas		9909988013 9016533450	1	1200 KL	02	750 kVA	Jockey Pump Ele. Pump DG pump	15 m³/hr 273 m³/hr 273 m³/hr	NA	35 Nos.

Name of MAH Unit	Contact person			Fire Water Tank		Emergency D. G. Set			Fire Pump Set		Fire Tender / Fire Trailer Pump	No. of Trained Person in fire fighting
	name	Phone No.										
		No.	Capacity Lit	No.	KVA	Type	LPM					
	O	R										
Vital Chemtech Limited Plot No. D3/151 & 158, GIDC, Dahej III, Ta-Vagra, Dist.-Bharuch, Pin-392130	Mr. Santosh Shukla		93166 32488	01	1.5 LAC Litter	2	380 & 250	Diesel Pump	60 Ltr & 45 Ltr	Diesel Pump	13	
Yashashvi Rasayan Pvt.Ltd Plot No. Z/96/E, SEZ-II, Dahej Industrial Estate, Village Luvara, Taluka Vagra, District Bharuch, Gujarat, 392130	Jatinkumar Bhatt	9879 3685 53		02	7,50,000 x 2nos	-		02 Nos-electric al +Diesel	273 m3/Hr	-	89	

Name of MAH unit	Fire Extinguishers								
	CO2			DCP / ABC		Foam		Fire Hose	
	Capacity		Nos.	Capacity		Nos.	Capacity	Nos.	Length
Aarti Industries Limited Plot no. Z/103/C, SEZ-II, Dahej, Tal-Vagra, Dist-Bharuch, Gujrat, 392130	4.5	Kg Capacity	34 Nos	09 Kg Capacity	129 Nos	09 liter Capacity	59 Nos.	30 meter length of each hose pipe.	47 Nos
	09 Kg Capacity		22 Nos	75 Kg Capacity	04 Nos	09 liter Capacity	22 Nos.		
	22.5 Kg Capacity		02 Nos	06 Kg Capacity	28 Nos	60 liter Capacity	17 Nos.		
Aarti Industries Limited Plot No: 758/1, 2 & 3, Survey No. 359, 360, 364, 358, 357, 356, 345, 348 GIDC Jhagadia, Dist-Bharuch, Gujarat - 393110	6.5 Kg		194	50 Kg	5	9 Kg	16	Hose reel	102
	4.5 Kg							No:102	
	2 Kg							Length:	
	22.5 Kg							30 Mtr. each 7.5 and 15 Meters	
Alkyl Amines Chemical limited Plot No: D2/CH/149/2,GIDC Dahej2, Ta: Vagra, Dist: Bharuch, Gujarat – 392130	4.5 kg		31	6 kg	147 no.s	100 litres AFF Foam trolley	5 + 2 Stand by	1500 meter	150
	9 kg		2						
Amal Speciality Chemicals Limited.Plot No. 136/137, GIDC Estate, Ankleshwar,	4.5kg/6.5Kg		10	6KG/9KG 25KG/50KG/75KG	07	9 L /50 L /150 L	0	15 m	3

Name of MAH unit	Fire Extinguishers							
	CO2		DCP / ABC		Foam		Fire Hose	
	Capacity	Nos.	Capacity	Nos.	Capacity	Nos.	Length	Nos.
Dist.: Bharuch, Gujarat, Pin: 393002								
Anshika polysurf ltd Plot no : C-383/1, Argama industrial estate, Saykha GIDC, Ta: Vagra, Dist : Bharuch	9 Kgs 4.5 Kgs	07 03	9 Kgs 6 Kgs	40 10	45 Ltrs 09 Ltrs 04 Monitors	05 01 04	15 Mtr	33
Anugrah Indsutries Private Limited Plot No. D3-26/1&2, GIDC Dahej – 392130, Tal. Vagra, Dist. Bharuch	4.5 kg	06	02 kg 06 kg 25 kg	06 49 2	9 ltr	04	300 mtr	20
Aries Colorchem Pvt Ltd Plot No: DP-56 & DP-57, Saykha GIDC, Saykha Tehsil: Vagra, Dist: Bharuch Gujarat, 392 140	9kg/6.5Kg/	12	6KG/9KG 25KG/50KG	35	9 L /50 L /150 L	10	30 m	15
Atul Ltd (Aromatics Business) Plot no 297, 297/1, GIDC estate, Ankleshwar, Dist- Bharuch	4.5kg/6.5Kg	229	6KG/9KG 25KG/50KG/75KG	555 nos 32nos	9 L /50 L /150 L	27	15 m	291
Birla Cellulosic (A Unit of Grasim Industries Ltd) Birladham, Village – Kharach, Near Kosamba, Tal – Hansot, District – Bharuch.	2 kg	35	2 kg	16	9 lit.	23	15 mt.	151
	3 kg	9	4 kg	09	50 lit.	17	--	--
	4.5 kg	90	5 kg	08	--	--	--	--
	9 kg	297	6 kg	74	--	--	--	--
	22.5 kg	42	25 kg	05	--	--	--	--

Name of MAH unit	Fire Extinguishers							
	CO2		DCP / ABC		Foam		Fire Hose	
	Capacity	Nos.	Capacity	Nos.	Capacity	Nos.	Length	Nos.
Bodal Chemicals Limited Plot No. 301 to 430+433 to 440/1, Juned Bhersam Estate, GIDC, Saykha TA: Vagra, Bharuch, Gujarat - 392140	22.5 Kgs = 5, 4.5 kgs = 10	15	9 Kgs = 20, 6 Kgs = 30, 75 Kgs = 4, 50 Ltr = 10, ABC 06 Kgs = 25	89	100 Kgs	10	15 Mtr	132
Borosil Renewables Limited Ankleshwar–Rajpipla Road, Village – Govali, Bharuch, Gujarat	4.5 & 6.5 KG	136	6 & 9 KG	255	9 & 45 ltr	17	7.5 & 15 mtr	170
Century ENKA Ltd. (Unit: Rajashree Polyfil), Rajashree Nagar, Post:Umalla, Tal:Jhagadia, Dist:Bharuch – 393120	4.5	447	4.5	566	5	10	15 meter	120
Chemieorganic Chemicals (I) Pvt. Ltd. Plot No. 758 G.I.D.C. – Jhagadia. Tal.: Jhagadia, Dist. Bharuch, Gujarat 393110	4.5 Kg	31	2 Kg/ 6 Kg./ 9 Kg./ 25 kg./ 50 Kg.	109 Nos.	9 Litre	41	15 Mtrs.	217Nos.
	3 Kg	1 No.			50 Litre	6	7.5 Mtrs.	3 Nos.
Clairvoyance Industries Pvt Ltd D2 Ch 29 Phase II Dahej	4.5 Kgs	16	6 Kgs	38	9 Ltr	06	Availab le	04
			50 Kgs	01	45 Ltr	01		
Cohizon Life Sciences Limited, Plot No 6102-03, 6117-19, Gidc Ankleshwar – 393002 Gujarat - India	2 KG	10	1 KG	3	9 LTR	104	15 M	
	4.5 KG	161	2 KG	1	45 LTR	65	15 M	
	22.5 KG	9	6KG	212	-	-	-	-
	-	-	9 KG	11	-	-	-	-
	-	-	50 KG	5	-	-	-	-

Name of MAH unit	Fire Extinguishers							
	CO2		DCP / ABC		Foam		Fire Hose	
	Capacity	Nos.	Capacity	Nos.	Capacity	Nos.	Length	Nos.
	-	-	500 G	13	-	-	-	-
Cohizon Life Sciences Limited (Unit – 2) Plot No. 5809 - 5810, GIDC Estate, Ankleshwar, Gujarat - 393002	4.5 kg	75	4 Kg	8	9 Liter	62	15meter	124
	9.0 Kg	4	6 Kg	142	45 Liter	16	15 meters	15(Spare)
	4.5 Kg	5 (Spare)	6 Kg	5 (Spare)				
	-----	-----	10 Kg	6	9 Liter	10 (Spare)	-----	-----
	-----	-----	50 Kg	3	-----	-----	-----	-----
Coromandel International Ltd, Ficom Chowkadi, Ankleshwar	22.5 Kgs, 9 Kgs, 4.5 Kgs	03, 33, 93	50 Kg	22	45 Lit	02	7.5 meter, 15 meter	56, 56
Coromandel International Limited, Dahej Plot No. Z – 103/G, Dahej SEZ – II, Dahej – 392130, Tal. Vagra, Dist – Bharuch, Gujarat (India)	4.5Kgs	123Nos	9Kgs	177Nos	09Ltrs	4.5Kgs	123Nos	9Kgs
Covestro (India) Pvt. Ltd. 3501-15, 6301-13 & 16 mtr road/B2, GIDC Industrial Estate, Ankleshwar – 393 002	4.5 kg 6.5 kg 9 kg	75 07 03	6kg DCP 9 KG DCP 10 KG DCP 9KG ABC 6KG ABC	19 05 03 36 03	9 Ltr 50 Ltr 60 Ltr	16 09 06	15 mtr 07 mtr	42 19

Name of MAH unit	Fire Extinguishers							
	CO2		DCP / ABC		Foam		Fire Hose	
	Capacity	Nos.	Capacity	Nos.	Capacity	Nos.	Length	Nos.
			25 KG ABC	01				
Dai-Ichi Karkaria Limited, Plot No. D2 / 20, GIDC Dahej-2, Taluka: Vagra, Dist.: Bharuch, Gujarat	4.5 kg 9 kg.	77 16	6 Kg 9 KG	56 Nos 23 Nos	9 LTR	17 Nos	7.5 mt. 15 mt.	110Nos. 10 Nos
DMCC SPECIALITY CHEMICALS LTD, DAHEJ BHARUCH	4.5	70	9	68	9	12	20 mtr	1
DCM Shriram Ltd (Unit: Shriram Alkali & Chemicals) Plot no. 749, GIDC, Industrial estate, Jhagadia, Bharuch, Gujarat	4.5 kg & 6.8 kg	872	6 kg/25 kg/50 kg/75 kg	568	9 ltr / 50 ltr	153	15 mtr	1034
Deepak Chem Tech Limited Plot No. D-II/ 6/1 & D-II/6/1 ^a , Dahej- II Industrial Estate, Dahej, Village : Rahiyad, Tal: Vagra, Dtist: Bharuch - 392130, Gujarat, India	2kg,4.5 kg, 9 kg 22 kg,	105	4kg, 6kg, 9kg, 25 kg, 50 kg	294	9 Ltr, 45 Ltr.	70	15mete r	278
Deepak Phenolics Limited , Plot No. 12/B/1 + 12/B/2/2, GIDC Dahej, Village: Ambetha, Taluk: Vagra, District: Bharuch, 392130, Gujarat	4.5 Kg/22.5Kg	10	6Kg/9Kg	80	Foam Type Fire Extinguish ers- (9 lit.)	00	15 / 30 Meter	246 Nos.
Deepak Fertilisers and Petrochemical Corporation Limited Address: Plot No. D/II/7/A, Dahej GIDC Area, Village Rahiyad, Taluka Vagra,	4.5 Kg	60	6 & 9 Kg	150	50 Ltr	16	7.5 Mtr	240

Name of MAH unit	Fire Extinguishers							
	CO2		DCP / ABC		Foam		Fire Hose	
	Capacity	Nos.	Capacity	Nos.	Capacity	Nos.	Length	Nos.
Dhanveen Pigments Pvt. Ltd Plot No.: 3105/06/07, GIDC Estate, Phase III, Panoli, Dist. – Bharuch, Gujarat, India	4.5 Kg	08	06 Kg	17	9 Liter	03	15 Meters	07
Dharti Enterprise, D-2 / CH- 326, Near ONGC Corridor, Vill. Jolwa, Dahej Ta. Vagra, Dt. Bharuch	4.5 Kgs.	3	9.0 Kgs. 6.0 Kgs. 2.0 Kgs.	07 16 01	20 Kgs.	9	-	-
Epigral Limited CH1,CH2,CH/1+2B GIDC Industrial Estate, Dahej, Tal. Vagra, Bharuch - 392 130 Gujarat, India	Co2 4.5 kg	179	ABC 6 Kg	385	MF 09 ltr	83	15 Meter	980
	Co2 6.5 kg	16	ABC 9 Kg	11	MF 45 ltr	36		
	Co2 9 kg	3	DCP 25 Kg	8				
	Co2 22.5 kg	2	DCP 50 Kg	1				
			DCP 75 Kg	1				
			Clean Agent	12				
Expanded Polymer Systems Pvt.Ltd	2.0 kg	02	6.0 Kg	50	50.0 Kg	03	15 m	60
	4.5Kg	20	10.0 Kg	15				
	9.0 kg	04	75.0 Kg	02				
	4.5 Kg	46	6 Kg	182	9 Ltr	1	15 Mtr.	195

Name of MAH unit	Fire Extinguishers							
	CO2		DCP / ABC		Foam		Fire Hose	
	Capacity	Nos.	Capacity	Nos.	Capacity	Nos.	Length	Nos.
GACL-NALCO Alkalies And Chemicals Pvt. Ltd. Plot No D/II/9/1 & D/II/9/2, GIDC Dahej, Taluka : Vagra, Dist – Bharuch, Gujarat	22.5 Kg	18	9 Kg	168			22 Mtr.	20
			50 Kg	16				
Gail (India) Limited, Gandhar, Po.Rozatankaria, Tal.Amod, Dist.Bharuch, Gujarat, Pin-392140	4.5, 6.5 Kgs	120	6, 9, 75 Kgs	250	NIL	NIL	15 M	210
Galaxy Surfactants Ltd. Plot No. 892, Jhagadia Industrial area, Tal: Jhagadia, Dist:Bharuch Gujarat- 393 110	2 Kg 4.5 Kg 9 Kg 22.5 Kg	19 156 5 4	1 Kg 2 Kg 6 Kg 25 Kg	1 3 247 4	6 Ltr 9 Ltr 45 Ltr 60 Ltr	7 2 1 5	7 Mtr & 15 Mtr (Rubber)	170
Ganesh LPG Bottling Plant Plot No.19, Gidc Panoli, GIDC, Akleshwar, Bharuch, Gujarat-394116.	9 Kg/22.5 kg	9 Nos	15 kgs	1	NA	NA	15 Mtr	4 Nos
Gujarat Narmada Valley Fertilizers & Chemicals Ltd. (GNFC) Address: GNFC, Narmadanagar, Bharuch – 392015, Gujarat, India	4.5 kg 6.8 kg 9 kg	550 58 32	6 kg 25 kg 75 kg	117 64 4	Foam tank 13500 liter (for 5tender)	5	15 m	50
Grasim Industries Limited, Cellulose Division Plot No. 1, GIDC Industrial Estate, Vil. Vilayat, Tal. Vagra, Dist. Bharuch, Gujarat	2 Kg : 61 nos 4.5 Kg: 306 Nos. 9 Kg: 222 Nos. 22.5 kg : 10 nos	Total: 599 Nos.	6 Kg: 442 Nos. 9 Kg: 396 Nos. 50 Kg: 13 No.	Total: 861 Nos.	9 Ltr.- 265 nos. 50 Ltr.- 27 Nos.	Total: 292 Nos.	30 Meter 15 meters 7.5 Meter	15 nos 661nos 93 nos

Name of MAH unit	Fire Extinguishers							
	CO2		DCP / ABC		Foam		Fire Hose	
	Capacity	Nos.	Capacity	Nos.	Capacity	Nos.	Length	Nos.
Gujarat Chemical Port Limited P.O.- Lakhigam, Via-Dahej, Tal- Vagra, Dist- Bharuch,	6.5 Kg	70 No's	09 KG 25 KG 75KG	1.159 No's 68 No's 36 No's	NA	NA	15 M	100 No's
Gujarat Fluoro Chemicals Limited Plot No D-2-CH-173 + D-2-CH-222 Village-Jolva GIDC Dahej Industrial Estate Taluka: Vagra Distt: Bharuch 392130 Gujarat	4.5 KG 22.5 KG	150 Nos. 20 Nos.	ABC-6KG	410 Nos.	9 Lit	14 Nos.	15 M	442 Nos.
Gujarat Fluorochemicals Limited, 12/A GIDC Dahej Industrial Estate, Taluka Vagra, District Bharuch 392130, Gujarat	4.5 kg 6 kg	479 Nos 2 Nos	2 kg 4.5 kg 6 kg 9 kg	58 Nos 03 Nos 713 Nos 23 Nos	50 Ltr	5 Nos	15 Mtr.	686 Nos.
Gujarat Guardian Ltd. State Highway – 13, Valia Road, Ankleshwar, Dist. Bharuch, Gujarat – 393001	3.2 Kg 4.5 Kg 9.0 Kg 22.5 Kg	82 73 01 35	1 Kg 4 Kg 6 Kg 9 Kg 25 Kg	35 75 176 6 10	9 Ltr.	8	15 Mtr. 30 Mtr.	100 50
Hemani Industries Limited. Plot No: CH/5, GIDC Industrial estate Dahej Tehsil: Vagra, Dist.: Bharuch Gujarat, 392130	4.5kg/9Kg/22.5 kgs	83	6KG/9KG 25KG/50KG	168	9 L /50 L	140	15 m	194
Hemani Industries Limited. Unit 2 Plot No. 3207/A & B, 3208/1&2, 3202/A/1, GIDC Industrial Estate, Ankleshwar - 393002, Gujarat	4.5kg/9Kg/22.5 kgs	49	6KG/9KG	77	9 L / 45 L	11	15 m	41

Name of MAH unit	Fire Extinguishers							
	CO2		DCP / ABC		Foam		Fire Hose	
	Capacity	Nos.	Capacity	Nos.	Capacity	Nos.	Length	Nos.
Hikal Limited Plot No. 629/630-B GIDC Estate, Post: Panoli	4.5 Kg	128 Nos.	6 Kg	166 Nos.	9 Ltrs	114 Nos.	15 Mtrs	63
Indo Baijin Chemicals Pvt. Ltd. Plot No. Z/7/1, SEZ-1 Area, Dahej SEZ Ltd. Tal - Vagra, Dist - Bharuch - 392130, Gujarat,	1. 4.5 Kg 2. 2Kg	1. 22Nos 2. 1Nos	2KG/6KG/9Kg/50Kg	1. 3Nos 2. 11Nos 3. 93Nos 4. 6Nos	1. 09Lit 2. 45Lit	1. 3Nos 2. 1Nos	15 meters	111
Indofil Industries Limited (Unit-1) Plot No. Z-8, SEZ-1, GIDC, Dahej, Tal. – Vagra, Dist: Bharuch, Gujarat - 392130, India	4.5 Kg	62	6.0 Kg	107	50 Ltr	05	15 Mtr	122
Indorama Vevnture Oxides Ankleshwar Pvt. Ltd. Plot No. 321, GIDC Panoli, Ankleshwar, Bharuch.	---	---	6 Kgs	05 nos	--	---	---	---
Industrial Solvent & Chemical Pvt Ltd.	1) Co2 – 4.5 Kg 2) Co2 – 6.8 Kg 3) Co2 -9 Kg 4) Co2 – 2 Kg	46 Nos. 7 Nos 22 Nos 6 Nos.	1) Dcp – 5 Kg 2) Dcp – 6 Kg 3) Dcp - 9 Kg 4) Dcp – 10 Kg 5) Dcp – 50 Kg 6) Abc – 1kg 7) Abc – 6kg 8) Abc – 9 K	6nos 3 Nos 13 Nos 17 Nos 14 Nos 01 Nos 13 Nos 32 Nos	1) Foam – 9 Ltr 2)Foam– 50 Ltr	32 Nos 21 Nos	1)Deliv ery Hose Pipe 15 Mtr 2) Hose Reel 30 Mtr	51 Nos 7 Nos

Name of MAH unit	Fire Extinguishers							
	CO2		DCP / ABC		Foam		Fire Hose	
	Capacity	Nos.	Capacity	Nos.	Capacity	Nos.	Length	Nos.
Ion Exchange (India) Limited, Plot No. 5811-12-13 GIDC Estate, Ankleshwar	4.5 kg	05	ABC 6 kg	10	200 Liter		15 m	05
Jal aqua international llp, Plot no:620 road no.06, GIDC estate panoli ,Dist- Bharuch	CO2 4.5 kg	22	ABC 6kg	43	AFFF 9 liter	15	15 mtr	30
Jayshree Aromatics Limited Plot No. 4703, 4704,4705/ 1 / 2,3&4, GIDC, Ankleshwar , Gujarat-393002	4.5 Kg	27	2 kg 6 kg 25 kg 50 kg	9 6 7 6	-	-	30 m	14
Jubilant Ingrevia Limited & Jubilant Infrastructure Limited	9 Kg	132	6 Kg	388	200 Lit.	20	15	540
Kanoria Chemicals & Industries Ltd. Plot No. 3407, GIDC Industrial Estate Ankleshwar, Dist. Bharuch, Gujarat – 393001	4.5 Kg	147	6 kg	198	9 Liter	40	7 Meter	62
KLJ Organic Limited Plot No-759,GIDC Estate, At&Po: Jhagadia,Ta: Ankleshwar Dist Bharuch	9kg,4.5kg,6.5kg,3.2kg ,22.5kg	31	9kg,6kg,50kg	22	9 ltr, 50 ltr	19	15 mtr	18
Krishna Antioxidants Pvt Ltd Plot No.: D-3/24/1, GIDC Dahej Phase – III, Village Samatpor, Taluka Vagra Dahej, Dist. Bharuch (Gujarat) – 392130	4.5 & 6 Kg	11	6 Kg / 9 Kg	37	9 L / 50 L	6	15 m	72

Name of MAH unit	Fire Extinguishers							
	CO2		DCP / ABC		Foam		Fire Hose	
	Capacity	Nos.	Capacity	Nos.	Capacity	Nos.	Length	Nos.
LANXESS India Pvt. Ltd, Plot No. 748/2/A, 748/3 & 748/4/B +748/4/A/1, GIDC Estate, Jhagadia – 393110, Dist. Bharuch	4.5Kg 6 Kg 9 Kg	160 9 30	2 Kg 5 kg 6 kg 9 kg 25 kg	41 52 219 101 32	50 kg	2	15 Mtr	310
Meridian Chem Bond Private Limited Plot No-5906/04 GIDC Ankleshwar	4.5 kg	11	9kg. (ABC Type) 50 KG (DCP Type)	07 01	50 LTR	03	Nil	Nil
Meridian Chem-Bond Private Limited Plot No. 3209, GIDC Estate, Ankleshwar – 393002, Dist. Bharuch, Gujarat	4.5 kg	11	9kg (ABC)	05	NIL	-	Nil	Nil
Minol Acids And Chemicals Pvt Ltd	4.5 kgs.	1 Nos.	6 kgs.	4 Nos.				
NACL Spec-Chem Limited Plot No. D-2/11/B/3/2, Dahej- II, Tal. Vagra, PIN–392 130, Dist. Bharuch, Gujarat, INDIA.	4.5 KG	10	6 KG	49	45 Liter	01	15 Meter	79
					9 Liter	01		
Omkar Chemical Industries Pvt Ltd Plot No.406, GIDC. Estate, Panoli-394116, Ankleshwar, Dist. Bharuch	4.5Kg	32	6 kG/ 9Kg/ 25 Kg	50	09 Litter	15	15 Meter	30
ONGC Petro additions Limited Plot #Z-1 & Z-83 C/o, Dahej SEZ Ltd., P.O Dahej, Taluka Vagra, District Bharuch, Gujarat – 392130, India	4.5/6.5 kg	800 (Deploy ed)	5 kg / 9kg	2500(Deplo yed)	50 Lt. CFAS	50 (Deploy ed)	15 meter	1500 (Deploy ed)

Name of MAH unit	Fire Extinguishers							
	CO2		DCP / ABC		Foam		Fire Hose	
	Capacity	Nos.	Capacity	Nos.	Capacity	Nos.	Length	Nos.
Organic Industries Pvt. Ltd S/163. GIDC, Dahej, Vagra , Bharuch	4.5kg/6.5Kg/22.5 kgs	50	6KG/9KG 25KG	100	10 L	10	30 m	
Panoli Intermediates (India) Pvt Ltd, Plot No 778/1 & 756/1, GIDC Jhagadia, Dist- Bharuch	4.5kg, 9 Kg	30	5kg, 10kg, 50kg	50	9 Litter	40	7.5 Mtr, 15 Mtr	100
Panorama Aromatics Ltd. Plot No. 2908- 2911, Phase-III, GIDC Panoli-394116, Tal. - Ankleshwar, Dist.- Bharuch	4.5 Kg	2	9 Kg	5	9 Ltr	4	15 Mtr	6 Box
Payal Polyplast Pvt. Ltd Plot No. 2, Dahej 2, Bharuch - Dahej Rd, Gujarat 392130	4.5kg	39	1KG/2KG 4KG/5KG/6KG/9KG	85	9 L /45 L /50 L	32	30 m	110
Petronet LNG Limited. Dahej Terminal	4.5 KG	231	09	293	50 Ltr	06	15 mtr	500
Phthalo Science at Plot No. DP-112, GIDC Sayakha, Ta.: Vagra, Bharuch, Gujarat – 392165, India	4KG	10						
PI Industries Ltd 237, GIDC Estate Panoli 394116 Dist. Bharuch, Gujarat	2 Kg	14	6 Kg	75	45 Litre	3	15 Metre	242
	4.5 Kg	142	9 Kg	252	9 Litre	51	22.5 Meter	08

Name of MAH unit	Fire Extinguishers							
	CO2		DCP / ABC		Foam		Fire Hose	
	Capacity	Nos.	Capacity	Nos.	Capacity	Nos.	Length	Nos.
PI Industries Ltd. SPM-29/2, Sterling SEZ, At - Sarod, Ta - Jambusar, Dist. - Bharuch	2 kg 4.5 Kg 6.5 Kg 9 Kg	2 116 2 19	9 KG	188	9 Kg	45	15 Mtr	276
Piramal Pharma Limited Plot No. D-2/11/A1, GIDC Industrial Estate, Phase-II, Vil: Dahej , Ta: Vagra392130, Bharuch, Gujrat, India	4.5Kg & 45Kg	81	4Kg/6KG/50Kg	110	50L/20L	0	15 m	13
Privi Speciality Chemicals Limited, Plot No. 765, Road No.2, GIDC Jhagadia - 393 110 Dist. Bharuch	CO ₂ – 02 Kg – 17 CO ₂ – 4.5 Kg – 68	85	DCP – 05 Kg – 8 DCP – 06 Kg – 32 DCP – 09 Kg – 1 DCP – DCP – 10 Kg – 7 ABC – 02 Kg – 3 ABC – 06 Kg – 11 ABC – 09 Kg – 8	70	M/FOAM – 09 LTR – 48 M/FOAM – 50 LTR - 11	59	15mts & 7.5 mts	90 & 58
Reliance Industries Ltd. Dahej Manufacturing Division Dahej, Bharuch	4.5 kg	76	2 kg	10	—	—	15 m	30
	6.5 kg	47	4 kg	90	—	—	22.5 m	55
	22.5 kg	5	6 kg	15	—	—	—	—
	—	—	9 kg	250	—	—	—	—

Name of MAH unit	Fire Extinguishers							
	CO2		DCP / ABC		Foam		Fire Hose	
	Capacity	Nos.	Capacity	Nos.	Capacity	Nos.	Length	Nos.
	—	—	25 kg	4	—	—	—	—
	—	—	50 kg	10	—	—	—	—
	—	—	75 kg	20	—	—	—	—
Savla Chemicals Ltd. Plot No: 26-A, GIDC, Industrial Estate, Panoli-394116, Ankleshwar, Dist- Bharuch, Gujarat	2 kg 4.5 kg	25 04	50 kg 25 kg 10 kg 9 kg 6 kg 5 kg	01 01 19 10 25 15	9 litre	07	---	10
Schott Glass India Pvt. Ltd Block No. 1351/1, 1352/2 Vill: Ankhi, Tal: Jambusar Dist.: Bharuch	2Kg 1.5 Kg 22.5 Kg	6 nos 133 nos 1 nos	ABC DCP 75Kg Trolley	251 nos 3 nos	9 l 45 l 20 l 40 l 1000 l	4 nos 3 nos 20 nos 12 nos 1 nos	Fire hose (63mm) Fire hose reel	
Shiva Pharmachem Limited Dahej	4.5	90	6	202	50	2	15	238
	9	6	25	2				
	22.5	2						
Shyam Chemicals Pvt.ltd 6004, GIDC Ankleshwar	9 kg	10	5 kg	10	5 kg	10	NA	

Name of MAH unit	Fire Extinguishers							
	CO2		DCP / ABC		Foam		Fire Hose	
	Capacity	Nos.	Capacity	Nos.	Capacity	Nos.	Length	Nos.
Solvay Specialities India Pvt Ltd, Panoli Plot No: 3526 - 27, G.I.D.C., Panoli, District: Bharuch, Gujarat (394116)	CO2 4.5 KG	154	ABC 6.0 KG	243	Mechanical Foam 9.0 Lt R	11	Fire Hose reel 30 Meter	20
	CO2 2.0 KG	4	ABC 2.0 KG	1	-	-	Fire Hose 15 Meter	246
	-	-	DCP 50 KG	28	-	-	-	-
Superform Chemistries Limited (Unit – 92) Plot No-D 3 / 6 GIDC III, Kadodara Ta-Vagara, Dist. Bharuch (Gujarat)	4.5Kg/9.5Kg/22.5kg	214	1Kg/2Kg/4.5Kg/6Kg/9Kg/25Kg	283	9L	9	15m	498
Superform Chemistries Limited. Plot No. 746/750, GIDC, Jhagadia, Dist- Bharuch, 393110 Gujarat, India	4.5/6.5/6.8/9/22.5 Kgs	1016	4/6/9/25/50/75 Kgs	1022	9 Ltr	52	15 Mtr	1200
SRF Limited D-2/1, GIDC Phase II , PCPIR, Dahej ,District Bharuch, Gujarat - 392130.	4.5kg, 6.5 kg	716	6kg/50kg/25kg	1942	50ltr, 9ltr	741	15m	1538
Styrenix Performance Materials Limited, 4-G.I.D.C Dahej, Tal: Vagra Dist:Bharuch	4.5 Kg	86	6 Kg	116	9 Liters	29	15 Mtrs	105
Shivam Incorporation Plot No 521, L-1801, L-1802 & 665, GIDC Estate, Panoli, Dist.: Bharuch, Taluka: Ankleshwar, Gujarat-394116	4.5 Kg	03	06 Kg 01 Kg	04 01	50 Ltr	02	--	--

Name of MAH unit	Fire Extinguishers							
	CO2		DCP / ABC		Foam		Fire Hose	
	Capacity	Nos.	Capacity	Nos.	Capacity	Nos.	Length	Nos.
Sterling Auxiliaries Pvt.Ltd, Dahej, Taluka –Vagra, Dist- Bharuch	2 kg,4,5 kg,9 kg and 22,5 kg	37	5 kg,6 kg ang 9 kg	136	9.0 litres,45 litrs ,50 ltrs	54	15 mtrs	250
Sudarshan Gujarat MFG Private Limited, Unit-1 , Plot No. 9002-9010,Phase VI, GIDC Estate, Ankleshwar – 393 002, Gujarat, India	4.5 Kg	168	2 kg	`8	9 Ltr	69	15 Meter	155
	9 Kg	5	6 kg	200	45 Ltr	01	30 Meter	2
	2 Kg	14	9 Kg	71	50 Ltr	04		
			50 Kg	5	100 Ltr	01		
Tagros Chemicals India Pvt. Ltd. Plot no.43/1, Amod Road, GIDC Dahej-1, Tal: Vagra, Dist: Bharuch-392130	4.5 KG	10	6 KG 9 KG	20 20	9 KG	10	15 MTR	10
Tagros Chemical Ind. Pvt. LTD. Address: Plot No. 2901 to 2906 & 2806, GIDC, Panoli, Tal.: Ankleshwar, Dist.: Bharuch, Gujarat – 394 116.	2 Kgs.	17 Nos	01 kgs	03 Nos.	45 L	11 Nos.	30 mtr	155 Nos
	22.5 kg	11 Nos	04 kg.	01 Nos.	50L	07 Nos.		
	4.5 Kgs	67 Nos	06 Kg	26 Nos.	09L	46 Nos.		
	09 Kgs	4 Nos.	09 Kg	87 Nos	3000 Lit (Stock)	120 Nos (Drums)		
	24.5 Kgs	1 Nos.						
TML Industries Limited At & post-Piludra-391810, Tal- Jambusar, Dist-Bharuch	4.5 Kg/22.5Kg	37	6Kg/9Kg	37	Foam Type Fire	05	15 Meter	30

Name of MAH unit	Fire Extinguishers							
	CO2		DCP / ABC		Foam		Fire Hose	
	Capacity	Nos.	Capacity	Nos.	Capacity	Nos.	Length	Nos.
					Extinguishers- (9 lit./45 lit.)			
Unitop Chemicals Pvt Ltd. D2 / CH-342,343, GIDC Phase II, Vill. Jolwa, Dahej, Bharuch	2 Kg 4.5 Kg 9 Kg	3 Nos. 55 Nos. 3 Nos.	1 Kg 2 Kg 4 Kg 6kg	3 Nos. 13 Nos. 17 Nos. 25 Nos.	6 Ltr.	29 Nos.	15 Mtr.	90 Nos.
Viswaat Chemicals Limited, D-3/10, Dahej Phase III, GIDC, Dahej, Taluka – Vagra, Dist. – Bharuch, Gujarat – 392130	3 Kg 4.5 Kg 6 Kg 9 Kg	2 46 5 5	2 Kg 6 Kg 9 Kg	4 58 33	9 Lit 45 Lit	1 4	7.5 Mtr. 15 Mtr. 30 Mtr.	36 81 3
Vital Chemtech Limited Plot No. D3/151 & 158, GIDC, Dahej III, Ta-Vagra, Dist.-Bharuch, Pin-392130	4.5 Kg	4	4 Kg	4	9 Ltr	1	15 Mtr	13
	9 Kg	2	6 Kg	12				
	22.5 Kg	5	9 Kg	15				
			25 Kg	4				

Medical Aid

Table 22 Medical Aid Information

Sr .	Hospital Name With Address And Phone Number	Designated Contact Persons With Address (O, R) And Phone:- Numbers (O, R, M)	Number Of Beds	Number Of Doctors, Number, Staff Total	No. Of Burn Ward	No Of Ambulance	Remarks
1.	Occupational Health Centre, Coromandel international limited, GIDC, Ankleshwar	Dr Sagar Majithiya OHC, 9638651820	01	06	N/A	01	
2.	Coromandel International Limited, Dahej Plot No. Z – 103/G, Dahej SEZ – II, Dahej – 392130, Tal. Vagra, Dist – Bharuch, Gujarat (India)	Dr. Moin Patel	02	06	NA	01	
3.	Astha hospital central excise road Ankleshwar	Dr. Narendra Barad (General Physician)	05	06	NA	01	
4.	OHC, LANXES S India Pvt Ltd, Gidc Jhagadia	Kshitij Shah, Contact - +91 2645 224142	4	06	0	1	
5.	Wel care hospital, Sanghavi Organics	Sr. Tejas Patel, Hansari, Hardik Parmar	100 Bed	40	10 rooms	02	
6.	OHC- Sudarshan Gujarat manufacturing Limited , Unit-1	Dr. Amit Sinha Contact - 7405448385	2	3	0	01	
7.	Setu Multi Specilaty Hospital GIDC Ankleshwar (With Panoli Intermediates)	Dr. Vipul Contact - 8849534476	15	14	01	01	
8.	Orange multi-specialty hospital 2nd floor, signature gallareia, C 8 to 27, above only dhosa resturant, opp. IOCL petrol pump,	Vaibhav Contact- 9033752632	50	34	2	1	

Sr .	Hospital Name With Address And Phone Number	Designated Contact Persons With Address (O, R) And Phone:- Numbers (O, R, M)	Number Of Beds	Number Of Doctors, Number, Staff Total	No. Of Burn Ward	No Of Ambulance	Remarks
	Ankleshwar, Gujarat 393001 9725021613 (with galaxy surfactant)						
9.	Setu Hospital Ankleshwar 2nd floor, Ganesh Plaza, 500 Quarter Rd, above reliance trends, GIDC, Timber Market, Ankleshwar GIDC, Ankleshwar , Gujarat 393002 (with meridian chem bond)	Dr.Niral Patel Contact- 9727732753	20	10	01	02	
10	Patel Mult speciality Hospital & ICU (with convesto Pvt. Ltd)	Dr. Lokesh Chavla Contact- 9982965856	50	50	01	01	
11	Prachi Healthcare (with Anugrah Chemicals)	Dr Harnish Patel Contact- 9824408956	05	07	--	01	
12	Shivam Surgical Hospital, Station Road, Ankleshwar (with Solvay Chemicals)	Dr. N. C. Chauhan Contact - 98792842 87	1	04	---	---	
13	Setu Hospital Ankleshwar 2nd floor, Ganesh Plaza, 500 Quarter Rd, above reliance trends, GIDC, Timber Market, Ankleshwar GIDC, Ankleshwar, Gujarat 393002 (With meridian chemicals)	Dr.Niral Patel Contact - 9727732753	20	10	01	02	
14	Jubilant Ingrevia	Dr. Hemant Chauhan	04	06	3rd party	02	

Sr .	Hospital Name With Address And Phone Number	Designated Contact Persons With Address (O, R) And Phone:- Numbers (O, R, M)	Number Of Beds	Number Of Doctors, Number, Staff Total	No. Of Burn Ward	No Of Ambulance	Remarks
	Limited & Jubilant Infrastructure Limited (OHC)	Contact - 9879798414			hospital tie ups		
15.	Jayaben Modi hospital Ankleshwar (with Atul Aromatics Ltd)	Chief medical officer Contact- 02646222220	140	16	02	04	
16.	A.V. Trauma center, Dahej (with Expanded polymer systems pvt. Ltd)	Reception Contact – 9687012100 Location – Near RIL township	20			02	
17	Petronet OHC	Sushil B Machhi Chief Manager (HSE) Contact – 91 9662526295	02	06		01	
18.	Baroda Heart Hospital, Bharuch (with Indo Baijin Chemicals Pvt. Ltd.)	Dr. Smit Vasava Contact - 7203999929	50	68	01	02	
19.	Shivam Surgical Hospital , Station Road , Ankleshwar (with Solvay chemicals)	Dr. N. C. Chauhan Contact - 9879284287	10	04	--	--	
20.	Apex Hospital and trauma center, Panchbatti, Bharuch (with Grasim industries ltd)	Ilfaz Patel Contact - 8980006825	85	150	01	03	
21	Deepak Fertilisers and Petrochemical Corporation Limited OHC	Ameesh Patel Contact - 9619586140	01	04	--	01	
22.	Sardar Patel Hospital and Heart Institute 2646 247 883 Station Rd, Opposite Railway Yard,	Mr. Nidin Contact - 8155855525	100	--	---	---	

Sr .	Hospital Name With Address And Phone Number	Designated Contact Persons With Address And Phone:- Numbers (O, R, M)	Number Of Beds	Number Of Doctors, Number, Staff Total	No. Of Burn Ward	No Of Ambulance	Remarks
	Chiku Wadi, Happy Nagar, Ankleshwar, Gujarat 393001 (with PI Industries Ltd)						
23.	Jayaben modi hospital Ankleshwar (with Shyam Chemical Pvt. ltd)	Chief medical officer Contact- 02646222220	140	16	02	04	
24.	Harmony Medicare Pvt Ltd (Apex Hospital), 1st Floor Adarsh Market, Bharuch 392001, (with superform Chemicals)	Ilfaz Patel Contact - 91 7698385069	80	129	02	03	
25.	Padmasidha Hospital Ankleshwer (with KLJ chemical Ltd)	Dr Hiren Vyas Contact - 8780572213	45	50	01 (6 Bed)	04	
26.	Birla Cellulosic OHC near EC	Dr. Avadh Mangukia	1.BED -01 num 2.First Aid Kit 3.Oxy gen cylind er 4.all equipments of for stitchi ng	02	--	02	
27.	Occupational Health Center (With Indofil industries ltd)	Bharat Purohit Contact - 9828678838	02	04	--	01	
28.	Ward wizzard, jolwa (with Gujrat Fulrochemical Limited)	Dr. Mahinath Mishra Conatct - 9327703283	150	200	40	02	

Sr .	Hospital Name With Address And Phone Number	Designated Contact Persons With Address (O, R) And Phone:- Numbers (O, R, M)	Number Of Beds	Number Of Doctors, Number, Staff Total	No. Of Burn Ward	No Of Ambulance	Remarks
29.	We-Care Hospital, Jolva (With GACL-NALCO)	Dr. Shehbaz Shaikh & Dr Hemraj Thakor Contact number - 91 72839 54755 , +91 90994 48517	10	07	01	01	
30.	Healing Touch Multi speciality Hospital (02642)262500 ,9825306787, 9712096444 Doctor House 2nd and 3rd Floor, RK.Casta. Nr.Hotel Plaza Behind Super Market Opp. Taluka Panchayat Office, Bharuch- 392001 (with M/s Styrenix Performance)	Dr. Sharad Kothari Contact - (02642)262500	50	38	04	Out-source	
31.	Shrimati Jayaben Mody Hospital, Valia Road, GIDC, Ankleshwar - 393002 PH.02646-222220 (with superform chemical)	Dr Atmi Deliwala Contact - 9724328649	160	229	01	04	
32.	Palmland Hospital Bharuch (with AnshikaPolysurf)	Samiran Mukherjee Contact - 7486019515	80	30	01	02	
33.	SRF OHC	Dr Sanjay Hansoti Contact - 9904706759 Dr. Ripal Patel Contact - 7283877967	02	15	00	02	
34.	Apex Multispeciality & Trauma Centre Railway Station Rd, Adarsh	Ilfaz Patel Contact - 7698385069	50	84	02	03	

Sr .	Hospital Name With Address And Phone Number	Designated Contact Persons With Address And Phone:- Numbers (O, R, M)	Number Of Beds	Number Of Doctors, Number, Staff Total	No. Of Burn Ward	No Of Ambulance	Remarks
	Market, Panchbatti , Moti Doongri, Bharuch, Gujarat 392001 89800 06825 (with SRF Chemicals)						
35.	Padmasiddha healthcare /swasth am multi super specialty hospital (with Hikall ted)	Dr. Dhaval Patel Contact - 7016354087	45	45	02	01	
34.	Padmashree, ESIC	Amit Shah Contact -					
35.	Deepak Multisp ecialty Hospital, Plot No. S/236, GIDC Near Railway station Crossing, Opp. GACL Company Dahej, Gujarat 392130 (with Bharat Rasayan Ltd)	Dr.Jay Pawar Contact - 6358858023	50	15	Under preparat ion	2	
37.	Jayaben Modi Hospital, Ankleshwar (wi th Gujrat Gaurdian Ltd)	02646224550	100	70	--	03	
38.	Gujarat Chemical Port Limited (GCP Ltd)	Dr. Wasim M Mansuri Contact - 9428685384	02 No's of Obser vati on beds are availa ble at GCPL OHC	04	NA	01	
39.	Jayaben modi hospital Ankleshwar (with Amal Specialities Ltd)	Chief medical officer Contact - 02646222220	140	16	02	04	

Sr .	Hospital Name With Address And Phone Number	Designated Contact Persons With Address (O, R) And Phone:- Numbers (O, R, M)	Number Of Beds	Number Of Doctors, Number, Staff Total	No. Of Burn Ward	No Of Ambulance	Remarks
40.	OHC, OPaL	Dr Bhaumik Acharya. Contact - 7433944816 Dr Nilesh Tailor Contact - 6359889576	7	8	1	2	
41.	Jayaben Modi Hospital (with Dhanveen Pigment)	(02646)222220	100 to 150 persons 150 beds with Necessary Arrangement	--	---	---	
42.	Century Enka Ltd. OHC	Dr. Akash Prajapati Contact - +91 2645208752	04	7	0	01	
43.	Sanjivani occupational health centre (With Vishwaat Chemicals Limited)	Dr. Himesh Mehta Contact - 9725954515	14	4	1	1	
44.	A & V Trauma centre (With Vishwaat Chemicals Limited)	Dr. Rajesh Gurjar Contact - 9023816633	15	8	2	1	
45.	Healing Touch Hospital (with DCS Shree Ram Limited	Hospital Reception, Falshrutinagar, Bharuch Contact - 8238053404	50	30	3	2	
47.	Karm Hospital, Jhagadia, Bharuch (with Borosil limited)	8200028099	--	--	--	01	
48.	Amex Hospital – Dahej (with unitop chemical Pvt. Ltd)	Dr. Chetan Morthana Contact - 9925329264					
49.	A.K Patel Multispeciality Hospital (with Chemieorganic	Dr. Vipul Varde Contact - 9825504717	---	15	1	2	

Sr .	Hospital Name With Address And Phone Number	Designated Contact Persons With Address (O, R) And Phone:- Numbers (O, R, M)	Number Of Beds	Number Of Doctors, Number, Staff Total	No. Of Burn Ward	No Of Ambulance	Remarks
	Chemicals (I) Pvt. Ltd.)						
50.	Aadharsh Hospital Heart & Super speciality (with M/S Clairvoaynce Industries Pvt Ltd)	Sanjay bhai Contact - 8850835587	30	25	1	2	
51.	Faith Clinic (with M/S. Aries Colorchem Pvt Ltd)	Chief medical officer Contact - 7283954755	12	20	2	1	
52.	Shiv clinic (with Piramal Pharma Ltd)	Dr. Himanshu Vanza Contact - 9662568893	2	6	NA	1	
53.	Aarti Industries OHC	Dr Sabir Ahmed Patel Contact - 9773284258	01	05	NA	1	
54.	Alkyl amines OHC	FMO Contact - 02641350742	02	4	No addition al beds	1	
55.	Aarti Industries OHC	Dr. Bhavesh Patel Contact - 909903183	05	04	-	1	
56.	Apex Mult speciality & Trauma Centre Railway Station Rd, Adarsh Market, Panchbatti, Moti Doongri, Bharuch, Gujarat 392001	Reception Contact - 8980006825	40 Beds		2 Burn Ward	1 Nos	
58.	OHC, PI Industries LTD.	Dr. Keval Thakrar Contact - 6357240607	03 nos.	10	-	01- SCLS0 1 BLS	

Sr .	Hospital Name With Address And Phone Number	Designated Contact Persons With Address (O, R) And Phone:- Numbers (O, R, M)	Number Of Beds	Number Of Doctors, Number, Staff Total	No. Of Burn Ward	No Of Ambulance	Remarks
59.	OHC, PI Industries LTD.	Dr. Keval Thakrar Contact - 6357240607	03 nos.	10	-	01- Scls 01 Bls	
60.	Apex Multispeciality & Trauma Centre, Adarsh Market, Station Road, PanchBaati, Bharuch – 392 001 (with Pirvi Speciality Chemical)	Mr. Ilfaz Patel Contact - 7698385069	50	105	2	3	
61.	Shroff Foundation Trust Hospital, Kalali, Vadodara	Dr. Gaurang Ranapurwala Contact - 9427118906	44	124	01	02	
62.	Smt. Jayaben Modi Hospital, Ankleshwar (With Jayshree Aromatics Ltd)	Contact - 9099028826	146				
63.	Deepak Chem tech Ltd OHC	FMO Contact - 6354784607	4 beds	04	0	01	
64.	Cohizon OHC	Dr. Devang Yadav Contact - 333	4	5	NA	1	
65.	Occupational Health Center GFL	Dr. Harsh Shah [FMO] Contact – 8320795546 Dr. Harsh Patel (FMO) Contact - 8238667275	7nos	10 Nos	0 Nos	2 Nos	
66.	Palmland Hospital, Falshruti Nagar, Station Road, Bharuch	Dr. Vasim Raj Contact - 9925802555	30	75	01	3	
67	Sai clinic (with Hemani Industries)	Mr. Tejas mehta Contact - 9924108257	08	17	1	1	

Sr .	Hospital Name With Address And Phone Number	Designated Contact Persons With Address (O, R) And Phone:- Numbers (O, R, M)	Number Of Beds	Number Of Doctors, Number, Staff Total	No. Of Burn Ward	No Of Ambulance	Remarks
68.	Wardwizard Divine Bharuch & Dahej (with yashashvi Rasayan)	Sabir Rokadiya, Vedprakash Upadhyay Contact - 6203166043	30 (Bharuch) + 10 (Rahiyad)	59 Nos	01 (Bharuch) + 01 (Rahiyad)	02 (Bharuch) + 01 (Rahiyad)	
69.	Amax Hospital Rahiyad Chokdi, Taluka Vagra (with Shiva chemicals ltd)	Dr. Santosh Bhasker Contact - 8447927847	10	7	1	2	
70.	PHC Kharod	02646-266457					
71.	Apex Hospital Bharuch (with Deepak Phenolics)	Mr. Ilfaz Patel Contact - 7698385069	50	113		4	
72.	Welcare Hospital – Kharod, Panoli (with Ganesh LPG)	Dr. Ovesh Anarwala (MD)					
73.	Smt. Jayaben Modi Hospital (with Minol Acid Pvt.ltd)	(02646) 222220			01	03	
74.	OHC Cohizon Unit 2	Dr. Nirali Naik Contact - 9574190711	3	5	NA	1	
75.	Krishna antioxidants Shree OHC	9979891252					
76.	Amax Hospital (with Payal Polychem ltd)	Admin. Hospital Contact - 6203166043	12	7	1	1	
77.	Occupational Health Centre, GAIL, Gandhar	Sh. Shitikantha Das Contact - 9179045566	03	04	NIL	01	
78.	CMC Vellore (with Hemani Industries)	Mr. Himesh Mehta Contact - 9725954515	04	10	1	1	

Sr .	Hospital Name With Address And Phone Number	Designated Contact Persons With Address And Phone:- Numbers (O, R, M)	Number Of Beds	Number Of Doctors, Number, Staff Total	No. Of Burn Ward	No Of Ambulance	Remarks
79.	Healing Touch multispeciality Hospital Doctor House 2nd and 3rd Floor, RK.Casta. Nr.Hotel Plaza Behind Super Market Opp.Taluka Panchayat Office, Bharuch- 392001 (with styrenix Ltd)	Dr.Sharad Kothari Contact - 9825306787	50	30	38	04	
80.	Apex Hospital and trauma center, Panchbatti, Bharuch (with Reliance industries Ltd)	Ilfaz Patel Contact - 8980006825	85	150	01	03	
81.	Well-care Government Hospital (with Panoli Products Ltd)	07016698 273					
82.	7x Multi Speciality Hospital Soneri mahal Rd.Nr panchbatti Bharuch 392001(With Sterling Auxillaries Pvt.ltd)	Mr nikunj, Management team Mo: 09978354020 (o) Mo: 09978354020	50	55	01	ACLS - 04 (tie up with UAS ambulance services)	
83.	Narmadanagar Hospital & OHC-Plant Bharuch, GNFC Ltd. Bharuch	Dr.S M Patel, AGM Medical Center Contact - 9662547542	42	14	1	4	

Sr .	Hospital Name With Address And Phone Number	Designated Contact Persons With Address (O, R) And Phone:- Numbers (O, R, M)	Number Of Beds	Number Of Doctors, Number, Staff Total	No. Of Burn Ward	No Of Ambulance	Remarks
85.	Shrey Clinic (with organic Industries)	Chief medical officer Contact - 9979891252	5	7	0	1	
86.	Indorama Ventures OHC	Dr. Piyush Bhesaniya Contact - 9265874400	02	06		01 (BLS) – In Use	
90.	Sai Clinic & Occupational Health Centre (with New India Acid (Baroda))	Dr. Tejas Mehta	10	4	1	NO	
91.	Jambusar General Hospital (with Schott Glass)	Dr. Tushar Patel Contact - 8155059417	100	35	1	1	

6.4 Other Emergency Infrastructure

Table 23 Emergency Response Vehicles

Name Of MAH Unit	Emergency Response Vehicle Description and Facilities Available	Location	Contact Authority Name with Address (O, R) And Phone- Numbers (O, R, M)	Remarks
Aarti Industries Limited Plot no. Z/103/C, SEZ-II, Dahej, Tal-Vagra, Dist- Bharuch, Gujrat, 392130	Fire Tender GJ16BS2158	Vishant Chauhan	Vishant Chauhan Contact - 6352968816	
Aarti Industries Limited Plot No: 758/1, 2 & 3, Survey No. 359, 360, 364, 358, 357, 356, 345, 348 GIDC Jhagadia, Dist- Bharuch, Gujarat - 393110	ERV (Emergency Response Vehicle)		Mr. Jayesh Suthar 6357187246	
	Fire Tender		Mr. Jigarsinh Parmar 7486028218	
Alkyl Amines Chemical limited PLOT NO: D2/CH/149/2, GIDC Dahej2, TA:Vagra, Dist:Bharuch, Gujarat – 392 130	Ambulance	Self	02641350700	
Aries Colorchem Pvt Ltd Plot No: DP-56 & DP-57, Saykha GIDC, Saykha Tehsil: Vagra, Dist: Bharuch Gujarat, 392 140	Hydra, JCB	Saykha	Company , Lalji Contact - 8141312174	
	Tractor		Company, Ashok Contact -8141312174	
Birla Cellulosic (A Unit of Grasim Industries Ltd) Birladham, Village – Kharach, Near Kosamba, Tal – Hansot, District – Bharuch.	JCB	Unit Head, Birla Cellulosic Address: Birladham, Kharach, Kosamba Dist.- Bharuch, State- Gujarat.	Shreeji contractor	
	HYDRA		Tarachand / SB Sharma contract	
	Tractor		Sanjay Solnki contract	
	01 Jcb	Bcl-V, Saykha	Mr. Velmurugan	

Name Of MAH Unit	Emergency Response Vehicle Description and Facilities Available	Location	Contact Authority Name with Address (O, R) And Phone- Numbers (O, R, M)	Remarks
Bodal Chemicals Limited Plot No. 301 to 430+433 to 440/1, Juned Bhersam Estate, GIDC, Saykha TA: Vagra, Bharuch, Gujarat - 392140			Contact - 8007884562	
	01 Hydra		Mr. Ujjawal Contact - 9428685777	
	01 Tractor		Mr. Ujjawal Contact – 9428685777	
Chemieorganic Chemicals (I) Pvt. Ltd. Plot No. 758 G.I.D.C. – Jhagadia. Tal.: Jhagadia, Dist. Bharuch, Gujarat-393110	Hired only on requirement		DH Patel & Associates Contact – 9925248006 Address - Office: S-1&S-2, 3rd Floor, Central Plaza, Opp. St. Thomas High School, New City light Road, SURAT-395 007. (Guj.) INDIA	
Clairvoyance Industries Pvt Ltd D2 Ch 29 Phase II Dahej	Farana, JCB	Dahej	Jyoti Crance & Riddhi Carting Contact - 9824242733	
	Tractor	Lakhigam	Riddhi Carting Contact -9925717156	
Cohizon Life Sciences Limited, Plot No 6102-03, 6117-19, Gidc Ankleshwar – 393002 Gujarat - India	Fire Tender		Indus Fire Safety Pvt. Ltd Contact - 7096879797	
	Ambulance		Cohizon Life Sciences Limited Contact - 6359010725	
Cohizon Life Sciences Limited (Unit – 2) Plot No. 5809 - 5810, GIDC Estate, Ankleshwar, Gujarat - 393002	Fire Tender	Indus Fire Safety Pvt. Ltd Indus House Block No. 501 Opp Gsfc Main Gate Dashrath, Vadodara 391740 Gujarat India	Indus Fire Safety Pvt. Ltd 7096879797	
Coromandel International Ltd, Ficom Chowkadi, Ankleshwar	ALS (Advanced Life Support) Ambulance- Force Traveller	Medical/OHC centre	Force Motors- Sayaji Tempo Vadadara Contact- 7046014692 Address of supplier- Force Motors - Sayaji Tempo,	

Name Of MAH Unit	Emergency Response Vehicle Description and Facilities Available	Location	Contact Authority Name with Address (O, R) And Phone- Numbers (O, R, M)	Remarks
			485/486/54, GIDC Rd, nr. Himalaya Machinery, Makarpura GIDC, Makarpura, Vadodara, Gujarat 390010	
Covestro (India) Pvt. Ltd. 3501-15, 6301-13 & 16 mtr road/B2, GIDC Industrial Estate, Ankleshwar – 393 002	Ambulance	Company Ambulance Parking	7045036398	
DCM Shriram Ltd (Unit: Shriram Alkali & Chemicals) Plot no. 749, GIDC, Industrial estate, Jhagadia, Bharuch, Gujarat	Hazmat van for emergency handling	DCM Shriram Ltd Owned	02645-222000 Ext:175	
DMCC SPECIALITY CHEMICALS LTD, DAHEJ BHARUCH	JCB:1 Hydra:2	Omsai	9439817587	
Deepak Phenolics Limited, Plot No. 12/B/1 + 12/B/2/2, GIDC Dahej, Village: Ambetha, Taluk: Vagra, District:Bharuch392130,Gujarat	Rapid Jeep	M/s. Deepak Phenolics Limited	Fire SIC 7567897565	
Deepak Fertilisers and Petrochemical Corporation Limited Address: Plot No. D/III/7/A, Dahej GIDC Area, Village Rahiyad, Taluka Vagra, District Bharuch – 392130	Ambulance	Company Park	Ameesh Patel Contact - 9619586140	
Dharti Enterprise, D-2 / CH-326, Near ONGC Corridor, Vill. Jolwa, Dahej Ta. Vagra,	JCB	Jolwa	Ragubhai Contact - 9925717156	
	hydra	Bharuch/Jolwa	Chhotubhai Contact - 9737422832	
Galaxy SurfactantsLtd.	2 NOS ambulance	Company Park	Mr.Mangesh Vishvakarma +91 9714006900	

Name Of MAH Unit	Emergency Response Vehicle Description and Facilities Available	Location	Contact Authority Name with Address (O, R) And Phone- Numbers (O, R, M)	Remarks
Grasim Industries Limited, Cellulose Division Plot No. 1, GIDC Industrial Estate, Vil. Vilayat, Tal. Vagra, Dist. Bharuch, Gujarat	JCB	A- 702 yogidarshan residency, gnfc zadeswar crossroad	Shree Hari Enterprise Contact - 7698567018,	
	Tractor- Trolley	AT PO DEROL, Bharuch	Zeeyan Enterprise Contact – 7383425748	
Gujarat Narmada Valley Fertilizers & Chemicals Ltd. (GNFC) Address: GNFC, Narmadanagar, Bharuch – 392015, Gujarat, India.	Hydra -12 TON	GNFC	Narmadanagar	
Hemani Industries Limited. Unit 2 Plot No. 3207/A & B, 3208/1&2,3202/A/1, GIDC Industrial Estate, Ankleshwar - 393002, Gujarat	Hydra	Ankleshwar	Narmada Engg. Contact - 7043002023	
	JCB			
Hemani Industries Limited. Plot No: CH/5, GIDC Industrial estate Dahej Tehsil: Vagra, Dist.: Bharuch Gujarat, 392130	Ambulance	Occupational Health Centre,YRPL	Wardwizard Hospital Contact - 6358911344	
Indo Baijin Chemicals Pvt. Ltd. Plot No. Z/7/1, SEZ-1 Area, Dahej SEZ Ltd. Tal - Vagra, Dist - Bharuch - 392130, Gujarat, India	Ambulance (GJ16AU1157)	Company Park	90999 74648	
Industrial Solvent & Chemical Pvt Ltd	Jcb	Industrial Solvent& Chemical Pvt Ltd.	9377510071	
Jal aqua international llp,Plot no:620 road no.06 ,GIDC estate panoli ,Dist-Bharuch	Forklift	Mr. Alpesh katrodiya	7575008440	

Name Of MAH Unit	Emergency Response Vehicle Description and Facilities Available	Location	Contact Authority Name with Address (O, R) And Phone- Numbers (O, R, M)	Remarks
Jubilant Ingrevia Limited & Jubilant Infrastructure Limited	Farana Hydra	Company owned parking space	9714972977	
Kanoria Chemicals & Industries Ltd. Plot No. 3407, GIDC Industrial Estate Ankleshwar, Dist. Bharuch, Gujarat – 393001	Ambulance	Company	7041939554	
KLJ Organic Limited Plot No-759, GIDC Estate, At&Po: Jhagadia, Ta: Ankleshwar Dist-Bharuch		Plot No 759 GIDC Estate Jhagadia	Mr R K Nahata Contact - 9825042991	
LANXESS India Pvt. Ltd, Plot No. 748/2/A, 748/3 & 748/4/B +748/4/A/1, Gidc Estate, Jhagadia – 393110, Dist. Bharuch	Hydra	Vivek Nair, Devikripa Engineering	9978858515/ 9824311130 Plot No. 37, Yogi Estate, near 66 KVA substation, Jitali, Ankleshwar	
Meridian Chem Bond Private Limited Plot No-5906/04 GIDC Ankleshwar	JCB/TRUCK/HYDRA(by Hired)		Mr.DineshVyas Contact - 94082 69102	
Meridian Chem-Bond Private Limited Plot No. 3209, GIDC Estate, Ankleshwar – 393002, Dist. Bharuch, Gujarat	JCB/TRUCK/HYDRA(by Hired)	Sardar Park - 3 Km MerianChem Bond Limited, Ankleshwar Guest House	Mr.DineshVyas 94082 69102	
ONGC Petro additions Limited Plot #Z-1 & Z-83 C/o, Dahej SEZ Ltd., P.O Dahej, Taluka Vagra, District Bharuch, Gujarat – 392130, India	15MT hydra – Total 02 nos.	Ahmedabad	M/s, Shiv Oil field Equipment & Hiring services Pvt Ltd. Contact - 9824643095	
	Crane – 50MT – Total 01 no.	Anand	M/s, Dwarkesh Transport Corporation Pvt Ltd. Contact -9825048078	

Name Of MAH Unit	Emergency Response Vehicle Description and Facilities Available	Location	Contact Authority Name with Address (O, R) And Phone- Numbers (O, R, M)	Remarks
	Crane – 100MT – Total 01 no.	Bharuch	M/s, Bhadoria Engineering Services Pvt Ltd. Contact -9825026860	
	Manlifter 80 Ft - Total 01 no.	Mumbai	M/s, IRISE India Pvt Ltd. Contact -8433994579	
Organic Industries Pvt. Ltd S/163. GIDC, Dahej, Vagra, Bharuch	Fire Tender	Company Park	Company Own Contact - 8625059930	
	Ambulance			
	JCB			
	Tractor			
Panoli Intermediates(India) Pvt Ltd,Plot No 778/1 & 756/1,Gidc Jhagadia,Dist-Bharuch	HYDRA	Company Park	Rock Rolls Ankleshwar Contact -7434096859	
Reliance Industries Ltd. Dahej Manufacturing Division Dahej, Bharuch	Ambulance	Mumbai	Jeevan Ambulance Services, Mr. Vijay Contact - 9870109988	
SRF Limited D-2/1, GIDC Phase II , PCPIR, Dahej , District Bharuch, Gujarat - 392 130.	Emergency Utility Vehicle - 01	SRF Own Parking	SRF Own Contact - 9978445120	
	Fire Tender - 01			
	Ambulance – 02 nos			
Shiva Pharmachem Limited Dahej	Hydra - 01 forklift – 04 Tractor - 01	Shiva Pharmachem Limited Dahej	Kunal Patel 7203055564	
Styrenix Performance Materils Limited, 4-G.I.D.C Dahej, Tal: Vagra Dist: Bharuch	02		Deepesh Contact - 9974705458	
Sterling Auxiliaries Pvt.Ltd, Dahej, Taluka –Vagra, Dist- Bharuch	Ambulance	Company Owned	Dr.Kashyap Contact - 8128719009	
	GJ16CB 8113(Sunny)		Arbind Singh Contact - 93282980350	
Sukha chemicals Industries Unit -II 2925,Village/Town - Panoli, City Ankleshwar, District- Bharuch, State -Gujarat-394116	Hydra	GIDC, Panoli	Bhaiyat Crain Services (Mr.Shalubhai) Contact - +91-99798755567	

Name Of MAH Unit	Emergency Response Vehicle Description and Facilities Available	Location	Contact Authority Name with Address (O, R) And Phone- Numbers (O, R, M)	Remarks
Solvay Specialities India Private Limited, Plot – 3526-27, GIDC Panoli - 394116	Innova ; 03 Toofan: 07 Traveler: 03	Shree Nandtravel	Mr. Pratapsingh Negi	
Tagros Chemicals India Pvt. Ltd. Plot no.43/1, Amod Road, GIDC Dahej-1, Tal: Vagra, Dist: Bharuch-392130	Ambulance	Company owned	7043999575	
Vital Chemtech Limited Plot No. D3/151 & 158, GIDC, Dahej III, Ta-Vagra, Dist.- Bharuch, Pin-392130	Yashasvi Travels	2 (tempo Traveller)	Mr. Jayveer sinh Rana	

Table 24 Emergency Response Centre (ERC), Poison Control Centre (PCC)

Name of MAH Unit	ERC/ PCC Description and Facilities available	Location	Contact Authority Name with Address (O, R) and Phone- Numbers (O, R, M)	Remarks
Coromandel International Ltd, Ficom Chowkadi, Ankleshwar	ECC	Main Gate Near Security Cabin	Mr Nilesh Sonawane Contact no.: 9429523834-EXT:- 213	
Coromandel International Limited, Dahej Plot No. Z – 103/G, Dahej SEZ – II, Dahej – 392130, Tal. Vagra, Dist – Bharuch, Gujarat (India)	Emergency Response Centre (ERC)	Company Main Gate	Faisal J Mundhra Contact No- +91-9727006441	
The hospital provides 24x7 emergency and trauma services to handle medical emergencies, industrial accidents, and critical cases, especially due to its proximity to the Ankleshwar and Panoli industrial areas. The hospital provides complete inpatient care with modern wards, ICUs, and operation theatres supported by specialist doctors.	Panoli Road, Kharod	Kharod Charitable & welfare trust	Kharod Charitable & welfare trust 7016698273	
Panoli Intermediates(India) Pvt Ltd, Plot No 778/1 & 756/1, Gidc Jhagadia, Dist- Bharuch	OHC	Main Gate	7228009997	
M/s Galaxy Surfactants Ltd.	ERC	Main Gate	Mr. Ajaya Kumar (Galaxy adm. Incharge) Contact- +91 6354927843	
Covestro (India) Pvt. Ltd. 3501-15, 6301-13 & 16 mtr road/B2, GIDC Industrial Estate, Ankleshwar – 393 002	ERC	Security Gate	Banti Chadderwala Contact - 7045036398	
Solvay Specialities India Pvt Ltd, Panoli Plot No: 3526-27, G.I.D.C., Panoli, District: Bharuch, Gujarat	Occupational Health Centre (OHC)	Company premises	Dr. N. C. Chauhan Contact - 9879284287	
Jubilant Ingrevia Limited & Jubilant Infrastructure Limited	Fire station having one 24*7 available Fire tender	Fire station	Mr. Pradeep Kumar Nagar	

Name of MAH Unit	ERC/ PCC Description and Facilities available	Location	Contact Authority Name with Address (O, R) and Phone- Numbers (O, R, M)	Remarks
	with 2 fire crew in each shift,		Contact - 7600101745	
Jayaben modi hospital Ankleshwar (with Atul Aromatics Ltd)	Emergency Response Centre (ERC)	Main Gate	Mr Pratik Chavda Contact - 9824116482 Address - 221, Malhar Green City, Bharuch	
			Mr Syamal De Contact - 9824361214 Address - Atul colony, Andada Rd, Ankleshwar, Gujarat 393010	
Petronet LNG Limited. Dahej Terminal	Emergency control Centre	Petronet LNG Ltd	Sushil B Machhi Chief Manager (HSE) Contact -+91 9662526295	
Indo Baijin Chemicals Pvt. Ltd. Plot No. Z/7/1, SEZ-1 Area, Dahej SEZ Ltd. Tal - Vagra, Dist - Bharuch - 392130, Gujarat, India	Emergency Control Centre (ECC) available	Indo Baijin Chemicals, SEZ-I, Dahej	Sumeet Garvalia Contact - 9099974663	
Kanoria Chemicals & Industries Ltd. Plot No. 3407, GIDC Industrial Estate Ankleshwar, Dist. Bharuch, Gujarat – 393001	• Emergency Siren System • Plant Layout • MSDS • PPE & SCBA • Communication System	Security Office Area	Anil D Mishra Contact - 7041939554	
Solvay Specialities India Pvt Ltd, Panoli Plot No: 3526 - 27 ,G.I.D.C.,Panoli, District : Bharuch, Gujarat 394116	Occupational Health Center (OHC)	Behind Admin Building Near Parking	Dr. N. C. Chauhan Contact - 9879284287	
M/s. Grasim Industries Limited, Cellulose Division Plot No. 1, GIDC Industrial Estate, Vil. Vilayat, Tal. Vagra, Dist. Bharuch, Gujarat	Emergency Response Centre	Grasim Vilayat,	R Ramkumar Contact - 9998987086	
PI Industries Ltd, Panoli	Occupational Health Centre, PI Industries	PI Industries Ltd, Panoli	Dr. Sumit Ghodasara Conatct - 9879220939	
Indofil Industries Limited (Unit-1) Plot No. Z–8, SEZ–1, GIDC, Dahej, Tal. – Vagra, Dist: Bharuch, Gujarat - 392130, India	ECC Center	Near Gate No-1	Mr.Mihir Pandya Contact - 91 6357971090	
Omkar Chemical Industries PVT Ltd Plot No.406, GIDC.Estate, Panoli-	First aid room, stretcher, oxygen cylinder	Inside plant admin-	Jaypalsinh Chavda Contact - 7874730343	

Name of MAH Unit	ERC/ PCC Description and Facilities available	Location	Contact Authority Name with Address (O, R) and Phone- Numbers (O, R, M)	Remarks
394116, Ankleshwar, Dist. Bharuch		2safety office		
M/ S Superform Chemistries Limited (Unit – 92) Plot No- D 3 / 6 GIDC III ,Kadodara Ta- Vagara, Dist. Bharuch (Gujarat)392110	OHC 1	Admin Building A, PL-12, Dahej	Dr. Chetan Sheladiya Contact - 9284375192	
Omkar Chemical Industries PVT Ltd Plot No.406, GIDC.Estate, Panoli-394116, Ankleshwar, Dist. Bharuch	OHC 2	Group 2, PL-12, Dahej	Jaypalsinh Chavda Contact - 7874730343	
Birla Cellulosic (A Unit of Grasim Industries Ltd) Birladham, Village – Kharach, Near Kosamba, Tal – Hansot, District – Bharuch	Emergency Response Centre	Inside Company Premises (Near Fire & Safety Office)	Mihir Bhatt Contact - 9088106998	
Gujarat Fluorochemicals Limited, 12/A GIDC Dahej Industrial Estate, Taluka Vagra, District Bharuch 392130, Gujarat	Doctor room Emergency room Dressing Room Recovery Room 4 Patient Bed Decontaminant Action Area Audiometry Cabin-2 Ambulances Central Oxygen Line Separate Oxygen Cylinders ECG Machine PFT Machine Audiometry Machine Vision Test Suction Machine, Inj. Calcium Gluconate Calcium Jelly Prevor Anti HF Kit Inj. Atropine Inj. Hydrocortis one Tab. Activated Charcoal Inj. Sodium Bicarbonate e Milk Of Magnesia Anti Snake Venom Inj. Rabipur Inj. Tetanus Toxoid,	Near VIP Gate, GFL-A, Dahej	Dr. Mehul Rahevar Contact - 9714178885	

Name of MAH Unit	ERC/ PCC Description and Facilities available	Location	Contact Authority Name with Address (O, R) and Phone- Numbers (O, R, M)	Remarks
	Recovery room with 4 no. of bed Emergency room with 1 no. of bed Doctor room with 1 no. of patient examination table Dressing room with 1 no. of patient Examinations table, 2 No. of Ambulances One is big ambulance with full ICU Equipment for reference of patient to higher center One small Ambulance used with in plant area			
GACL-NALCO Alkalies And Chemicals Pvt. Ltd. Plot No D/II/9/1 & D/II/9/2, GIDC Dahej, Taluka: Vagra, Dist – Bharuch, Gujarat	ERC - Emergency Control Room	At GNAL Inside the plant combined with Fire Station	ECR Operator Contact - +91 63522 34177	
Superform Chemistries Limited. Plot No.746 /750, GIDC, Jhagadia, Dist- Bharuch, 393110, Gujarat, India	OHC in the Company	Superform Chemistries Limited. Plot No. 746/750, GIDC, Jhagadia, Dist- Bharuch, 393110, Gujarat, India	Dr. Nirav Sarvan Contact - 9377466218	
SRF Limited D-2/1, GIDC Phase II ,PCPIR, Dahej , District Bharuch, Gujarat	ECC	SRF Dahej	Vikas Yadav Contact - 9978445120	
Hikal Limited Plot No. 629/630-B GIDC Estate, Post: Panoli	External & Internal telephone. MSDS First Aid Box SCBA Set PPE's ERT members list On-site emergency plan Factory Layout	Main Gate	Mr. Pradeep Jangir Contact - 9712610512	
Industrial Solvent & Chemical Pvt Ltd	D.P.M.C	Plot No.GS/3 – Near Jayaben Hospital	0264762202298	

Name of MAH Unit	ERC/ PCC Description and Facilities available	Location	Contact Authority Name with Address (O, R) and Phone- Numbers (O, R, M)	Remarks
		,GIDC Ankleshwar.		
Gujarat Guardian Ltd. State Highway – 13, Valia Road, Ankleshwar, Dist. Bharuch, Gujarat – 393001	Walkie talkie, Megaphone, PPE's, On/ Off Site Plan, Emergency Contact List	Shift Manager Cabin	Yatin Chhaya Contact - 91 9898922111	
Gujarat Chemical Port Limited P.O.- Lakhigam, Via- Dahej, Tal- Vagra, Dist- Bharuch, Gujarat- 392130	GCPL	GCPL Site office	Venkataraman Karri Contact - 7892747064	
Amal Speciality Chemicals Limited. Plot No. 136/137, GIDC Estate, Ankleshwar, Dist.: Bharuch, Gujarat, Pin: 393002	Emergency Response Centre (ERC)	Main Gate	Mr Parth Malaviya Contact - 8306495297	
ONGC Petro additions Limited Plot #Z-1 & Z-83 C/o, Dahej SEZ Ltd., P.O Dahej, Taluka Vagra, District Bharuch, Gujarat – 392130, India	Emergency Response Centre, OPaL All Required Facility Available.	OPaL, Dahej	Site Shift Manager Contact - 074360 92891	
Century ENKA LTD. (Unit:Rajashree Polyfil), Rajashree Nagar, Post:Umalla, Tal:Jhagadia, Dist:Bharuch – 393120	Yes	Main Gate	Mr. Sushil Chauhan Contact - +91 9924989299	
Viswaat Chemicals Limited, D-3/10, Dahej Phase III, GIDC, Dahej, Taluka – Vagra, Dist. – Bharuch, Gujarat – 392130	Emergency Control Centre (ECC)	EHS Office	Mr. Meram Bodar Contact - 9408376755	
	Occupational Health Centre	OHC	Dr. Arpit Patel Contact - 6353675179	
DCM Shriram Ltd (Unit: Shriram Alkali & Chemicals) Plot no. 749, GIDC, Industrial estare, Jhagadia, Bharuch, Gujarat	ECC	Company Main Gate Entry area	Roopesh Lohana Contact - 8980105511	
Unitop Chemicals Pvt Ltd. D2/CH-342,343, GIDC Phase II, Vill. Jolwa, Dahej, Bharuch	All emergency equipment available at ECC	UCPL ECC	Mayank Mota Contact - 7779003182	
Clairvoyance Industries Pvt Ltd D2 Ch 29 Phase II Dahej	Emergency Control Centre (ERC)	Main gate	Mr. Prem Naryana Pandey Contact 7486845169 Mr. Nitin Pathak Contact 7489963616	

Name of MAH Unit	ERC/ PCC Description and Facilities available	Location	Contact Authority Name with Address (O, R) and Phone- Numbers (O, R, M)	Remarks
Aries Colorchem Pvt Ltd Plot No: DP-56 & DP-57, Saykha GIDC, Saykha Tehsil: Vagra, Dist: Bharuch Gujarat, 392 140	Emergency Control Centre (ERC)	Main gate	Mr. Viral Kansara Contact 9909916784 Mr. Jaymit Sharma Contact 9909993188	
Ion Exchange (India) Limited, Plot No. 5811-12- 13 GIDC Estate, Ankleshwar	ECC	Company Main Gate	Mr. Arvind D. Patel Contact 8511100260 Mr. Hemang K. Bhatt Contact 7069043058	
Piramal Pharma Limited Plot No. D-2/11/A1, GIDC Industrial Estate ,Phase-II, Vil:Dahej, Ta:Vagra 392130,Bharuch	Emergency Response Centre (ECC)	Main Gate	Mahesh Yealo Contact 9736829475	-
Aarti Industries Limited Plot no. Z/103/C, SEZ-II, Dahej, Tal-Vagra, Dist- Bharuch, Gujarat, 392130	ECC	Near Security Gate no 1	Ankit Mishra Contact 7069002335	-
	Alternate ECC	ETP DCS Control Room		
Alkyl Amines Chemical limited Plot No: D2/CH/149 /2,GIDC Dahej 2 Ta:Vagra ,Dist: Bharuch, Gujarat	OHC	Company Premises	FMO Contact 02641350742	-
Aarti Industries Limited Plot No: 758/1, 2 & 3, Survey No. 359, 360, 364, 358, 357, 356, 345, 348 GIDC Jhagadia, Dist-Bharuch, Gujarat - 393110	ECC	Material Gate, Near security guard cabin	Mr. Jitendra Singh Contact 7069025087	-
PI Industries Ltd. Plot No: SPM-28, Sterling SEZ, At – Sarod, Ta – Jambusar, Dist. – Bharuch	Emergency Control Centre	PI Industries Ltd., Jambusar	6357092181	
PI Industries Ltd. SPM -29/2, Sterling SEZ, At – Sarod,Ta – Jambusar,	Emergency Control Centre	PI Industries Ltd., Jambusar	6357092181	
Privi Speciality Chemicals Limited, Plot No. 765, Road No.2, GIDC Jhagadia – 393 110	Emergency control centre is available	At main gate security office	Gyan Singh Contact 7567001178	-
TML Industries Limited At & post-Piludra-391810, Tal-Jambusar, Dist- Bharuch	ECC Fire Extinguishers, Torches, Umbrella, Raincoat, S.C.B.A., Helmet, First Aid	Admin Building, M/s. TML Industries Limited, Piludra	Mr. Kismat Patel Contact 9898508387	-

Name of MAH Unit	ERC/ PCC Description and Facilities available	Location	Contact Authority Name with Address (O, R) and Phone- Numbers (O, R, M)	Remarks
	Box, On-site Emergency Plan,			
Cohizon Life Sciences Limited, Plot No 6102-03, 6117-19, GIDC Ankleshwar – 393002 Gujarat - India	ERC	Main Gate Security Office	Security Incharge Contact - 02646 - 222180	
Gujarat Fluoro Chemicals Limited Plot No D-2-CH-173 + D-2-CH-222 Village-Jolva GIDC Dahej Industrial Estate Taluka: Vagra Distt: Bharuch 392130 Gujarat	PA (Public Addressing) System	Main gate Nr, OHC	Mr. Shrirang Chaudhry Contact - 9665481466	
	Emergency Pannel System (Detectors, Sensors)	Main gate Nr, OHC		
	All Chemical MSDS	Main gate Nr, OHC		
	SCBA Set	Main gate Nr, OHC		
	Emergency Contact List	Main gate Nr, OHC		
	Emergency PPE's	Main gate Nr, OHC		
	Onsite Emergency Plan	Main gate Nr, OHC		
Bodal Chemicals Limited Plot No. 301 to 430+433 to 440/1, Juned Bhersam Estate, GIDC, Saykha TA: Vagra, Bharuch, Gujarat	ERT	Common Office Area	Mr. Vilas C Nikam Contact - 9998614318	
Hemani Industries Limited. Plot No: CH/5, GIDC Industrial estate Dahej Tehsil: Vagra, Dist.: Bharuch Gujarat, 392130	Emergency Control Centre (ERC)	Main gate	Mr. SomKumar sukla Contact - +918849715863	
Hemani Industries Limited. Plot No: CH/5, GIDC Industrial estate Dahej Tehsil: Vagra, Dist.: Bharuch Gujarat, 392130	Emergency Response Centre	Yashashvi Rasyan Pvt.Ltd, Sez-2, Dahej	Jatin Bhatt Contact - 6353890982	
Shiva Pharmachem Limited Dahej	ERC/ OHC available	Nr. Main gate	Mr.Jignesh Patel Contact 9998058967	
Savla Chemicals Ltd. Plot No: 26-A, GIDC, Industrial Estate, Panoli-394116, Ankleshwar, Dist-Bharuch, Gujarat.	ECC Building Savla Chemicals Ltd. Panoli	Panoli	Site Main Controller and Key Persons Contact – 9375970570 /02646-272622/633	
Deepak Phenolics Limited, Plot No. 12/B/1 + 12/B/2/2, GIDC Dahej, Village: Ambetha, Taluk: Vagra,	ECC External Telephone, Internal Telephone, Area Fire Map,	Admin Building & TG Building	Mr. Santosh Kumar Pandey Contact - 7574804515	

Name of MAH Unit	ERC/ PCC Description and Facilities available	Location	Contact Authority Name with Address (O, R) and Phone- Numbers (O, R, M)	Remarks
District: Bharuch, 392130, Gujarat	Extinguishers, Torches, Umbrella, Raincoat, S.C.B.A., Helmet, First Aid Box, On Site Emergency Plan, Note Pad, Pens, Pencils, Rubbers, etc.	M/s. Deepak Phenolics Limited, Dahej		
Cohizon Life Sciences Limited (Unit – 2) Plot No. 5809 - 5810, GIDC Estate, Ankleshwar, Gujarat - 393002	ERC	Main Gate Security Office	Security In-charge Contact - 7839692842	
Krishna Antioxidants Pvt Ltd Plot No.: D-3/24/1, GIDC Dahej Phase – III, Village Samatpor, Taluka Vagra Dahej, Dist. Bharuch (Gujarat) – 392130	Emergency Response Centre	Main Security Gate	Sunil Kumar Contact - 7385641707	
Payal Polyplast Pvt. Ltd Plot No. 2, Dahej 2, Bharuch - Dahej Rd, Gujarat 392130	Emergency Control Centre (ERC)	Main gate	Mr. Pratik Gupta Contact - +91 9730636961	
Gail (India) Limited, Gandhar, Po.Rozatankaria ,Tal.Amod, Dist.Bharuch, Gujarat, Pin-392140	Emergency Control Centre is equipped with the following facilities: • Telephone numbers of important persons • Contact details of mutual aid and external agencies • A copy of ERDMP • A copy of Onsite Emergency Plan • A copy of Off-site Emergency Plan • A copy of Safety Manual • P&IDs	Admin Building	Arindam Das (OIC) Contact - 2641-231002, Ext No.: 871510	

Name of MAH Unit	ERC/ PCC Description and Facilities available	Location	Contact Authority Name with Address (O, R) and Phone- Numbers (O, R, M)	Remarks
	• Area Plan and drawings • Area classification drawings • Safety Torch • PA System • Walkie Talkie Base Station PC with Internet connection and CCTV			
Sterling Auxiliaries Pvt. Ltd, Dahej, Taluka –Vagra, Dist-Bharuch	ECC	ECC Room, Main Gate	Shree Niwas Upadhyay Contact 7359271445	
Gujarat Narmada Valley Fertilizers & Chemicals Ltd. (GNFC) Address: GNFC, Narmada Nagar, Bharuch – 392015, Gujarat, India.	ECC at training centre conference hall. B.A apparatus sets, telephone, Map of plan and other basic infrastructure.	Near training centre.	A.N Modi Contact - 02642203492	
Organic Industries Pvt. Ltd S/163. GIDC, Dahej, Vagra, Bharuch	Emergency Control Centre (ERC)	Main gate	Babu Pathanjali Contact 6358025670 Address - Residence 21-22, Akshat Bungalows, Zadeshwar, Bharuch	
Indorama Vevnture Oxides Ankleshwar Pvt. Ltd. Plot No. 321, GIDC Panoli, Ankleshwar, Bharuch.	Emergency Control Office	Admin Office	Mr. Arvindkumar Tiwari Contact - 8097721935	
Schott Glass India Pvt. Ltd Block No. 1351/1, 1352/2 Vill: Ankhi, Tal: Jambusar Dist.: Bharuch	ERC First Aid	OHC Centre	9099080108	

6.5 Evacuation – Transport and Sheltering

Table 25 Evacuation Information – Transport

Name Of MAH	Transport Company	Fleet (No. of Buses and trucks)	Contact Authority Name with Address (O, R) and Phone- Numbers (O, R, M)	Remarks
Aarti Industries Limited Plot no. Z/103/C, SEZ-II, Dahej, Tal-Vagra, Dist-Bharuch, Gujrat, 392130	Narendra Logistics	10	Ankit Mishra Contact - 7069002335	
Aarti Industries Limited Plot No: 758/1, 2 & 3, Survey No. 359, 360, 364, 358, 357, 356, 345, 348 GIDC Jhagadia, Dist-Bharuch, Gujarat - 393110	Aarti	5 nos Bus	Mr. Jitendra Singh Contact - 7069025087	
Alkyl Amines Chemical limited Plot No: D2/CH/149/2,GIDC Dahej2, Ta: Vagra ,Dist: Bharuch, Gujarat – 392130	Nand Travels	1 Bus for Shift bases travel	Mr.Bhavik Modi Contact - 9898178383	
	Movers Travels/ Hind enterprises	1 Bus for General Travel 1 Tempo traveller for General Shift Travel	Mr. Sajid Bhai Contact - 9825451018	
Amal Speciality Chemicals Limited. Plot No. 136/137, GIDC Estate, Ankleshwar, Dist.: Bharuch,	Company hired vehicle	1 nos four-wheeler (6-seater)	Mr Awadesh Singh Contact - 9850678207	
Anshika polysurf ltd Plot no : C-383/1,Argama industrial estate, Saykha GIDC, Ta: Vagra, Dist : Bharuch	Vidhi Transport	01	Lokeshbhai Contact - 6359893342	
	Bhavna Roadlines	01	Rajnikant Contact - 9974007544	
	Sunny Enterprise	02	Sunny Contact - 9601861022	
Aries Colorchem Pvt Ltd Plot No: DP-56 & DP-57, Saykha GIDC, Saykha Tehsil: Vagra, Dist: Bharuch Gujarat, 392 140	Jagdish Ode	3 no's four wheeler (6-seater)	Jagdish Contact - 9925896198	
Atul Ltd (Aromatics Business) Plot no 297, 297/1, GIDC estate, Ankleshwar, Dist- Bharuch	Company hired vehicle	2 nos four-wheeler (6-seater)	Mr Awadesh Singh Contact – 9850678207	
Birla Cellulosic (A Unit of Grasim Industries Ltd) Birladham, Village – Kharach, Near Kosamba, Tal – Hansot, District –Bharuch	Vikram Dodia & Bhupat Patel (owner)	Two Buses	Prahalad Goswami Contact – 8310119930	
Bodal Chemicals Limited Plot No. 301 to 430+433 to 440/1, Juned Bhersam Estate, GIDC,	Maruty Travels	01 BUS	Mr Pradip Contact - 9624798784	
	Khusbu Enterprises	01 Travellar	Mr Abdul	

Name Of MAH	Transport Company	Fleet (No. of Buses and trucks)	Contact Authority Name with Address (O, R) and Phone- Numbers (O, R, M)	Remarks
Saykha TA: Vagra, Bharuch, Gujarat - 392140			Contact - 9924885433	
	Kaiwal Tours & Travels	01 Maruti Eeco	Mr Milan Patel Contact -9638967329	
	Khusbu Enterprises	01 Maruti Ertiga	Mr Abdul Contact -9924885433	
Borosil Renewables Limited Ankleshwar–Rajpipla Road, Village – Govali, Bharuch, Gujarat	In-house / Plant-owned Vehicles	2 Buses 4 Force Trax Toofan	Mr.Amarsingh(Security officer) Contact - 02642 258101	
Coromandel International Limited, Dahej Plot No. Z – 103/G, Dahej SEZ – II, Dahej – 392130, Tal. Vagra,Dist – Bharuch, Gujarat (India)	SSK Logistics	03Nos	Sandip Ahir Contact - 91-9898066372	
Covestro (India) Pvt. Ltd.3501-15, 6301-13 & 16 mtr road/B2, GIDC Industrial Estate, Ankleshwar – 393002	Shree Nand Travels	4 no. (9-seater cab)	Security Office Contact - 7045036398	
Century Enka Ltd. (Unit: Rajashree Polyfil), Rajashree Nagar, Post:Umalla, Tal:Jhagadia, Dist:Bharuch – 393120	Ovesh Travels	Bus	Mr.Premraj Nayak Contact - +91 9726132899	
Clairvoyance Industries Pvt Ltd D2 Ch 29 Phase II Dahej	Company Owned	2 Nos cars	Mr. Prem Naryana Pandey Contact – 7486845169	
Cohizon Life Sciences Limited, Plot No 6102-03, 6117-19, Gidc Ankleshwar – 393002 Gujarat - India	Company Owned	Bus (3 Nos.)	Mr. Rajeev Saxena Contact - 9910729555	
		Trax (7 Nos.)		
		Company Vehicles - 5		
Cohizon Life Sciences Limited (Unit – 2) Plot No. 5809 - 5810, GIDC Estate, Ankleshwar, Gujarat - 393002	Bus (3 Nos.)	Near Company Main Gate (Unit- 1)	Mr. Rajeev Saxena Contact - 9910729555	
	Trax (7 Nos.)	Near Company Main Gate (Unit- 1)		
	Company Vehicles (5 Nos.)	Near Company Main Gate (Unit- 1)		
Dai-Ichi Karkaria Limited, Plot No. D2 / 20, GIDC Dahej-2, Taluka: Vagra, Dist.: Bharuch, Gujarat	Ecco	Car	Mr.Manoj Contact – 7227860848 (O) 02616725533	
	Honda City	Car		
	Ertiga	Car		
	Shift Bus	Bus		
	Shift Bus	Bus		

Name Of MAH	Transport Company	Fleet (No. of Buses and trucks)	Contact Authority Name with Address (O, R) and Phone- Numbers (O, R, M)	Remarks
Deepak Phenolics Limited, Plot No. 12/B/1 + 12/B/2/2, GIDC Dahej, Village: Ambetha, Taluk: Vagra, District: Bharuch, 392130, Gujarat	M/s Deepak Phenolics Limited.	Four-wheeler – 7 Nos., 2-Seater, at any time	Site Shift Manager Contact - 7567084274	
	Pinakin Travels, Vadodara	Bus – 4 Nos. (General Shift) Bus-02 Nos. (Shift Bus)	Mr. Dhaval Tailor Contact - 6359952599	
Deepak Chem Tech Limited Plot No. D-II/ 6/1 & D-II/6/1 ^a , Dahej- II Industrial Estate, Dahej, Village: Rahiyad, Tal: Vagra, Dist.: Bharuch - 392130, Gujarat, India	Jill Travels	Bus	Mr. Arun Dhagarra Contact - 9881037462	
	Pinakin Travels	Bus, Car		
DCM Shriram Ltd (Unit: Shriram Alkali & Chemicals) Plot no. 749, GIDC, Industrial estate, Jhagadia, Bharuch, Gujarat	Charter speed	11 nos.	Digvijay Chauhan Contact - 9099481063	
Deepak Fertilisers and Petrochemical Corporation Limited Address: Plot No. D/II/7/A, Dahej GIDC Area, Village Rahiyad, Taluka Vagra, District Bharuch – 392130 (Gujarat).	Tirth Travels	01	Ritesh Joshi Contact - 02641-689141	
Expanded Polymer Systems Pvt.Ltd	Parshwa Travels	Bus-1	Darshan Kothiwala	
	Babari Travels	Bus-1	Naresh Patel Contact - 9913456608	
Epigral Limited CH1, CH2,CH/1+2B GIDC Industrial Estate, Dahej, Tal. Vagra, Bharuch - 392 130 Gujarat, India	Divya Travels	11	Mr. Dipesh Punchal Contact - 9974705458	
Grasim Industries Limited, Cellulose Division Plot No. 1, GIDC Industrial Estate, Vil. Vilayat, Tal. Vagra, Dist. Bharuch, Gujarat	M/s Divya Travels	16	7405888956	
Gujarat Fluorochemicals Limited, 12/A GIDC Dahej Industrial Estate, Taluka Vagra, District Bharuch 392130, Gujarat	Rao Travels (Bharuch)	9 nos. 56-seater AC Bus & 1 no. 32 Seater AC for General Shift & 8 nos. 56-seater	Mr.Pradip Tiwari – Supervisor Contact - 91 9265852304	

Name Of MAH	Transport Company	Fleet (No. of Buses and trucks)	Contact Authority Name with Address (O, R) and Phone- Numbers (O, R, M)	Remarks
		AC Bus for other shifts		
	OM Travels, Bharuch	1 – Innova Kia Carens 1 – Maruti Ciaz 8 – W6 – XUV 300 6 – W8 – XUV 300 Total 17 LMV Vehicles	Mr. Bhavesh Contact - 91 9924428289	
GACL-NALCO Alkalies And Chemicals Pvt. Ltd. Plot No D/II/9/1 & D/II/9/2, GIDC Dahej, Taluka : Vagra, Dist – Bharuch, Gujarat	Divya Transport	1 Bus	Mr. Mehul Vakharikar Contact - +91 99256 53473	
Gujarat Guardian Ltd. State Highway – 13, Valia Road, Ankleshwar, Dist. Bharuch, Gujarat – 393001	Rajesh Travels	02	Rajesh Prajapati Contact - 9998976475	
Galaxy Surfactants Ltd.	Devendra Transport	09 Bus Available	Sohil Sandhi Contact - 6354927843	
Gujarat Chemical Port Limited P.O. Lakhigam, Via- Dahej, Tal- Vagra, Dist- Bharuch, Gujarat-392130	M/s Avi Travels	04 No's Buses 08 No's Scorpio	Mitesh Shah Contact – 9824463615 Md. Imran Mansuri Contact – 9725176215	
Gujarat Fluoro Chemicals Limited Plot No D-2-CH-173 + D-2-CH-222 Village-Jolva GIDC Dahej Industrial Estate Taluka: Vagra Distt: Bharuch 392130 Gujarat	Rav Travels	Buses – 13 Nos	Mr. Dhaval Solanki Contact - 9723469912	
Hemani Industries Limited. Unit 2 Plot No. 3207/A & B, 3208/1&2,3202/A/1, GIDC Industrial Estate, Ankleshwar - 393002, Gujarat	Hemani industries ltd	01 Innova, 01 ertiga (6–7-seater)	Mr. Som Kumar sukla Contact - 8155966663	
Hemani Industries Limited. Plot No: CH/5, GIDC Industrial estate Dahej Tehsil: Vagra, Dist.: Bharuch Gujarat, 392130	Thirth Travels	04 no's bus (56-seater each)	Mr. Yashin Contact - 9737777828	
	Hemani industries ltd	02 EV four-wheeler (4,5-seater) 01 Toofan, traveler	Mr. SomKumar sukla Contact - 8155966663	

Name Of MAH	Transport Company	Fleet (No. of Buses and trucks)	Contact Authority Name with Address (O, R) and Phone- Numbers (O, R, M)	Remarks
		(12,18-seater)		
Hikal Limited Plot No. 629/630 -B GIDC Estate, Post: Panoli	Lakshya Travelles	2	Mr. Dolat thakur Contact - 9925710127	
Indo Baijin Chemicals Pvt. Ltd. Plot No. Z/7/1, SEZ-1 Area, Dahej SEZ Ltd. Tal - Vagra, Dist - Bharuch - 392130, Gujarat, India	Soft travelles	1 Bus (G-Shift)	Mr. Dharmesh Parmar Contact - 9638537080	
	Soft travelles	1 Bus (Shift duty)		
	Soft travelles	4 Cars (3-G shift, 1-24 hrs.)		
Indofil Industries Limited (Unit-1) Plot No. Z-8, SEZ-1, GIDC, Dahej, Tal. - Vagra, Dist: Bharuch, Gujarat - 392130, India	Lakshya Travels	GJ 16AW 1829 (56 Sheetar Ac Bus A,B,C Shift)	Doulat Bhai Contact - 7016939730	
	Lakshya Travels	GJ 16 AY 0006 (Sedan Car)	Doulat Bhai Contact - 7016939730	
	Dev Enterprise	GJ 16 AY 6494 (Sedan Car)	Luv bhai Contact - 9879529487	
	Dev Enterprise	GJ 16 AY 6473 (Sedan Car)	Luv bhai Contact - 9879529487	
	Heniv Enterprise	GJ 16 AY 2957 (56 sheetar Ac Bus G shift)	Viral Ahir Contact - 9724186444	
	Zenplus PVT. LTD.	MP 04 DB 3063 (Ambulance)	Manish Bhatti Contact - 7863012331	
	Company Vehicle	GJ 16 DP 5572 (Sedan Car)	Company Vehicle Contact - 7069047203	
Industrial Solvent & Chemical Pvt Ltd	Jay Agency	NA	Vasudev Patel	
Ion Exchange (India) Limited, Plot No. 5811-12-13 GIDC Estate, Ankleshwar	Mina R Joshi	2	Mina R Joshi Contact - 93130 58746	
	Dharm Bhakti Krupa Travels	2	Rakesh C Joshi Contact - 97275 77789	
Jubilant Ingrevia Limited & Jubilant Infrastructure Limited	Shree ram, Bharuch	2 Ranted cars	Mr. Inder Sharma Contact - 8433980800	
KLJ Organic Limited Plot No-759, GIDC Estate, At&Po:Jhagadia,Ta:Ankleshwar Dist-Bharuch	Bala Transport	2 Buses	HR	
	Tirth Travelers	4 Four Wheel		
Krishna Antioxidants Pvt Ltd Plot No.: D-3/24/1, GIDC Dahej Phase - III, Village Samatpor, Taluka Vagra Dahej, Dist. Bharuch	Complany Hired Vehical	1 Nos. Four-Wheeler (6-Seater)	Shailender Sinh Contact - 9925758144	
LANXESS India Pvt. Ltd,Plot No. 748/2/A, 748/3 & 748/4/B +748/4/A/1, Gidc Estate, Jhagadia - 393110, Dist. Bharuch	VC Shah Patel Pvt Ltd	3	Nirmal Shah Contact- 9825033157	
	Rajesh S Patel	2	Rajesh Patel Contact - 9904932300	
ONGC Petro additions Limited Plot #Z-1 & Z-83 C/o, Dahej SEZ Ltd., P.O Dahej, Taluka	M/s Swaminarayana Travels	11 Buses	Shri Himanshu Srivastava Contact - 9099007587	

Name Of MAH	Transport Company	Fleet (No. of Buses and trucks)	Contact Authority Name with Address (O, R) and Phone- Numbers (O, R, M)	Remarks
Vagra, District Bharuch, Gujarat – 392130, India				
Omkar Chemical Industries PVT Ltd Plot No.406, GIDC.Estate, Panoli-394116, Ankleshwar,Dist. Bharuch	NT travel	Gj06BY6224-Bus	Kalpesh Vasava Contact- 9998258515	
Organic Industries Pvt. Ltd S/163. GIDC, Dahej, Vagra, Bharuch	Company Own	Bus – 1 No Force Traveller – 1No Trax – 1 No	Dinesh Contact - 9227764840	
Payal Polyplast Pvt. Ltd Plot No. 2, Dahej 2, Bharuch - Dahej Rd, Gujarat 392130	Shivshakti Travels	3 nos' four-wheeler (6-seater) 1 Mini bus (32-seater) 1 Tempo Traveler (26-seater)	Mr. Sandeep Contact - 9913240480	
Privi Speciality Chemicals Limited, Plot No. 765, Road No.2, GIDC Jhagadia - 393 110 Dist. Bharuch	Sky Enterprises	2	Ashish Vasava Contact - 7041460170	
Piramal Pharma Limited Plot No. D-2/11/A1, GIDC Industrial Estate, Phase-II, Vil:Dahej, Ta:Vagra 392130,Bharuch,Gujrat,India	Company hired vehicle & Bus	1 Nos Bus 46 (seate) & 3 nos four- wheeler (6-seater)	Jitendra Patel Contact - 9099974550	
PI Industries Ltd 237, GIDC Estate Panoli 394116 Dist. Bharuch, Gujarat	Shri Nand Travels	Total 12 No. (04 Buses and 04 Tracks 04 No. Taxi)	Rahul Jain Contact - 6357434518	
Petronet LNG Limited. Dahej Terminal	Gandhi Travels	04 Buses for Petronet Employee transportation	Mr. Jatin Joshi Contact - 9662526277	
Panoli Intermediates (India) Pvt Ltd,Plot No 778/1 & 756/1, GIDC Jhagadia,Dist-Bharuch	Company Owned	Bus – 01	Jaydeep Contact - 9979568156	
Reliance Industries Ltd. Dahej Manufacturing Division Dahej, Bharuch	Vikas Travels	10 buses	Mr. Karan Pandya Contact - 6354916966	
Sudarshan Gujarat manufacturing Limited, Unit-1	Hired Vehicle	Ertiga - 01	Manoj Pandey Contact - 9879106954	
	Hired Vehicle	Swift Dezire - 03	A.K. Shukla Contact - 9099008773	
Solvay Specialities India Pvt Ltd, Panoli Plot No: 3526-27, G.I.D.C., Panoli, District: Bharuch, Gujarat	Shree Nandtravel	Innova; 03 Toofan: 07 Traveler: 03	Mr. Pratapsingh Negi Contact – 7575004502	
Superform Chemistries	Jay Kuber Travels	07	Bipul Singh Contact - 8882163892	

Name Of MAH	Transport Company	Fleet (No. of Buses and trucks)	Contact Authority Name with Address (O, R) and Phone- Numbers (O, R, M)	Remarks
Limited (Unit – 92) Plot No- D 3 / 6 GIDC III, Kadodara Ta-Vagara, Dist. Bharuch (Gujarat)- 392110	Tirth Travels	03		
	Moovers Travels	01		
	Avi Travels	03		
Styrenix Performance Materials Limited, 4-G.I.D.C Dahej, Tal: Vagra Dist: Bharuch	Divya Travels	02	Deepesh Contact - 9974705458	
Superform Chemistries Limited. Plot No.746 /750, GIDC, Jhagadia, Dist- Bharuch, 393110, Gujarat, India	Kuber Travels	12	Maiyuddin Saiyed Contact – 9824491118	
SRF Limited D-2/1, GIDC Phase II , PCPIR, Dahej District Bharuch, Gujarat - 392 130	SRF Limited - owned	Scorpio - 01 no., Ambulance - 02 nos, Innova - 01 no.	Sanjay Patidar Contact - 9687001442	
	Transport Contractor	Buses – 40 nos (used for regular commute, can be used for evacuation in emergency)		
Shiva Pharmachem Limited Dahej	Devendra Travels	4	Mr. Jayraj Karade Contact - 9925043973	
Savla Chemicals Ltd. Plot No: 26-A, GIDC, Industrial Estate, Panoli-394116, Ankleshwar, Dist- Bharuch, Gujarat.	Main Security Gate, Savla Chemicals Ltd. Panoli	02 Vehicles	Mukesh Trevedi Contact - 9898578766	
Sterling Auxiliaries Pvt.Ltd, Dahej, Taluka –Vagra, Dist-Bharuch	SS logistic	02	Arbind Singh Contact - 93282980350	
Schott Glass India Pvt. Ltd Block No. 1351/1, 1352/2 Vill: Ankhi, Tal: Jambusar Dist.: Bharuch		4 Buses	Vishal anand Contact - 7874633733	
Tagros Chemicals India Pvt. Ltd. Plot no.43/1, Amod Road, GIDC Dahej-1, Tal: Vagra, Dist: Bharuch-392130	Shree Rang Kripa	04	Mr. Hitesh Shah Contact - 9978994988	
TML Industries Limited At & post-Piludra-391810, Tal-Jambusar, Dist-Bharuch	TML Industries Limited, Piludra	Four-wheeler–1 Nos., during daytime	Mr. Kalpesh Thakkar Contact - 8200759783	
	JG Travels	Bus–2 Nos. (01 nos. Shift wise , 01 nos. General		

Name Of MAH	Transport Company	Fleet (No. of Buses and trucks)	Contact Authority Name with Address (O, R) and Phone- Numbers (O, R, M)	Remarks
		Shift)		
Yashashvi Rasayan Pvt.Ltd Plot No. Z/96/E, SEZ-II, Dahej Industrial Estate,Village Luvara,Taluka Vagra, District Bharuch, Gujarat, 392130.	Wardwizard Hospital	Ambulance - 01	Yashashvi Rasayan Pvt.Ltd Contact - +91-63589-44764/65	
	Devendra Travels	Buses-04		
	Devendra Travels	Innova-02		

Table 26 Evacuation Information – Sheltering

Name Of MAH Unit	Evacuation Area Location	Capacity (No. Of People)	Contact Authority Name with Address (O, R) And Phone-Numbers (O, R, M)	Remarks
Aarti Industries Limited Plot no. Z/103/C, SEZ-II, Dahej, Tal-Vagra, Dist-Bharuch, Gujrat, 392130	PJ Cheda School, Dahej	300	Mr. Hitesh Shah Contact - 98244 75576 Address - Disaster Management Centre, Dahej	
	Shelter House - Rahiyad Village	1000		
	Primary School, Lakhigam	300		
	Primary School, (Prathmik Mix Shala), Luvara	70		
	Primary School, (Haridham Vidyalaya), Jageshwar	130		
	Primary School, Ambetha	120		
Alkyl Amines Chemical limited Plot No: D2/CH/149/2,GIDC Dahej-2, TA: Vagra, Dist:Bharuch, Gujarat	Vav Govt. school	100 no.s		
	Vadala Govt. School	100 no.s		
Aarti Industries Limited Plot No: 758/1, 2 & 3, Survey No. 359, 360, 364, 358, 357, 356, 345, 348 GIDC Jhagadia, Dist-Bharuch, Gujarat - 393110	Ankleshwar Guest house and Garden city 20 Km	50 Members	Mr. Jitendra Singh Contact - 7069025087	
	Jhagadia Industrial Association Hall	100 Members	Mr. Sunil G.Sharda Contact - 7567039300	
Anugrah Indsutries Private Limited Plot No. D3-26/1&2, GIDC Dahej – 392130, Tal. Vagra, Dist. Bharuch	Primary School , Sambheti, Dahej, Vagra, Bharuch.	20		
Atul Ltd (Aromatics Business) Plot no 297, 297/1, GIDC estate, Ankleshwar, Dist- Bharuch	Atul Colony (Within 5 km)	250 nos	Mr Awadesh Singh Contact – 9850678207	
Anshika polysurf ltd	Argama Village	50	Ayushbbhai	

Name Of MAH Unit	Evacuation Area Location	Capacity (No. Of People)	Contact Authority Name with Address (O, R) And Phone-Numbers (O, R, M)	Remarks
Plot no : C-383/1, Argama industrial estate, Saykha GIDC, Ta: Vagra, Dist : Bharuch			Contact – 9723786779	
AMAL SPECIALITY CHEMICALS LIMITED. Plot No. 136/137, GIDC Estate, Ankleshwar, Dist.: Bharuch, Gujarat, Pin: 393002	Atul Colony (Within 5 km)	250 nos	Mr Awadesh Singh Contact - 9850678207	
Bodal Chemicals Limited Plot No. 301 to 430+433 to 440/1, Juned Bhersam Estate, GIDC, Saykha TA: Vagra, Bharuch, Gujarat - 392140	Bhersam	200	The Principal	
Birla Cellulosic (A Unit of Grasim Industries Ltd) Birladham, Village – Kharach, Near Kosamba, Tal – Hansot, District – Bharuch	ABPS School	1200 people	Mr. Jitendra Patel Contact - 9879509937	
	Auditorium	300 people		
	Guest house- Narmda & Tapti Club House	300 people		
	ABPS School	1200 people		
Cohizon Life Sciences Limited, Plot No 6102-03, 6117-19, Gidc Ankleshwar – 393002 Gujarat India	Sarangpur Primary School, Sarangpur Village, Ankleshwar	1000 Nos.	Mr. Kanu Contact - 9727241387	
	Canteen, Ankleshwar Industrial Association	1000 Nos.	Mr. Jignesh Kayastha Contact -9909948923	
	AEPS College	1000 Nos.	Mr. Shailesh Vora Contact -9898974927	
Cohizon Life Sciences Limited (Unit – 2) Plot No. 5809 - 5810, GIDC Estate, Ankleshwar, Gujarat - 393002	Sarangpur Primary School, Sarangpur Village, Ankleshwar	1000 Nos.	Mr. Kanu Contact - 9727241387	
	Canteen, Ankleshwar Industrial Association	1000 Nos.	Mr. Jignesh Kayastha Contact - 9909948923	
	AEPS College	1000 Nos.	Mr. Shailesh Vora Contact - 9898974927	
Chemieorganic Chemicals (I) Pvt. Ltd. Plot No. 758 G.I.D.C. – Jhagadia. Tal.: Jhagadia, Dist. Bharuch, Gujarat- 393110	Company emergency Assembly point & Seismic proof Buildings	500 Head	Sh. Vijay Shah Contact - 9322872232	
	LCG MARG Help if emergency level declare others than L-1	As per Offsite Emergenncy		

Name Of MAH Unit	Evacuation Area Location	Capacity (No. Of People)	Contact Authority Name with Address (O, R) And Phone-Numbers (O, R, M)	Remarks
	Level Emergency	Response Plan		
Clairvoyance Industries Pvt Ltd	Mirash Industries Pvt Ltd	200	Omkar Bhai Contact - 9825874178	
D2 Ch 29 Phase II Dahej	Sunfrio Chemicals Pvt Ltd	200	Manoj Bhai Contact – 9521634789	
Century ENKA Ltd. (Unit: Rajashree Polyfil), Rajashree Nagar, Post :Umalla, Tal:Jhagadia, Dist:Bharuch – 393120	School	500 nos.	Mr.Ashish Pagare Contact- +91 9428178904	
Deepak Chem Tech Limited Plot No. D-II/ 6/1 & D-II/6/1 ^a , Dahej- II Industrial Estate, Dahej, Village : Rahiyad, Tal: Vagra, Dtist: Bharuch - 392130, Gujarat, India	Rahiyad Primary School		Mr. Bharat Sakpale Contact - 7977150976	
	Rahiyad Gram Panchayat			
Deepak Phenolics Limited, Plot No. 12/B/1 + 12/B/2/2, GIDC Dahej, Village: Ambetha, Taluk: Vagra, District: Bharuch, 392130, Gujarat	Primary School Ambheta	150	Mr. Yatin Patel Contact - 9825490856	
DCM Shriram Ltd (Unit: Shriram Alkali & Chemicals) Plot no. 749, GIDC, Industrial Estate, Jhagadia, Bharuch, Gujarat	Fulwadi community hall	500 persons	Talati -Samir bhai CHodhari / Sarpanch - Ramu bhai Sankar bhai vasava Contact – 9099335177, 9727546982	
	Fulwadi School	500 persons		
Dhanveen Pigments Pvt. Ltd Plot No.: 3105/06/07, GIDC Estate, Phase III, Panoli, Dist. – Bharuch, Gujarat, India	Panoli Industrial Association Hall	---		
	Welcare Hospital	---		
Deepak Fertilisers and Petrochemical Corporation Limited Address: Plot No. D/II/7/A, Dahej GIDC Area, Village Rahiyad, Taluka Vagra, District Bharuch – 392130 (Gujarat).	Disaster Management centre Rahiyad	500	Sarpanch/Talati	

Name Of MAH Unit	Evacuation Area Location	Capacity (No. Of People)	Contact Authority Name with Address (O, R) And Phone-Numbers (O, R, M)	Remarks
Epigral Limited CH1,CH2,CH/1+2B GIDC Industrial Estate, Dahej, Tal. Vagra, Bharuch - 392 130 Gujarat, India	Shelter House, Rahiyad	1000		
	Primary School, Dahej	300		
Gujarat Chemical Port Limited P.O.- Lakhigam, Via- Dahej, Tal- Vagra, Dist- Bharuch, Gujarat- 392130	Lakhigam Primary School	400	Ms Komal Patel (Principal) Contact - 9512436980	
	Lakhigam High School	156	Ms Alpa Parmar (Principal) Contact - 7567756980	
GACL-NALCO Alkalies And Chemicals Pvt. Ltd. Plot No D/II/9/1 & D/II/9/2, GIDC Dahej, Taluka : Vagra, Dist – Bharuch, Gujarat	At Atali Village : Ashram School, ITI, Village School	1000	Mr. Digvijay Contact - +91 97142 02304	
Gujarat Fluoro Chemicals Limited Plot No D-2-CH-173 + D-2-CH-222 Village-Jolva GIDC Dahej Industrial Estate Taluka : Vagra Distt: Bharuch 392130 Gujarat	Primary School of Nearby Village Galenda & Vaw	500 Nos	Mr. Dhaval Solanki Contact - 9723469912	
Gujarat Narmada Valley Fertilizers & Chemicals Ltd. (GNFC) Address: GNFC, Narmadanagar , Bharuch – 392015, Gujarat, India.	Narmadanagar School	500	School Principal Contact - 02641203130	
Hemani Industries Limited. Unit 2 Plot No. 3207/A & B, 3208/1&2,3202/A/1, GIDC Industrial Estate, Ankleshwar - 393002, Gujarat	Emergency Control Centre (ERC)	Main gate	Mr. SomKumar sukla Contact - +91 8849715863	
	Ankleshwar Industries Association, Ankleshwar	400	618/619, GIDC Industrial Estate, Ankleshwar, Bharuch, Gujarat 393002 Contact - 02646 222 000	
Hemani Industries Limited. Plot No: CH/5, GIDC Industrial estate Dahej Tehsil: Vagra, Dist.: Bharuch Gujarat, 392130	Gov. collage of Science and Commerce, Dahej	500	Dr. Leena Dave Contact- 8141378833	
	DMC, Dahej	250	Mr. Hitesh Shah Contact – 9824475576	
Indorama Vevnture Oxides Ankleshwar Pvt. Ltd. Plot No. 321, GIDC Panoli, Ankleshwar, Bharuch.	Shri. Gattu Vidhyalaya,	4500	Principal Contact - 02646- 252400	
	Lions School,	2500	Principal Contact- 2646- 221249	
Ion Exchange (India) Limited, Plot No. 5811-12-	Adarsh High School, Ankleshwar	700	2646 – 247159	

Name Of MAH Unit	Evacuation Area Location	Capacity (No. Of People)	Contact Authority Name with Address (O, R) And Phone-Numbers (O, R, M)	Remarks
13 GIDC Estate, Ankleshwar	Gattu Vidhyalaya, Ankleshwar	1500	02646-252400	
	Jinwala High School, Ankleshwar	3000	02646 – 247193	
Industrial Solvent & Chemical Pvt Ltd	P.P.Savani high school , Gardencity , Ankleshwar Gidc	1500	Ravi Gandhi Contact -9377510071	
	Gattu Vidhyalaya , Ankleshwar Gidc	1500		
Jal aqua international llp,Plot no:620 road no.06 ,GIDC estate panoli ,Dist-Bharuch	Seva yagna samiti, Bharuch	200 nos	Mr.Himanshu parikh , Civil Hospital Compound, Railway Station Rd, near ART Centre, Moficer Jin Compound, Bharuch, Gujarat 392001 Mobile - 09825329934,98985 65007	
Jubilant Ingrevia Limited & Jubilant Infrastructure Limited	Skill upgradation center, Jubilant Bhartiya foundation.	100	Mr. Dharam Pandya Contact - 8469979070	
Kanoria Chemicals & Industries Ltd.Plot No. 3407, GIDC Industrial Estate Ankleshwar, Dist. Bharuch, Gujarat – 393001	Kanoria Guest House, GIDC Colony, Near Gattu Vidyalaya, GIDC Ankleshwar. - 393002	100	Ketan Devre Contact - 7359277710	
LANXEES India Pvt. Ltd,Plot No. 748/2/A, 748/3 & 748/4/B +748/4/A/1, Gidc Estate, Jhagadia – 393110, Dist. Bharuch	Fulwadi School (Govt)	200	Parulben, Contact- 8469326415	
	Kapalsadi School (Govt)	600	Bhartiben Contact-9979879581	
	Selod School (Govt)	150	Geetaben Contact-9909630026	
Minol Acids And Chemicals Pvt. Ltd. Plot No. 5904/1, Nr. Kanoria Chemicals, G.I.D.C., Ankleshwar.	K M Munsli Hall , Manav Mandir, GIDC, Ankleshwar	50	GIDC, Ankleshwar Contact - (02646) 222487	
New India Acid (Baroda) Pvt. Ltd.	Vadadala, Dahej	25	Primary School	
Organic Industries Pvt. Ltd S/163. GIDC, Dahej, Vagra, Bharuch	Kannya School Dahej	160		
ONGC Petro additions Limited Plot #Z-1 & Z-83 C/o, Dahej SEZ Ltd., P.O	Disaster Hall	500+	Talati (Suva) Suva village	

Name Of MAH Unit	Evacuation Area Location	Capacity (No. Of People)	Contact Authority Name with Address (O, R) And Phone-Numbers (O, R, M)	Remarks
Dahej, Taluka Vagra, District Bharuch, Gujarat – 392130, India				
PI Industries Ltd. SPM-29/2, Sterling SEZ, At - Sarod, Ta -Jambusar , Dist. - Bharuch	Primary School Vahiya	500	Mr. Pardeepsinh Raj Contact - 9978284481	
	Primary School Saran	600	Mr. Raj Imtyaz at Saran Contact -9824410084	
	Primary School Saykha	400	Mr. Jayvir Sinh Contact -9879282971	
PI INDUSTRIES LTD 237, GIDC Estate Panoli 394 116 Dist. Bharuch, Gujarat	Hotel Pariwar	100	Mr. Toufiq Khorajiya	
	Hotel Sanman	100	Hojefa Ahmed Sunsar	
Reliance Industries Ltd. Dahej Manufacturing Division Dahej , Bharuch	Sarasvati Township, Vadalda, Dahej	1000	Mr. Gyan Prakash Contact - 9274685992	
Sterling Auxiliaries Pvt.Ltd, Dahej, Taluka – Vagra, Dist-Bharuch	Ambeta Village	200	Shilpaben Rathod	
Schott Glass India Pvt. Ltd Block No. 1351/1, 1352/2 Vill: Ankhi, Tal: Jambusar Dist.: Bharuch	Zen School	1500	Zen school Contact - 6354962623	
Shiva Pharmachem Limited Dahej	Jolwa	500	Jolwa Primary School	
SRF Limited D-2/1, GIDC Phase II , PCPIR, Dahej , District Bharuch, Gujarat - 392 130	Jolva School	250		
Superform Chemistries Limited (Unit –92) Plot No- D 3 / 6 GIDC III, Kadodara Ta- Vagara, Dist. Bharuch (Gujarat)- 392110	Paniyadra Primary School	1000		
	Shelters House, Rahiyad	300		
	Primary School, Lakhigam	200		
	Primary School, (Prathmik Mix Shala), Luvara	70		
Solvay Specialities India Pvt Ltd, Panoli Plot No: 3526-27, G.I.D.C., Panoli, District: Bharuch, Gujarat	Panoli school	200 to 300	Principle Contact - 02646 - 255445	
	Kharod school	2000 to 2500	Principle Contact - 02646 - 255445	
	Gattu school	2000 to 5000 persons	Principle Contact - 02646 – 255445	
OHC-Sudarshan Gujarat manufacturing Limited , Unit-1	Shri. Gattu Vidhyalaya, GIDC, Ank.	200	Principal Contact- 252400	
	Lions School, GIDC, Ank.	200	Principal Contact- 221249	

Name Of MAH Unit	Evacuation Area Location	Capacity (No. Of People)	Contact Authority Name with Address (O, R) And Phone-Numbers (O, R, M)	Remarks
	National School, GIDC, Ank.	200	Principal Contact- 244375	
MTML Industries Limited At & post-Piludra-391810, Tal-Jambusar, Dist-Bharuch	Primary School Piludra	100	Mr. Kalpesh Thakkar Contact - 8200759783	
Unitop Chemicals Pvt Ltd. D2/CH-342,343, GIDC Phase II, Vill. Jolwa, Dahej, Bharuch	Dahej Eco-Friendly Society (Disaster Management Center)			
Viswaat Chemicals Limited, D-3/10, Dahej Phase III, GIDC, Dahej, Taluka – Vagra, Dist. – Bharuch, Gujarat – 392130	Vav Primary School, Vav Village	200	Ms. Krupali Madam Contact - 9428452245	
Yashashvi Rasayan Pvt.Ltd Plot No. Z/96/E, SEZ-II, Dahej Industrial Estate, Village Luvara, Taluka Vagra, District Bharuch, Gujarat,	Luvara Village	400	Rasmika Ben Contact - 6352970518	

6.6 Technical Resources

6.6.1 Technical Experts Directory

Table 27 Technical Experts Directory

Sr. no	Expert Name	Address/Company Name	Phone Number (O,R,M)	Remarks
1.	Mr. P.S. Keshvani	G.N.F.C Bharuch	9428722726	
2.	Mr. Somnath Sarakar	OPAL Limited, Vagra	9099007516	
3.	Mr. Jignesh Patel	Reliance industries Ltd	9998001088	
4.	Mr. M.B. Patel	Dahej Industries Association	9909029686	
5.	Dr. Mahesh Vashi	Colourtex Industries Ltd	9898014675	
6.	Mr. Pritesh Patel	DPMC Ankleshwar	9925979798	
7.	Mr. Dharmesh Soni	PI Industries Ltd Jambusar	9998212979	
8.	Mr. Jarvik Munshi	UPL Jhagadia	982520799	

6.7 Emergency Response Data Sheets (ERDS)

PRESTELS recommends maintenance of Emergency Response Data Sheets (analogous to Material Safety Data Sheets - MSDS) for all the hazardous chemicals handled in the district. The ERDS should contain all the information required by the District Authorities and Agencies to take appropriate emergency response measures. The sample ERDS sheet for MIC is attached in Annexure 9.

6.8 Media Resources

Table 28 Media Resources Information

Sr	Agency Name	Contact Person Name	Contact Number of Person (O,R,M)	Remarks
1.	Gujarat Mitra	Mr. Y S Agnihotri	(O) 261 2599991	
2.	Sandesh	Mr. Parthiv Falgun Bhai Patel		
3.	Gujarat Samachar	Mr. Jignesh Patel	(O) +91 79 25508001	
4.	Times Of India	Mr. Yagnesh Bharat Mehta	(M) +91 98306 29298	
5.	Indian Express	Mr. Parimal A. Dabhi	(O) +91 265 235 2851	
6.	Divya Bhaskar	Mr. Mrugank Patel		
7.	Navgujarat Times	Mr. Ajay Umat	(O) +91 79 6777 3500	

6.9 Other Emergency Resources

Table 29 Other Emergency Resources- Earthmoving Equipment

Sr.	Name Of MAH Unit	Name Of Earthmoving Equipment with Quantity and Contact Persons	Remarks
1.	Coromandel International Ltd, Ficom Chowkadi, Ankleshwar	Not available	
2.	Coromandel International Ltd, Ficom Chowkadi, Dahej	Not available	
4.	Birla Cellulosic (A Unit of Grasim Industries Ltd) Birladham, Village – Kharach, Near Kosamba, Tal – Hansot, District – Bharuch	Two Nos Poclain at Energy centre dept Sikander Sharma Contact - 9904203696	
5.	GACL-NALCO Alkalies And Chemicals Pvt. Ltd. Plot No D/II/9/1 & D/II/9/2, GIDC Dahej, Taluka: Vagra, Dist. – Bharuch, Gujarat	Loader-3, Dozzer-1 Mr. Tapan Jayswal Contact - 87801 82444	
6.	Industrial Solvent & Chemical Pvt Ltd	4 Nos of Forklift Ravi Gandhi Contact - 9377510071	
7.	Aarti Industries Limited Plot No: 758/1, 2 & 3, Survey No. 359, 360, 364, 358, 357, 356, 345, 348 GIDC Jhagadia, Dist-Bharuch, Gujarat - 393110	Trailer – 3 nos	
		Dumper- 2nos	
		Super Sucker- 2 nos	

Sr.	Name Of MAH Unit	Name Of Earthmoving Equipment with Quantity and Contact Persons	Remarks
8.	Epigral Limited CH1,CH2,CH/1+2B GIDC Industrial Estate, Dahej, Tal. Vagra, Bharuch - 392 130 Gujarat, India	Hitachi 1 Nos JCB 4 Nos Mr. Vivek Sharma Contact - 9909948597	
9.	Bodal Chemicals Limited Plot No. 301 to 430+433 to 440/1, Juned Bhersam Estate, GIDC, Saykha TA: Vagra, Bharuch, Gujarat - 392140	01 JCB 01 Hydra Mr. Velmurugan Contact - 91-8007774562	
10.	Shiva Pharmachem Limited Dahej	Hydra- 1 Kunal Patel - 7203055564	
11.	Savla Chemicals Ltd. Plot No: 26-A, GIDC, Industrial Estate, Panoli-394116, Ankleshwar, Dist- Bharuch, Gujarat	Vehicles-02 Mukesh Trivedi 02646-272622/633 9898578766	
12.	Sterling Auxiliaries Pvt.Ltd, Dahej, Taluka –Vagra, Dist-Bharuch	Hydra GJ16 BS 0850 Cap:14 T Nos- 01 Vishal Mochi - 6357481615	
13.	Sukha chemicals Industries Unit -II 2925,Village/Town - Panoli, City- Ankleshwar, District-Bharuch, State - Gujarat-394116	Fork truck: 2 nos EOT Crain: 1 Nos.	
14.	Organic Industries Pvt. Ltd S/163. GIDC, Dahej, Vagra, Bharuch	JCB - 1 BULL - 1 Tractor- 1 Contact – 9227764840 (Admin Manager OIPL)	
15.	New India Acid (Baroda) Pvt. Ltd.	Empty Space in Factory Premises 1000 Sq. Mtr. Mr. Sukhdevsinh Gohil Contact - 9374865339	

Table 30 Other Emergency Resources – Antidote Suppliers

Name of MAH Unit	Toxic Chemicals Handled in District (esp. in MAH units)	Antidotes Required	Antidote Supplier Name with Address and Phone: Numbers Contact Persons	Quantity of Antidotes Available	Remarks
Coromandel International Ltd, Ficom Chowkadi, Ankleshwar	Organophosphorus H ₂ S , Acetonitrile Snake Bite	Inj Atropine, Inj PAM Cyanide Antidote Kit Anti snake venom	Reliance Medical, Bharuch	Inj Atropine -100, Inj PAM - 15 2 2	
LANXESS India Pvt. Ltd, Plot No. 748/2/A, 748/3 & 748/4/B +748/4/A/1, Gidc Estate, Jhagadia – 393110, Dist. Bharuch	Acrlonitrile,	Cynide kit	Reliance medical Store	4	
	H ₂ S, Anelene	Methylene blue	Reliance medical Store	10	
		Anti snake venom	Reliance medical Store	5	
OHC-Sudarshan Gujarat manufacturing Limited, Unit-1	Bromine (Gas)	Sodium Bicarbonate	---	---	
	Hydrogen Peroxide (Liquid)	Milk Of Magnesia	---	---	
	Hydrochloric Acid (Liquid)	Milk Of Magnesia	---	---	
	Sulphuric Acid (Liquid)	Milk Of Magnesia	---	---	
	Oleum (Liquid)	Milk Of Magnesia	---	---	
Panoli Intermediates(India) Pvt Ltd, Plot No 778/1 & 756/1, Gidc Jhagadia, Dist- Bharuch	Benzene	Mithenal Blue, Sanke Bite, Rabbits	Local Medical Pankah Humad Contact - 7228009997	10,2,2	
Solvay Specialities India Pvt Ltd, Panoli Plot No: 3526-27, G.I.D.C., Panoli, District: Bharuch, Gujarat	Antidote Snake Bite	I NJ. ASV (Anti Snake Venom)	Apollo pharmacies limited Contact - 7096072802	02	
	Hydroquinone	I NJ. Methylene Blue		05 05	
	Organo Phosphorus	INJ . Pam Hil		04	

Name of MAH Unit	Toxic Chemicals Handled in District (esp. in MAH units)	Antidotes Required	Antidote Supplier Name with Address and Phone: Numbers Contact Persons	Quantity of Antidotes Available	Remarks
	Anti Tetanus	I NJ . T. T. (Tetanus Vaccine) 0.5 ml		10 06	
	HF (Hexaflorine)	I NJ. Calcium Gluconate 10 %		05	
	Organo Phosphorus	I NJ. Atropine		05	
	Sulfuric Acid	I NJ. Sodium By Carbonate (NAHCO ₃)		06	
Jubilant Ingrevia Limited & Jubilant Infrastructure Limited	2-Chloro Pyridine	N-acetyl cystin	Dr. Hemant Chauhan Contact - 9879798414	25 empules	
	3- Cyanopyridine	Cyanide kit		2 nos.	
	Pesticides	Atropin		25 empule	
Expanded Polymer Systems Pvt.Ltd	Acrylonitrile	Sodium Tjosulphate	Troikaa pharma Contact - 079-26856242	2	
Indo Baijin Chemicals Pvt. Ltd. Plot No. Z/7/1, SEZ-1 Area, Dahej SEZ Ltd. Tal - Vagra, Dist - Bharuch - 392130, Gujarat, India	CS2 & H2S	1. Inj. Methylene Blue 2. Cyanide Antidote Medicines	Relince medical center, 5, 6, 7, Modheshwari Complex, Opposite Ayodhya Nagar, Link Road, Bharuch-392001.	1. 7 Nos - 10ml each 2. 01Nos - 50 ml	
Kanoria Chemicals & Industries Ltd. Plot No. 3407, GIDC Industrial Estate Ankleshwar, Dist. Bharuch, Gujarat – 393001	Formaldehyde	Symptomatic treatment	Hospital/Medical	10	
Solvay Specialities India Pvt Ltd, Panoli Plot No: 3526 - 27, G.I.D.C., Panoli, District: Bharuch, Gujarat (394116)	Antidote Snake Bite	I Nj. Asv (Anti Snake Venom)	Apollo pharmacies limited Contact - 7096072802	02	
	Hydroquinone	I Nj. Methylene Blue		05 05	
	Organo Phosphorus	Inj. Pam Hil		04	

Name of MAH Unit	Toxic Chemicals Handled in District (esp. in MAH units)	Antidotes Required	Antidote Supplier Name with Address and Phone: Numbers Contact Persons	Quantity of Antidotes Available	Remarks
	Anti Tetanus	1 Nj. T. T. (Tetanus Vaccine) 0.5 ML		10	
	HF (Hexafluorine)	1 Nj. Calcium Gluconate 10 %		06	
	Organo Phosphorus	1 Nj. Atropine		05	
	Sulfuric Acid	1 Nj. Sodium Bicarbonate (NaHCO ₃)		05	
Grasim Industries Limited, Cellulose Division Plot No. 1, GIDC Industrial Estate, Vil. Vilayat, Tal. Vagra, Dist. Bharuch, Gujarat	Snake Bite	Anti Snake Venom	Reliance Medical Store, Bharuch Contact - 9898394140	10 ampoules	
	Acid - Alkali Oral Ingestion	Activated Charcoal		1 GM	
	Acid Alkali Skin & Eye Exposure	Diphtherine	HSE Solutions Contact - 8128407398	1200 ml	
Pi Industries Ltd 237, GIDC Estate Panoli 394 116 Dist. Bharuch, Gujarat	Organophosphorus Carbamate & Che	Inj. Atropin	Vijay Medico Contact - 9429035850	100 Ampoules	
	Organophosphorus Carbamate &	Inj. PAM		5 Ampoules	
	Sodium Cyanide	Cyanide Antidote		1 Kit	
	Snake Venom	Anti Snake Venom		1 Vial	
Superform Chemistries Limited (Unit – 92) Plot No- D 3 / 6 Gidc I I I ,Kadodara Ta- Vagara, Dist. Bharuch (Gujarat)- 392110	Sodium Cyanide	Amyl Nitrite (Cynide Antidote)	Reliance Medical Store Contact - 9898394140	25	
Birla Cellulosic (A Unit of Grasim Industries Ltd)	Ingestion of alkalies, heavy metals, alkaloid, and glycoside poisons	Activated charcoal in water (Tab Flatuna)	Dr. Pintu Kathrotiya FMO (Factory Medical officer) Contact - 7069136108	4 stripes =40 tablets	
	Ingestion of acids	Milk of magnesia		5 bottles	

Name of MAH Unit	Toxic Chemicals Handled in District (esp. in MAH units)	Antidotes Required	Antidote Supplier Name with Address and Phone: Numbers Contact Persons	Quantity of Antidotes Available	Remarks
Birladham, Village – Kharach, Near Kosamba, Tal – Hansot, District – Bharuch	Inhalation of acids, alkalis & ,H2S,CS2,SO2 halogens, ammonia.	Duolin +Budecort respules		5 each	
	Acid/alkali/corrosive chemical splash	Diphoterine kit		08 No's	
Indofil Industries Limited (Unit-1) Plot No. Z-8, SEZ-1, GIDC, Dahej, Tal. – Vagra, Dist: Bharuch, Gujarat - 392130, India	Ethylene Glycol	Blong (Pyridoxine)100mg	Bharuch Medical Agency, Bharuch Contact - 02642 266 067	58	
	Metal Fume Fever	Ridsolone 10mg		100	
	For Many Oral Toxins	Activated Charcol Powder		3 Bottle	
	Hydro fluoric Acid	Calcium Gluconate 10ml		5	
	Hydro chloric Acid	Milk Of Magnesia		6	
	Snake Venom	Anti Snake Venom		6	
	For Aniline Poisoning	Methylene Blue		10	
GACL-NALCO Alkalies And Chemicals Pvt. Ltd. Plot No D/II/9/1 & D/II/9/2, GIDC Dahej, Taluka : Vagra, Dist – Bharuch, Gujarat	Injection	Anti Snake Venom for snake bite	Astha Medical store – Dahej Contact - +91 98790 61987	10 Injection	
	Injection	Methylene Blue for blood disorder causing low oxygen		5 Injection	
	Charcol	Activated Charcol for oral poisoning to bind toxins		1 No	
Superform Chemistries Limited. Plot No. 746/750, GIDC, Jhagadia, Dist- Bharuch, 393110, Gujarat, India	Organophosphorus/Organ Carbamate Compounds (Tep, Tppi, Gf, Dmpat)	Atropine	Reliance Medical Store Contact - 9898394140	100	
	Organophosphorus/Organ Carbamate Compounds (Tep, Tppi, Gf, Dmpat)	Pralidoxime		5	

Name of MAH Unit	Toxic Chemicals Handled in District (esp. in MAH units)	Antidotes Required	Antidote Supplier Name with Address and Phone: Numbers Contact Persons	Quantity of Antidotes Available	Remarks
	Cyanide, Acetonitrile, H ₂ S	Cyanide Antidote Kit		7	
	Snake Bite	Antisnake Venom		5	
	Dog Bite	Rabies Vaccine		2	
	Aniline	Methylene Blue		10	
SRF Limited D-2/1, GIDC Phase II , PCPIR, Dahej , District Bharuch, Gujarat - 392 130	HF (Hydrofluoric Acid)	Calcium gluconate gel & Injection. Hymine solution	Dr Sanjay Hansoti Contact- 9904706759	Gel 12 nos, Inj. 80 nos, Hymine 10L	
	Ortho Toluidine	Methylene Blue injection	Dr. Ripal Patel Contact - 7283877967	30 nos	
	Acetonitrile & Benzonitrile	Cyanide kit 1. Amyl Nitrite 2. Sodium Nitrite 3. Sodium Thiosulphate		07 nos	
	Bromine	5% Sodium Thiosulphate Solution		NA	
	Chlorine	Oxygen Inhalation, Milk of Magnesia		NA	
	Acids	Milk of Magnesia		NA	
Hikal Limited Plot No. 629/630-B GIDC Estate, Post: Panoli	Toluene	Oxygen Treatment; Mitholene Blue- 1%	Vijay Medico Point Contact - 9429035850	2	
	Sulphuric acid, Thionyl chloride	Milk of Magnesia	Reliance Medical Contact - 9898394140	3	
	Snake Venom	Antisnake Venom Serum	Vijay Medico Point Contact - 9429035850	2	
	Triethyl amine, MMA	Methylene Blue		2	
	Sodium Cyanide,	Cyanide Antidote Kit	Reliance Medical Contact - 9898394140	4	

Name of MAH Unit	Toxic Chemicals Handled in District (esp. in MAH units)	Antidotes Required	Antidote Supplier Name with Address and Phone: Numbers Contact Persons	Quantity of Antidotes Available	Remarks
	Formaldehyde	Milk, Activated Charcoal or water.	Vijay Medico Point Contact - 9429035850	1	
	Magnesium sulphate.	Calcium gluconate 10% solution 1ml/kg through injection		5	
	Sodium Nitrite	Methylene Blue	Reliance Medical Contact - 9898394140	2	
	Chloroform	Acetylcysteine Inj	Vijay Medico Point Contact - 9429035850	3	
	Organophosphorus	Inj. Atropine	Reliance Medical Contact - 9898394140	10	
	Compound/gas	Inj. Pam	Vijay Medico Point Contact - 9429035850	3	
	Non-Organophosphorus Compound/gas	Inj-Deriphyline & Amyl Nitrite	Reliance Medical Contact - 9898394140	2	
Industrial Solvent & Chemical	Aniline	Methylene Blue		6	
Gujarat Guardian Ltd. State Highway – 13, Valia Road, Ankleshwar, Dist. Bharuch, Gujarat – 393001	Snake bite	Anti-Snake Venom			
Gujarat Chemical Port Limited P.O.- Lakhigam, Via-Dahej, Tal- Vagra, Dist-Bharuch, Gujarat-392130	Snake Bites	Inj. Anti Snake Venom (Inj.-ASV)	NA	02 nos. Vial	
	Honeybee Bites	Inj. Avil		05 nos. amp.	
ONGC Petro additions Limited Plot #Z-1 & Z-83 C/o, Dahej SEZ Ltd., P.O Dahej, Taluka Vagra, District Bharuch, Gujarat – 392130, India	Sodium Nitrite	Inj Methelyne Blue	M/S Reliance Medical Agency Contact - 9898394140	10	
Viswaat Chemicals Limited, D-3/10, Dahej Phase III,	NA	Medicines are available at the OHC to provide	Sanjivani occupational health centre Contact - 9725954515	--	

Name of MAH Unit	Toxic Chemicals Handled in District (esp. in MAH units)	Antidotes Required	Antidote Supplier Name with Address and Phone: Numbers Contact Persons	Quantity of Antidotes Available	Remarks
GIDC, Dahej, Taluka – Vagra, Dist. – Bharuch, Gujarat – 392130		symptomatic treatment required. if			
DCM Shriram Ltd (Unit: Shriram Alkali & Chemicals) Plot no. 749, GIDC, Industrial estare, Jhagadia, Bharuch, Gujarat	Chlorine	Inj Dexona	Reliance Medical Contact - 9898394140	10	
	Chlorine	Inj Deriphyline		10	
	OP (Organo Phosphorus)	Inj Pam		5	
	Asphyxiant Agent (No Any Chemical - For Out Site Companies	Inj Methyline Blue		5	
Chemieorganic Chemicals (I) Pvt. Ltd. Plot No. 758 G.I.D.C. – Jhagadia. Tal.: Jhagadia, Dist. Bharuch, Gujarat-393110	Cl ₂	Eno Salt, Jaggery, Milk, Cold Water, Milk of Magnesiya	M/s. Vijay Medicos, Ankleshwar Contact - 9429035850	Eno Salt: 100 Nos., Jaggery: 5 Kg., Cold Milk: 5 Ltr., Cold Water: Unlimited, Milk of Magnesiya: 10 bottle	
	Benzene & its Derivatives	Lorexil A Cream, Soframicin		Lorexil A Cream: 5 Nos., Oint.Soframicin 10 Nos.	
	Sulphuric/ Nitric/ HCl acids	Body Wash & Eye Wash Decontamination amenities, Milk of Magnesiya		Body Wash & Eye Wash Decontamination amenities: 9 Nos., Milk of Magnesiya: As above	

Name of MAH Unit	Toxic Chemicals Handled in District (esp. in MAH units)	Antidotes Required	Antidote Supplier Name with Address and Phone: Numbers Contact Persons	Quantity of Antidotes Available	Remarks
	Chloroaniline	Methylene Blue, Jaggery, Eno salt, Carbonated soda Water		Methylene Blue: 20 Nos., Jaggery: as above, Eno salt: as above, Carbonated Soda Water: 10 Bottle	
	H2S/ Cyanide Poisoning	Amicicide Kit box set		1 no.	
Clairvoyance Industries Pvt Ltd D2 Ch 29 Phase II Dahej	Aniline Oil	Methylene Blue Injection	Narmada Medical	5	
Ion Exchange (India) Limited, Plot No. 5811-12-13 GIDC Estate, Ankleshwar	Acids and Sulphur Oxides SOx, or Alkalis (Caustic) Oleum	Milk of Magnesia		5 Bottles	
	Tri methyl Amine	Methylene Blue		5 Ampules	
Piramal Pharma Limited Plot No. D-2/11/A1, GIDC Industrial Estate, Phase-II, Vil: Dahej, Ta: Vagra 392130, Bharuch, Gujrat, India	Hydrogen Fluoride	Calcium Gluconate	Vijay Medical Contact -8780606997	15	
Tagros Chemicals India Pvt. Ltd. Plot no.43/1, Amod Road, GIDC Dahej-1, Tal: Vagra, Dist: Bharuch-392130	Aniline	Methylene Blue		4	
	Chlorine gas	Milk of Magnesia		4	
	Chlorine gas	Inj Dexona		4	
Aarti Industries Limited Plot no. Z/103/C, SEZ-II, Dahej, Tal-Vagra, Dist-Bharuch, Gujrat, 392130	Nitro amino group chemicals	Methylene Blue	Dr. Sabir Contact -7984858858	17	
	—	Anti Snake Venom		8	

Name of MAH Unit	Toxic Chemicals Handled in District (esp. in MAH units)	Antidotes Required	Antidote Supplier Name with Address and Phone: Numbers Contact Persons	Quantity of Antidotes Available	Remarks
Alkyl Amines Chemical limited Plot No: D2/ CH/1 49/2, GIDC Dahej-2, Ta:Vagra , Dist: Bharuch, Gujarat	Acetonitrile	Cynide Antidote kit	Troika Pharma Contact - 02764274304	2 Kit	
	Methyl Amine	Methelene Blue	Aqua Fine Injecta PVT ltd Pune Contact -02024210433	20 nos	
	Snake bite	Antisnake Venom	Bharat Serum and vaccine ltd Contact-02516564623	10 nos	
Aarti Industries Limited Plot No: 758/1, 2 & 3, Survey No. 359, 360, 364, 358, 357, 356, 345, 348 GIDC Jhagadia, Dist-Bharuch, Gujarat - 393110	Nitro Amino group Chemicals	Methelyne Blue	Dr.. Bhavesh Patel Contact - 9727742698	98	
	-	Anti- Snake Venom		5	
Epigral Limited CH1,CH2,CH/1+2B GIDC Industrial Estate, Dahej, Tal. Vagra, Bharuch - 392 130 Gujarat, India	Chloroform	Intravenous n-acetylcysteine	Mr. Ranveer Thakur Contact -6357435840	12	
	Epi Chlorohydrin (ECH)	Acetylcysteine		12	
	H ₂ SO ₄ (78%, 98%)	Milk of magnesia (magnesium hydroxide)		2	
	HCl Acid	Milk of magnesia (magnesium hydroxide)		2	
	Methanol	fomepizole or ethanol		2	
	NaCN	sodium nitrite/amyl nitrite/sodium thiosulphate (tripal antidote kit)		3	

Name of MAH Unit	Toxic Chemicals Handled in District (esp. in MAH units)	Antidotes Required	Antidote Supplier Name with Address and Phone: Numbers Contact Persons	Quantity of Antidotes Available	Remarks
	Nitric Acid	Milk of magnesia (magnesium hydroxide)		2	
	Toluene	atropine or pralidoxime		5	
PI Industries Ltd. Plot No: SPM-28, Sterling SEZ, At – Sarod, Ta – Jambusar, Dist. – Bharuch	MMA, Aniline	Inj Methylene Blue	Vijay Medico Contact - 9429035850	15	
	Chemical Ingestion	Activated Charcoal Powder		04	
	Sodium Cyanide, Acetonitrile	Cyanide Antidote kit		04 Kit	
	Snake Bite	Anti-Snake Venom		10	
	Dog Bite	Inj ARV		16	
PI Industries Ltd. SPM-29/2, Sterling SEZ, At – Sarod, Ta – Jambusar, Dist. – Bharuch	MMA, Aniline	Inj Methylene Blue	Vijay Medico Contact - 9429035850	15	
	Chemical Ingestion	Activated Charcoal Powder		04	
	Sodium Cyanide, Acetonitrile	Cyanide Antidote kit		04 Kit	
	Snake Bite	Anti-Snake Venom		10	
	Dog Bite	Inj ARV		16	
Privi Speciality Chemicals Limited, Plot No. 765, Road No.2, GIDC Jhagadia - 393 110 Dist. Bharuch	Snake bite	Snake Venom serum	Vijay Medico Point Contact - 98254 92997	02	
TML Industries Limited At & post-Piludra-391810, Tal-Jambusar, Dist-Bharuch	Snake Bite	Snake Venom (Antiserum) Inj.		7	
Deepak Chem Tech Limited	An Hydrous Hydrofluoride (AHF)/ DHF	Calcium Gluconate gell and eye/ face	Southwest Chemie	109	

Name of MAH Unit	Toxic Chemicals Handled in District (esp. in MAH units)	Antidotes Required	Antidote Supplier Name with Address and Phone: Numbers Contact Persons	Quantity of Antidotes Available	Remarks
Plot No. D-II/ 6/1 & D-II/6/1 ^a , Dahej- II Industrial Estate, Dahej, Village : Rahiyad, Tal: Vagra, Dtist: Bharuch - 392130, Gujarat, India		wash (1%, 1.5%, 2.5%)			
	Chlorine	Medical Oxygen	M/s Wardwizard	5 cylinders 2-cylinder Ambulance	
	Nitric Acid	Silver Sulfa Cream/ Milk of Megnesia, Eno, Eye Drops, Oxygen Diphoterrin	M/s Prevor M/s Wardwizard	Silver -17, Milk of Megnesia – 03 Eno – 120 Eye drops – 30 Diphoterin – 17 + 24	
	HCL	Silver Sulfa Cream/ Milk of Megnesia, Eno, Eye Drops, Oxygen Diphoterrin	M/s Prevor		
	NaOH	Milk, Water, Oxygen Diphoterrin	M/s Prevor M/s Wardwizard		
	Sulphuric acid	Silver Sulfa Cream/ Milk of Megnesia, Eno, Eye Drops, Oxygen	M/s Wardwizard		
	Nitro aeromatic	Inj Methylene blue	M/s Wardwizard	10 vile	
	Chloro mass organic	Oxygen, Deriephylline	M/s Wardwizard		
	Carbon Monoxide	Oxygen, 20% Mennytoleprednisol one	M/s Wardwizard	5 Cylinder	

Name of MAH Unit	Toxic Chemicals Handled in District (esp. in MAH units)	Antidotes Required	Antidote Supplier Name with Address and Phone: Numbers Contact Persons	Quantity of Antidotes Available	Remarks
Cohizon Life Sciences Limited, Plot No 6102-03, 6117-19, Gidc Ankleshwar – 393002 Gujarat - India	Organophosphate	Injection PAM	Vijay Medical	5	
	Organophosphate	Injection Atropine		10	
	Aniline	Injection Methyline Blue		5	
	Hydrofluoric acid (HF)	Injection Calcium Gluconate		10	
	Hydrofluoric acid (HF)	Calcium Gluconate Gel		180 Gm	
	Hydrofluoric acid (HF)	Calcium Gluconate Wash 500 MI		5	
	Adjuvant	Activated Charcoal 50 Gm		4	
	Adjuvant	Potassium Permanganate Crystal		5	
	Adjuvant	Milk of Magnesia		8	
	Snake Bite	Injection Anti Snake venome		8	
	Acetonitrile, Acrilonitrile, Adjuvant	Injection Thiamine		8	
	Cyanide Compound	Cyanide Antidote Kit		2	
	Adjuvant	Diphoterine Spray		30	
	Adjuvant	Diphoterine Eye Wash		15	
Gujarat Fluoro Chemicals Limited Plot No D-2-CH-173 + D-2-CH-222 Village-Jolva	Chemical Wash	Prevor Diphoterin spray And Eye Solution	NA	48 Qty	

Name of MAH Unit	Toxic Chemicals Handled in District (esp. in MAH units)	Antidotes Required	Antidote Supplier Name with Address and Phone: Numbers Contact Persons	Quantity of Antidotes Available	Remarks
GIDC Dahej Industrial Estate Taluka : Vagra Distt: Bharuch 392130 Gujarat	Chemical Wash-HF	Anti HF - EYE Wash	NA	40 Qty	
	Chemical Wash-HF	Anti HF - ace Wash	NA	00 Qty	
	HF	Safety Gel HF L/A	NA	60 Qty	
	Caustic Soda	Safety Gel – C	NA	12 Qty	
	Rabies	Inj. ARV	NA	38 Qty	
	Tetanus	Inj. Tetanus	NA	28 Qty	
	Snake Bite	Inj. ASV	NA	25 Qty	
	HF	Inj. Calcium Gluconate	NA	185 Qty	
	Sulphuric Acid	Safety gel – S	NA	12 Qty	
Bodal Chemicals Limited Plot No. 301 to 430+433 to 440/1, Juned Bhersam Estate, GIDC, Saykha TA: Vagra, Bharuch, Gujarat - 392140	PNCB	Methylene Blue	Reliance Medical Store	04	
Hemani Industries Limited. Plot No: CH/5, GIDC Industrial estate Dahej Tehsil: Vagra, Dist.: Bharuch Gujarat, 392130	Bromine	Safety gel-B, Antiseptic cream	Reliance Medical Contact - 9898394140	05	
Deepak Phenolics Limited, Plot No. 12/B/1 + 12/B/2/2, GIDC Dahej, Village: Ambetha, Taluk: Vagra, District: Bharuch, 392130, Gujarat	Emergency Leading to Chemical Burn	Diaphotrine	Reliance Medical, Bharuch Contact - 9898394140	20	
	Emergency Leading to Chemical Ingestion	Activated Char coal pack:-		500 grams	
	Anilene poisoning effect	Methylene Blue (Problu-10) Inj.10ml.		50	

Name of MAH Unit	Toxic Chemicals Handled in District (esp. in MAH units)	Antidotes Required	Antidote Supplier Name with Address and Phone: Numbers Contact Persons	Quantity of Antidotes Available	Remarks
	Snake Bite	Snake Venom (Antiserum) Inj.		10	
	Post-exposure prophylaxis	Anti-Rabies Vaccine		5	
Cohizon Life Sciences Limited (Unit – 2) Plot No. 5809 - 5810, GIDC Estate, Ankleshwar, Gujarat - 393002	Hydrofluoric acid	Calcium gluconate Gel/Injection/solution	Vijay Medico Point (Ankleshwar)	Calcium Gluconate gel- 11 Calcium gluconate injection- 19	
	Hydrofluoric acid	Hexafluorine Full Body solution, Hexafluorine eye wash Bottle (Neutralizingagent)	HSE solution PVT LTD	Hexafluorine Full Body wash (5 ITR)-1, Hexafluorine Eye washBottle- 2 (500 ml)	
	Chemical splash (Except Hydrofluoric acid)	Diphoterine solution (skin spray,eye wash bottle)	HSE solution PVT LTD	Diphoterine Eye wash Bottle - 23 Diphoterine skin spray- 09	
	Toxic compound ingestion	Activate charcol ,Milk of magnesia, Potasium permegranate crystals	Vijay Medico Point (Ankleshwar)	Activated charcol- 4 Milk of magnesia- 4 Potasium permegranate Crystals- 6	
	Poisonous snake Bite	Inj Anti-snake venom		Inj Anti-snake venom - 8	

Name of MAH Unit	Toxic Chemicals Handled in District (esp. in MAH units)	Antidotes Required	Antidote Supplier Name with Address and Phone: Numbers Contact Persons	Quantity of Antidotes Available	Remarks
	Dog bite	Inj Anti-Rabbies vaccine		Inj Anti-Rabies vaccine- 3	
	Acetonitrile, Cynide compound	Anti-Cynide Kit		Cynide Kit- 2	
Payal Polyplast Pvt. Ltd Plot No. 2, Dahej 2, Bharuch - Dahej Rd, Gujarat 392130	Chlorine	ENO Milk Magnesia Deriphyline Inj	Reliance Medical Store Bharuch Contact - 9898394140	2	
Gail (India) Limited, Gandhar, Po. - Rozatankaria, Tal.Amod, Dist.Bharuch, Gujarat, Pin- 392140	Anti Snake Venom	Snake Venom Anti Serum	Reliance Medical Store Bharuch Contact - 9898394140	(3 Vial)	
	Rabies	Chero Rab Rabi Vax S		(2 Vial) (1 Vial)	
Hemani Industries Limited. Unit 2 Plot No. 3207/A & B, 3208/1&2, 3202/A/1, GIDC Industrial Estate, Ankleshwar - 393002, Gujarat	Bromine	Safety gel-B, Antiseptic cream		05	
Reliance Industries Ltd. Dahej Manufacturing Division Dahej, Bharuch	Snake bite	Inj ASV 10 ml	Reliance Medical Store Bharuch Contact - 9898394140	50	
	Organo phosphorus Poisoning	Inj. Aldopam / PAM 500 mg		4	
	Universal Antidote for ingestion poisoning	Powder Activated Charcoal Mix 50 gm		5	
	Methemoglobinemia condition	Inj. Methylene blue 100 mg		5	
	H ₂ S Poisoning	Anti-cyanide kit		1	
	Organo Phosphorus Poisoning	Inj Atropine 0.6 mg		20	

Name of MAH Unit	Toxic Chemicals Handled in District (esp. in MAH units)	Antidotes Required	Antidote Supplier Name with Address and Phone: Numbers Contact Persons	Quantity of Antidotes Available	Remarks
	Dog bite treatment	Inj. ARV		10	
Sterling Auxiliaries Pvt.Ltd, Dahej, Taluka –Vagra, Dist-Bharuch	Snake Venom	Anti Snake Venom	Astha Medical Contact - 09879061987	8	
	Organo-phosphorus poisoning	Atropine inj		5	
	H2S and other chemicals which induce Methglobinemia	Methylene Blue		5	
	Phenol	Poly ethylene glycol		1 liter	
Gujarat Narmada Valley Fertilizers & Chemicals Ltd. (GNFC) Address: GNFC, Narmadanagar, Bharuch – 392015, Gujarat, India.	Aniline	Methylene Blue	M/s Surbhi Pharma-9898030309 M/s Bridge Pharma-9925506469	170	
	Nitrobenzene				
	Di Nitro Toluene				
Dai-Ichi Karkaria Limited, Plot No. D2 / 20, GIDC Dahej-2, Taluka: Vagra, Dist.: Bharuch, Gujarat	Snake Bite	Anti-Snack-venom	Bharuch Medical Agency Contact - 9426478067	2	
	Acid Exposure- Acitic acid, Hydrochloric acid,	Milk of Magnesia		2	
	Banzene, aniline & toluene compound	Methylene Blue		2	

Table 31 Other Emergency Resources – NGOs

Name of MAH UNIT	NGO Name with Address And Phone:- no.	Contact person name ,Address And Phone:- no. (o,r,m)	Remarks
Indo Baijin Chemicals Pvt. Ltd. Plot No. Z/7/1, SEZ-1 Area, Dahej SEZ Ltd. Tal - Vagra, Dist - Bharuch - 392130, Gujarat, India	Dahej Industrial Association, Dahej Eco-Friendly Society (Disaster Management Centre, Dahej)	Mr. Hitesh Shah Contact - 9824475576	
Grasim Industries Limited, Cellulose Division Plot No. 1, GIDC Industrial Estate, Vil. Vilayat, Tal. Vagra, Dist. Bharuch, Gujarat	Farm Bridge	Mahrshi Dave Contact - 9714595785	
Birla Cellulosic (A Unit of Grasim Industries Ltd) Birladham, Village Kharach, Near Kosamba, Tal – Hansot, District – Bharuch	LCS service india PVT LTD Emergency response agency Vadodara	Mr. Sanjay Mishra. Contact - 7574852200	
Dhanveen Pigments Pvt. Ltd Plot No.: 3105/06/07, GIDC Estate, Phase III, Panoli, Dist. – Bharuch, Gujarat, India	SHE Association	Mr. Yogesh Pandya Bharuch	
Epigral Limited CH1,CH2,CH/1+2B GIDC Industrial Estate, Dahej, Tal. Vagra, Bharuch - 392 130 Gujarat, India	Dahej Industries Association	Mr. Rahul Patel Contact - 7698880414	
	Dahej Eco-Friendly Society (Disaster management center)	Mr. Hitesh Shah Contact - 9824475576	
Gujarat Narmada Valley Fertilizers & Chemicals Ltd. (GNFC) Address: GNFC, Narmadanagar, Bharuch – 392015, Gujarat, India.	DEFS (Dahej Eco friendly Society)	Mr. Hitesh Shah Contact - 98244755576	

Table 32 Assembly Points

MAH unit	Assembly point (School, Hall and, Ground)	Contact person name , Address and Phone:- no. (O,R,M)	Remarks
Air Liquid India Holding Pvt Ltd Plotno.38/1,GIDC, Jhagadia Dist-Bharuch	Assembly Point Near Security Gate Inside The Plant.		
Aarti Industries Limited Plot No: 758/1, 2 & 3, Survey No. 359, 360, 364, 358, 357, 356, 345, 348 GIDC Jhagadia, Dist-Bharuch, Gujarat - 393110	At Security Main Gate		
AARTI INDUSTRIES LIMITED Plot no. Z/103/C, SEZ-II, Dahej, Tal-Vagra, Dist-Bharuch	At Security Main Gate		
Alkyl Amines Chemical limited PLOT NO: D2/CH/149/2, GIDC Dahej-2,TA:Vagra, Dist:Bharuch, Gujarat – 392130	At Security Main Gate		
Amal Speciality Chemicals Limited. Plot No. 136/137, GIDC Estate, Ankleshwar, Dist.: Bharuch, Gujarat, Pin: 393002	At Security Main Gate		
Amal Ltd. 136/137, GIDC, Ankleshwar Bharuch-393002	At Security Main Gate		
Anshika polysurf ltd Plot no : C-383/1, Argama industrial estate, Saykha GIDC, Ta: Vagra, Dist : Bharuch	At Security Main Gate		
Anugrah Industries Private Limited Plot No. D3-26/1&2, GIDC Dahej – 392130, Tal. Vagra, Dist. Bharuch	At Security Main Gate		
Aries Colorchem Pvt Ltd	At Security Main Gate		

MAH unit	Assembly point (School, Hall and, Ground)	Contact person name , Address and Phone:- no. (O,R,M)	Remarks
Plot No: DP-56 & DP-57, Saykha GIDC, Saykha Tehsil: Vagra, Dist: Bharuch Gujarat, 392 140			
Atul Ltd (Aromatics Business) Plot no 297, 297/1, GIDC estate, Ankleshwar, Dist- Bharuch	Three Assembly Point Inside The Factory 1. Near Main Gate 2. Near Canteen 3. Gate No 2 (South Side)		
Bharat Glass Tube Ltd. Plot No.9208-9213, GIDC Ankleshwar	At Security Main Gate		
Birla Cellulosic (A Unit of Grasim Industries Ltd) Birladham, Village – Kharach, Near Kosamba, Tal – Hansot, District – Bharuch.	Near Gate No.#2, Near Canteen Area Near Administration Block		
Bodal Chemicals Limited Plot No. 301 to 430+433 to 440/1, Juned Bhersam Estate, GIDC, Saykha TA: Vagra, Bharuch, Gujarat - 392140	Main Gate Assembly Point 2 End Of Plant		
Borosil Renewables Limited Ankleshwar–Rajpipla Road, Village – Govali, Bharuch, Gujarat	At Security Main Gate		
C2, C3 & C4 EXTRACTION PLANT OIL AND NATURAL GAS CORPORATION LTD. PLOT NO.7/D, SEZ AREA, DAHEJ,	At Security Main Gate		
Century ENKA Ltd. (Unit: Rajashree Polyfil), Rajashree Nagar, Post: Umalla , Tal: Jhagadia, Dist: Bharuch – 393120	At Security Main Gate		
Chemie organic Chemicals (I) Pvt. Ltd.	At Security Main Gate		

MAH unit	Assembly point (School, Hall and, Ground)	Contact person name , Address and Phone:- no. (O,R,M)	Remarks
Plot No. 758 G.I.D.C. – Jhagadia. Tal.: Jhagadia, Dist. Bharuch, Gujarat-393110			
Clairvoyance Industries Pvt Ltd D2 Ch 29 Phase II Dahej	At Security Main Gate		
Cohizon Life Sciences Limited (Unit – 2) Plot No. 5809 - 5810, GIDC Estate, Ankleshwar, Gujarat - 393002	At Security Main Gate		
Cohizon Life Sciences Limited, Plot No 6102-03, 6117-19, GIDC Ankleshwar – 393002 Gujarat - India	At Security Main Gate		
Coromandel International Limited Plot No. 3204, GIDC Indl. Estate, Ankleshwar Bharuch-383 002 Ficom Chowkadi, Ankleshwar	At Security Main Gate		
COROMANDEL INTERNATIONAL LIMITED (Old Name - SABERO ORGANICS GUJARAT LTD.) PLOT NO. Z/103/G, SEZ-II,	At Security Main Gate		
Covestro (India) Pvt. Ltd. 3501-15, 6301-13 & 16 mtr road/B2, GIDC Industrial Estate, Ankleshwar – 393 002	At Security Main Gate		
Dai-Ichi Karkaria Limited, Plot No. D2 / 20, GIDC Dahej-2, Taluka: Vagra, Dist.: Bharuch, Gujarat	At Security Main Gate		

MAH unit	Assembly point (School, Hall and, Ground)	Contact person name , Address and Phone:- no. (O,R,M)	Remarks
DCM Shriram Ltd (Unit: Shriram Alkali & Chemicals) Plot no. 749, GIDC, Industrial estate, Jhagadia, Bharuch, Gujarat	At Security Main Gate		
Deepak Chem Tech Limited Plot No. D-II/ 6/1 & D-II/6/1 ^a , Dahej- II Industrial Estate, Dahej, Village: Rahiyad, Tal: Vagra, Dtist: Bharuch – 392130, Gujarat, India	At Security Main Gate		
Deepak Fertilisers and Petrochemical Corporation Limited Address: Plot No. D/II/7/A, Dahej GIDC Area, Village Rahiyad, Taluka Vagra, District Bharuch – 392130 (Gujarat).	At Security Main Gate		
Deepak Phenolics Limited Plot No. 12/B/1 + 12/B/2/2, GIDC Dahej, Village: Ambetha, Taluk: Vagra, District: Bharuch, 392130, Gujarat.	At Security Main Gate		
Dhanveen Pigments Pvt. Ltd Plot No.:3105/06 /07, GIDC Estate, Phase III, Panoli, Dist. – Bharuch, Gujarat, India.	At Security Main Gate		
Dharti Enterprise D-2 / CH-326, Near ONGC Corridor, Vill. Jolwa, Dahej Ta. Vagra, Dt. Bharuch	At Security Main Gate		
DMCC SPECIALITY CHEMICALS LIMITED	At Security Main Gate		

MAH unit	Assembly point (School, Hall and, Ground)	Contact person name , Address and Phone:- no. (O,R,M)	Remarks
Epigral Limited CH1, CH2,CH/1+2B GIDC Industrial Estate, Dahej, Tal. Vagra, Bharuch - 392 130 Gujarat, India	At Security Main Gate		
Expanded Polymer Systems Pvt.Ltd	At Security Main Gate		
Gail (India) Limited, Gandhar, Po. - Rozatankaria, Tal.Amod, Dist.Bharuch, Gujarat, Pin-392140	At Security Main Gate		
Galaxy Surfactants Ltd. Plot No. 892, Jhagadia Industrial area, Tal: Jhagadia, Dist: Bharuch, Gujarat- 393 110	At Security Main Gate		
Ganesh LPG Bottling Plant At & Post Plot No.19, GIDC Panoli, GIDC, Ankleshwar, Bharuch, Gujarat-394116.	At Security Main Gate		
Glomet Tech Pvt.Ltd. Z-22, Sez, Dahej	At Security Main Gate		
GUJARAT ALKALIES & CHEMICAL LTD. Vagra Bharuch-392 130	At Security Main Gate		
GACL-NALCO Alkalies And Chemicals Pvt. Ltd. Plot No D/II/9/1 & D/II/9/2, GIDC Dahej, Taluka : Vagra, Dist – Bharuch, Gujarat	At Security Main Gate		
GNFC D-2/8, GIDC Vill Rahiyad	At Security Main Gate		
Grasim Industries Limited Plot No.1. GIDC Vilayat, Tal-Vagra, Dist-Bharuch	At Security Main Gate		
Gujarat Chemical Port Limited	At Security Main Gate		

MAH unit	Assembly point (School, Hall and, Ground)	Contact person name , Address and Phone:- no. (O,R,M)	Remarks
P.O.- Lakhigam, Via-Dahej, Tal- Vagra, Dist-Bharuch, Gujarat-392130.			
Gujarat Fluorochemicals Limited, 12/A GIDC Dahej Industrial Estate, Taluka Vagra, District Bharuch 392130, Gujarat	At Security Main Gate		
GUJARAT FLUOROchemicals LIMITED Plot No D-2-CH-173 + D-2-CH-222 Village-Jolva GIDC Dahej Industrial Estate	At Security Main Gate		
Gujarat Guardian Ltd. State Highway – 13, Valia Road, Ankleshwar, Dist. Bharuch, Gujarat – 393001	At Security Main Gate		
Gujarat Insecticides Ltd. 805/806, GIDC Ankleshwar, Bharuch	At Security Main Gate		
Gujarat Narmada Valley Fertilizers & Chemicals Ltd. (GNFC) Address: GNFC, Narmadanagar, Bharuch – 392015, Gujarat, India.	At Security Main Gate		
Hemani Industries Limited. Plot No: CH/5, GIDC Industrial estate Dahej Tehsil: Vagra, Dist.: Bharuch Gujarat, 392130	At Security Main Gate		
Hemani Industries Limited. (Unit 2) Plot No. 3207/A & B, 3208/1&2, 3202/A/1, GIDC Industrial Estate,	At Security Main Gate		

MAH unit	Assembly point (School, Hall and, Ground)	Contact person name , Address and Phone:- no. (O,R,M)	Remarks
Ankleshwar - 393002, Gujarat			
Hikal Limited Plot No. 629/630-B GIDC Estate, Post: Panoli.	At Security Main Gate		
Hindalco Ind. Ltd. Unit: Birla Copper, P.O. Dahej Lakhigam, Dist. Bharuch	At Security Main Gate		
Hindustan Petroleum Corpn., Ltd. Piludra, Nr. Ongc Ctf Unit Ankleshwar, Bharuch	At Security Main Gate		
Impro Interchem Pvt. Ltd. Plot No.414, GIDC Panoli, Bharuch	At Security Main Gate		
Indian Oil Corpn. Ltd. Village Rojatankaria Dist Bharuch, Amod-392410	At Security Main Gate		
Indo Baijin Chemicals Pvt. Ltd. Plot No. Z/7/1, SEZ-1 Area, Dahej SEZ Ltd. Tal - Vagra, Dist. - Bharuch - 392130, Gujarat, India.	At Security Main Gate		
Indofil Industries Limited (Unit-1) Plot No. Z-8, SEZ-1, GIDC, Dahej, Tal. – Vagra, Dist: Bharuch, Gujarat - 392130, India.	At Security Main Gate		
INDORAMA VENTURES OXIDES ANKLESHWAR PVT. LTD. Ankleshwar Pvt. Ltd. Plot No. 321, GIDC Panoli, Ankleshwar, Bharuch.	At Security Main Gate		
Industrial Solvent & Chemical Pvt Ltd.	At Security Main Gate		
Ion Exchange (India) Limited,	At Security Main Gate		

MAH unit	Assembly point (School, Hall and, Ground)	Contact person name , Address and Phone:- no. (O,R,M)	Remarks
Plot No. 5811-12-13 GIDC Estate, Ankleshwar			
Jal aqua international llp, Plot no:620 road no.06, GIDC estate panoli, Dist- Bharuch	At Security Main Gate		
Jayshree Aromatics Limited Plot No. 4703,4704,4705/1/2,3&4, GIDC, Ankleshwar, Gujarat-393002	At Security Main Gate		
Jubilant Ingrevia Limited & Jubilant Infrastructure Limited Plot No. P1-L13 to P1- L16, Jubilant SEZ, Plot No.5, Vilayat GIDC	At Security Main Gate		
JUBILANT LIFE SCIENCE LIMITED (UNIT-2)(FORMERLY JUBILANT ORGANOSYS LTD)	At Security Main Gate		
KABSONS INDUSTRIES LTD.	At Security Main Gate		
Kanoria Chemicals & Industries Ltd. Plot No. 3407, GIDC Industrial Estate Ankleshwar, Dist. Bharuch, Gujarat – 393001	At Security Main Gate		
KESHAV NITRO CHEM LLP	At Security Main Gate		
KLJ Organic Limited Plot No-769, GIDC Estate, At&Po: Jhagadia, Ta: Ankleshwar Dist- Bharuch	At Security Main Gate		
KLJ PETROPLAST LIMITED Plot No. 909, 909/1 & 764, Village: Jhagadia, GIDC-Jhagadia, District- Bharuch, Gujarat – 393110	At Security Main Gate		

MAH unit	Assembly point (School, Hall and, Ground)	Contact person name , Address and Phone:- no. (O,R,M)	Remarks
Krishna Antioxidants Pvt Ltd Plot No.: D-3/24/1, GIDC Dahej Phase – III, Village Samatpor, Taluka Vagra Dahej, Dist. Bharuch (Gujarat) – 392130	At Security Main Gate		
LANXESS India Pvt. Ltd, Plot No. 748/2/A, 748/3 & 748/4/B +748/4/A/1, GIDC Estate, Jhagadia – 393110, Dist. Bharuch.	At Security Main Gate		
MACSON PRODUCTS (UNIT-2)	At Security Main Gate		
Meghmani Organic Ltd Plot No.-5001/B,GIDC, Ankleshwar	At Security Main Gate		
Meridian Chem Bond Private Limited Plot No-5906/04 GIDC Ankleshwar	At Security Main Gate		
Meridian Chem-Bond Private Limited Plot No. 3209, GIDC Estate, Ankleshwar – 393002, Dist. Bharuch, Gujarat	At Security Main Gate		
Minol Acids and Chemicals Pvt. Ltd. Plot No. 5904/1, Nr. Kanoria Chemicals, G.I.D.C., Ankleshwar.	At Security Main Gate		
National Thermal Power Corporation Ltd. Village : Jhanor Bharuch	At Security Main Gate		
NACL SPEC-CHEM LIMITED Plot No. D-2/11/B/3/2, Dahej-II, Tal. Vagra, PIN– 392 130, Dist. Bharuch, Gujarat, INDIA.	At Security Main Gate		
Navjeevan-O-Chem	At Security Main Gate		

MAH unit	Assembly point (School, Hall and, Ground)	Contact person name , Address and Phone:- no. (O,R,M)	Remarks
5903/1, GIDC Estate ankleshwar, Bharuch-393 002			
New India Acid (Baroda) Pvt. Ltd.	At Security Main Gate		
Omkar Chemical Industries Pvt Ltd Plot No.406, GIDC. Estate , Panoli-394116, Ankleshwa, Dist. Bharuch.	At Security Main Gate		
OMNOVA SOLUTIONS INDIA PVT LTD(Old name Apcotex)	At Security Main Gate		
ONGC Petro additions Limited Plot #Z-1 & Z-83 C/o, Dahej SEZ Ltd., P.O Dahej, Taluka Vagra, District Bharuch, Gujarat – 392130, India	At Security Main Gate		
Organic Industries Pvt. Ltd S/163. GIDC, Dahej, Vagra, Bharuch	At Security Main Gate		
Panoli Intermediates (India) Pvt Ltd, Plot No 778/1 & 756/1, GIDC Jhagadia, Dist-Bharuch	At Security Main Gate		
Panoli Products Pvt. Ltd.	At Security Main Gate		
Panorama Aromatics Ltd. Plot No. 2908-2911, Phase-Iii, Gidc Panoli-394116, Tal.- Ankleshwar, Dist.- Bharuch	At Security Main Gate		
PAYAL POLYPLAST PVT.LTD Plot No. D-2/Ch-II, Dahej GIDC , Tal-Vagra, Dist-Bharuch	At Security Main Gate		
Petronet LNG Limited. Dahej Terminal	At Security Main Gate		
Phthalo Science	At Security Main Gate		

MAH unit	Assembly point (School, Hall and, Ground)	Contact person name , Address and Phone:- no. (O,R,M)	Remarks
at Plot No. DP-112, GIDC Sayakha, Ta.: Vagra, Bharuch, Gujarat – 392165, India			
PI Industries Ltd 237, GIDC Estate Panoli 394 116 Dist. Bharuch, Gujarat	At Security Main Gate		
PI Industries Ltd. SPM-29/2, Sterling SEZ, At – Sarod, Ta – Jambusar, Dist. – Bharuch	At Security Main Gate		
Piramal Pharma Limited Plot No. D-2/11/A1, GIDC Industrial Estate, Phase-II, Vil:Dahej, Ta:Vagra 392130, Bharuch, Gujrat, India	At Security Main Gate		
Privi Speciality Chemicals Limited, Plot No. 765, Road No.2, GIDC Jhagadia – 393 110 Dist. Bharuch	At Security Main Gate		
Reliance Industries Ltd. Dahej Manufacturing Division Dahej, Bharuch	At Security Main Gate		
Styrenix Performance Materials Limited, 4-G.I.D.C Dahej, Tal: Vagra Dist: Bharuch	At Security Main Gate		
SAINT-GOBAIN INDIA PRIVATE LTD 36, GIDC Jhagadia , Dist-Bharuch	At Security Main Gate		
SANJANA CRYOGENIC STORAGES LTD	At Security Main Gate		
Savla Chemicals Ltd. Plot No: 26-A, GIDC, Industrial Estate, Panoli-394116, Ankleshwar, Dist- Bharuch, Gujarat.	At Security Main Gate		
Schott Glass India Pvt. Ltd	At Security Main Gate		

MAH unit	Assembly point (School, Hall and, Ground)	Contact person name , Address and Phone:- no. (O,R,M)	Remarks
Block No. 1351/1, 1352/2 Vill: Ankhi, Tal: Jambusar Dist : Bharuch			
Shiva Pharma chem Limited Dahej	At Security Main Gate		
SHILPA CHEMICAL INDUSTRIES. PLOT NO. 4777 – 4778 G.I.D.C, ANKLESHWAR	At Security Main Gate		
Sanghvi Organics P. Ltd Plot no. 3516, phase III, GIDC, Panoli (Gujarat)	At Security Main Gate		
Shivam Incorporation Plot No 521, L-1801, L-1802 & 665, GIDC Estate, Panoli, Dist.: Bharuch, Taluka: Ankleshwar, Gujarat-394116	At Security Main Gate		
Shree Sulphuric Ltd. 2801, GIDC, Ankleshwar Dist. Bharuch	At Security Main Gate		
Shri Ganesh Khand Udhog Sahkari Mandali Ltd. Vataria, Valia	At Security Main Gate		
Shri Khedut Sahakari Khand Udiyog Mandli Ltd At-Pandvai, Tal- Hansot, Dist-Bharuch	At Security Main Gate		
Shyam Chemicals Pvt.ltd 6004, GIDC Ankleshwar	At Security Main Gate		
Siddhi Samrat Dye-Chem Pvt. Ltd. Pl.No.6450, GIDC Estate, Ankleshwar	At Security Main Gate		
Solvay Specialities India Pvt Ltd, Panoli	At Security Main Gate		

MAH unit	Assembly point (School, Hall and, Ground)	Contact person name , Address and Phone:- no. (O,R,M)	Remarks
Plot No: 3526-27, G.I.D.C., Panoli, District: Bharuch, Gujarat (394116)			
SRF Limited D-2/1, GIDC Phase II, PCPIR, Dahej ,District Bharuch, Gujarat - 392 130.	At Security Main Gate		
Sterling Auxiliaries Pvt. Ltd, Dahej, Taluka –Vagra, Dist-Bharuch	At Security Main Gate		
Sudarshan Gujarat MFG Private Limited, Unit-1, Plot No. 9002-9010, Phase VI, GIDC Estate, Ankleshwar – 393002, Gujarat, India	At Security Main Gate		
Sukha chemicals Industries Unit -II 2925,Village/Town - Panoli, City- Ankleshwar,District- Bharuch,State -Gujarat- 394116	At Security Main Gate		
Sun Chloride Pvt. Ltd. 603, GIDC, Panoli Bharuch	At Security Main Gate		
SUPERFORM CHEMISTRIES LIMITED PLOT NO: 3405, 3406, 3460/A, 3460/B, 3461, GIDC ANKLESHWAR, DIST: BHARUCH	At Security Main Gate		
SUPERFORM CHEMISTRIES LIMITED PLOT NO.117, GIDC ANKLESHWAR DIST- BHARUCH	At Security Main Gate		
Superform Chemistries Limited (Unit – 92)	At Security Main Gate		

MAH unit	Assembly point (School, Hall and, Ground)	Contact person name , Address and Phone:- no. (O,R,M)	Remarks
Plot No- D 3 / 6 GIDC III , Kadodara Ta- Vagara, Dist. Bharuch			
Superform Chemistries Limited. Plot No.750, GIDC, Jhagadia, Dist- Bharuch, 393110, Gujarat, India	At Security Main Gate		
TML Industries Limited At & post-Piludra- 391810, Tal-Jambusar, Dist- Bharuch	At Security Main Gate		
Tagros Chemicals India Pvt. Ltd. Plot no.43/1, Amod Road, GIDC Dahej-1,Tal: Vagra, Dist: Bharuch- 392130	At Security Main Gate		
TAGROS CHEMICALS INDIA PVT.LTD PLOT NO.2901 TO 2906 & 2806 G.I.D.C. PANOLI	At Security Main Gate		
Unitop Chemicals Pvt Ltd. D2/CH-342,343, GIDC Phase II, Vill. Jolwa, Dahej, Bharuch	At Security Main Gate		
Vardhman Acrylics Ltd. 755 GIDC Mega Estate Jhagadia, Dist. Bharuch	At Security Main Gate		
Viswaat Chemicals Limited, D-3/10, Dahej Phase III, GIDC, Dahej, Taluka – Vagra, Dist. – Bharuch, Gujarat – 392130	At Security Main Gate		
VITAL CHEMTECH LIMITED	At Security Main Gate		
Wanksons Chemical Industries Pvt. Ltd.	At Security Main Gate		

MAH unit	Assembly point (School, Hall and, Ground)	Contact person name , Address and Phone:- no. (O,R,M)	Remarks
Plot No. 518, GIDC Panoli Tal. Ankleshwar, Bharuch			
Yashashvi Rasayan Pvt. Ltd Plot No. Z/96/E, SEZ-II, Dahej Industrial Estate, Village Luvara, Taluka Vagra, District Bharuch, Gujarat, 392130.	At Security Main Gate		

Table 33 MAH Unit Statutory Compliance Status

Sr.	MAH Unit Name with Address	On- Site Plan Status	PLI Status	Remarks
1.	Aarti Industries Limited Plot no. Z/103/C, SEZ-II, Dahej, Tal-Vagra, Dist- Bharuch, Gujrat, 392130	Last updated on :- 27.01.2026	Policy Number :- 12040049253312345600 Company Name :- AARTI INDUSTRIES LTD Validity Date :- 08.01.2027	
2.	Aarti Industries Limited Plot No: 758/1, 2 & 3, Survey No. 359, 360, 364, 358, 357, 356, 345, 348 GIDC Jhagadia, Dist- Bharuch, Gujarat - 393110	Last updated on Sept' 2024	Policy No.: 12040049253300000006. Company Name : New India Assurance Co. LTD Validity: 08/01/2027	
3.	Air Liquid India Holding Pvt Ltd Plotno.38/1,GIDC, JHGADIA DIST-BHARUCH	Jun-17		
4.	Alkyl Amines Chemical limited PLOT NO: D2/CH/149/2, GIDC Dahej-2, TA: Vagra,Dist: Bharuch, Gujarat	Last updated on 31.10.2025	30.10.2026	
5.	Amal Speciality Chemicals Limited. Plot No. 136/137, GIDC Estate, Ankleshwar, Dist.: Bharuch, Gujarat, Pin: 393002	January 2025	Policy No.: 23090036253300000009 THE NEW INDIA ASSURANCE CO. LTD. Validity: 05 July 2026.	
6.	Amal Ltd. 136/137, GIDC, Ankleshwar Bharuch-393002	Dec-18		
7.	Anshika polysurf Ltd Plot no : C- 383/1, Argama industrial estate, Saykha GIDC, Ta: Vagra, Dist : Bharuch	Updated March-2023	PLI Policy Renewal in Feb-26 Valid till Feb-27	
8.	Anugrah Indsutries Private Limited Plot No. D3-26/1&2, GIDC	Last updated on March - 2025	Policy No. 1814002725P104436944 United India Insurance Company Limited 08/06/2026	

Sr.	MAH Unit Name with Address	On- Site Plan Status	PLI Status	Remarks
	Dahej – 392130, Tal. Vagra, Dist. Bharuch			
9.	Aries Colorchem Pvt Ltd Plot No: DP-56 & DP-57, Saykha GIDC, Saykha Tehsil: Vagra, Dist: Bharuch Gujarat, 392 140	Last updated on April 2025	Policy No.: 21210449253300000017 The New India Assurance Co. Ltd. Validity: 20.11.2026	
10.	Atul Ltd (Aromatics Business) Plot no 297, 297/1, GIDC estate, Ankleshwar, Dist- Bharuch	Last updated on September-2025	Policy no.4007/391669085/00/000 ICICI Lombard General Insurance Company Ltd. Validity : March 31 , 2026	
11.	Birla Cellulosic (A Unit of Grasim Industries Ltd) Birladham, Village Kharach, Near Kosamba, Tal – Hansot, District – Bharuch	Emergency response & Disaster management Plan – updated on 01.10.2025	12120036253100000026, The New India Assurance Co. Ltd, 31/05/2026	
12.	Bharat Glass Tube Ltd. Plot No.9208-9213, GIDC Ankleshwar	Mar-18 20-02-2019		
13.	Bodal Chemicals Limited Plot No. 301 to 430+433 to 440/1, Juned Bhersam Estate, GIDC, Saykha TA: Vagra, Bharuch, Gujarat – 392140	09/10/2024	160232527120000007, Reliance General Ins. Co. Ltd., 22/05/2026	
14.	Borosil Renewables Limited Ankleshwar–Rajpipla Road, Village – Govali, Bharuch, Gujarat	Last updated on 07.01.2026	0000000043915011/SBI General. / 12/08/2026	
15.	CENTURY ENKA LTD. (Unit: Rajashree Polyfil), Rajashree Nagar, Post: Umalla, Tal: Jhagadia, Dist:Bharuch – 393120	Updated on 23.02.2026		
16.	Chemieorganic Chemicals (I) Pvt. Ltd. Plot No. 758 G.I.D.C. –Jhagadia. Tal.: Jhagadia, Dist. Bharuch, Gujarat-393110	OEP updated 01.10.2025		
17.	Clairvoyance Industries Pvt Ltd D2 Ch 29 Phase II Dahej	Last updated on March 26	Policy No.: 0000000042853494 Sbi General Insurance Validity: 4th April 2026	

Sr.	MAH Unit Name with Address	On- Site Plan Status	PLI Status	Remarks
18.	Cohizon Life Sciences Limited, Plot No 6102 - 03, 6117-19, GIDC Ankleshwar – 393002 Gujarat	October 2025		
19.	Cohizon Life Sciences Limited (Unit – 2) Plot No. 5809 - 5810, GIDC Estate, Ankleshwar, Gujarat - 393002	Plan was last updated on December-2025		
20.	Coromandel International Ltd, Ficom Chowkadi, Ankleshwar	Last updated on 18.02.2025	22.09.2025	
21.	Coromandel International Ltd, Ficom Chowkadi, Dahej	Last updated on 29.12.2025	96000036243300000030, The New India Assurance Co. Ltd. 12/03/2026	
22.	C2,C3 & C4 ONGC extraction plant	Feb-19		
23.	Covestro (India) Pvt. Ltd. 3501-15, 6301-13 & 16 mtr road/B2, GIDC Industrial Estate, Ankleshwar – 393 002	Updated Onsite Emergency Plan available	Company: TATA AIG Insurance Policy Number: 0304010323 Validity date: 31st March, 2026	
24.	Dai-Ichi Karkaria Limited, Plot No. D2 / 20, GIDC Dahej-2, Taluka: Vagra, Dist.: Bharuch, Gujarat	Last On-site plan updated in 01-01-2026		
25.	DCM Shriram Ltd (Unit: Shriram Alkali & Chemicals) Plot no. 749, GIDC, Industrial estate, Jhagadia, Bharuch, Gujarat	On site emergency plan a.04.2025 and its valid up to 31.03.2026	PLI policy, valid up to 31.03.2026	
26.	DMCC SPECIALITY CHEMICALS LTD, DAHEJ BHARUCH	April- 2026	Policy Number: 0340141410000, Policy Company Name: Tata AIG General Insurance company ltd, Validity Date: 30.06.2026	
27.	Deepak Chem Tech Limited Plot No. D-II/ 6/1 & D-II/6/1 ^a , Dahej- II Industrial Estate, Dahej, Village : Rahiyad, Tal: Vagra, Dtist: Bharuch - 392130, Gujarat	January - 2026	PLI Policy no. Receipt name: 102401126611250 Valid till : 12-01-2027	

Sr.	MAH Unit Name with Address	On- Site Plan Status	PLI Status	Remarks
28.	Deepak Phenolics Limited, Plot No. 12/B/1 + 12/B/2/2, GIDC Dahej, Village: Ambetha, Taluk: Vagra, District: Bharuch, 392130, Gujarat	Plan was last updated on May-2025	PLI Policy No. 4007/396997417/00/000 Validity: 17/05/2026, ICICI Lombard General Insurance Company Ltd.	
29.	Deepak Fertilisers and Petrochemical Corporation Limited Address: Plot No. D/II/7/A, Dahej GIDC Area, Village Rahiyad, Taluka Vagra, District Bharuch – 392130	Last updated on 06.11.2025	Policy No. 171031927120000002 Issued by Reliance General Insurance from 01/04/2025 to 31/03/2026	
30.	Dhanveen Pigments Pvt. Ltd Plot No.: 3105/06/07, GIDC Estate, Phase III, Panoli, Dist. – Bharuch, Gujarat, India	2026	The Oriental Insurance Company Ltd Policy No.171901/18/2026/1414 Period of inc.12/7/2025 to 11/07/2026	
31.	Epigral Limited CH1,CH2,CH/1+2B GIDC Industrial Estate, Dahej, Tal. Vagra, Bharuch - 392 130 Gujarat, India	Last updated on August-2024	Policy No: 3133207645762700000 Company Name: HDFC ERGO General Insurance Company Limited Validity Date: 30.06.2026	
32.	Expanded Polymer Systems Pvt. Ltd	Last updated on 10th December,25	Policy No: 0300002312 Tata AIG General Insurance Company Ltd Policy Period: From: 04/04/2025 12:00 AM/ PM To Midnight of: 03/04/2026 12:00 AM/ PM	
33.	GACL-NALCO Alkalies And Chemicals Pvt. Ltd. Plot No D/II/9/1 & D/II/9/2, GIDC Dahej, Taluka: Vagra, Dist – Bharuch, Gujarat	On site Emergency Plan Revision - 4 Update on: August - 2025	PLI Policy no: 4007/393633561/00/000 Company: ICICI Lombard General Insurance Company Ltd. Valid upto: 25th April, 2026	
34.	Gail (India) Limited, Gandhar, Po. -Rozatankaria, Tal.Amod, Dist.Bharuch, Gujarat, Pin- 392140	The plan was last updated 06.11.2025	Policy Number: 0304013730 00 00 Policy Company Name: Tata AIG General Insurance Company Ltd. Validity Date: 31/03/2026	
35.	Galaxy Surfactants Ltd	On Site Emergency Plan (Updation Date:	Policy Company Name: ICICI LOMBARD Policy Number: UIN:	

Sr.	MAH Unit Name with Address	On- Site Plan Status	PLI Status	Remarks
		21/07/2025)	IRDAN115CPLB0008V01202425 Validity Date : 31/03/2026	
36.	Grasim Industries Limited, Cellulose Division Plot No. 1, GIDC Industrial Estate, Vil. Vilayat, Tal. Vagra, Dist. Bharuch, Gujarat	On-site emergency plan updated on Dec, 2025	Policy # 0304010255 Policy company name: TATA AIG INSURANCE Validity date: from 01/04/2025 to 31/03/2026	
37.	Gujarat Chemical Port Limited P.O.- Lakhigam, Via- Dahej, Tal- Vagra, Dist- Bharuch, Gujarat- 392130	The updated On-site emergency plan submitted to DISH, Bharuch dtd: 28.01.2026	Policy no.4007/415023871/00/000 ICICI Lombard General Insurance Company Ltd Valid up to : October 22 , 2026	
38.	Gujarat Fluoro Chemicals Limited Plot No D-2-CH-173 + D-2-CH- 222 Village-Jolva GIDC Dahej Industrial Estate Taluka : Vagra Distt: Bharuch 392130 Gujarat	May-2025	Policy number- 4007/389384340/00/000 Policy Company name- ICICI Lombard General Insurance Company Limited Validity date- 04th April 2026	
39.	Gujarat Fluorochemicals Limited, 12/A GIDC Dahej Industrial Estate, Taluka Vagra, District Bharuch 392130, Gujarat	On-Site Emergency Plan Last updated on 1st Novenber-2025	4007/389384340/00/000	
40.	Gujarat Guardian Ltd. State Highway – 13, Valia Road, Ankleshwar, Dist. Bharuch, Gujarat – 393001	Last updated on 15/07/2025	3133207323294800000, HDFC Ergo, 31March2026	
41.	Gujarat Narmada Valley Fertilizers & Chemicals Ltd. (GNFC) Address: GNFC, Narmadanagar, Bharuch – 392015, Gujarat, India.	Last on-site emergency plant updated in March 2026.		
42.	Glomet Tech Pvt.Ltd. Z-22, Sez, Dahej	Jul-18		
43.	Hemani Industries Limited. Plot No: CH/5, GIDC Industrial estate Dahej Tehsil: Vagra, Dist.: Bharuch Gujarat, 392130	August- 2025	Policy No.: 230802492533000000036 THE NEW INDIA ASSURANCE CO. LTD. Validity: 21/11/2026	

Sr.	MAH Unit Name with Address	On- Site Plan Status	PLI Status	Remarks
44.	Hemani Industries Limited. Unit 2 Plot No. 3207/A & B, 3208/1&2,3202/A/1, GIDC Industrial Estate, Ankleshwar - 393002, Gujarat	The plan was last updated August- 2025	Policy No.: 23080249253300000036 The New India Assurance Co. Ltd. Validity: 21/11/2026	
45.	Hikal Limited Plot No. 629/630-B GIDC Estate, Post: Panoli	On site emergency plan update on 11th Nov 2025	HDFC ERGO general Insurance company Limited. 01.04.2025 to 31.03.2026	
46.	Indo Baijin Chemicals Pvt. Ltd. Plot No. Z/7/1, SEZ-1 Area, Dahej SEZ Ltd. Tal - Vagra, Dist - Bharuch - 392130, Gujarat, India	Last updated on 24/01/2026	Policy No: 3133206559704201000 Policy Company name: HDFC ERGO Validity: 31st March, 2026	
47.	Indofil Industries Limited (Unit-1) Plot No. Z-8, SEZ-1, GIDC, Dahej, Tal. – Vagra, Dist: Bharuch, Gujarat - 392130, India	On- Site Plan Status : 06.02.2026	Policy No: 3133206681340401000 Policy company name:HDFC ERGO General Insurance Company Limited Validity date: 01 April 2025 To 31 March 2026	
48.	Indorama Vevnture Oxides Ankleshwar Pvt. Ltd. Plot No. 321, GIDC Panoli, Ankleshwar, Bharuch.	Last On-site plan updated in Sep'25	Policy No: 3133206423271301000 Policy Company Name: HDFC ERGO General Insurance Company Limited Validity Date: 30.04.2026	
49.	Ion Exchange (India) Limited, Plot No. 5811-12-13 GIDC Estate, Ankleshwar	Last on-site updation in March -2026	OG-26-1919-3304-000000046 Bajaj Allianz General Insurance Company Ltd. Validity - 08-JUN-26	
50.	Jal aqua international llp,Plot no:620 road no.06 ,GIDC estate panoli ,Dist-Bharuch	Last updated on August - 2025	23110049253300000078 The New India Assurance Co. Ltd.(Government of India Undertaking From: 18/12/2025 05:49:21 PM To: 17/12/2026 11:59:59 PM	
51.	Jayshree Aromatics Limited Plot No. 4703, 4704,4705/1/2,3&4, GIDC, Ankleshwar, Gujarat-393002	Last updated on August 2022	171300/48/2026/9684 The oriental insurance company limited 25/10/2026	
52.	Jubilant Ingrevia Limited & Jubilant Infrastructure Limited	Dec'2024-Jubilant Infrastructure Limited	Policy no. 03040106510200, Valid up to Aug'26	
		Dec'2024-Jubilant Ingrevia Limited	Policy no. 0304010443, Valid up to Jul'26	

Sr.	MAH Unit Name with Address	On- Site Plan Status	PLI Status	Remarks
53.	KABSONS INDUSTRIES LIMITED Plot No. 706&708, GIDC, Palej Industrial estate, Dist.-Bharuch, Pin-392220	Aug- 2024	Policy No.- 3133208170947600000	HDFC ERGO
54.	Kanoria Chemicals & Industries Ltd. Plot No. 3407, GIDC Industrial Estate Ankleshwar, Dist. Bharuch, Gujarat – 393001	Updated on 30/11/2024	Policy No.: 151732527120000014 Reliance General Insurance Company Limited 30/09/2026	
55.	KLJ Organic Limited Plot No-759, GIDC Estate, At&Po: Jhagadia ,Ta: Ankleshwar Dist-Bharuch	March -26		
56.	Krishna Antioxidants Pvt Ltd Plot No.: D-3/24/1, GIDC Dahej Phase – III, Village Samatpor, Taluka Vagra Dahej, Dist. Bharuch	Plan was last updated on 11.05.2024	FGS-2J-25-7007559-00-000 Generali Central Insurance Company Limited 17th Oct 2026.	
57.	LANXESS India Pvt. Ltd,Plot No. 748/2/A, 748/3 & 748/4/B +748/4/A/1, Gidc Estate, Jhagadia – 393110, Dist. Bharuch	Last updated on 01.01.2025	3133207381332700000, HDFC ERGO, 31/03/2026	
58.	Meridian Chem Bond Private Limited Plot No-5906/04 GIDC Ankleshwar	Last updated on Jan--2026	Dec-2026	
59.	Meridian Chem-Bond Private Limited Plot No. 3209, GIDC Estate, Ankleshwar – 393002, Dist. Bharuch, Gujarat	Last updated on March--2026	Feb-2027	

Sr.	MAH Unit Name with Address	On- Site Plan Status	PLI Status	Remarks
60.	Macson Products Unit-2 Plot No.6606/2-B GIDC Ankleshwar Bharuch	Dec-1826-04-2019		
61.	Minol Acids And Chemicals Pvt. Ltd. Plot No. 5904/1, Nr. Kanoria Chemicals, G.I.D.C., Ankleshwar.	Plan was last updated on june-2025		
62.	NACL Spec-Chem Limited Plot No. D-2/11/B/3/2, Dahej-II, Tal. Vagra, PIN-392 130, Dist. Bharuch, Gujarat, INDIA.	17-10-2024	96000036253300000011, THE NEW INDIA ASSURANCE CO. LTD., 28-07-2026	
63.	New India Acid (Baroda) Pvt. Ltd.	Last On-site plan updated in 23/08/2025	Bajaj Allianz General Insurance Company Ltd. Police Number 0g-26-2201-3304-00000006 Date : 02/07/2026	
64.	Omkar Chemical Industries PVT Ltd Plot No.406, GIDC. Estate, Panoli-394116, Ankleshwar, Dist. Bharuch	Last updated on Aug- 2025	Omkar Chemical industries pvt ltd [01 Year]	
65.	ONGC Petro additions Limited Plot #Z-1 & Z-83 C/o, Dahej SEZ Ltd., P.O Dahej, Taluka Vagra, District Bharuch, Gujarat – 392130, India	ERDMP of OPaL Complex- Last updated on 04.08.2025 ERDMP of Cross- country pipelines- Last updated on 15.10.2025 ERCP of OPaL Complex-Last updated on 03.04.2023	Name: PLI Act Policy Policy Number: 78000036253300000003 Company: The New India Assurance Co. Ltd. Validity: 19.08.2025 to 18.08.2026	
66.	Organic Industries Pvt. Ltd S/163. GIDC, Dahej, Vagra, Bharuch	The plan was last updated Feb-2024	Jan 01,2026 ICICI Lombard General Insurance Company Limited Policy No. 100031891900	
67.	OMNOVA SOLUTIONS INDIA PVT LTD (Old Name - Apcotax Industreis Ltd)	Dungari Bharuch-393 135 Mar-17		

Sr.	MAH Unit Name with Address	On- Site Plan Status	PLI Status	Remarks
68.	Panoli Intermediates (India) Pvt Ltd, Plot No 778/1 & 756/1, GIDC Jhagadia, Dist-Bharuch	Last updated on APRIL-2025	P0026200007/9999/100048, Magma General Insurance Limited, 13/06/2026	
69.	Panoli Products Ltd	The plan was last updated August 21-10-2024	Policy no.4007/401874253/00/000 ICICI Lombard General Insurance Company Limited; July 11, 2025, TO July 10, 2026.	
70.	Panorama Aromatics Ltd. Plot No. 2908-2911, Phase-III, GIDC Panoli-394116, Tal.-Ankleshwar, Dist.-Bharuch	The plan was last updated August May-2025	Future Generali India Insurance Co. Ltd. Policy No. L0291724, Validity Date 14/05/2026	
71.	Payal Polyplast Pvt. Ltd Plot No. 2, Dahej 2, Bharuch - Dahej Rd, Gujarat 392130	The plan was last updated on May 2026	Policy No.: 31200049253300000004 THE NEW INDIA ASSURANCE CO. LTD. Validity: 02/01/2027	
72.	Petronet LNG Limited. Dahej Terminal	Onsite plan last updated on 01.10.2025	PLI policy no 5003002725P104410078 from United India Insurance Company Ltd and valid up to 01.06.2026	
73.	Phthal Science at Plot No. DP-112, GIDC Sayakha, Ta.: Vagra, Bharuch, Gujarat – 392165, India		21210411259600000010, The New India Assurance Co. Ltd., From: 01/05/2025 12:00:01 Am To: 30/04/2026 11:59:59 Pm	
74.	PI INDUSTRIES LTD 237, GIDC Estate Panoli 394116 Dist. Bharuch, Gujarat	Last updated on 26.06.2025	ICIC LOMBARD General Insurance Policy Period: 1st Apr 2025 – 31st Mar 2026 Policy Number: 4007/389424136/00/000	
75.	PI Industries Ltd. SPM-29/2, Sterling SEZ, At - Sarod, Ta - Jambusar, Dist. - Bharuch	Last updated on 18/12/2025	ICIC Lombard General Insurance Policy Period: 1st Apr 2025 – 31st Mar 2026 Policy Number: 4007/389424136/00/000	
76.	Piramal Pharma Limited Plot No. D-2/11/A1, GIDC Industrial Estate, Phase-II, Vil:Dahej, Ta: Vagra 392130, Bharuch, Gujarat, India	Last updated on Oct-25		
77.	Privi Speciality Chemicals Limited, Plot No. 765, Road No.2, GIDC Jhagadia - 393 110 Dist. Bharuch	Last updated on 04.07.2025	Policy Company Name: Tata AIG General Insurance Company Limited Validity Date: 10.03.2027	

Sr.	MAH Unit Name with Address	On- Site Plan Status	PLI Status	Remarks
78.	Reliance Industries Ltd. Dahej Manufacturing Division Dahej, Bharuch	Approved On-Site Emergency Plan available – 04.04.2025	Policy No.: 4007/389250109/01/000 Insurer: ICICI Lombard General Insurance Co. Ltd. Policy Period: Valid upto 30.06.202	
79.	Shiva Pharmachem Limited Dahej	January 2026	Policy No- 4007/389357150/00/000 Policy Compnay Name:- ICICI Lombard General Insurance Company Ltd Validity :- March 19 , 2026	
80.	Savla Chemicals Ltd. Plot No: 26-A, GIDC, Industrial Estate, Panoli-394116, Ankleshwar, Dist- Bharuch, Gujarat	On site plan available, September-2024	Public Liability ACT- 41102291, IFFCO TOKIO, Valid Up to: 12.05.2026	
81.	Shivam Incorporation Plot No 521, L-1801, L-1802 & 665, GIDC Estate, Panoli, Dist.: Bharuch, Taluka: Ankleshwar, Gujarat-394116	The plan was last updated April 2025	Policy No- 160332527120000021 Policy Company Name:- Reliance General Insurance Company Limited. Validity:- April 01, 2026	
82.	Styrenix Performance Materils Limited, 4-G.I.D.C Dahej, Tal: Vagra Dist: Bharuch	The plan was last updated August 01.10.2025	Policy No: 0304008920, Policy Company Name: Tata AIG General Insurance Company Ltd, Validity Date: 30/06/2026	
83.	Sterling Auxiliaries Pvt.Ltd, Dahej, Taluka –Vagra, Dist- Bharuch	The plan was last updated August 26-04- 2025	03040137100000, Marsh India Insurance Broker Pvt Ltd. Validity 31-03-2026	
84.	Sukha chemicals Industries Unit - II 2925, Village/Town - Panoli, City-Ankleshwar, District- Bharuch, State -Gujarat-394116	The plan was last updated 01.01.2026	Policy No. 310602492510000033 Policy company Name: National Insurance Company Limited Validity:26/03/2027	
85.	Schott Glass India Pvt. Ltd Block No. 1351/1, 1352/2 Vill: Ankhi, Tal: Jambusar Dist.: Bharuch	Last On-site plan updated in May-2023	Policy No. OG-26-2201-3304-00000023 Valid Till 09-Oct-26 Midnight	
86.	SHILPA CHEMICAL INDUSTRIES. PLOT NO. 4777 – 4778 G.I.D.C, ANKLESHWAR	MAY 2025	Policy No.- 132200/48/2026/2998 SHILPA CHEMICAL INDUSTRIES, Validity date: 01.11.2026	THE ORIENTAL INSURANCE COMPANY LIMITED

Sr.	MAH Unit Name with Address	On- Site Plan Status	PLI Status	Remarks
87.	SRF Limited D-2/1, GIDC Phase II , PCPIR, Dahej , District Bharuch, Gujarat - 392130	Last updated on 26/08/2025	Policy no. 0304013671 00 00 Policy Issuing Company: TATA AIG Insurance Validity: From: 01/04/2025 To Midnight of: 31/03/2026	
88.	Styrenix Performance Materials Limited, 4-G.I.D.C Dahej, Tal: Vagra Dist: Bharuch	Last updated on 01.10.2025	Policy No: 0304008920, Policy Company Name: Tata AIG General Insurance Company Ltd, Validity Date: 30/06/2026	
89.	Shyam Chemicals Pvt.ltd 6004, GIDC Ankleshwar	Last updated on June 2024	4007/368308103/01/000 Valid till 19/10/2026	
90.	Solvay Specialities India Pvt Ltd, Panoli Plot No: 3526 - 27, G.I.D.C., Panoli, District: Bharuch, Gujarat (394116	Last updated on 28th MAY 2025	Policy Number: 0304014207 Company Name: Tata AIG General Insurance Company Ltd. validity date: To Midnight of: 09/07/2026 12:00 AM/ PM	
91.	Sudarshan Gujarat manufacturing Limited , Unit-1	Last updated on September -2025	3133207505647000000 , Sudarshan Chemical Industries Limited, 31 st March 2026	
92.	Superform Chemistries Limited (Unit – 92) Plot No- D 3 / 6 GIDC III ,Kadodara Ta- Vagara, Dist. Bharuch (Gujarat)- 392110	Available last updated on December 2024		
93.	Superform Chemistries Limited. Plot No. 746/750, GIDC, Jhagadia, Dist- Bharuch, 393110, Gujarat, Inida	Last updated on July - 2025	SCHL000003530 - Digit Life Group Term Life Insurance, 01/10/2026 2999204137668404000 - HDFC ERGO General Insurance Company Limited, 31/03/20260220002825P103437822 - United India Insurance Company Limited, 30/04/2026	
94.	Saint Gobain Glass India Ltd 36, GIDC Jhagadia , Dist-Bharuch	Mar-19		
95.	Sanghvi Organics P. Ltd. Plot No.3516, Phase Iii GIDC Panoli, Bharuch	Jul-16		
96.	Tagros Chemicals India Pvt. Ltd. Plot no.43/1, Amod Road, GIDC Dahej-1, Tal: Vagra, Dist: Bharuch-392130	Last updated on June,2024	Policy No: P0126300003/9999/100015 Company Name: Megna General Insurance Ltd. Validity date:31.03.2026	

Sr.	MAH Unit Name with Address	On- Site Plan Status	PLI Status	Remarks
97.	Tagros Chemical Ind. Pvt. LTD Plot No. 2901 to 2906 & 2806, GIDC, Panoli, Tal.: Ankleshwar, Dist.: Bharuch, Gujarat – 394 116.	December - 2025	4007/290042125/00/000 ICICI – Mar 31, 2027	
98.	TML Industries Limited At & post- Piludra-391810, Tal-Jambusar, Dist-Bharuch	Last updated on March 2024		
99.	Unitop Chemicals Pvt Ltd. D2/CH-342,343, GIDC Phase II, Vill. Jolwa, Dahej, Bharuch	OSEP available last updated on Jan-25	Available	
100.	Viswaat Chemicals Limited, D- 3/10, Dahej Phase III, GIDC, Dahej, Taluka – Vagra, Dist. – Bharuch, Gujarat – 392130	On site emergency plan is available and last updated on dated :15- 06-2025.	Policy Number – 41600362433000000005, Policy Company Name - The New India Assurance Co. Ltd., Validity - From 15/03/2025 12:00:01 AM To 14/03/2026 11:59:59 PM	
101.	Vital Chemtech Limited Plot No. D3/151 & 158, GIDC, Dahej III, Ta-Vagra, Dist.- Bharuch, Pin-392130	Aug, 2024	Policy No.- 3133208170947600000 Vital Chemtech Limited, Validity date: 21 Jan,2027	HDFC ERGO
102.	Wanksons Chemical Industries Pvt. Ltd. Plot No. 518, GIDC Panoli Tal. Ankleshwar, Bharuch	Dec-18		
103.	Yashashvi Rasayan Pvt.Ltd Plot No. Z/96/E, SEZ-II, Dahej Industrial Estate, Village Luvara, Taluka Vagra, District Bharuch, Gujarat, 392130.	Submitted on the date of 17th September,2025	23070036533000000006 (The New India Assurance Company Ltd.) (13th October,2026,11:59:59 pm)	

7. Roles and Responsibilities

7.1 Introduction

Meticulous role playing and effective discharging of responsibilities is crucial to management of off-site emergency. The responsibilities of various authorities and agencies are provided in this chapter. It is important that the concerned authorities and agencies know, understand and accept their responsibilities. The issues pertaining thereof should be resolved in peace times. Apart from the assigned responsibilities, the specifics of situation may call for prudent action. It is however envisaged to foresee various tasks and assign the respective responsibilities. The list of responders to off-site emergency is provided in Chapter 4 of Part A of this guideline document. The responsibilities of the responders listed therein are provided below.

7.2 Responsibilities of Authorities and Agencies

The general responsibilities of the various authorities and agencies involved in mitigation of off-site emergency are listed below. In addition, the authorities and agencies should perform all such tasks as per the demands of emergency situation at hand.

7.2.1 District emergency Authority (DEA – District Collector)

- Take overall responsibility for combating the Off-site emergency
- Ensure the Police and Fire, personnel combat the emergency
- Arrange, if necessary, for warning and evacuating the public, through the Department of Police
- Communicate with Media to disseminate vital information to public
- Arrange for dispensing vital information to public using arrangements like mass-sms, public announcement using pre-recorded tapes
- Direct the team of doctors headed by the Medical Officer
- Direct the local chief of State Transport Corporation to arrange for transport of victims and evacuation of people trapped within the hazard zone, if necessary
- Direct the Electricity Board officials to give uninterrupted power supply
- Direct the official in-charge to provide uninterrupted water supply as required
- If evacuation of population is necessary direct the Revenue officer and the Supply officer to provide safe shelters, food and other life sustaining requirements for the evacuees, if required
- Co-ordinate with the media
- Arrange for, release and provide necessary funds at various stages of disaster mitigation
- Direct railways to stop train, if required

7.2.2 Police

Communicate and co-ordinate with

- MAH unit
- DEA
- Fire Services
- Transport authorities
- Medical Department
- Media
- Civil Defence and Home Guards
- Local Army establishment as required
- Warn and advice the people in the affected area
- Regulate and divert traffic
- Arrange for evacuation
- Maintain law and order in the area
- Ensure protection of life and property of evacuees
- Deal sternly with people exploiting opportunism in wake of a disaster

7.2.3 Fire Service Department

- Perform fire-fighting operations by deploying men and appliances
- Perform rescue operation in the affected area.
- Communicate and co-ordinate with Police, Medical Department of necessary information
- Keep knowledge on appropriate response to different chemical emergency scenarios
- Keep adequate stock and resource information on necessary means, material, appliances required to deal with particular emergency situations with updated details of suppliers and stockists

7.2.4 Medical Department

- Arrange for preparing casualties to be sent to government/private hospitals
- Set up temporary medical camp and ensure medical facilities at affected location and neighbourhood
- Keep knowledge on appropriate response to different cases of toxic consumption and injuries
- Set up temporary mortuary, identification of dead bodies and post-mortem

7.2.5 Factory Inspectorate Department

- Provide necessary direction to MAH unit and assistance to DEA, Fire Department, Medical Department among others
- Seek help from and involve assistance of Technical Experts of relevant and appropriate expertise and specialization
- Initiate, facilitate and provide for investigation into the accident

7.2.6 Occupier of MAH Unit

- Possess up-to-date copy of Off-site Emergency Plan
- Communicate promptly, any foreseeable disaster, to the DEA, Police, Fire Service and Inspector of Factories in-charge of the district
- Communicate changes within the factory that may require inclusion or suitable modification in the off-site plan to the DEA (Maintenance Officer) of the Plan

7.2.7 Technical Experts

- Promptly respond to provide the necessary technical advice to MAH unit, DEA, Factory Inspectors, Fire Department, Medical Department among others
- Provide on-phone help after properly understanding and assessing the situation

- Make visit to the site in co-ordination with DEA, Factory Inspector(s) to provide for appropriate technical assistance

7.2.8 Mutual AID Groups

To quickly mobilize the resources required to emergency mitigation at the site or wherever required

7.2.9 Pollution Control Board

- Project likely areas to be polluted.
- Carry out pollution assessment at suspected locations including soil, river and air assessment
- Ensure controlling of long-term pollution damage
- Identify unidentified substances, chemical releases, if any

7.2.10 Transport Fleet Owners Including State Transport

- Act on the direction of DEA or Police
- Ascertain the extent of transport required with pick-points, routes and destinations to transport people
- Promptly arrange for dispatch of vehicles with sufficient fuel for evacuation purposes
- Arrange vehicles to transport water and other provision to camps set up

7.2.11 Media

- Disseminate vital information to public on direction of DEA, Police and other Authorities
- Act responsibly in disseminating vital information and dispel rumours, if any

7.2.12 Railways

- Act as per the direction of DEA to stop incoming trains, if required
- Arrange for evacuation, if required

7.2.13 Transporters of Hazardous Chemical

- Possess up-to-date copy of Off-site Emergency Plan
- Communicate promptly, any foreseeable disaster during transportation to the DEA, Police, Fire Service and Inspector of Factories in-charge of the district
- Communicate new assignments, newly added routes or other changes that may require inclusion or suitable modification in the off-site plan to the DEA (Maintenance Officer) of the Plan

7.2.14 Electricity Board

- Arrange for uninterrupted power supply to the plant, as required
- Arrange for lighting; at temporary medical camps etc
- Arrange for switching off power supply on request from District Authorities
- Take care of electrical equipment within the damaged zone

7.2.15 Telecommunication Department

- Ensure working of communication lines to enable effective communication between various responder agencies

7.2.16 Aviation Department

- Mobilise resources such as helicopters for knocking down vapour clouds etc

7.2.17 Civil Defence

- Co-ordinate with Police authorities
- Extend help in evacuation
- Arrange for round the clock security arrangements in the affected and evacuation areas
- Safeguard the properties and belongings of evacuees

7.2.18 Home Guards

- Co-ordinate with Police authorities.
- Extend help in evacuation.
- Arrange for round the clock security arrangements in the affected and evacuation areas.
- Safeguard the properties and belongings of evacuees

7.2.19 National Disaster Response Force

- Carry out tasks for disaster mitigation as required

7.2.20 Local Government Bodies

- Mobilise necessary resources in emergency mitigation
- Provide for community halls, town halls for evacuees

7.2.21 NGOs

- Act as per the direction of DEA, Police and other District Authorities
- Aid and assist the district authorities in emergency mitigation

7.2.22 Public Works Department

- Ensure adequate water supply for fire- fighting
- Arrange for drinking water for evacuated persons at rallying posts, parking yards and evacuation centres

7.2.23 Water Supply Board

- Arrange for supply of water to evacuees and all others involved in emergency control operations

7.2.24 Civil Supplies Department

- Arrangement to provide food and clothing as necessary, to the evacuees and all others involved in emergency controlling operations

7.2.25 Animal Husbandry Department

- Arrange for taking care of cattle - especially milch animals living in affected zone
- If evacuation of cattle is required, identify the evacuation area and shelter
- Transport arrangements for evacuation
- Fodder, drinking water arrangements for cattle.
- Arrange for veterinary doctor

7.2.26 Agriculture Department

- Arrange for protection of food grains and standing crops in the vulnerable zone. Give instructions, to farmers, if any

7.2.27 Regional Transport Authority

- To investigate into the cause of road accident involving hazardous goods carrier and take necessary action

7.2.28 Other Members of DCG

- Assist and act as per directions of the District Collector

7.2.29 Coasts Guards and Port Trusts (in case of emergency situation in coastal areas)

- Co-ordinate with Police authorities.
- Provide necessary help in emergency mitigation

7.2.30 Emergency Organisation Chart of Roles

The emergency organization chart of roles must be clearly defined. The emergency organization and line of command may differ from the operational line of command during peace times.

A sample emergency organization of roles is attached here for reference:

The emergency organization chart of roles must be clearly defined. The emergency organization and line of command may differ from the operational line of command during peace times.

EMERGENCY ORGANISATION FOR INDUSTRIAL DISASTER - Example

Chart to be prepared & Put here

EMERGENCY ORGANISATION FOR ROAD TRANSPORT DISASTER – Example

Chart to be prepared & Put here

7.3 Emergency Behaviour of Public at Large

The extent of damage control in an emergency situation can improve greatly if the public at large conducts itself in a responsible and intelligent manner. The possible reasons for disadvantageous behaviour by the public is Panic Curiosity or Excitement Purposeful exploitation of the situation . The following are the ways and means of addressing the above causes of disadvantageous behaviour

1. Panic

Panic arises out of sense of urgency coupled with lack of knowledge and information to deal with the situation. Panic can be dealt with effectively by dissemination of important knowledge, information and instructions on response behaviour. A toxic gas leak may require people to stay confined than run out in helter-skelter. Such useful response instruction can be disseminated to public at large through mass education campaigns. Such campaigns shall be periodically conducted by vulnerable industrial units. Educational syllabus for schools shall include lesson on response behaviour in case of emergency. Chemistry lessons shall include simple tips on responding to various gases. For instance, in case of MIC leak at Bhopal, the magnitude of toxic consumption could have greatly reduced had people put a wet handkerchief on their nose since MIC dissolves in water.

2. Curiosity or Excitement

Uproar, noise, mass gatherings bring curiosity to the mind of people who add to the number of on-lookers. Police should play an active role in cordoning off the emergency area and judiciously allow volunteers who are willing to act to mitigate the disaster.

3. Purposeful Exploitation of situation

Unfortunately some people seek opportunism for themselves in wake of a disaster. Such people contribute only to the reducing the efficacy of mitigation effort. Such people should be identified and dealt sternly with by the Police and other authorities involved in mitigation.

7.4 Specific Actions Required by Public at Large and Communication to them

An emergency situation may call for the public at large to act on information such as evacuation to a particular area or confinement of themselves in their houses with all windows closed. The dissemination of such information shall be made using media such as Radio, Television, Mass-SMS, Mobile Public Announcement System.

8. Emergency Response Plan

8.1 Introduction

The emergency response plan is the detailed plan to be executed in case of an emergency. The emergency response plan is drawn for the emergency scenario under consideration. No two emergency scenarios are alike and as such the possible emergency scenarios at any given time can be infinite. Laying down common emergency response plan is not possible and also not advisable as different scenarios will call for different plans. It is therefore prudent to begin with emergency response planning for most critical emergency scenarios. The emergency response planning can be put to test during the mock drill. This should ensure preparation of emergency response plan for new emergency scenario every time a mock drill is conducted. PRESTELS has developed PAC analysis for emergency response planning, which is attached and explained in Part C of this document. The PAC analysis yield emergency response plan for the emergency scenario under consideration

8.2 Enforcement and Implementation of Plan

The responsibility for enforcement and implementation of the plan rests with the DEA. In event of offsite emergency, the DEA will declare the emergency via Annexure 1 and communicate the same to the authorities and agencies listed there under along with other responders. The various authorities and agencies shall discharge their responsibility and carry out all such tasks that the situation on hand may call for.

8.3 Marriage of Chapter 5, 6, 7

- Chapter 5 deals with projection of emergency scenarios
- Chapter 6 deals with identification of resources
- Chapter 7 deals with roles and responsibilities

An emergency scenario is an undesired event that may occur. Resources both material and intellectual are required to mitigate the possible effect of an emergency scenario. The people involved in applying the resources for mitigation should discharge their expected roles and responsibilities intelligently and faithfully. Thus, we must in advance keep the resources and roles-responsibilities mapped to the emergency scenario. This mapping is determinedly referred to as the 'Marriage of Chapter 5, 6 and 7). PRESTELS recommends PAC analysis for developing a complete course of response in case of an emergency.

(see information on PAC analysis attached in Part C)

8.4 Discharging and Co-Ordination of Roles and Responsibilities

It is of utmost importance that all authorities and stakeholders involved in disaster mitigation discharge their roles and responsibilities in letter and spirit. It is for this purpose necessary to ensure that the authorities and stakeholders know with full awareness their roles and responsibilities.

9. Post-Emergency Restoration

9.1 Calling off Emergency

Having satisfied himself that the emergency is over, the DEA shall call off the emergency via Annexure 5. The calling off of emergency shall restore life to normalcy and curtail the spread of misinformation, rumours giving opportunism for exploitation of the situation. The emergency camps set up shall continue to function after calling off of emergency till they provide all the needed support to the aggrieved.

9.2 Controlling Long-Term Damage

The emergency may affect natural resources of soil, water and air. The PCB unit shall make assessment of the areas adjoining the emergency scene where such a damage may take place. The PCB shall submit their report to the DEA via Annexure 6. The DEA shall act on the information and recommendation provided by the PCB.

9.3 Investigation Studies and Reporting

The DEA shall appoint a committee constituting the necessary stakeholders who may be necessary to carry out thorough investigation into the emergency as well as introspection of the response actions and measures. The investigation reporting shall be via Annexure 7. The investigation report shall become a part of Chapter 10 of this report. The lessons drawn from the investigation shall be incorporated into this plan in the appropriate chapters.

9.4 Compensation and Settlements

The compensation and settlements shall be carried out by the DEA. The DEA shall process compensations as claimed under the PLIA.

10. Past Accidents in the District

The investigation reports of offsite emergencies made via Annexure 7 shall be filed in this chapter. The notes of changes made in the plan drawing lessons from the off-site emergency shall be recorded in this plan

Table 34 Lessons from Past Accidents

Sr.	Off-Site Emergency Reference with Investigation Report No-	Note of Changes made in Plan	Remarks

11. Mock Drills

Mock drills are exercises to test the effectiveness of plan. Mock drills must be carried out at periodic intervals as specified in the MSIHC rules (i.e. once in a year). The lessons drawn from Mock drills must be used to improve the plan. The Mock drill reports via Annexure 8 shall be filed in this chapter. The notes of changes made in the plan drawing lessons from the mock drills shall be recorded in this plan

Table 35 Lessons from Mock Drills

Sr	Off-Site Emergency Reference with Investigation Report No	Notes of Changes made in the Plan	Remarks

ANNEXURE 1

Declaration of Off-site Emergency

I declare Off-site Emergency in the district of Gujarat starting at this _____ hour on this day of _____.

DEA:[NAME, SIGNATURE AND SEAL]

Date:...../...../2026

Information to the following be made via phone followed by written communication

Sr. No.	Authority	Name of Person(s)	Contact Number(s)	Address
1	District Collector (or DEA)	Dr.N.K.Gavhane (IAS)	(O) (02642) 240500, 240600 (R) (223701) 223703 (M) 99784 06205	(O) District Collector Office, Bharuch (R) Civil Lines Edgah Road, Bharuch
2	Alternate Additional Collector, Surat	Mr. Parth jaishwal	(O) 222332 (M) 99784 05177	BHARUCH
3	Municipal Commissioner	Mr. Harishchandra J. Agrawal	(O) 02642-220143 / 02642-243525	Civil Lions, Kali Talavadi, Bamba Khana Road, Bharuch
	Alternate Dy. Municipal Commissioner			
3	Police Commissioner	Mr. Mayur Chavada (IPS)	(O) 02642-223633 / 02642-223303	Civil Lions, Kali Talavadi, Bamba Khana Road, Bharuch
4	Alternate Joint Police Commissioner			
3	Superintendent of Police	Mr. Akshay Raj	(O) (2642 223 303)	Civil Lions, Kali Talavadi, Bamba Khana Road, Bharuch
4	Alternate	Mr. C.K. Patel	(O) 02642-223633	Civil Lions, Kali Talavadi, Bamba Khana Road, Bharuch
5	Fire Department Chief	Mr. Vijay Asar	(O) (02642) 220229 (M) 99259 79798	DPMC, Ankleshwar
6	Alternate	Mr. Pritesh Patel	(O) (02642) 220229	DPMC, Ankleshwar
7	Dist. Health officer	Dr. V.S. Tripathi	(O) 02642-243660 (M) 9727702155	
8	Alternate			
9	Inspector of Factories	Mr. D.B Gamit Mr. S.P.Pathak	(M) 6354310155 (M) 9978262544	

Sr. No.	Authority	Name of Person(s)	Contact Number(s)	Address
	Dy. D I S H, Bharuch			
10	Pollution Control Board Regional Officer	Mr. K.N. Vaghamshi	(O) 02642-246333	
11	member			
12	Technical Experts			
13	a) Industries Representative	Mr. Pritesh Patel	(M) 9925979798	DPMC Ankleshwar
14	b) Industries Representative	Mr. P.S. Keshvani	(M) 9428722726	GNFC Bharuch
15	c) Industries Representative	Mr. Somnath Sarkar	(M) 9099007516	OPAL Bharuch
	d) Industries Representative	Mr. Jignesh Patel	(M) 9998001088	Reliance Industries Ltd, Dahej
	e) Industries Representative	Mr. M.B.Patel	(M) 9909029646	Dahej Industrial Association
	f) Trade Union Representative	Dr. Mahesh Vashi	(M) 9898014674	Coloutex Industries Ltd
16	Transport Provider Regional transport officer	Mr. Pankaj Padhiyar		
17	Mutual Aid Group	Smt. Shobhnaben	(M) 75670 52767	
18	Media			
	Gujarat Mitra	Mr. Y S Agnihotri	(O) 261 2599991	
	Sandesh	Mr. Parthiv Falgunbhai Patel		
	Gujarat Samachar	Mr. Jignesh Patel	(O) +91 79 25508001	
	Times of India	Mr. Yagnesh Bharat Mehta	(M) +91 98306 29298	
	India Express	Mr. Parimal A. Dabhi	(O) +91 265 235 2851	
	Divya Bhaskar	Mr. Mrugank Patel		
	Navgujarat Times	Mr. Ajay Umat	(O) +91 79 6777 3500	
19	Railways			
	Superintendent	Mr. D.K. Raju	(O) 267347 (M) 97240 98417	
	DY. Second Sup.	Mr. D.M. Jagtap	(O) 02642-240969 (R) 02642-240969 (M) 97240 98417	
20	Other members of DCG, Coast Guards and other authorities as may be applicable			

ANNEXURE 2

Possessors of the Copy of Off-site Emergency Plan

Sr. No.	Authority	Name of Person(s)	Contact Number(s)	Postal Address	Put ✓ On Receipt Confirmation
1	Police Commissioner	Mayur Chavada (IPS)	(O) 02642-223633/ 02642-223303	Civil Lions, Kali Talavadi, Bamba Khana Road, Bharuch	
2	Fire Brigade	Mr. Vijay Asar	(O) (02642) 220229 (M) 99259 79798	DPMC, Ankleshwar	
3	Medical Officer	Dr. V.S. Tripathi	(O) 02642-243660 (M) 9727702155		
4	Technical Experts	Mr. Pritesh Patel	(M) 9925979798		
5	Industries Representative	Mr. P.S. Keshvani	(M) 9428722726		
6	Industries Representative	Mr. Somnath Sarkar	(M) 9099007516		
7	Industries Representative	Mr. Jignesh Patel	(M) 9998001088		
8	Industries Representative	Mr. M.B.Patel	(M) 9909029646		
9	Industries Representative	Dr. Mahesh Vashi	(M) 9898014674		
10	Factories Inspectorate	Mr. D.B.Gamit Mr. S.P.Pathak	(M) 6354310155 (M) 9978262544	DISH Office Bharuch	
11	Pollution Control Board	Mr. K.N. Vaghamshi	(O) 02642-246333		
12	Other Authorities				

ANNEXURE 3

Communication of Change in Copy of this Plan to all Possessors of the Copy of Off-site Emergency Plan

The following change(s) are made to the version _____ of the Off-site Emergency Plan dated _____.

Sr. No.	Page Number	Exiting Information	Change(s) Made

Communication to the following:

Sr. No.	Authority	Name of Person(s)	Contact Number(s)	Postal Address	Put ✓ On Receipt Confirmation
1	Police Commissioner	Mayur Chavada (IPS)	(O) 02642-223633 / 02642-223303		
2	Fire Brigade	Mr. Vijay Asar	(O) (02642) 220229 (M) 99259 79798	DPMC, Ankleshwar	
3	Medical Officer	Dr. V.S. Tripathi	(O) 02642-243660 (M) 9727702155		
4	Technical Experts	Shri Pritesh Patel	(M) 9925979798		
5	Industries Representative	Shri P.S. Keshvani	(M) 9428722726		
6	Industries Representative	Shri Somnath Sarkar	(M) 9099007516		
7	Industries Representative	Shri Jignesh Patel	(M) 9998001088		
8	Industries Representative	Shree M.B.Patel	(M) 9909029646		
9	Industries Representative	Dr. Mahesh Vashi	(M) 9898014674		
10	Factories Inspectorate	Mr. D.B.Gamit Shri. S.P. Pathak	(M) 6354310155 (M) 9978262544		
11	Pollution Control Board	Shri K.N. Vaghamshi	(O) 02642-246333		
12	Other Authorities				

ANNEXURE 4

Communication of Change in Positions, Address and Phone Numbers to the Maintenance Officer of the Plan

To,
The DEA,
(The Maintenance Officer)
Off-site Emergency Plan,

[NAME AND ADDRESS]

Date: _____

Sub: Change information for updating Off-site Emergency Plan

Dear Sir/Madam,

Please note the following change(s) in the Off-site Emergency Plan:

Please incorporate the above changes in the plan with effect from
(Date): _____

Thanking you,

Yours Faithfully,

[NAME, SIGNATURE AND SEAL OF THE AUTHORITY AND DATE]

ANNEXURE 5

Calling off the Declared Off-site Emergency

I **call off** the declared Off-site Emergency in the district of *[NAME OF THE DISTRICT]* starting at this _____ hour on this day of _____.

DEA: *[NAME, SIGNATURE AND SEAL]*

Date: *[DATE]*

Information to the following be made via phone followed by telegram

Sr. No.	Authority	Name of Person	Contact Number(s)	Address
1.	Police Commissioner	Mayur Chavada (IPS)	(O) 02642-223633 / 02642-223303	Civil Lions, Kali Talavadi , Bamba Khana Road, Bharuch
2.	Fire Brigade	Mr. Vijay Asar	(O) (02642) 220229 (M) 99259 79798	DPMC, Ankleshwar
3.	Medical Officer	Dr. V.S. Tripathi	(O) 02642-243660 (M) 9727702155	
4.	Technical Experts	Shri Pritesh Patel	(M) 9925979798	
5.	Industries Representative	Shri P.S. Keshvani	(M) 9428722726	
6.	Industries Representative	Shri Somnath Sarkar	(M) 9099007516	
7.	Industries Representative	Shri Jignesh Patel	(M) 9998001088	
8.	Industries Representative	Shree M. B. Patel	(M) 9909029646	
9.	Industries Representative	Dr. Mahesh Vashi	(M) 9898014674	
10.	Mutual Aid Group	Smt. Shobhnaben	(M) 75670 52767	
11.	Factories Inspectorate	Mr. D.B.Gamit Shri. S. P. Pathak	(M) 6354310155 (M) 9978262544	DISH Office Bharuch
12.	Pollution Control Board	Shri K.N. Vaghamshi	(O) 02642-246333	
13.	Other Authorities			

ANNEXURE 6

Submission of Report on Long Term Damage or its Possibility

To
DEA

cc: Factory Inspector

Sr.	Area affected	Description	Required Actions	Remarks

Sd/- Pollution Control Board

ANNEXURE 7

Investigation Reporting

Investigation Report No:

- Name of Event
- Accident Description
- Cause of Accident
- Effects of Accident

a1. No. of people dead

a2. No. of people injured

b. Property damage(s)

c. Pollution (short-term)

d. Pollution (long-term)

- Lessons to be drawn from the event
 - Resource Gap:
 - Communication Gap:
 - Others:
- TM. Response measures taken

Sr.	Agency	Response(s)	Remarks

ANNEXURE 8

Mock Drill Reporting

- Mock Drill No:
- Mock Drill Scenario Description:
- Observations:

Sr.	Response Agency	Response	Observation and Comments	Remarks

- Lessons to be drawn from the event
 - Resource Gap:
 - Communication Gap:
 - Others:
- Response measures taken

Sr.	Agency	Response	Remarks

ANNEXURE 9

Samples of ERDS

PRESTELS recommends maintenance of Emergency Response Data Sheets (analogous to Material Safety Data Sheets - MSDS) for all the hazardous chemicals handled in the district. The ERDS should contain all the information required by the District Authorities and Agencies to take appropriate emergency response measures. The sample ERDS sheet for MIC is attached in Annexure 9.

ERDS for following chemicals are prepared and kept as Annexure- 10

1. Ethylene Oxide
2. Oleum 65%
3. Sulphur Trioxide
4. Liquified Petroleum Gas (LPG)
5. Isobutane
6. Methanol
7. Ammonia
8. Sulphur Dioxide
9. SKO
10. Naphtha
11. LNG
12. Propylene
13. VCM
14. EDC
15. Chlorine
 - a. Tonner
 - b. Tank
16. Ethanol
17. Acrylonitrile
18. Formaldehyde
19. M.S.
20. Toluene
21. Hydrogen Floride
22. HSD
23. Bromine
24. Toluene Di-isocyanide
25. CS₂
26. Ethion
27. Styrene

28. PO
29. Xylene
30. Argon
31. Sodium Cyanide
32. Sodium Hypochlorite
33. Benzene
34. 2,5 Di-chloro nitro benzene
35. Methyl Tert- Butyl Ether
36. Hexane
37. Anhydrous Hydrochloric Acid
38. Ethylbenzene
39. Butadiene
40. Sulphuric Acid
41. Isobutylene
42. Liquid Oxygen
43. Epichlorohydrin
44. Acetone
45. Acetic Acid
46. Propane
47. Gasoline
48. POCl₃
49. Heptane
50. Thionyl Chloride
51. Aluminium Chloride

Sr. No.	Company Name	Chemical name & Quantity	ERDS Number	
1.	Aarti Industries Limited	2,5 Di-chloro nitro benzene 54.72 Metric Tons (MT)	33	
2.	Air liquid India holding Pvt Ltd	Lq.Oxygen- 250 MT	31	
3.	Alkyl Amines Chemical limited	Methanol-869 KL*2 tanks (80% Storage Only) Anhydrous Ammonia-155 KL*2 tanks (80% Storage Only) HCL-160 KL*2 tanks Acetic Acid-240 KL*2 tanks Caustic Lye 46%-24 KL Methylamines (Mono, Di, Tri)-155 KL*4 tanks (496 KL storage only) Amine	5,4,36,44	

Sr. No.	Company Name	Chemical name & Quantity	ERDS Number	
		Hydrochloride-200 KL*2 tanks (320 KL storage only) Acetonitrile-150 KL6 tanks (640KL storage only) Sodium Acetate-38 KL (30 KL storage only)		
4.	Aarti Industries Limited	Methanol- 154.84MT Toluene - 337.12 MT Benzene- 511.56 MT	4, 18, 32	
5.	Amal Limited	Oleum – 500 MT	2	
6.	Aries Colorchem Pvt Ltd	Ethylene Oxide-20 KL Methanol-25KL Oleum 65%-90KL	1,2, 4	
7.	Amal Speciality Chemicals Limited	Sulfur trioxide: 90 MT	2	
8.	Anshika polysurf ltd	Ethylene oxide – 7 MT Propylene oxide – 7 MT Butadiene – 10 MT	1,25	
9.	Atul Ltd (Aromatics Business)	SO3 - 100 MT SO2- 20 MT	2,6	
10.	Anugrah Industries Private Limited	Chlorine Tonner 156nos	13	13A - Tonner
11.	Bodal Chemicals Limited	Chlorine 268 Nos Tonner (311400 Kg), Benzene – 426 KL,	13, 32	13A - Tonner
12.	BHARAT GLASS TUBE LTD. PLOT NO.9208-9213, G.I.D.C., ANKLESHWAR	LPG -16 T	3	
13.	Borosil Renewables Limited	LPG 32 MT × 2 Tanks = 64 MT 5MT × 3 Tanks=15 MT Total Capacity= 80 MT	3	
14.	Birla Cellulosic (A Unit of Grasim Industries Ltd)	Carbon Di Sulphide (Maximum that can be stored-720 MT) Actually stored (including in process & handling 300MT)	22	
15.	Cohizon Life Sciences Limited	Chlorine – 164 MT per month	13	13A - Tonner
16.	C2,C3 and C4 extraction Plan Oil & Natural gas Co. Ltd.	Ethane – 4189 KI Propane – 1950 KI Butane - 1150 KI Ethyl Mercaptan –3520 Kg	1,45	
17.	Cohizon Life Sciences Limited (Unit – 2)	Hydrogen Fluoride in Tonner (Anhydrous) (Qty. 66.6,) Chlorine Gas in Tonner (Qty. 75.6)	19	21 (A) & 13 A Tonner

Sr. No.	Company Name	Chemical name & Quantity	ERDS Number	
18.	Coromandel International Ltd, Ficom Chowkadi, Ankleshwar	Bromine - 72 KL (24*3)	21	
19.	Coromandel International Ltd, Dahej	150 KL CS2	22	
20.	Covestro (India) Pvt. Ltd.	Toluene Diisocyanate – 250 MT	18	
21.	Century ENKA Ltd	LNG- 35 MT	9	
22.	Chemieorganic Chemicals (I) Pvt. Ltd.	Cl2, H2S/ Cyanide Poisoning, Chloroaniline, Benzene & its Derivatives, Sulphuric/ Nitric/ HCl acids	13, 32,39	13 A-Toner
23.	Clairvoyance Industries Pvt Ltd	Methanol 20 MT EO 17.5 MT	1,4	
24.	Deepak Fertilisers and Petrochemical	Liquid Ammonia – 600 MT	5	7 - (b)
25.	Dhanveen Pigments Pvt. Ltd	Chlorine Tonner	13	13 A-Toner
26.	DCM Shriram Ltd (Unit: Shriram Alkali & Chemicals)	Sodium hydroxide: 1100M3X 3 1923M3X 2 Chlorine: 100 MT x 4 Chlorine tonners: 900Kg x 2016nos. Hydrogen cylinders: 1528 Cylinder Hydrochloric acid : 125M3 x 4 265 M3x 2 225M3 X 2 Sodium Hypo chlorite 132.7 M3 X 2Nos. 265 M3 X 1Nos. 225 M3 X 2Nos. Aluminium Chloride : 2200 MT Epichlorohydrin : 1500 M3 x 01Nos. H2O2 : 500 M3 x 2 Nos. 220 M3 x 1 Nos. Sulfuric acid (98 %) : 75.4M3X 1 75.5M3 X 1	13	13 A-Toner, 15 B tank(l)
27.	Deepak Chem Tech Limited	Chlorine2. Anhydrous Hydro Fluoride2	13, 19	13A - Tonner
28.	Deepak Phenolics Limited,	Phenol: - 6756 M3 Acetone: - 4864 M3 Iso Propyl Alcohol: - 2220 M3 Cumene: - 5342 M3	32,10	

Sr. No.	Company Name	Chemical name & Quantity	ERDS Number	
		Alpha Methyl Styrene: - 15 M3 Heavies: - 357 M3 Poly iso propyl benzene: - 20 M3. Propene: - 2444 M3 Benzene: - 6254 M3 Propylene: - 7298M3		
29.	Dharti Enterprise,	Ethylene Oxide – 14 MT. Propylene Oxide-14 Mt. Aniline oil- 150 MT. Sulphuric Acid -150 MT.	1,28,39	
30.	DMCC speciality Chemical Ltd.	H2so4- 350 MTD CSA- 450 MTD	28,39	
31.	Dai-Ichi Karkaria Limited,	EO- 38 MT PO- 38 MT	1, 30	
32.	Epigral Limited	Chlorine Gas 335MT Hydrogen Gas 120 Cylinder Methyl Chloride 39.94 KL Methanol 1425 MT Cyclohexane 174 KL O-Xylene 185 KL Toluene 570 KL	13,20,4, 18,27	13A - Tonner,1 3B Tank (IV)
33.	Expanded Polymer Systems Pvt.Ltd	Ethylene Oxide-; 28 MT Propylene Oxide:144 MT Acrylonitrile:-55 MT	28,1	
34.	Galaxy Surfactants	Ethylene Oxide (76 MT)	1	
35.	Glomet Tech Pvt. Ltd	Chlorine – 18 T	13	
36.	Grasim Industries Limited	Carbon Disulphide- 3400 MT	25	
37.	Gujarat Fluorochemicals Limited	Liquid Chlorine – Max: 315 m³ Actual: 179 Hydrogen Gas – Max: 100000 Nm³ Actual: NA Anhydrous Hydrofluoric Acid (AHF) – Max: 18.07 MT Actual: 13	13,21	13 B- Tank (II)
38.	GACL-NALCO Alkalies And Chemicals Pvt. Ltd	500 MT in Storage tank + 250 MT in Cylinde Total 750 MT Cl gas	13	13 A Tonner, 13 B- Tank(I)
39.	Gujarat Guardian Ltd.	LPG – 240 MT (04 bullets – 60 MT each)	3	
40.	Gujarat Alkalies & chemical Ltd.	Chlorine-1290 Mt	13	
41.	Gujarat Chemical Port Limited	Naphtha- 13350 M3 (14 series) Naphtha- 19280 M3 (14 series) Propane- 45000M3 Butane- 27000 M3	3,8,45,28,44,27	

Sr. No.	Company Name	Chemical name & Quantity	ERDS Number	
		LPG- 2310 M3 P.O- 2970 M3 Para Xylene- 37640 M3 Ortho Xylene- 4400 M3 Ethane- No storage, only pipeline transportation, pipeline volume- 5252 KL, PY Gas- 9218 M3 Styrene- 5702 M3 Acetic Acid- 8000 M3		
42.	Gujarat Fluoro Chemicals Limited	Chlorine – 26 Tonners	13	13A - Tonner
43.	GNFC D-2/8, GIDC	TDI	24	
44.	Ganesh LPG Bottling Plant	LPG Gas	3	
45.	Gujarat Insecticides Ltd.	Chlorine – 10 MT Bromine – 60 MT	13,21	
46.	Gail (India) Limited, Gandhar, Po. - Rozatankaria,	Sulfuric Acid - 13 KL Ethyl Mercaptan - 6.4 KL Chlorine - 400 Kgs Methanol - 22 KL	13, 4, 40	13A - Tonner
47.	Gujarat Narmada Valley Fertilizers & Chemicals Ltd. (GNFC)	Methanol – 1,85,000 MTPA TDI – 67,000 MTPA Aniline - 40,000 MTPA	4,24	
48.	Hindalco Ind. Ltd. Unit	Propane - 292 MT Nephtha- 440 MT Ammonia- 10000 MT	05,45,08	
49.	Hindustan Petroleum Corpn.,	LPG - 777 T	3	
50.	Hemani Industries Limited. Unit 2	Bromine: 70 MT Hexane: 25 MT.	35,21	
51.	Hemani Industries Limited	Bromine: 90 MT Chlorine: 50 MT	13	13A - Tonner
52.	Hikal Limited	Bromine 50 MT	21	
53.	Impro interchem Pvt ltd	EO-7 MT	1	
54.	Indo Baijin Chemicals Pvt.	CS2	22	
55.	Indofil Industries Limited (Unit-1)	Carbon Di- Sulphide-100 MT	22	
56.	Industrial Solvent & Chemical Pvt Ltd	SO3: 210 MTD	2	
57.	Ion Exchange (India) Limited,	Oleum (Sulpher Trioxide) Qty: 120 MT	2	
58.	Indian Oil Corpn. Ltd.	LPG - 2000 MT	3	
59.	Indorama Vevnture Oxides	Ethylene Oxide 2. Propylene Oxide	1,28	

Sr. No.	Company Name	Chemical name & Quantity	ERDS Number	
60.	Jayshree Aromatics Limited	Chlorine (43200 Kg) Toluene (100 KL) Methanol (20 KL) Ethanol (20 KL) HCL (150 KL) Bnezyl Chloride (250 KL) Hydrogen (212 Nos.) Acetaldehyde (20 KL)	4,13,20,16	13A - Tonner
61.	Jubliant Lifescience	Chlorine tonner – 134 nos. of 900 Kg each Ammonia gas storage – 220 MT Highly flammable liquied – 4000 KL	13,5	
62.	Jubilant Ingrevia Limited	Chlorine tonner – 134 nos. of 900 Kg each Ammonia gas storage – 220 MT Highly flammable liquied – 4000 KL	13,5	13A - Tonner
63.	Jal aqua international llp, Plot no:620 road no.06, GIDC estate panoli, Dist-Bharuch	Chlorine – 62 MT	13	13A - Tonner
64.	Kabsons industries ltd	LPG	3	
65.	Keshav Nitro chem LLP	--	--	--
66.	Kanoria Chemicals & Industries Ltd.	Formaldehyde 1600 kl	--	
67.	KLJ Petro plast	O-Xylene – 9028.8 MT Ethanol – 7110 MT Methanol – 355.5 MT Pentylol – 1458 MT N-Butanol – 360 MT I-Butanol – 364.5 MT Sabutol – 3061.8 MT Diesel – 11.34 MT	27,20,4,14	
68.	KLJ Organic Limited	Chlorine - 90 MT	13	13A - Tonner
69.	Krishna Antioxidants Pvt Ltd	Ethylene Oxide – 39 MT Styrene – 41 MT	1,23	
70.	LANXESS India	Oleum 65%, 50 Tons Acrylonitrile, 75 Tons	2, 15	
71.	Macson products (Unit-2)	Ethylene Oxide - 7.5 MT	1	
72.	Meridian Chem Bond Private Limited	Chlorine-300 MT Mono Chloro Acetic Acid - 1000 MT	46,13	13A - Tonner
73.	Meridian Chem-Bond Private Limited	Chlorine – 55 MT Acetic Acid – 200 MT HCl- 300 MT	13, 44	13A - Tonner

Sr. No.	Company Name	Chemical name & Quantity	ERDS Number	
74.	Minol Acids and Chemicals Pvt. Ltd	Oleum 65% - 15kl	2	
75.	Meghmani Organic Ltd	Acrlonitrile- 52 KL	15	
76.	NACL	Chlorine Bromine	13,21	
77.	National Thermal Power Corporation Ltd	Chlorine - 10 T 100 T	13	13A - Tonner
78.	NEW INDIA ACID (BARODA) PVT LTD	Hydrochloric Acid: 3744 Mt/Year Dilute Sulphuric Acid: 800 Mt/Year	36,39	
79.	Navjeevan o chem	Chlorine	13	
80.	Omkar Chemical Industries Pvt Ltd	Ethylene Oxide-30kl Propylene Oxide-27kl Ammonia-0.5kl MEA -20 KI	1,28,5	
81.	ONGC Petro additions Limited Plot	Ethylene, Propylene, Butadiene, Butene-1, Benzene, fuel Gas, C9+ fraction, C6+, Pyrolysis Gasoline	10,32	
82.	OMNOVA SOLUTIONS INDIA PVT LTD (Old Name - Apcotax Industreis Ltd)	Acrylonitrile - 100 MT 1,3-Butadiene - 290 MT	15	
83.	Organic Industries Pvt. Ltd	Chlorine – 16000 MT per Month	13	13A - Tonner
84.	Phthalo Science	1. Aluminium Chloride Granules – 317 MT 2. Cupric Chloride (Anhydrous) – 6MT 3. C.P.C. – 38.90MT 4. Caustic Soda – 22.40MT	50	
85.	Panoli Products Pvt. Ltd.	Chlorine = 60 Tanners HCL = 200 Mt (Storage Capacity)	13	13A - Tonner
86.	Panorama Aromatics Ltd.	Liq. Chlorine 19.800 Mt	13	13A - Tonner
87.	Payal Polyplast Pvt. Ltd	Chlorine: 69 Tonners Per Tonners 900Kgs	13	13A - Tonner
88.	PI Industries Ltd. SPM 29/2	Isobutylene: -23.16 MT Chlorine: - 30.6 MT Liquified Natural Gas (LNG): - 97.47 MT.	13, 40	13A - Tonner
89.	Privi Speciality Chemicals Limited	CS2 133 MT	22	
90.	PI Industries Ltd.	Bromine – 81.12 MT Chlorine - 19.8 MT Formaldehyde - 56 MT Isobutylene – 10.336 MT	13,21,16	13A - Tonner

Sr. No.	Company Name	Chemical name & Quantity	ERDS Number	
		Monomethyl Amine (MMA) – 8.1 MT Methyl Chloride (MeCl) – 12 MT		
91.	Piramal Pharma Limited	Anhydrous Hydrogen Fluoride 40 M	19	
92.	Petronet LNG Limited. Dahej Terminal	Liquefied Natural Gas (LNG)/ Natural Gas Handling with LNG storage tank capacity of 12,72,000 m3 in 8 Nos. of LNG full containment storage tanks and Terminal Regasification name plate capacity is 22.5 MMTPA, including regasification expansion project.	09	
93.	Panoli Intermediates (India) Pvt Ltd,	Chlorine-225 Mt Hydrochloric Acid-350 Mt Dichloro Nitro Benzene-600 Mt Benzene-450 Mt	13,36	13A - Tonner
94.	Reliance Industries Ltd	Naphtha – 56147 – Fire/Explosion Ethane – 165000 – Fire/Explosion Ethylene Oxide – 252.8 – Toxic/Fire/Explosion Propylene – 6705 – Fire/Explosion Chlorine – 282 – Toxic/Fire/Explosion VCM – 6000 – Toxic/Fire/Explosion EDC – 6800 – Toxic/Fire/Explosion Ethylene – 23192 – Fire/Explosion Propane – 1596 – Fire/Explosion Para Xylene – 10800 – Fire/Explosion	8, 1,10,13,45,27	13A - Tonner
95.	SAINT-GOBAIN INDIA PRIVATE LTD	LPG	3	
96.	Sanjana Cryogenic storage Ltd	Ammonia – 72000 MT	5	
97.	Shilpa Chemical Industries	EO	1	
98.	Sanghvi organics Pvt. Ltd	Benzyl Chloride – 600 T/m	--	
99.	SCHOTT GLASS INDIA PVT LTD	LNG Oxygen	9,41,	

Sr. No.	Company Name	Chemical name & Quantity	ERDS Number	
		Arsenic trioxide		
100.	Sukha chemicals Industries Unit -II	Liquid Chlorine tonner 55 nos	13	13A - Tonner
101.	Siddhi Samrat Dye-Chem Pvt. Ltd	Ethylene Oxide- 8 T	1	
102.	Sun Chloride Pvt. Ltd.	Chlorine- 20 T	13	13A - Tonner
103.	Shree Sulphuric Ltd.	Oleum (Sulphur Trioxide) – 172MT	2	
104.	Shri Khedut Sahakari Khand Udiyog Mandli Ltd (Pandvai Sugar)	Industrial Alcohol – 1193 KL Ethanol- 1190 KL	14	
105.	Shri Ganesh Khand Udhog Sahkari Mandali Ltd	Industrial Alcohol - 1193 KL Ethanol - 1190 KL	14	
106.	Sterling Auxiliaries Pvt. Ltd	Ethylene Oxide Cap - 30 Mt Propylene Oxide Cap - 18 Mt Acrylonitrile Cap - 15 Mt Methyl Methacrylate Cap - 35 Mt Mma Anhydrous / Monomethylamine 100% Cap - 60 Mt Styrene Monomer Cap - 28 Mt Phosphorous Trichloride (Pcl3) Cap - 1 Mt Formaldehyde Cap - 25 Mt Methyl Di Ethanol Amine – 340 Mt Phenoxy Ethanol – 150 Mt Cpdp – 12 Mt	1,28,15	
107.	Shiva Pharmachem Limited Dahej	Chlorine - 23.4 Hexane - 22 Hydrogen cylinder - 32 Methanol - 22 Propylene - 39.8 Sulphur Dioxide - 23.4 Sulphuric Acid - 10 Thionyl Chloride - 96 Toluene - 22	13,35,4, 10,6,39,49,18	13A - Tonner
108.	Savla Chemicals Ltd.	1)Methyl Tert- Butyl Ether:1500 m3 (02 tanks) 2) Isobutylene: 175 m3 (02 tanks) 3) Methanol : 50 m3(01 tank)(By Product) 4) High Purity Methyl Tert-Butyl Ether: (50 m3 -02 tanks and 20 m3-01 tank)	34,4	

Sr. No.	Company Name	Chemical name & Quantity	ERDS Number	
109.	Shivam Incorporation	Chlorine (Cl ₂) – 40 MT (Stored in Tonners under PESO Licensed Facility)	13	13A - Tonner
110.	Styrenix Performance Materials Limited	Styrene – 5562 KL	23	
111.	SRF Limited	Chlorine - 700 MT(in Bullet) & 291 MT(in Tonnes) Anhydrous Hydrofluoric Acid (AHF)- 2218 KL (Bullet) & 6.24 KL (in Tonnes) Anhydrous Hydrochloric Acid (AHCl)- 6 MT Ethylene dichloride- 407.15 KL Bromine- 96 MT (48 MT x 2 tanks) Carbon disulphide HSD - 140 KL Methanol - 62 KL (31 KL x 02 tanks) Ethanol - 33 KL Acetone - 50 KL Toluene - 70 KL Hexane - 35 KL Heptane - 70 KL (35 KL x 02 tanks) Xylene - 70 KL (35 KL x 02 tanks) Methanol -1184 KL (740 KL x 02 tanks) Methyl Chloride – 63.6 MT (01 tank) R32 – 225 MT (02 tanks – 84 MT & 141 MT) R600a – 29.5 MT R142b – 376 MT (04 tanks x 94MT)	13,36,21,43,18,35,48,27,	13A - Tonner
112.	Superform Chemistries Limited.	Chlorine – 400MT Carbon disulphide --2300 MT Acrylonitrile – 30 MT Hydrogen -2122 Acrolein – 60 MT Chloroacetal Chloride200 MT Methyl Chloride – 175 MT Phosphorous – 3200MT Phosphorous Oxychloride – 100 MT Phosphorous Trichloride – 300 MT Sodium Cyanide –276 MT Sulphuric Acid – 100 MT	13,15,47,36,30,39	13A - Tonner

Sr. No.	Company Name	Chemical name & Quantity	ERDS Number	
		Hydrochloric Acid –150 MT NaOH – 400 MT		
113.	Superform Chemistries Limited.	TBM Phorate- 40 KI		
114.	Superform Chemistries Limited.	Chlorine – 22 Tonner CS2 – 30 T	13	13A - Tonner
115.	Shyam Chemicals Pvt.ltd	Chlorine 20MT	13	13A - Tonner
116.	Superform Chemistries Limited (Unit – 92)	Ammonia (125 KL* 3) Sodium cyanide(70 KL* 2) Cl 2 (204 * 9 TON)	13	13A - Tonner
117.	Sudarshan Gujarat MFG Private	ChlorineTonner & 117Nos BromeneMSG L Tank & 22KL Xylene MS Tank & 70KL	13,21,27	13A - Tonner
118.	Solvay Specialities India Pvt Ltd, Panoli	Sulphur Trioxide (SO3) 36.3 MT (Storage: 29.4MT In process: 6.9MT)	3	
119.	Tagros Chemicals India Pvt. Ltd	Chlorine – 64 Tonner- 57.6 MT	13	13A - Tonner
120.	Tagros Chemicals India Pvt. Ltd	Chlorine – 64 Tonner- 57.6 MT	13	13A - Tonner
121.	TML Industries Limited	Sulphur Dioxide- 45 Tonners	6	
122.	Unitop Chemicals Pvt Ltd	Ethylene Oxide - 38 KL Propylene Oxide condensate- 16400MT Petroleum Class A in bulk- 30 KL Petroleum Class B in bulk - 75 KL	1, 28	
123.	Viswaat Chemicals Limited,	Ethylene Oxide (19 MT * 2 Tanks	1	
124.	Vardhaman Acrylics Ltd	Acrylonitrile – 2160 T	15	
125.	Vital chemtech limited	Chlorine Tonner	13	
126.	Wanksons Chemical Industries	Chlorine - 50 T	13	13A - Tonner
127.	Yashashvi Rasayan Pvt.Ltd	SO2-47 Nos Tonners	6	

1. ERDS FOR ETHYLENE OXIDE

Formula: $(\text{CH}_2)_2\text{O}$

Colourless gas with ether like odour at room temperature.

Flammable: Extremely
Inflammable & Explosive

Flash Point: -17.7°C

LEL- UEL: 3% & 100%

Toxic: 800 PPM

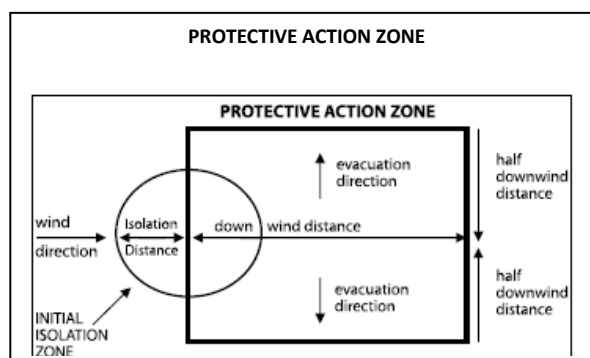
IDLH: PPM

TLV: 50 PPM

I. General Response Action

1. On-SITE: Stop Leakage, if possible safely
2. Wear self contained Breathing Apparatus (SCBA) and start water spray
3. INFORM people to all electrical equipments and vehicular movement
4. Use water spray / fog to disperse and dilute vapours
5. Collect runoff for disposal as potential hazardous waste.

II. Evacuation Zone Dimensions



Sr. No	Mass Of Release	Approx. Valnerable Distance (M) (In The Direction Of Wind)	Approx. Time To Reach Max. Vulnerable Dist. (Min)
1	5	200	2
2	10	1200	8

* The figures in above table are not true values but arbitrary for demonstrating the concept (The above values are reference values for a particular Maximum Credible Loss Scenario and are to be used only in absence of any other values, only as an aid to form a judgement)

III. Fire

- Highly Inflammable Liquid.
- It causes dangerous fire hazard when exposed to sources of heat and flame

Suggested Action:

- It is a heavier than air and diffuses moderately.
- It is a highly inflammable & explosive keep away from any sources of heat.
- It burns even in absence of air
- It is a highly soluble in water pour water on Ethylene oxide leakage for cooling purpose.
- Burning of Ethylene oxide is extinguished when diluted to 24 volume with water.

IV. Medical ::

- Vapour of Ethylene oxide are moderately Toxic on Inhalation.

- General anesthetic effect along with coughing due to irritation of the respiratory system is caused when large amounts of Ethylene oxide is Inhaled.
- Large expose can destroy the sense of smell.

Suggested Action:

- Remove the victim from the sources of contamination.
- Wash the skin & eye with water
- Keep the victim warm using blanket.
- Remove victim to the well ventilated area.

Antidotes: N.A.

V. Pollution ::

- A leak of EO poses a significant air pollution hazards
- EO Vapours is heavier than air and travel along the ground may cause flash fire.
- EO vapours dissolve in water hence high humid atmosphere will reduce the risk significantly.
- Contaminated water with EO will be sent for safe disposal

VI. Chemical Information ::

- A) Chemical Reactivity:
Reactivity with Water:
EO is highly soluble in water when EO & water are heated in a sealed tube, ethylene glycol is obtained.
- B) Reactivity with Common Material:
EO reacts with ammonia to form mixture of mono di and triethanol amines.
- C) Polymerisation:
EO may be polymerised to give polyethylene oxide chain.
- D) Combustion Products :
- E) Properties:
 - Physical State at 15 Deg. C and 1 Atm. Pressure: Gas
 - TLV: 50 PPM
 - IDLH: ppm
 - Molecular weight: 44.05
 - Boiling Points: -10.7 Deg C
 - Freezing Points: -.... Deg C
 - Vapour Pressure: 1095 mm Hg @ 20°C
 - Vapour Density: (air=1)
 - Liquid Density: (Water=1): @ -34°C

2. ERDS FOR SULPHUR TRIOXIDE/OLEUM

Formula: SO₃ / Oleum

Liquid (Fuming oily liquid)

Flammable: Non-Flammable

Flash Point: N/A

LEL- UEL: N/A

Toxic: N/A

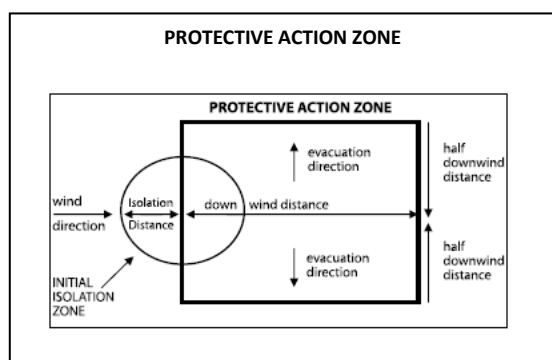
IDLH: PPM

TLV: PPM

I. General Response Action

- On-SITE: keep container dry, keep away from heat and source of ignitions
- PPEs: Face shield, full suit and vapour respirator.

Evacuation Zone Dimensions



Sr. No	Mass Of Release	Approx. Vulnerable Distance (M) (In The Direction Of Wind)	Approx. Time To Reach Max. Vulnerable Dist. (Min)
1	5	120	2

2	10	3500	20
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* The figures in above table are not true values but arbitrary for demonstrating the concept (The above values are reference values for a particular Maximum

Credible Loss Scenario and are to be used only in absence of any other values, only as an aid to form a judgement)

II. Fire

- Non Flammable

Suggested Action:

- Keep away from Fluorine & chlorine trifluoride

III. Medical ::

- Inhalation:- causes damage to human system coughing, pulmonary and olfactory changes
- Skin & Eyes:- causes corrosive irritation and also damage to mucous membrane.

Suggested Action:

- Inhalational :- Remove the victim to fresh area, provide artificial respiration or oxygen needed.
- Skin :- Remove the contaminated clothing and wash the affected area with plenty of water and soap.
- Eye :- Irrigate with plenty of water for 15 min. Seek medical aid immediately.

Antidotes: N.A.

IV. Pollution ::

- A leak of SO₃/ Oleum poses a significant air and land pollution hazards

V. Chemical Information ::

A) Chemical Reactivity:

Reactivity with Water:

It may react violently with water to emit gases.

B) Reactivity with Common Material:

Reactive with oxidizing agents, metal alcohols, moisture.

C) Polymerisation:

Will not occur.

D) Combustion Products : Not applicable

E) Properties:

- Physical State at 15 Deg. C and 1 Pressure: Gas
- TLV: N.A PPM
- IDLH: 10 ppm

- Molecular weight: 80.06..... gram/mole
- Boiling Points: 45.0 Deg C
- Freezing Points: 16.8 Deg C
- Vapour Pressure: N.A mm Hg @ 21°c
-

- Vapour Density: (air=1) 2.8
- Liquid Density: (Water=1): 1.92 @ -34°c
- Liquid Vapour conversion: 1:

3. ERDS FOR LPG

Formula: $C_3H_8 - C_4H_{10}$

Colour less gas odourless

Flammable:

Flash Point: -104°C (-155°F)

LEL- UEL: 2.1 % & 9.5 %

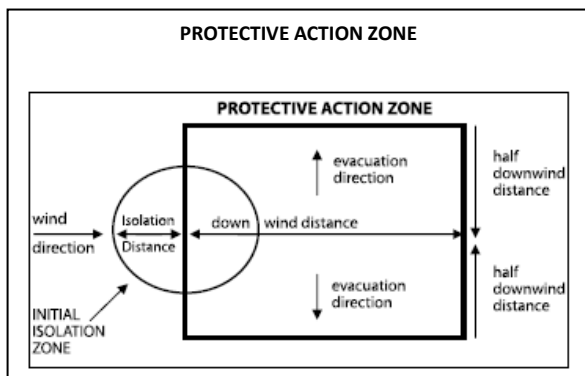
Toxic:

IDLH: PPM

I. General Response Action

- On-SITE: keep container dry, keep away from heat and source of ignitions
- PPEs: Face shield, full suit and vapour respirator.

- Evacuation Zone Dimensions



Sr. No	Mass Of Release	Approx. Vulnerable Distance (M) (In The Direction Of Wind)	Approx. Time To Reach Max. Vulnerable Dist. (Min)
1	1200	5	<2

* The figures in above table are not true values but arbitrary for demonstrating the concept (The above values are reference values for a particular Maximum Credible Loss Scenario and are to be used only)

I. Medical ::

- **Routes of Entry :-** Inhalation, Skin concentration in air greater than 10% causes dizziness in few minutes 1% conc. Give the same symptoms in 10 mins high conc. causes Asphyxiation.
- Liquid on skin causes frostbite.

Suggested Action:

- Remove the victim to the fresh area.
- Provide artificial Resuscitation, Remove the wetted clothes
- Wash the affected area with water

Antidotes: N.A.

I. Pollution ::

- A leak of LPG poses a significant air pollution hazards
- May cause fire and explosion -a great environmental hazards

I. Chemical Information ::

- A) Chemical Reactivity: Reactivity with Water:
- B) Reactivity with Common Material:
- C) Polymerisation:
- D) Combustion Products:
- E) Properties:
 - Physical State at 15 Deg. C and 1 Atm. Pressure: Gas
 - TLV: PPM 1000
 - IDLH: ... PPM
 - Molecular weight.....
 - Boiling Points: -40.0°C
 - Freezing Points: $-.....^{\circ}\text{C}$
 - Vapour Pressure: 23 to 123 mmHg@ 21°C
 - Vapour Density: (air=1): Lighter.
 - Liquid Density: (Water=1): 1.6 @ -34°C

4. ERDS FOR METHANOL

Formula: **CH₃OH**

Liquid, clear, colorless & Mild characteristic alcohol odour

Flammable:	Flammable
Flash Point:	11°C
LEL- UEL:	6% - 36%
Toxic:	Yes
IDLH:	6000PPM
TLV:	200PPM

Sr.No	Mass Of Release	Approx. Valnerable Distance (M) (In The Direction Of Wind)	Approx. Time To Reach Max. Vulnerable Dist. (Min)
1	500	100	4

* The figures in above table are not true values but arbitrary for demonstrating the concept. (The above values are reference values for a particular Maximum. Credible Loss Scenario and are to be used only in absence of any other values, only as an aid to form a judgement)

III. Fire

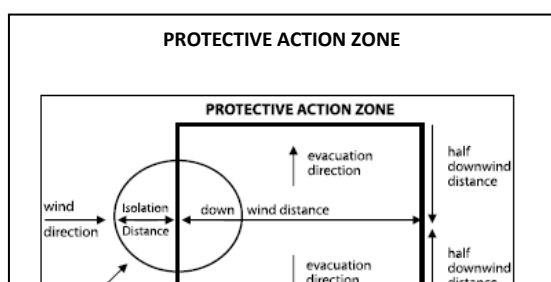
Methanol burns with a clean clear flame that is almost invisible in daylight. Stay upwind! Isolate and restrict area access. Concentrations of greater than 25% methanol in water can be ignited

Suggested Action:

- I. General Response Action**
- On-Site:
 - Use water spray to disperse the gas/vapor. Remove all sources of ignition. Absorb spill using
 - An absorbent, non-combustible material such as earth, sand, or vermiculite. Do not use combustible materials such as sawdust.
 - Use a spark-proof tool. Provide ventilation.
 - A vapor suppressing foam may be used to reduce vapors. Water spray may reduce vapor but may not prevent ignition in closed spaces.
 - Face shield and chemical splash goggles when transferring is taking place
 - Full face, positive pressure self-contained breathing apparatus or airline, and protective clothing must be worn. Protective firefighting structural clothing is not effective protection from methanol.

- Use fine water spray or fog to control fire spread and cool adjacent structures or containers.
- Contain fire control water for later disposal.
- Fire fighters must wear full face, positive pressure, self-contained breathing apparatus or airline and appropriate protective clothing.
- Protective firefighting structural clothing is not effective protection from methanol.
- Do not walk through spilled product.

II. Evacuation Zone Dimensions



IV. Medical : Danger

Eye Contact: Remove contact lenses if worn. In case of contact, immediately flush eyes with plenty of clean running water for at least 15 minutes, lifting the upper and lower eyelids occasionally. Obtain medical attention.

Skin Contact: In case of contact, remove contaminated clothing. In a shower, wash affected areas with soap and water for at least 15 minutes. Seek medical attention if irritation occurs or persists. Wash clothing before reuse.

Inhalation: Remove to fresh air, restore or assist breathing if necessary. Obtain medical attention.

Ingestion: Swallowing methanol is potentially life threatening. Onset of symptoms may be delayed for 18 to 24 hours after digestion.

Suggested Action:

If conscious and medical aid is not immediately available, do not induce vomiting. In actual or suspected cases of ingestion, transport to medical facility immediately.

Antidotes: Ethanol may inhibit methanol metabolism.

II. Pollution ::

Dangerous to aquatic life in high concentrations. May be dangerous if it enters water intakes

II. Chemical Information ::

- A) Chemical Reactivity:
Reactivity with Water:
Miscible soluble in water.
- B) Reactivity with Common Material:
Oxidizing agents, reducing agents, acids, alkali metals, potassium, sodium, metals as powders (e.g. hafnium, raney nickel), acid anhydrides, acid chlorides, powdered aluminum, powdered magnesium.
- C) Polymerisation:
Will not occur
- D) Combustion Products:
Avoid contact with strong oxidizers, strong mineral or organic acids, and strong bases. Contact with these materials may cause a violent or explosive reaction. May be corrosive to lead, aluminum, magnesium, and platinum.
- Properties:
- Physical State at 15 Deg. C and 1 Atm. Pressure: Gas
 - TLV: 200PPM
 - IDLH: 6000ppm
 - Molecular weight: 32.04
 - Boiling Points: 64.7Deg C at 1 atm
 - Freezing Points: -98Deg C
 - Vapour Pressure: 128 mm Hg @ 20 deg
 - Vapour Density: (air=1): 1.11
 - Liquid Density: (Water=1): 7910 g/cm3

5. ERDS FOR AMMONIA

Formula: NH_3

Colourless gas or liquid with pungent odour

Flammable: Air – Ammonia mixture is inflammable

Flash Point: N/A

LEL- UEL: 16% - 25%

Toxic: Yes

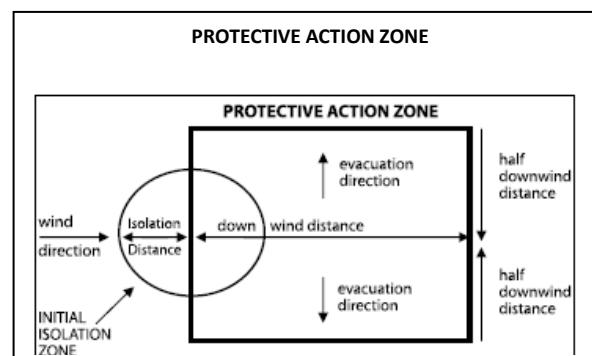
IDLH: 300 PPM

TLV: 25PPM

I. General Response Action

- On-SITE: Stop Ammonia Leakage, if possible, safely
- Wear self-contained Breathing Apparatus (SCBA) and use Ammonia emergency kit
- Stay upwind, out of low areas, and ventilate closed spaces before entering. Evaluate the affected area to determine whether to evacuate or shelter-in-place by taping windows and doors, shutting off outside air intakes (attic fans, etc.), and placing a wet towel or cloth over the face (if needed). Earth-ground and bond all lines and equipment associated with the ammonia system.
- Electrical equipment should be non-sparking or explosion proof.
- Use water spray / fog to disperse and dilute vapours
- Wear PVC Suit, Goggles, Hand gloves

II. Evacuation Zone Dimensions



Sr.No	Mass Of Release	Approx. Vulnerable Distance (M) (In The Direction Of Wind)	Approx. Time To Reach Max. Vulnerable Dist. (Min)
1	5	500 M	3
2	10	10000 M	40

* The figures in above table are not true values but arbitrary for demonstrating the concept (The above values are reference values for a particular Maximum Credible Loss Scenario and are to be used only in absence of any other values, only as an aid to form a judgement)

III. Fire

- Ammonia is inflammable. Fire hazards ammonia are moderate .
- Ammonia forms flammable mixture with air within certain limits(16- 25%) by volume
- Fire hazard increases in contact with other combustible materials.

Suggested Action:

- To extinguish the fire use CO_2 , DCP or water spray.
- Cool the leaking cylinder with large amt. of water.
- To control the fire, stop the flow of the gas if possible.

IV. Medical : Danger

- Skin Contact – Irritation, Burn may be very painful.
- Eye Contact; Highly painful irritation of eye & eyelids
- Watering of eye.
- Serious lesions in eyes.
- Inhalation – Irritation of nose, eyes and throat.

Suggested Action:

- Immediately remove the victim from the affected area & take him to the nearest shower.
- Immediately administer medical oxygen under low pressure using a pulmotar.

Antidotes: N.A.

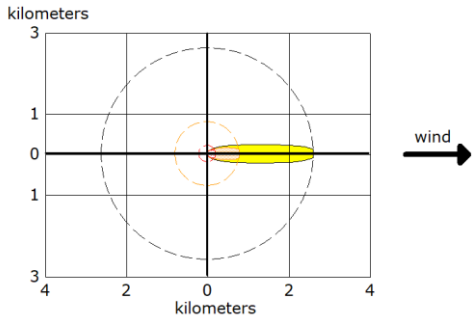
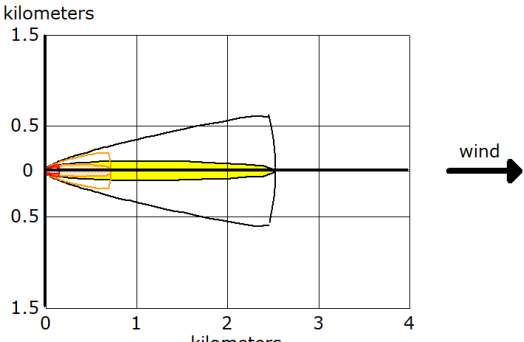
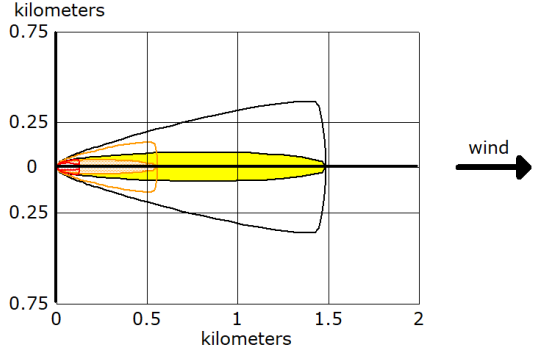
III. Pollution ::

- a. Ammonia is harmful to aquatic life in very low concentrations and may be hazardous if it enters water intakes.
 - b. Local health and wildlife authorities, as well as operators of water intakes in the vicinity, should be notified of water releases.
 - c. Waterfowl toxicity may occur at elevated concentrations.
 - d. Ammonia does not concentrate in the food chain.
 - e. The conversion of ammonia to nitrites/nitrates by bacteria in aquatic systems can reduce the concentration of dissolved oxygen (referred to as nitrogenous oxygen demand).
- Effect on water treatment process:
Chlorination will produce chloramines, which are more readily detected by taste and odor.

III. Chemical Information ::

- A) Chemical Reactivity:
Reactivity with Water:
Chlorine is rapidly soluble in water. when ammonia reacts with water, it forms Ammonium Hydroxide ($\text{NH}_3 + \text{H}_2\text{O} \rightarrow \text{NH}_4\text{OH}$)
- B) Reactivity with Common Material:
Ammonia is highly reactive with Sodium, Potassium at ordinary temp.
- C) Polymerisation:
Hazardous polymerization will not occur.
- D) Combustion Products:
Hydrogen at very high temperatures : 1544°F (840°C).
- E) Properties:
- Physical State at 15 Deg. C and 1 Atm. Pressure: Gas
 - TLV: 25 PPM
 - IDLH: 300 ppm
 - Molecular weight: 17.03
 - Boiling Points: -33 Deg C at 1 atm
 - Freezing Points: -78Deg C
 - Vapour Pressure: 7,600 mm Hg @ 2: C
 - Vapour Density: (air=1) 0.597 @ 0° C
 - Liquid Density: (Water=1): 0.6818
 - Liquid Vapour conversion: 1:450

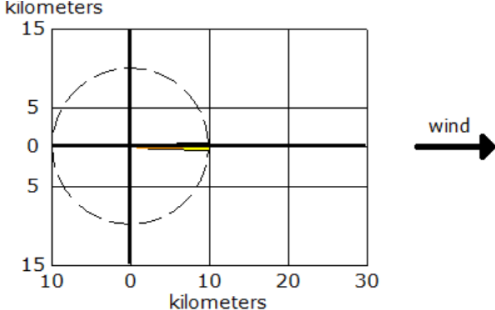
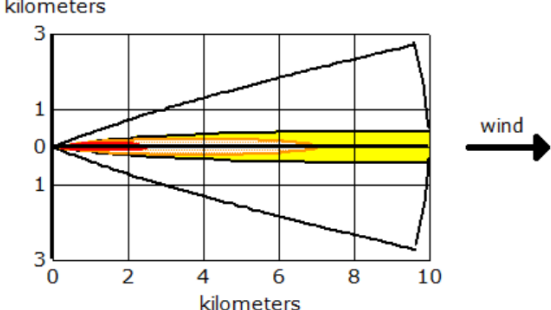
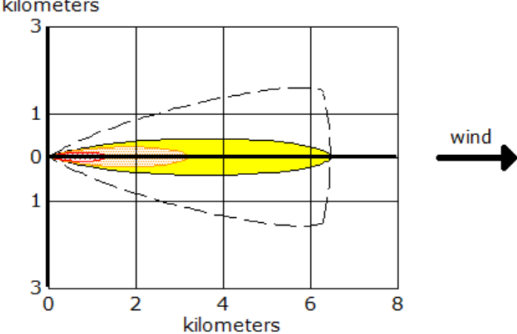
a. For 160 KL

Ammonia Bullet (150 Ton): Toxic Vapor cloud due to 10 mm leakage		
Wind Speed: 1 m/s Weather Class : F	Wind Speed: 2 m/s Weather Class : F	Wind Speed: 3 m/s Weather Class : D
THREAT ZONE: Model Run: Heavy Gas Red : 194 meters --- (1500 ppm = ERPG-3) Orange: 788 meters --- (150 ppm = ERPG-2) Yellow: 2.6 kilometers --- (25 ppm = ERPG-1)	THREAT ZONE: Model Run: Heavy Gas Red : 156 meters --- (1500 ppm = ERPG-3) Orange: 727 meters --- (150 ppm = ERPG-2) Yellow: 2.5 kilometers --- (25 ppm = ERPG-1)	THREAT ZONE: Model Run: Heavy Gas Red : 129 meters --- (1500 ppm = ERPG-3) Orange: 557 meters --- (150 ppm = ERPG-2) Yellow: 1.5 kilometers --- (25 ppm = ERPG-1)
 greater than 1500 ppm (ERPG-3) greater than 150 ppm (ERPG-2) greater than 25 ppm (ERPG-1) wind direction confidence lines	 greater than 1500 ppm (ERPG-3) greater than 150 ppm (ERPG-2) greater than 25 ppm (ERPG-1) wind direction confidence lines	 greater than 1500 ppm (ERPG-3) greater than 150 ppm (ERPG-2) greater than 25 ppm (ERPG-1) wind direction confidence lines

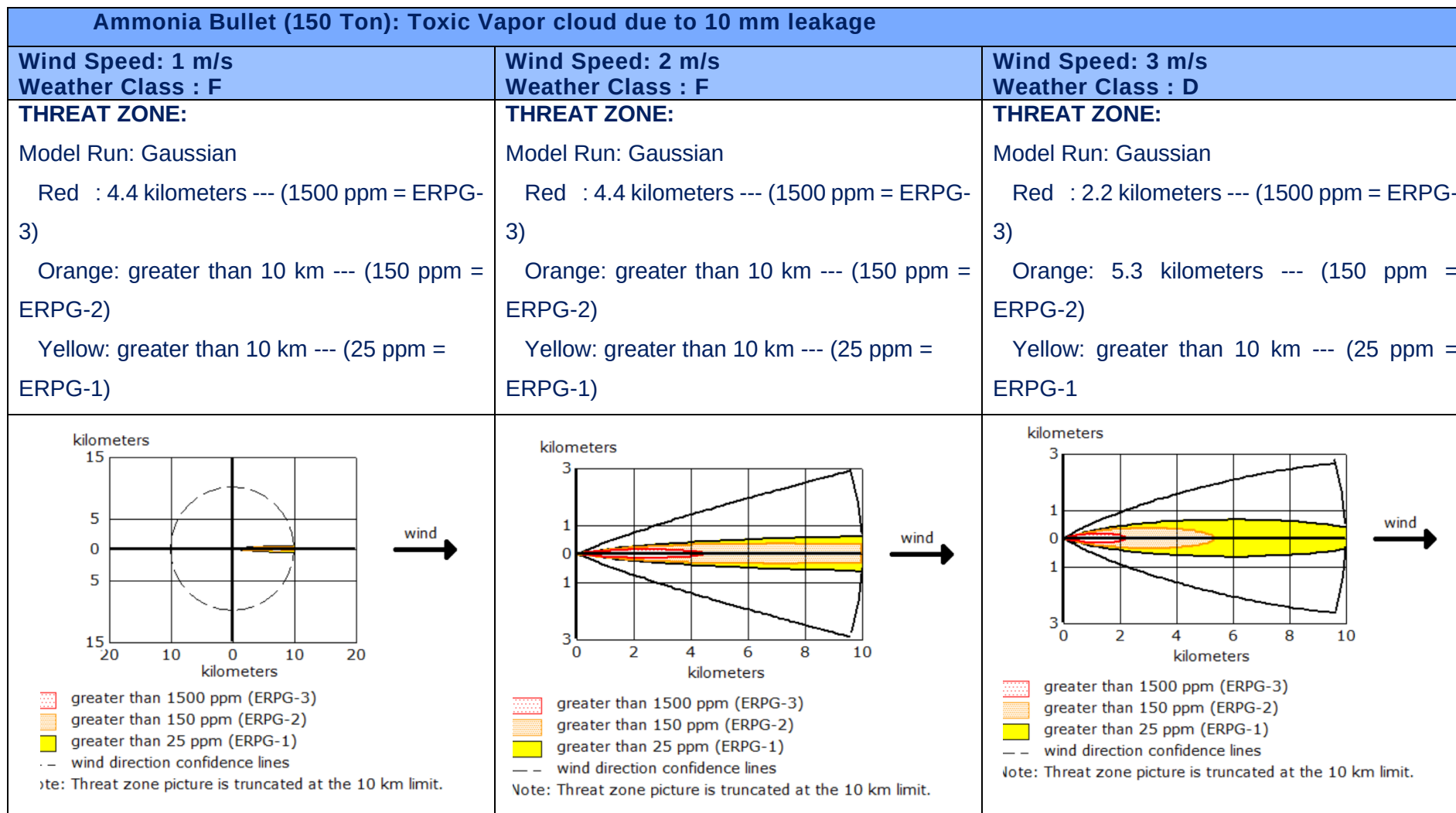
b. For 155 KL

Ammonia Bullet (150 Ton): Toxic Vapor cloud due to 10 mm leakage		
Wind Speed: 1 m/s Weather Class : F	Wind Speed: 2 m/s Weather Class : F	Wind Speed: 3 m/s Weather Class : D
THREAT ZONE: Model Run: Gaussian Red : 6.3 kilometers --- (300 ppm = IDLH) Orange: 9.3 kilometers --- (160 ppm = AEGL-2 [60min]) Yellow: greater than 10 km --- (30 ppm = AEGL-1 [60 min])	THREAT ZONE: Model Run: Gaussian Red : 3.9 kilometers --- (300 ppm = IDLH) Orange: 6.2 kilometers --- (160 ppm = AEGL-2 [60min]) Yellow: greater than 10 km --- (30 ppm = AEGL-1 [60 min])	THREAT ZONE: Model Run: Gaussian Red : 1.1 kilometers --- (300 ppm = IDLH) Orange: 1.5 kilometers --- (160 ppm = AEGL-2 [60 min]) Yellow: 4.1 kilometers --- (30 ppm = AEGL-1 [60 min])
 greater than 300 ppm (IDLH) greater than 160 ppm (AEGL-2 [60 min]) greater than 30 ppm (AEGL-1 [60 min]) --- wind direction confidence lines Note: Threat zone picture is truncated at the 10 km limit.	 greater than 300 ppm (IDLH) greater than 160 ppm (AEGL-2 [60 min]) greater than 30 ppm (AEGL-1 [60 min]) --- wind direction confidence lines Note: Threat zone picture is truncated at the 10 km limit.	 greater than 300 ppm (IDLH) greater than 160 ppm (AEGL-2 [60 min]) greater than 30 ppm (AEGL-1 [60 min]) --- wind direction confidence lines

c. For 110 KL

Ammonia Bullet (150 Ton): Toxic Vapor cloud due to 10 mm leakage		
Wind Speed: 1 m/s Weather Class : F	Wind Speed: 2 m/s Weather Class : F	Wind Speed: 3 m/s Weather Class : D
THREAT ZONE: Model Run: Gaussian Red: 2.5 kilometers --- (1500 ppm = ERPG-3) Orange: 7.0 kilometers --- (150 ppm = ERPG-2) Yellow: greater than 10 km --- (25 ppm = ERPG-1)	THREAT ZONE: Model Run: Gaussian Red : 2.5 kilometers --- (1500 ppm = ERPG-3) Orange: 7.0 kilometers --- (150 ppm = ERPG-2) Yellow: greater than 10 km --- (25 ppm = ERPG-1)	THREAT ZONE: Model Run: Gaussian Red : 1.3 kilometers --- (1500 ppm = ERPG-3) Orange: 3.2 kilometers --- (150 ppm = ERPG-2) Yellow: 6.5 kilometers --- (25 ppm = ERPG-1)
 greater than 1500 ppm (ERPG-3) greater than 150 ppm (ERPG-2) greater than 25 ppm (ERPG-1) --- wind direction confidence lines Note: Threat zone picture is truncated at the 10 km limit.	 greater than 1500 ppm (ERPG-3) greater than 150 ppm (ERPG-2) greater than 25 ppm (ERPG-1) --- wind direction confidence lines Note: Threat zone picture is truncated at the 10 km limit.	 greater than 1500 ppm (ERPG-3) greater than 150 ppm (ERPG-2) greater than 25 ppm (ERPG-1) --- wind direction confidence lines Note: Threat zone picture is truncated at the 10 km limit.

d. For 35 KL



6. ERDS FOR SULFUR DIOXIDE

Formula: SO₂

Colourless gas with sharp

pungent odour

Flammable:	Non-flammable
Flash Point:	N/A
LEL- UEL:	NA
Toxic:	Yes
IDLH:	100PPM
TLV:	5PPM

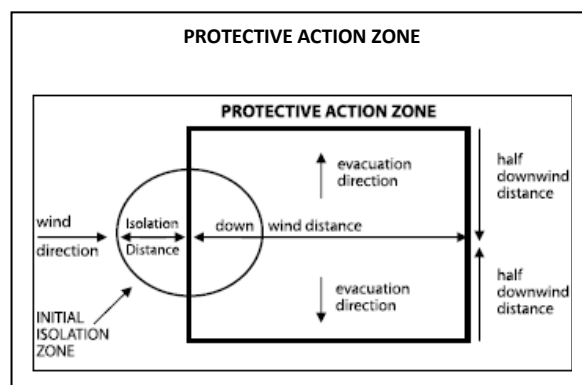
I. General Response Action

- On-SITE:
- Most metals are corroded by this product in the presence of moisture. Systems should be kept free of moisture. Purge system with dry inert gas (e.g. helium or nitrogen) before this product is introduced and when system is out of service. Carbon steel, stainless steel, Monel, or copper are suitable materials of construction for use when no moisture is present
- Safety glasses and face shield.
- Use SCBA or positive pressure air line with mask and escape pack in areas where concentration is unknown or above the exposure limits.
- Leather gloves, safety shoes, and safety glasses for handling cylinders. Acid resistant gloves and splash suit when connecting, disconnecting, or opening cylinders.

II. Evacuation Zone Dimensions

Sr. No	Mass Of Release	Approx. Valnerable Distance (M) (In The Direction Of Wind)	Approx. Time To Reach Max. Vulnerable Dist. (Min)
1	5	622	4
2	10	3100	15

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III. Fire Nonflammable Substance

Suggested Action:

- Keep the containers cool by spraying water exposed to heat or flame.

- Solubility of sulphur Dioxide in water is fairly large but water should not be put on leaking cylinder. Otherwise the leakage will be increased due to corrosion.
- It can be neutralised with dil Caustic Soln.
- Do not expose cylinder to direct sunlight or heat.

IV. Medical : Danger

- **EYE CONTACT:** Immediately flush eyes with plenty of water for at least 15 minutes. Get immediate medical attention.
- **INHALATION:** Move exposed personnel to uncontaminated area. If not breathing, administer artificial respiration. If breathing is difficult, administer oxygen. Obtain prompt medical attention and continue with administration of oxygen. If airway obstruction occurs the placement of an artificial airway by an emergency medical technician may be necessary.
- **SKIN CONTACT:** Immediately flush with large amounts of water. Remove contaminated clothing, including shoes, after flushing has begun. Applications of ice water compresses for 30 minutes

Suggested Action:

- Immediately remove the victim from the affected area & take him to the nearest shower.
- Immediately administer medical oxygen under low pressure using a pulmotor.

Antidotes: N.A.

IV. Pollution ::

Can cause significant air pollution and cause damage to flora and fauna and largely environment.

IV. Chemical Information ::

- A) Chemical Reactivity:
 - Reactivity with Water:
 - $\text{SO}_2 + \text{H}_2\text{O} \rightarrow \text{H}_2\text{SO}_3$
 - SO_2 react with water to form Sulphurous acid, which is unstable towards heat
- B) Reactivity with Common Material:
 - SO_2 in aqueous soln. is an outstanding oxidising / reducing agent
- C) Polymerisation:
 - Hazardous polymerization will not occur.
- D) Combustion Products: NA
- E) Properties:
 - Physical State at 15 Deg. C and 1 Atm. Pressure: Gas
 - TLV: 5 PPM
 - IDLH: 100 ppm
 - Molecular weight: 64.06
 - Boiling Points: -10 Deg C at 1 atm
 - Freezing Points: -75.5 Deg C
 - Vapour Pressure: 2,538 mm Hg @ 25° C
 - Vapour Density: (air=1) 2.264 @ 0° C
 - Liquid Density: (Water=1): 1.45 @ -10° C
 - Liquid Vapour conversion:

7. ERDS FOR S. K. O.

Formula:

White (or black) polymer material in a variety of Shapes, may also be in a black pan, Solid, No odor

Flammable:	Non-flammable
Flash Point:	NA
LEL- UEL:	NA
Toxic:	Highly Toxic
IDLH:	-- PPM
TLV:	0.05 mg/m ³

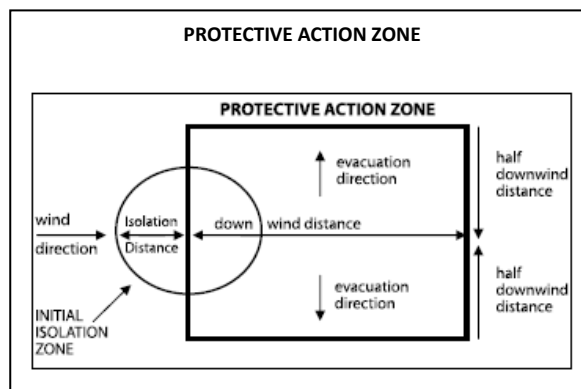
I. General Response Action

- On-Site:
- Store in a cool, dry place
- No precautions noted
- **Eyes:** Safety glasses with side shields is a good industrial practice
- **Respirator:** Not required.
- **Gloves:** Not normally required. However, use of cloth, canvas or
- Leather gloves is a good industrial practice.
- **Other:** None required.

II. Evacuation Zone Dimensions

Sr. No	Mass of Release (kl)	Approx. Valnerable Distance (km) (in the direction of wind)	Approx. time to reach Max. Vulnerable Dist. (Min)
1	5639	3.7	3

* The figures in above table are not true values but arbitrary for demonstrating the concept (The above values are reference values for a particular Maximum Credible Loss Scenario and are to be used only in absence of any other values, only as an aid to form a judgement)



III. Fire

Liquid formulations containing organic solvents may be flammable. Gives off irritating or toxic fumes (or gases) in a fire.

Suggested Action:

Absorbents do not render liquids nonflammable, neutral or less Hazardous. The container can be hazardous when empty. Follow label Cautions even after the container is empty. Do not re-use empty Containers for food, clothing or products for humans or animal Consumption, or where skin contact can occur.

V. Medical : Danger

Eye Contact: May cause irritation.

Ingestion: No hazard in normal use of product

Inhalation: No hazard in normal use of product

Skin Contact: Not applicable

Chronic: Not applicable

Suggested Action:

Fresh air, rest. Artificial respiration may be needed. Refer for medical attention.

First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.

Rinse mouth. Induce vomiting. Give a slurry of activated charcoal in water to drink. Refer for medical attention immediately.

Remove contaminated clothes. Rinse and then wash skin with water and soap. Refer for medical attention.

Antidotes: --

Pollution :

The substance is very toxic to aquatic organisms. This substance may be hazardous in the environment; special attention should be given to birds and honey bees. This substance does enter the environment under normal use. Great care, however, should be given to avoid any additional release, e.g. through inappropriate disposal.

in the environment; special attention should be given to birds and honey bees. This substance does enter the environment under normal use. Great care, however, should be given to avoid any additional release, e.g. through inappropriate disposal.

V. Chemical Information ::

A) Chemical Reactivity:

Reactivity with Water: Water insoluble

B) Reactivity with Common Material: Strong oxidizing agents may degrade, Product over an extended period of time.

C) Polymerisation:

Will not polymerize.

D) Combustion Products:

When heated, it may emit toxic fumes Under fire and oxygen-lean conditions may cause monoxide and irritating smoke.

Physical State at 15 Deg. C and 1 Atm. Pressure: Solid

- TLV: -- -ppm
- IDLH: --ppm
- Molecular weight: 299.7
- Boiling Points: NA
- Freezing Points: 160° C
- Vapour Pressure: NA
- Vapour Density: NA
- Liquid Density: (Water=1): 0.9
- Liquid Vapour conversion:

8. ERDS FOR NAPHTHA

Formula: Varies with grade molecular

A cleared light coloured or colourless or reddish-brown mobile liquid with an aromatic odour.

Flammable:	Liquid YES
Flash Point:	-40.°C closed up
LEL- UEL:	1 % & 7.6 %
Toxic:	
IDLH:	1000 PPM
TLV:	300 PPM

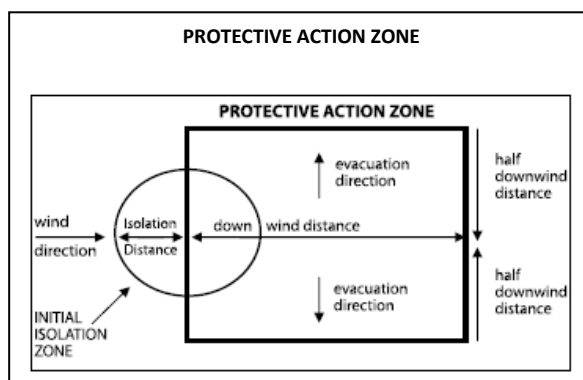
I. General Response Action

- On-Site: Remove all ignition sources, wear SCBA.
- Restrict those not wearing PPE & who are not involved in clean up from entering area avoid skin contact.
- Stop leak if it can be done without risk.
- Provide maximum explosion proof ventilation.
- PPEs. Polyrimly alcohol gloves, chemical goggles or face mask, protective apron if splash is likely.

II. Evacuation Zone Dimensions

Sr. No	Mass of Release (Tonners)	Approx. Valnerable Distance (m) (in the direction of wind)	Approx. time to reach Max. Vulnerable Dist. (Min)
1	5	18	2
2	10	1800	10

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III. Fire: Flammable liquid

Suggested Action:

- Use alcohol foam, DCP or CO₂ extinguisher.
- water may be ineffective and may actually spread fire.
- A water spray may be used to knock down vapours.
- Isolate fire area were SCBA.
- Poisonous gas are produce in fire use water spray cool fire exposed containers long after fire is out

- use non sparking tools
- dangerous fire & explosion hazard when exposed to heat or flame.
- container may explode in fire and there is a possibility of BLEVE.

IV. Medical ::

- **Inhalation:**
 - Irritation in the eyes, nose, throat & mucous membranes of the respiratory tract.
 - Also affect CNS with dizziness, nausea, headache, anesthesia, euphoria, cardiac rhythm disturbances, respiratory & death.
- **Ingestion:**
 - May cause nausea, vomiting, headache, dizziness, gastric.
- **Skin & Eyes:**
 - Irritation with drying, redness,
 - may lead to contact dermatitis

Suggested Action:

- **Inhalation:**
 - remove the victim from exposures provide respiratory assistance
 - seek medical attention immediately do not induce vomiting due to possible aspiration of vomitus/chemical into the lungs causes chemical pneumonitis.
- **Eyes**
 - Do not allow victim to keep eyes tightly shut.
 - Flush immediately with water for 15 mins
 - seek medical attention
- **Skin:**
 - Remove all contaminated clothing including shoes, immediately wash area with Good amount of soap & water.
 - seek medical attention

Antidotes: N.A

V. Pollution :

VI. Chemical Information :

- Chemical Reactivity: Insoluble in water freely soluble in Benzene, toluene & xylene.
- Reactivity with Common Material: Strong oxidizers (such as chlorine, fluorine, bromine & peroxides)
- Polymerisation: will not occur under normal condition.
- Combustion Products: When heated to decomposition, emits toxic and acrid such as oxides of carbon.
- Properties:
 - Physical State at 15 Deg. C and 1 Atm. Pressure: Gas
 - TLV: 300 PPM
 - IDLH: 1000PPM
 - Molecular weight. 110 (approx.)
 - Boiling Points: - 38-138 Deg C
 - Freezing Points: - Deg C
 - Vapour Pressure: 20 mm Hg @ 21 deg C
 - Vapour Density: (air=1). 73.2
 - Liquid Density: (Water=1): 20@ -34. Deg C

9. ERDS FOR LNG

Formula:

Colourless gas odourless when gas.

Flammable: Flammable

Flash Point:

LEL- UEL: 5 % & 15 %

Toxic: Nontoxic by inhalation

IDLH: PPM

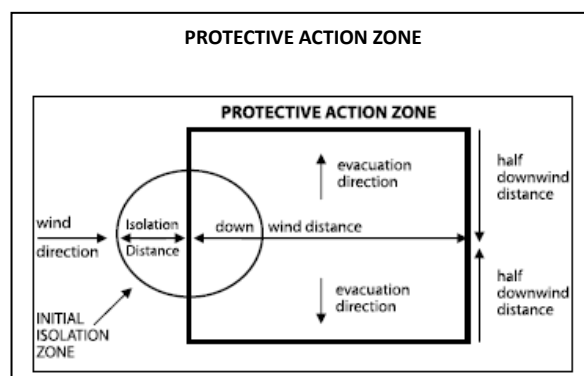
TLV: PPM

I. General Response Action

- On-SITE: Stop the sources of release if safe to do so.
- Do not flush down on drainage systems.
- Do not touch spilled liquid.
- Consider the use of water spray to dispose vapour isolate the area until gas has dispersed ventilated & gas

II. Evacuation Zone Dimensions

Sr. No	Mass of Release (Tonners)	Approx. Valnerable Distance (m) (in the direction of wind)	Approx. time to reach Max. Vulnerable Dist. (Min)
1	5		
2	10		



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III. Fire

Suggested Action:

IV. Medical ::

- Skin:

- Vapours are not irritating direct contact to the skin or mucous membranes with liquified product or cold vapour may causes freeze burns and frostbite signs of frostbite include a change in the colour of skin to grey or white, possibly followed by blistering skin may become inflamed and painful.

- Ingestion:

- is unlikely contact of mucous membranes with liquified product may causes frostbite or freeze burns.

- Inhalation:

- This product is considered to be non toxic by inhalation.
- Inhalation of high concentrations may causes central nervous system depression such as dizziness, drowsiness, headache and similar narcotic symptoms but no long term effects.

- Numbness a “chilly” feeling and vomiting have been reported from accidental exposure to high concentrations.

Suggested Action:

- **Eyes :**

- In case of frostbite or freeze burns gently soak the eyes with cool to lake warm water.
- Do not wash the eyes with hot water.
- Open eyelids wide to allow liquid to evaporate.

- **Skin :**

- Remove all contaminated clothing flush affected area with cool to lake warm water.
- Rewarming the exposed area may be performed.
- Do not use hot water, seek immediate attention if blistering, tissue freezing or frostbite has occurred.

- **Inhalation:**

- Remove person to fresh air, if the person is not breathing, give artificial respiration.
- If breathing is difficult, give oxygen once breathing is resumed if trained to do so seek medical attention immediately.

- **Ingestion:**

- Do not induce vomiting because of danger breathing liquid into lungs.

Antidotes: N.A

V. Pollution ::

VI. Chemical Information ::

A) Chemical Reactivity:

Reactivity with Water: Sparingly water soluble

B) Reactivity with Common Material: Keep away from strong oxidizers.

C) Polymerisation: will not occur under.

D) Combustion Products: carbon monoxide, carbon dioxide & non-combustible hydrocarbons

E) Properties:

- Physical State at 15 Deg. C and 1 Atm. Pressure: Gas
- TLV: PPM
- IDLH: PPM
- Molecular weight.
- Boiling Points: -162 Deg C
- Freezing Points: - Deg C
- Vapour Pressure: 40 mm Hg @ -86 deg C
- Vapour Density: (air=1). 0.6
- Liquid Density: (Water=1): 0.4 @ 164 Deg C
- Liquid Vapour conversion:1:

10. ERDS FOR PROPYLENE

Formula: CH₂CHCH₃

Colorless Gas (Liquid under pressure),

Mild Olefin odor

Flammable: Extremely Flammable Gas

Flash Point: -108 °C

LEL- UEL: 2.0% - 11.1%

Toxic: simple asphyxiant

IDLH: --PPM

TLV: 50PPM

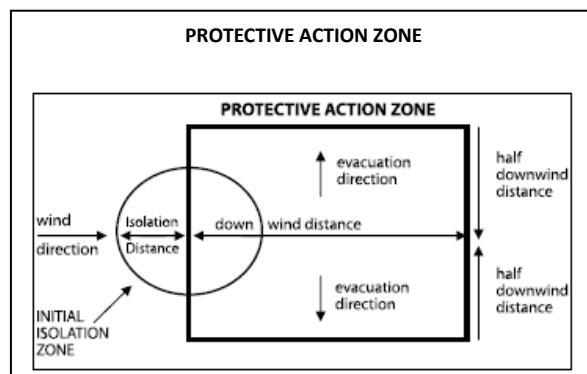
I. General Response Action

- On-SITE:
- Keep locked up Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/vapor/spray. In case of insufficient ventilation, wear suitable respiratory equipment if ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes Safety goggles or glasses plus a face shield
- Where there is a possibility of liquid contact, wear splash-proof safety goggles and face shield
- Where contact with liquid may occur, wear apron, face shield, and cold-impervious, insulating gloves.

II. Evacuation Zone Dimensions

Sr. No	Mass of Release (Tonners)	Approx. Valnerable Distance (m) (in the direction of wind)	Approx. time to reach Max. Vulnerable Dist. (Min)
1	5		
2	10		

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III. Fire

Liquid releases flammable vapors at well below ambient temperatures and readily forms a flammable mixture with air. Dangerous fire and explosion hazard when exposed to heat, sparks or flame. Vapors are heavier than air and may travel long distances to a point of ignition and flash back. Container may explode in heat or fire. Runoff to sewer may cause fire or explosion hazard.

Suggested Action:

EXTINGUISHING MEDIA

Dry chemical, carbon dioxide, Halon or water. However, fire should not be extinguished unless flow of gas can be immediately stopped.

Fire Fighting Instructions

Gas fires should not be extinguished unless flow of gas can be immediately stopped. Shut off gas source and allow gas to burn out. If spill or leak has not ignited, determine if water spray may assist in dispersing gas or vapor to protect personnel attempting to stop leak. Use water to cool equipment, surfaces and containers exposed to fire and excessive heat. For large fire the use of unmanned hose holders or monitor nozzles may be advantageous to further minimize personnel exposure. Isolate area, particularly around ends of storage vessels. Let vessel, tank car or container burn unless leak can be stopped. Withdraw immediately in the event of a rising sound from a venting safety device.

Large fires typically require specially trained personnel and equipment to isolate and extinguish the fire.

IV. Medical : Danger

EYES

In case of contact with eyes, immediately flush with clean, low-pressure water for at least 15 min. Hold eyelids open to ensure adequate flushing. Seek medical attention.

SKIN

Remove contaminated clothing. Wash contaminated areas thoroughly with soap and water or waterless hand cleanser. Obtain medical attention if irritation or redness develops.

INGESTION

Risk of ingestion is extremely low. However, in cases of ingestion or oral exposure, seek immediate medical attention.

INHALATION

Remove person to fresh air. If person is not breathing, provide artificial respiration. If necessary, provide additional oxygen once breathing is restored if trained to do so. Seek medical attention immediately

Antidotes: N.A.

VI. Pollution ::

Liquid release is only expected to cause localized, non-persistent environmental damage, such as freezing. Biodegradation of this product may occur in soil and water. Volatilization is expected to be the most important removal process in soil and water. This product is expected to exist entirely in the vapor phase in ambient air.

VII. Chemical Information ::

A) Chemical Reactivity:

Reactivity with Water:

Slightly soluble in cold water.

B) Reactivity with Common Material:

Reacts vigorously with oxidizing agents. With nitrogen dioxide, extremely unstable nitrogen compounds are formed.

C) Polymerisation:

Will not occur.

D) Combustion Products: Carbon monoxide,

Properties:

- Physical State at 15 Deg. C and 1 Atm. Pressure: Gas
- TLV: 50 PPM
- IDLH: -- ppm
- Molecular weight: 104.14
- Boiling Points: -47 °C
- Freezing Points: -30.6°C
- Vapour Pressure: 21.1 °C)
- Vapour Density: (air=1) 1.5 @ (0 °C)
- Liquid Density: (Water=1): 0.581 @(0 °C)
- Liquid Vapour conversion:

11.ERDS FOR VINYL CHLORIDE (Chloroethylene)

Formula: C₂H₃Cl

Colorless gas with a pleasant, sweet odor

Flammable:	Highly flammable
Flash Point:	-79.15°C
LEL- UEL:	4% - 22%
Toxic:	Yes
IDLH:	--PPM
TLV:	1 PPM

I. General Response Action

- On-SITE:
- Use only with adequate ventilation. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Wash thoroughly after handling. High pressure gas.
- Do not puncture or incinerate container. Use equipment rated for cylinder pressure.
- Close valve after each use and when empty. Do not ingest. Keep container closed. Keep away from heat, sparks and flame. To avoid fire, eliminate ignition sources. Protect cylinders from physical damage; do not drag, roll, slide, or drop. Use a suitable hand truck for cylinder movement.
- Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Chemical-resistant, impervious gloves complying with an approved standard should be
- Worn at all times when handling chemical products if a risk assessment indicates this is necessary.
- Self-contained breathing apparatus (SCBA)

II. Evacuation Zone Dimensions

Sr. No	Mass of Release (Tonners)	Approx. Valnerable Distance (m) (in the direction of wind)	Approx. time to reach Max. Vulnerable Dist. (Min)
1	5		
2	10		

* The figures in above table are not true values but arbitrary for demonstrating the concept (The above values are reference values for a particular Maximum Credible Loss Scenario and are to be used only in absence of any other values, only as an aid to form a judgement)

III. Fire

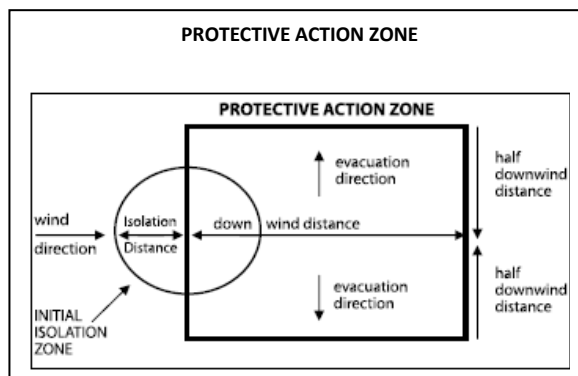
Flammable

Suggested Action:

- In case of fire, use water spray (fog), foam or dry chemical.
- In case of fire, allow gas to burn if flow cannot be shut off immediately. Apply water from a safe distance to cool container and protect surrounding area. If involved in fire, shut off flow immediately if it can be done without risk. Contains gas under pressure. Flammable gas. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion.
- Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Medical : Danger

- **EYE:** Irritating to eyes.



Skin: Irritating to skin. Medical attention.

Inhalation: Acts as a simple asphyxiant

Ingestion: Ingestion is not a normal route of exposure for gases

Suggested Action:

-Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

- Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.

- In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. To avoid the risk of static discharges and gas ignition, soak contaminated clothing thoroughly with water before removing it.

- Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.

- Try to warm up the frozen tissues and seek medical attention

Antidotes: N.A.

IV. Pollution ::

No known significant effects or critical hazards

V. Chemical Information ::

A) Chemical Reactivity:

Reactivity with Water:

It is highly soluble in water at 25°C

B) Reactivity with Common Material:

Extremely reactive or incompatible with the following materials: oxidizing materials.

C) Polymerisation:

Hazardous polymerization will not occur.

D) Combustion Products:

Decomposition products may include the following materials:

Carbon dioxide

Carbon monoxide

Halogenated compounds

- Physical State at 15 Deg. C and 1 Atm. Pressure: Gas

- TLV: 5 PPM

- IDLH: 100 ppm

- Molecular weight: 62.5

- Boiling Points: -13.8°C

- Freezing Points: -160°C

- Vapour Pressure: 21.1°C

- Vapour Density: 2.21

- Liquid Density: (Water=1): 2.22

- Liquid Vapour conversion:

12. ERDS FOR ETHYLENE DICHLORIDE

Formula: $C_2H_4Cl_2$

PH. STATUS: LIQUID

Colourless pleasant, sweet odour.

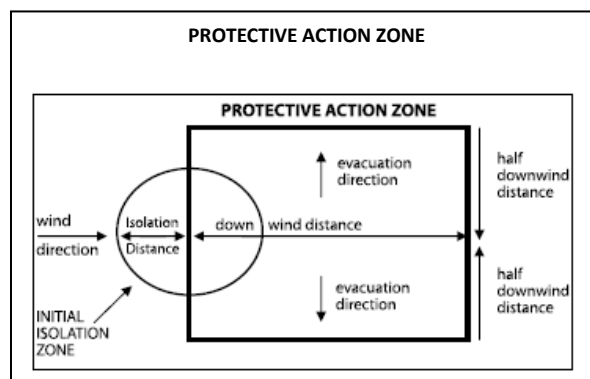
Flammable:	YES
Flash Point:	12.7°C
LEL- UEL:	6.2% & 15.9%
Toxic:	-
IDLH:	PPM
TLV:	10 PPM

I. General Response Action

- On-SITE: Avoid contact with liquid & vapour.
- PPEs. Safety goggles/face shield
- SCBA.
- protective over clothing
- hand gloves & shoes.

II. Evacuation Zone Dimensions

Sr. No	Mass of Release (Tonners)	Approx. Valnerable Distance (m) (in the direction of wind)	Approx. time to reach Max. Vulnerable Dist. (Min)
1	5		
2	10		



III. Fire

- Flammable Liquid.

Suggested Action:

- keep the container cool by spraying water if exposed to fire.
- poisonous gases are produce in fire
- **If spills** : use absorbant paper to pick up spilled material.
- Seal all the waste in vapour tight plastic bags for eventural disposal.

IV. Medical ::

- **Routes of entry:** Inhalation, Ingestion, eyes & Skin.
- Inhalation causes nausea, drunkeness, depression, contact with eyes causes injury.
- prolonged contact with skin causes burns a humur poison by ingestion.

Suggested Action:

- Remove the victim to fresh air area.
- Keep him warm & quiet.
- If breathing has stopped give artificial respiration.
- Remove the contaminated clothing with soap & water flush with plenty water for 15 mins.

Antidotes: N.A.

V. Pollution ::

I. Chemical Information ::

A) Chemical Reactivity:

Reactivity with Water: Not soluble.

B) Reactivity with Common Material: can react violently with oxidizing materials and emit fumes of vinyl chloride & HCL.

C) Polymerisation: Hazard polymerisation will not occur

D) Combustion Products: emit highly toxic fumes of C_1 and phosgene.

E) Properties:

- Physical State at 15 Deg. C and 1 Atm. Pressure: Gas
- TLV: 10 PPM
- IDLH: ppm
- Molecular weight: 99
- Boiling Points: °C
- Freezing Points: - -37.5°C
- Vapour Pressure: 100 mm Hg @ 21.9°C
- Vapour Density: (air=1)
- Liquid Density: (Water=1): 1.25 @ -34°C
- Liquid Vapour conversion: 1

13.

a. ERDS FOR CHLORINE (Tonner)

Formula: CL_2

Yellow/Green Colour, Pungent odour, Corrosive (Chlorine gas is heavier than air and dispersion low.

Flammable:	NO
Flash Point:	N.A.
LEL- UEL:	N.A.
Toxic:	YES
IDLH:	10 PPM
TLV:	1 PPM

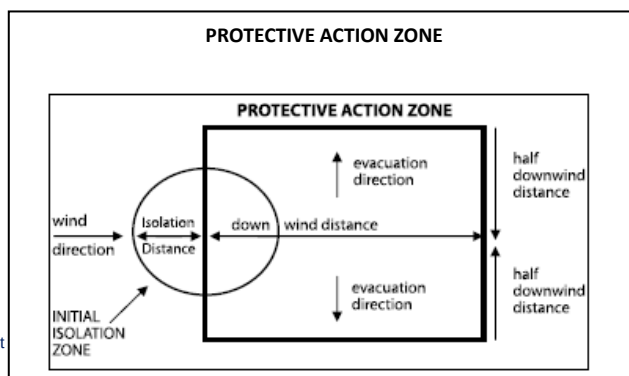
II. General Response Action

- On-SITE: Stop chlorine leakage, if possible safety.
- Wear Self-contained Breathing Apparatus (SCBA) and use Chlorine Emergency kit.
- INFORM people to stay confined indoors with doors and windows tightly shut and ventilators and ACs off
- SHELTER AND CONFINE unhoused people to an indoor area outside likely cloud travel path.
- Use water spray/fog to disperse and dilute vapors.
- Collect runoff for disposal as potentially hazardous waste

V. Evacuation Zone Dimensions

Sr. No	Mass of Release (Tonners)	Approx. Valnerable Distance (m) (in the direction of wind)	Approx. time to reach Max. Vulnerable Dist. (Min)
1	1	3000*	5*
2	5	5000*	8*
3	10	6000*	10

* The figures in above table are not true values but arbitrary for demonstrating the concept (The above values are reference values for a particular Maximum Credible Loss Scenario and are to be used only in absence of any other values, only as an aid to form a judgement)



VI. Fire

- Chlorine is non-flammable, so the cascading effect in case of fire explosion is absent. Hence, no Domino Effect.
- However, it may ignite or explode on contact with combustible materials.

Suggested Action:

- Use water, spray/fog as extinguishing medium.
- Do not use dry chemicals, carbon dioxide or halogenated extinguishing agents.
- For large fires-Flood with fine water spray

IV. Medical

Dangers

- Poisonous if inhaled. Fatality may be caused due to inhalation when concentration in air is greater than 10 ppm (IDLH)
- Low level exposures to Chlorine in air will cause eye/skin/airway irritation, sore throat and cough.
- At higher levels of exposure, signs and symptoms may progress to chest tightness, wheezing, dyspnoea, and bronchospasm.

-Low level exposures to Chlorine gas will cause eye and skin irritation. Higher exposures may result in severe chemical burns or ulcerations. Exposure to compressed liquid Chlorine may cause frostbite of the skin and eyes.

Suggested Actions

- Inhalational Chlorine poisoning can be treated with supportive care and can include administration of humidified oxygen, bronchodilators and airway management.
- Pulmonary oedema may be delayed and, therefore, patients should be monitored for up to 24 hours following severe inhalation exposures.

Antidotes: N.A.

V. Pollution

A leak of Chlorine vapour poses a significant air pollution hazard.

Chlorine is heavier than air and dispersion is slow. Hence, state of emergency will last longer.

VI. Chemical Information

A] Chemical Reactivity

Reactivity with Water:

Chlorine is sparingly soluble in water. The water solubility of Chlorine is 0.7% @ 20°C.

Reactivity with Common Materials

Chlorine is aggressive to certain non-metallic material like natural rubber and many plastics; therefore equipment and hoses must be suitable for Chlorine.

Chlorine is chemically stable. It is incompatible with strong oxidizers.

It does not react with common materials but may react with oxidizing materials.

Olefinic impurities may lead to narcotic effect or it may act like a simple Asphyxiate.

Polymerization: Hazardous polymerization will not occur

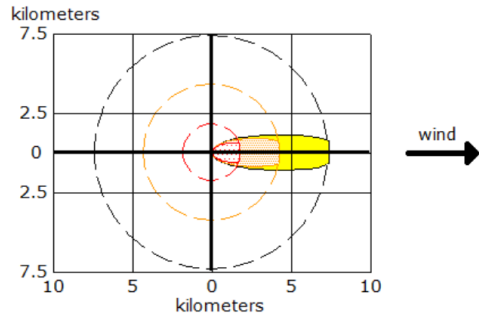
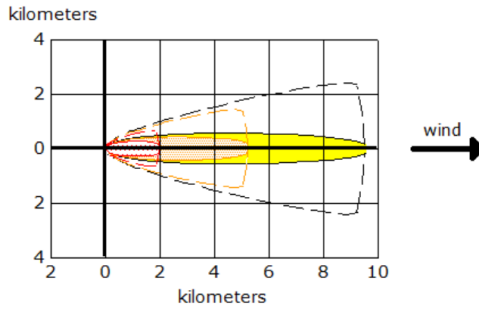
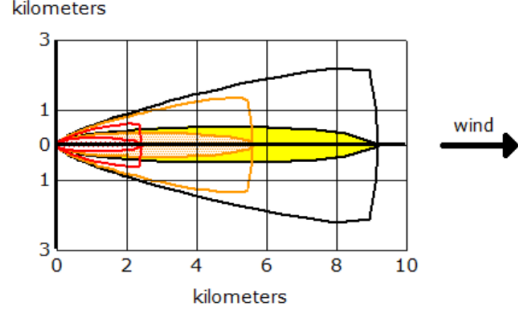
B] Combustion Products

Not Applicable since Chlorine is not flammable.

Properties

- Physical State At 15°C And 1atm.: Gas
- TLV: 1 Ppm
- DIh:10 Ppm
- Molecular Weight: 70.906
- Boiling Point: -34°C
- Freezing Point: -101°C
- Vapor Pressure: 5168 MmHg @ 21°C
- Vapor Density (Air=1): 2.49
- Liquid Density (Water=1): 1.56 @ -34°C
- Liquid Vapor Conversion

1. Chlorine Bullet (100 m³): Toxic Area Vapour Cloud – 1 inch leakage from nozzle

Wind Speed: 1 m/s Weather Class: F	Wind Speed: 2 m/s Weather Class: F	Wind Speed: 3 m/s Weather Class: D
THREAT ZONE: Model Run: Heavy Gas Red : 1.8 kilometers --- (20 ppm = AEGL-3 [60 min]) Orange: 4.3 kilometers --- (2 ppm = AEGL-2 [60 min]) Yellow: 7.4 kilometers --- (0.5 ppm = AEGL-1 [60 min])	THREAT ZONE: Model Run: Heavy Gas Red : 1.8 kilometers --- (10 ppm = IDLH) Orange: 4.8 kilometers --- (2 ppm = AEGL-2 [60 min]) Yellow: greater than 10 kilometers --- (0.5 ppm = AEGL-1 [60 min])	Model Run: Heavy Gas Red : 2.4 kilometers --- (20 ppm = AEGL-3 [60 min]) Orange: 5.6 kilometers --- (2 ppm = AEGL-2 [60 min]) Yellow: 9.2 kilometers --- (0.5 ppm = AEGL-1 [60 min])
 greater than 20 ppm (AEGL-3 [60 min]) greater than 2 ppm (AEGL-2 [60 min]) greater than 0.5 ppm (AEGL-1 [60 min]) --- wind direction confidence lines	 greater than 20 ppm (AEGL-3 [60 min]) greater than 2 ppm (AEGL-2 [60 min]) greater than 0.5 ppm (AEGL-1 [60 min]) --- wind direction confidence lines	 greater than 20 ppm (AEGL-3 [60 min]) greater than 2 ppm (AEGL-2 [60 min]) greater than 0.5 ppm (AEGL-1 [60 min]) --- wind direction confidence lines

b. ERDS FOR CHLORINE (Tank)

Formula: Cl₂

Yellow/ Green Colour, Gas, Pungent Door, Corrosive (Chlorine gas is heavier than air and Dispersion is slow)

Flammable:	NO
Flash Point:	N/A
LEL- UEL:	N/A
Toxic:	Yes
IDLH:	10 PPM
TLV:	01

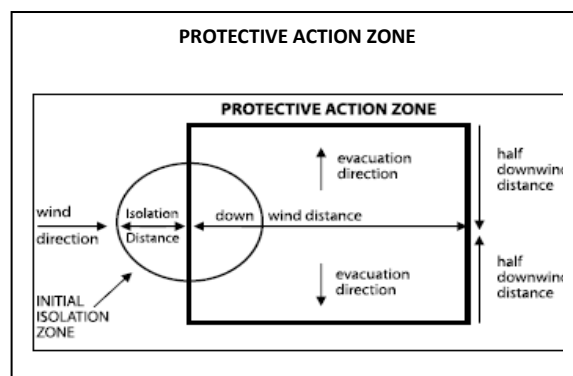
II. General Response Action

- On-SITE: Stop Chlorine Leakage, if possible, safely
- Wear self-contained Breathing Apparatus (SCBA) and use Chlorine emergency kit
- INFORM people to stay confined indoor with door & window tightly shut and ventilators & ACs off.
- SHELTER AND CONFINE un-housed people to an indoor area outside likely cloud travel path.
- Use water spray / fog to disperse and dilute vapours
- Collect runoff for disposal as potentially hazardous waste.

III. Evacuation Zone Dimensions

Sr.No	Mass Of Release	Approx. Valnerable Distance (M) (In The Direction Of Wind)	Approx. Time To Reach Max. Vulnerable Dist. (Min)
1	0.5	622	4
2	0.9	3100	15

* The figures in above table are not true values but arbitrary for demonstrating, the concept(The above values are reference values for a particular Maximum Credible Loss Scenario and are to be used only in absence of any other values, only as an aid to form a judgement)



IV. Fire

- Chlorine is non flammable, so the cascading effects in case of fire explosion is absent. Hence no Domino Effect.
- However, It may ignite or explode on contact with comustible materials.

Suggested Action:

- Use water spray / fog as extinguishing medium.
- Do not use dry chemicals, carbon dioxide or Halogenated extinguishing agents
- For Large Fires- Flood with fine water spray.

V. Medical ::

Danger

- Poisonous if inhaled. Fatality may be caused due to inhalation when concentration in air is greater than 10 PPM (IDLH)
- Low level exposure to chlorine in air will cause eye/ skin / airway irritation, sore throat, and cough.
- At higher levels of exposure, sign and symptoms may progress to chest tightness, wheezing, dyspnoea, and bronchospasm.
- Low level exposures to chlorine gas will cause eye and skin irritation. Higher exposures may result in severe chemical burns or ulcerations. Exposure to compressed liquid chlorine may cause frostbite of the skin and eyes.

Suggested Action:

- Inhalational chlorine poisoning can be treated with supportive care and can include administration of humidified oxygen, bronchodilators, and airway management.
- Pulmonary edema may be delayed and therefore patients should be monitored for up to 24 hours following severe inhalation exposures.

Antidotes: explained in plan .

VII. Pollution ::

- A leak of chlorine vapours poses a significant air pollution hazard. Chlorine is heavier than air and dispersion is slow. Hence state of emergency will last longer.

VIII. Chemical Information ::

A) Chemical Reactivity:

Reactivity with Water: Chlorine is sparingly soluble in water. The Water solubility of chlorine is 0.7% @ 20 > C.

B) Reactivity with Common Material:

Chlorine is aggressive to certain non-metallic material like natural rubber and many plastics, therefore equipment and hoses must be suitable for chlorine.

Chlorine is chemically stable. It is incompatible with Strong oxidizers.

It does not react with common material but may react with oxidizing material.

Olefine impurities may lead to narcotic effects, or it may act like a simple asphyxiant.

C) Polymerisation:

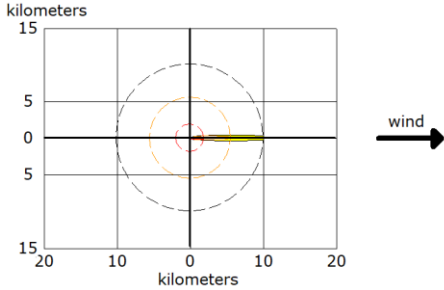
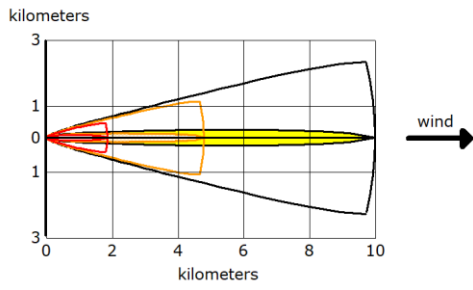
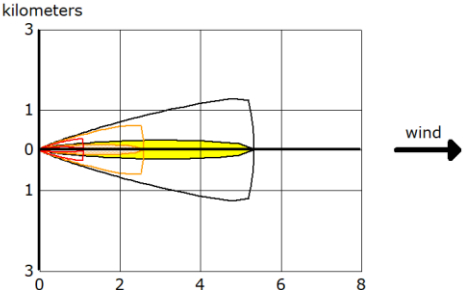
Hazardous polymerization will not occur.

D) Combustion Products: Not applicable since chlorine is not flammable gas.

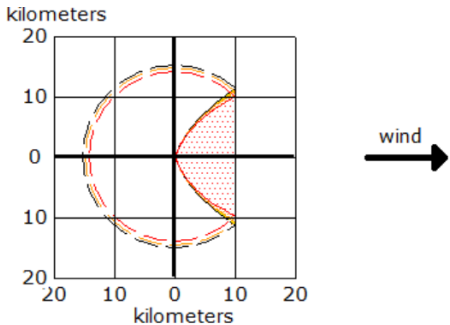
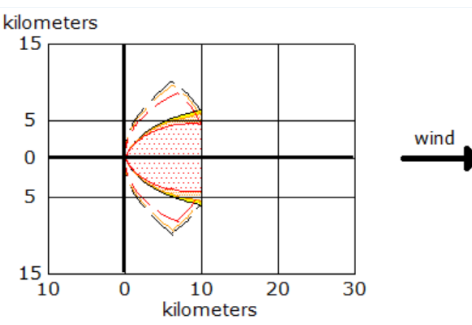
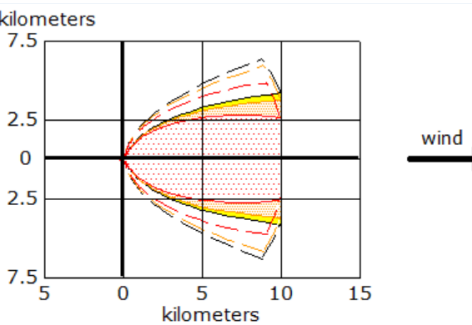
E) Properties:

- Physical State at 15 Deg. C and 1 Atm. Pressure: Gas
- TLV: 1 PPM
- IDLH: 10 ppm
- Molecular weight: 70.906
- Boiling Points: -34.0 Deg C
- Freezing Points: -101 Deg C
- Vapour Pressure: 5168 mm Hg @ 21 deg.c
- Vapour Density: (air=1) 2.49
- Liquid Density: (Water=1): 1.56 @ -34. Deg C
- Liquid Vapour conversion: 1:450

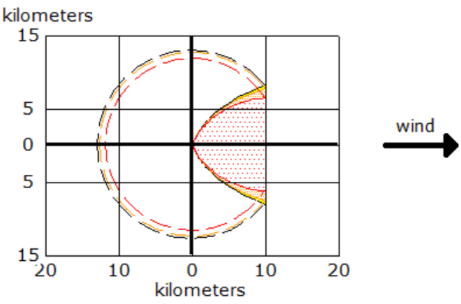
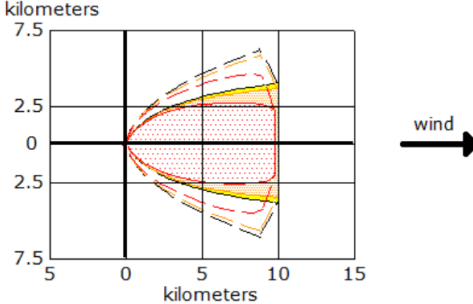
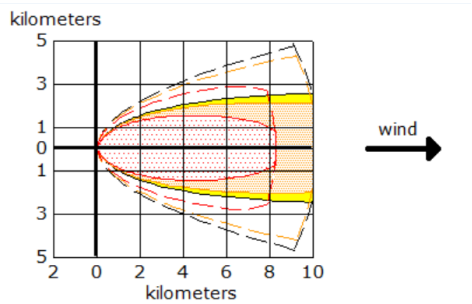
(I) Chlorine 100m³

2. Chlorine Bullet (100 m ³): Toxic Area Vapour Cloud – 1 inch leakage from nozzle		
Wind Speed: 1 m/s Weather Class: F	Wind Speed: 2 m/s Weather Class: F	Wind Speed: 3 m/s Weather Class: D
THREAT ZONE: Model Run: Heavy Gas Red : 1.9 kilometers --- (10 ppm = IDLH) Orange: 5.6 kilometers --- (2 ppm = AEGL-2 [60 min]) Yellow: greater than 10 kilometers --- (0.5 ppm = AEGL-1 [60 min])	THREAT ZONE: Model Run: Heavy Gas Red : 1.8 kilometers --- (10 ppm = IDLH) Orange: 4.8 kilometers --- (2 ppm = AEGL-2 [60 min]) Yellow: greater than 10 kilometers --- (0.5 ppm = AEGL-1 [60 min])	THREAT ZONE: Model Run: Heavy Gas Red : 1.1 kilometers --- (10 ppm = IDLH) Orange: 2.6 kilometers --- (2 ppm = AEGL-2 [60 min]) Yellow: 5.4 kilometers --- (0.5 ppm = AEGL-1 [60 min])
 greater than 10 ppm (IDLH) greater than 2 ppm (AEGL-2 [60 min]) greater than 0.5 ppm (AEGL-1 [60 min]) wind direction confidence lines Note: Threat zone picture is truncated at the 10 km limit.	 greater than 10 ppm (IDLH) greater than 2 ppm (AEGL-2 [60 min]) greater than 0.5 ppm (AEGL-1 [60 min]) wind direction confidence lines Note: Threat zone picture is truncated at the 10 km limit.	 greater than 10 ppm (IDLH) greater than 2 ppm (AEGL-2 [60 min]) greater than 0.5 ppm (AEGL-1 [60 min]) wind direction confidence lines

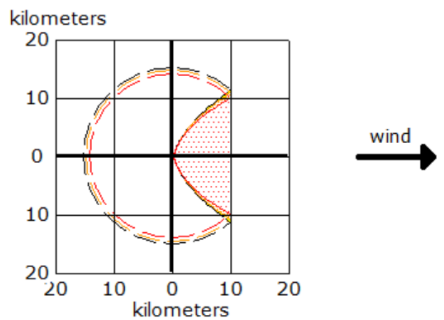
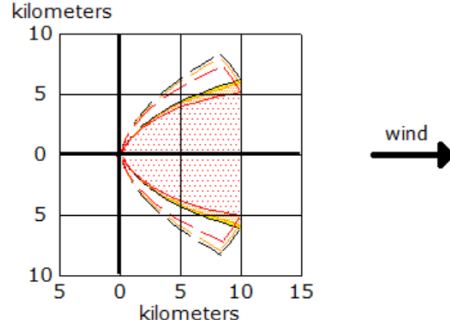
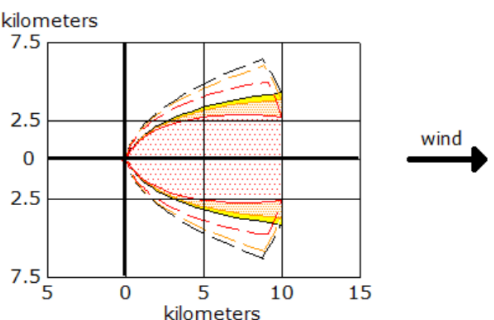
(II) Chlorine 125 MT

Chlorine Bullet (125 m ³): Toxic Area Vapour Cloud – 1 inch leakage from nozzle		
Wind Speed: 1 m/s Weather Class: F	Wind Speed: 2 m/s Weather Class: F	Wind Speed: 3 m/s Weather Class: D
THREAT ZONE: Model Run: Heavy Gas Red : greater than 10 kilometers --- (20 ppm = ERPG-3) Orange: greater than 10 kilometers --- (3 ppm = ERPG-2) Yellow: greater than 10 kilometers --- (1 ppm = ERPG-1)	THREAT ZONE: Model Run: Heavy Gas Red : greater than 10 kilometers --- (20 ppm = ERPG-3) Orange: greater than 10 kilometers --- (3 ppm = ERPG-2) Yellow: greater than 10 kilometers --- (1 ppm = ERPG-1)	THREAT ZONE: Model Run: Heavy Gas Red : greater than 10 kilometers --- (20 ppm = ERPG-3) Orange: greater than 10 kilometers --- (3 ppm = ERPG-2) Yellow: greater than 10 kilometers --- (1 ppm = ERPG-1)
 kilometers 20 10 0 10 20 20 10 0 10 20 kilometers greater than 20 ppm (ERPG-3) greater than 3 ppm (ERPG-2) greater than 1 ppm (ERPG-1) -- wind direction confidence lines Note: Threat zone picture is truncated at the 10 km limit.	 kilometers 15 5 0 5 15 10 0 10 20 30 kilometers greater than 20 ppm (ERPG-3) greater than 3 ppm (ERPG-2) greater than 1 ppm (ERPG-1) -- wind direction confidence lines Note: Threat zone picture is truncated at the 10 km limit.	 kilometers 7.5 2.5 0 2.5 7.5 5 0 5 10 15 kilometers greater than 20 ppm (ERPG-3) greater than 3 ppm (ERPG-2) greater than 1 ppm (ERPG-1) -- wind direction confidence lines Note: Threat zone picture is truncated at the 10 km limit.

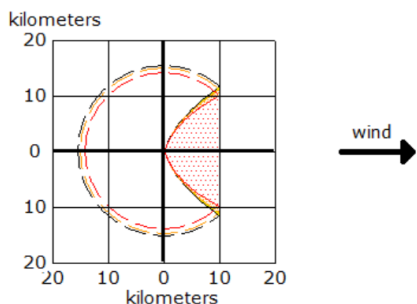
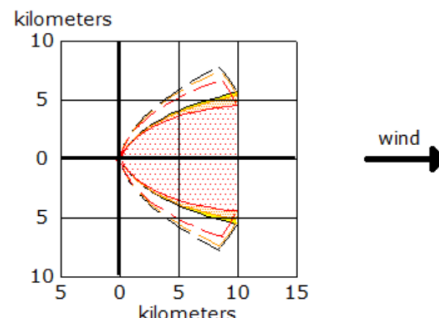
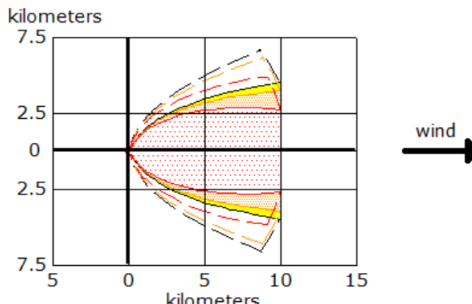
(III) Chlorine 38.5 MT

Chlorine Bullet (38.5 m ³): Toxic Area Vapour Cloud – 1 inch leakage from nozzle		
Wind Speed: 1 m/s Weather Class: F	Wind Speed: 2 m/s Weather Class: F	Wind Speed: 3 m/s Weather Class: D
THREAT ZONE: Model Run: Heavy Gas Red : greater than 10 kilometers --- (20 ppm = ERPG-3) Orange: greater than 10 kilometers --- (3 ppm = ERPG-2) Yellow: greater than 10 kilometers --- (1 ppm = ERPG-1))	THREAT ZONE: Model Run: Heavy Gas Red : 9.8 kilometers --- (20 ppm = ERPG-3) Orange: greater than 10 kilometers --- (3 ppm = ERPG-2) Yellow: greater than 10 kilometers --- (1 ppm = ERPG-1)	THREAT ZONE: Model Run: Heavy Gas Red : 8.3 kilometers --- (20 ppm = ERPG-3) Orange: greater than 10 kilometers --- (3 ppm = ERPG-2) Yellow: greater than 10 kilometers --- (1 ppm = ERPG-1)
 greater than 20 ppm (ERPG-3) greater than 3 ppm (ERPG-2) greater than 1 ppm (ERPG-1) --- wind direction confidence lines Note: Threat zone picture is truncated at the 10 km limit.	 greater than 20 ppm (ERPG-3) greater than 3 ppm (ERPG-2) greater than 1 ppm (ERPG-1) --- wind direction confidence lines Note: Threat zone picture is truncated at the 10 km limit.	 greater than 20 ppm (ERPG-3) greater than 3 ppm (ERPG-2) greater than 1 ppm (ERPG-1) --- wind direction confidence lines Note: Threat zone picture is truncated at the 10 km limit.

(IV) Chlorine 97.8 MT

Chlorine Bullet (130 m ³): Toxic Area Vapour Cloud – 1 inch leakage from nozzle		
Wind Speed: 1 m/s Weather Class: F	Wind Speed: 2 m/s Weather Class: F	Wind Speed: 3 m/s Weather Class: D
THREAT ZONE: Model Run: Heavy Gas Red : greater than 10 kilometers --- (20 ppm = ERPG-3) Orange: greater than 10 kilometers --- (3 ppm = ERPG-2) Yellow: greater than 10 kilometers --- (1 ppm = ERPG-1)	THREAT ZONE: Model Run: Heavy Gas Red : greater than 10 kilometers --- (20 ppm = ERPG-3) Orange: greater than 10 kilometers --- (3 ppm = ERPG-2) Yellow: greater than 10 kilometers --- (1 ppm = ERPG-1)	THREAT ZONE: Model Run: Heavy Gas Red : greater than 10 kilometers --- (20 ppm = ERPG-3) Orange: greater than 10 kilometers --- (3 ppm = ERPG-2) Yellow: greater than 10 kilometers --- (1 ppm = ERPG-1)
 kilometers 20 10 0 10 20 kilometers 20 10 0 10 20 kilometers greater than 20 ppm (ERPG-3) greater than 3 ppm (ERPG-2) greater than 1 ppm (ERPG-1) --- wind direction confidence lines Note: Threat zone picture is truncated at the 10 km limit.	 kilometers 10 5 0 5 10 kilometers 5 0 5 10 15 kilometers greater than 20 ppm (ERPG-3) greater than 3 ppm (ERPG-2) greater than 1 ppm (ERPG-1) --- wind direction confidence lines Note: Threat zone picture is truncated at the 10 km limit.	 kilometers 7.5 2.5 0 2.5 7.5 kilometers 5 0 5 10 15 kilometers greater than 20 ppm (ERPG-3) greater than 3 ppm (ERPG-2) greater than 1 ppm (ERPG-1) --- wind direction confidence lines Note: Threat zone picture is truncated at the 10 km limit.

(V) Chlorine 130 MT

Chlorine Bullet (130 m ³): Toxic Area Vapour Cloud – 1 inch leakage from nozzle		
Wind Speed: 1 m/s Weather Class: F	Wind Speed: 2 m/s Weather Class: F	Wind Speed: 3 m/s Weather Class: D
THREAT ZONE: Model Run: Heavy Gas Red : greater than 10 kilometers --- (20 ppm = AEGL-3 [60 min]) Orange: greater than 10 kilometers --- (2 ppm = AEGL-2 [60 min]) Yellow: greater than 10 kilometers --- (0.5 ppm = AEGL-1 [60 min])	THREAT ZONE: Model Run: Heavy Gas Red : greater than 10 kilometers --- (20 ppm = ERPG-3) Orange: greater than 10 kilometers --- (3 ppm = ERPG-2) Yellow: greater than 10 kilometers --- (1 ppm = ERPG-1)	THREAT ZONE: Model Run: Heavy Gas Red : greater than 10 kilometers --- (20 ppm = AEGL-3 [60 min]) Orange: greater than 10 kilometers --- (2 ppm = AEGL-2 [60 min]) Yellow: greater than 10 kilometers --- (0.5 ppm = AEGL-1 [60 min])
 greater than 20 ppm (AEGL-3 [60 min]) greater than 2 ppm (AEGL-2 [60 min]) greater than 0.5 ppm (AEGL-1 [60 min]) --- wind direction confidence lines Note: Threat zone picture is truncated at the 10 km limit.	 greater than 20 ppm (ERPG-3) greater than 3 ppm (ERPG-2) greater than 1 ppm (ERPG-1) --- wind direction confidence lines Note: Threat zone picture is truncated at the 10 km limit.	 greater than 20 ppm (AEGL-3 [60 min]) greater than 2 ppm (AEGL-2 [60 min]) greater than 0.5 ppm (AEGL-1 [60 min]) --- wind direction confidence lines Note: Threat zone picture is truncated at the 10 km limit.

14. ERDS FOR ETHANOL

Formula: **CH₃CH₂OH**

Liquid, clear, colorless

Flammable:	Flammable
Flash Point:	16.6°C
LEL- UEL:	3.3% - 19%
Toxic:	Yes
IDLH:	3300PPM
TLV:	100PPM

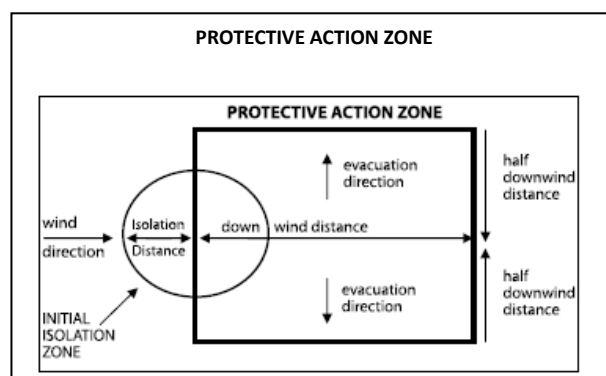
V. General Response Action

- On-Site: Use water spray to disperse the gas/vapor. Remove all sources of ignition. Absorb spill using.
- An absorbent, non-combustible material such as earth, sand, or vermiculite. Do not use combustible materials such as sawdust.
- Use a spark-proof tool. Provide ventilation.
- A vapor suppressing foam may be used to reduce vapors. Water spray may reduce vapor but may not prevent ignition in closed spaces.
- Face shield and chemical splash goggles when transferring is taking place
- Full face, positive pressure self-contained breathing apparatus or airline, and protective clothing must be worn. Protective firefighting structural clothing is not effective protection from methanol.

VI. Evacuation Zone Dimensions

Sr.No	Mass Of Release (KI)	Approx. Valnerable Distance (Km) (In The Direction Of Wind)	Approx. Time To Reach Max. Vulnerable Dist. (Min)
1	410	1.3	3

* The figures in above table are not true values but arbitrary for demonstrating the concept (The above values are reference values for a particular Maximum Credible Loss Scenario and are to be used only in absence of any other values, only as an aid to form a judgement)



VII. Fire

Ethanol burns with a clean clear flame that is almost invisible in daylight. Stay upwind! Isolate and restrict area access. Concentrations of greater than 25% ethanol in water can be ignited

Suggested Action:

- Use fine water spray or fog to control fire spread and cool adjacent structures or containers.
- Contain fire control water for later disposal.

- Fire fighters must wear full face, positive pressure, self-contained breathing apparatus or airline and appropriate protective clothing.
- Protective fire fighting structural clothing is not effective protection from methanol.
- Do not walk through spilled product.

VIII. Medical : Danger

Eye Contact: Remove contact lenses if worn. In case of contact, immediately flush eyes with plenty of clean running water for at least 15 minutes, lifting the upper and lower eyelids occasionally. Obtain medical attention.

Skin Contact: In case of contact, remove contaminated clothing. In a shower, wash affected areas with soap and water for at least 15 minutes. Seek medical attention if irritation occurs or persists. Wash clothing before reuse.

Inhalation: Remove fresh air, restore or assist breathing if necessary. Obtain medical attention.

Ingestion: Swallowing methanol is potentially life threatening. Onset of symptoms may be delayed for 18 to 24 hours after digestion.

Suggested Action:

If conscious and medical aid is not immediately available, do not induce vomiting. In actual or suspected cases of ingestion, transport to medical facility immediately.

Antidotes: Ethanol may inhibit methanol metabolism.

VIII. Pollution : Dangerous to aquatic life in high concentrations. May be dangerous if it enters water intakes

IX. Chemical Information ::

E) Chemical Reactivity:

Reactivity with Water:

Miscible soluble in water.

F) Reactivity with Common Material:

Oxidizing agents, reducing agents, acids, alkali metals, potassium, sodium, metals as powders (e.g. hafnium, rhenium, nickel), acid anhydrides, acid chlorides, powdered aluminum, powdered magnesium.

G) Polymerisation: Will not occur

H) Combustion Products:

Avoid contact with strong oxidizers, strong mineral or organic acids, and strong bases. Contact with these materials may cause a violent or explosive reaction. May be corrosive to lead, aluminum, magnesium, and platinum.

Properties:

- Physical State at 15 Deg. C and 1 Atm. Pressure: Gas
- TLV: 1000PPM
- IDLH: 3300ppm
- Molecular weight: 48.04
- Boiling Points: 78 Deg C at 1 atm
- Freezing Points: -114.1 Deg C
- Vapour Pressure: 59.3 mm Hg @ 20 deg C

15.ERDS FOR ACRYLONITRILE

Formula: C_3H_3NO

Colour less

Flammable:	Yes
Flash Point:	0.55
LEL- UEL:	3.1 % & 17 %
Toxic:	
IDLH:	85 PPM
TLV:	2 PPM

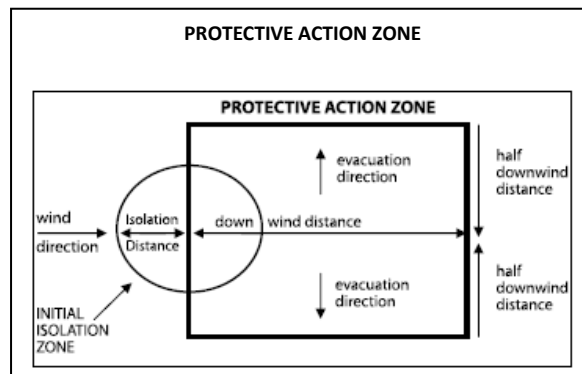
I. General Response Action

- On-SITE: Use regular dry chemical, carbon dioxide, water, regular foam, alcohol resistant foam.
- Do not get water inside container.
- Cool containers with water spray until well after the fire is out. Stay away from the ends of tanks. For fires in cargo or storage area: Cool containers with water from unmanned hose holder or monitor nozzles until well after fire is out.
- If this is impossible then take the following precautions: Keep unnecessary people away, isolate hazard area and deny entry. Let the fire burn. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. For tank, rail car or tank truck, evacuation radius: 800 meters (1/2 mile).
- PPEs. Gloves & Face mask

I. Evacuation Zone Dimensions

Sr. No	Mass of Release (Ton)	Approx. Valnerable Distance (m) (in the direction of wind)	Approx. time to reach Max. Vulnerable Dist. (Min)
1	20	330	3

* The figures in above table are not true values but arbitrary for demonstrating the concept (The above values are reference values for a particular Maximum Credible Loss Scenario and are to be used only in absence of any other values, only as an aid to form a judgement)



II. Fire

- Flammable material : Yes
- Combustible material : Yes

Suggested Action:

- Fire Extinguisher = DCP, CO_2
- Special procedure :- Container cool by spraying water it exposed to flame or heat.

III. Medical ::

- Vapour Inhalation may cause stomach pain, irregular heartbeat, headache, drowsiness, dizziness, bluish skin color, suffocation, convulsions, coma
- Eye:- Causes sever irritation ingestion causes burns, tearing, eye damage
- Ingestion: - Suffocation.

Suggested Action:

- Remove the victim to the fresh area.
- Remove the contaminated cloths & wash the affected area with soap & water.
- Eyes :- Irrigate countinously with water for 15 mins.

Antidotes: Amyl nitrile, salt water.

I. Pollution :

I. Chemical Information ::

- A) Chemical Reactivity: Stable Reactivity with Water:
- B) Reactivity with Common Material: May polymerize violently or explosively. May explode i heated in closed container.
- C) Polymerisation: may polymerize violently or explosively. Avoid contact with curing agents accelerators, and/or initiators.
- D) Properties:
 - Physical State at 15 Deg. C and 1 Atm. Pressure: Gas
 - TLV: 2 PPM
 - IDLH: 85 PPM
 - Molecular weight 53.08.
 - Boiling Points: 78-79 Deg C
 - Freezing Points: -84 to -83 Deg C
 - Vapour Pressure: 83 mm Hg @ 20 deg.c
 - Vapour Density: (air=1).1.83
 - Liquid Density: (Water=1): 0.80 @ 20. Deg C
 - Liquid Vapour conversion:

16. ERDS FOR FORMALDEHDYE

Formula: **CH₂O**

Colour: Clear or water white pungent odour.

Flammable:	YES
Flash Point:	15°C
LEL- UEL:	7% & 73%
Toxic:	-
IDLH:	20PPM
TLV:	1 PPM

II. General Response Action

- On-Site: Keep away from heat, flame, and oxidizers.
- PPEs.
- SCBA.
- Chemical goggles
- protective over clothing
- Symmetric rubber or plastic gloves & rubber shoes.
-

IV. Evacuation Zone Dimensions

Sr. No	Mass of Release (Ton)	Approx. Valnerable Distance (m) (in the direction of wind)	Approx. time to reach Max. Vulnerable Dist. (Min)
1	15	627	2

* The figures in above table are not true values but arbitrary for demonstrating the concept (The above values are reference values for a particular Maximum Credible Loss Scenario and are to be used only in absence of any other values, only as an aid to form a judgement)

V. Fire

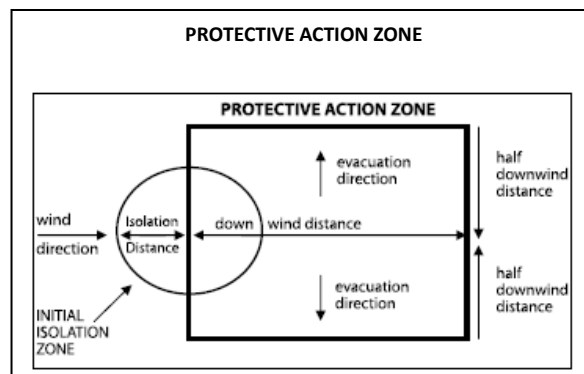
- Flammable Gas.

Suggested Action:

- **Use Extinguisher:-** water, DCP, CO₂, Alcohol foam media.
- keep away from heat, flame & oxidizers.
- Keep the containers cool by spraying water if exposed to heat or flame.

VI. Medical ::

- **Inhalation:**
 - causes coughing. chest pain, ausea, vomiting..
- **Ingestion:**
 - causes nueseaa, abdominal, pain and collapse.
- **Skin:**
 - causes severe irritation and dermititis.
- **Eyes:**
 - causes irritation affects respiratory system kidney & liver.



Suggested Action:

- Remove the victim to fresh air area.
- If swallowed and victim is conscious, give plenty of water and milk.
- If eyes or skin are affected wash with plenty of water.
- Seek medical & immediately.

Antidotes: N.A.

II. Pollution :**II. Chemical Information ::**

E) Chemical Reactivity: Reactivity with Water: Miscible.

F) Reactivity with Common Material: In the air it slowly oxidizes with formic acid. It is a powerful reducing agent especially in presence of alkali.

G) Polymerisation:

H) Combustion Products: YES

I) Properties:

- Physical State at 15 Deg. C and 1 Atm. Pressure: Gas
- TLV: 1 SHE PPM
- IDLH: 20. ppm
- Molecular weight: 30
- Boiling Points: -21 Deg C
- Freezing Points: - -92 Deg C
- Vapour Pressure: 20 mm Hg @ 21.9 deg.c
- Vapour Density: (air=1) 1.0
- Liquid Density: (Water=1): 1.083 @ 25. Deg C
- Liquid Vapour conversion: 1.

17.ERDS FOR MOTOR SPIRIT

Formula: C_nH_{2n+2}

Liqued, Orange,Red

Flammable:	YES
Flash Point:	-45°C(CC)
LEL- UEL:	1.4. % &7.6 %
Toxic:	-
IDLH:	-
TLV:	300 PPM

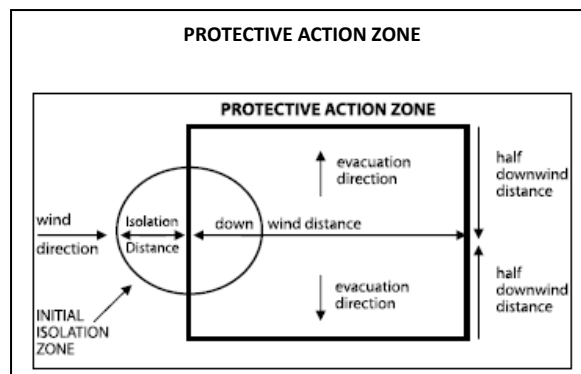
III. General Response Action

- On-SITE: Avoid contact with liquid
- PPEs. Provide safety goggles/ face shield, to protect eyes, hand gloves, eye wash facilities.

VII. Evacuation Zone Dimensions

Sr. No	Mass of Release (KL)	Approx. Valnerable Distance (Km) (in the direction of wind)	Approx. time to reach Max. Vulnerable Dist. (Min)
1	9300	4.4	3

* The figures in above table are not true values but arbitrary for demonstrating the concept (The above values are reference values for a particular Maximum Credible Loss Scenario and are to be used only in absence of any other values, only as an aid to form a judgement)



VIII. Fire: flammable

Suggested Action:

- Keep away from heat. Keep away from sources of ignition.
- Store in a segregated and approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use.

IX. Medical ::

- **Inhalation:**
 - causes irritation of respiratory tract,.
- **Ingestion:**
 - Causes nausea, vomitting, swelling of abdomen, headache, depression.
- **Eyes & Skin:**
 - causes irritataion.

Suggested Action:

- **Inhalation:**
 - maintain respiration, give oxygen if needed.
- **Ingestion:**
 - Do not induce vomiting.
- **Eyes**
 - wash with plenty of water for 15 mins.

Antidotes: N.A

III. Pollution :

III. Chemical Information ::

- J) Chemical Reactivity: reacts vigorously with oxidising agents, acids.
- K) Reactivity with Water: Insoluble in water
- L) Polymerisation: will not occur.
- M) Properties:
 - Physical State at 15 Deg. C and 1 Atm. Pressure: Gas
 - TLV: 300 PPM
 - IDLH: ---
 - Molecular weight.
 - Boiling Points: 30 to 180°C
 - Freezing Points: - - -
 - Vapour Pressure: ---
 - Vapour Density: (air=1). 3-4
 - Liquid Density: (Water=1): 0.69 -0.77
 - Liquid Vapour conversion:1: ---

18. ERDS FOR TOLUENE

Formula: C_7H_8

Liquid ,Colourless

Flammable:	Yes
Flash Point:	4.4 °C
LEL- UEL:	1.7 % & 7.1 %
Toxic:	
IDLH:	500 PPM
TLV:	50 PPM

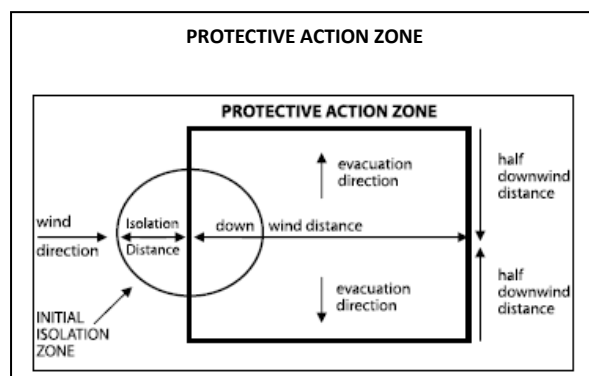
IV. General Response Action

- On-SITE: Use regular dry chemical,
- Large fire : Use water spray or fog.
- Toxic flammable liquid, insoluble or very slightly soluble in Water.
- Keep away from heat. Keep away from sources of ignition. Stop leak if without risk.
- Absorb with DRY earth, sand or other non-combustible material. Do not get water inside container
- PPEs. Gloves, Goggles, Lab Coat, Vapour Respirator

X. Evacuation Zone Dimensions

Sr. No	Mass of Release (KL)	Approx. Valnerable Distance (m) (in the direction of wind)	Approx. time to reach Max. Vulnerable Dist. (Min)
1	27	566	3

* The figures in above table are not true values but arbitrary for demonstrating the concept (The above values are reference values for a particular Maximum Credible Loss Scenario and are to be used only in absence of any other values, only as an aid to form a judgement)



XI. Fire

- Flammable material : Yes
- Combustible material : Yes

Suggested Action:

- Fire Extinguisher = DCP,
- Special procedure :- ---

XII. Medical ::

- Vapour Inhalation: remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Eye:- immediately flush eyes with plenty of water for at least 15 minutes.
- Skin: Immediately flush skin with plenty of water.

Suggested Action:

- Remove the victim to the fresh area.
- Remove the contaminated cloths & wash the affected area with soap & water.

- Eyes :- Irrigate continuously with water for 15 mins.

Antidotes: Amyl nitrile, salt water.

IV. Pollution :

IV. Chemical Information ::

N) Stability: The product is stable.

B) Special remarks on reactivity I: Incompatible with strong oxidizers, silver perchlorate, sodium difluoride, Tetranitromethane, Uranium Hexafluoride. Frozen Bromine Trifluoride reacts violently with Toluene at -80 deg. C. Reacts chemically with nitrogen oxides, or halogens to form nitrotoluene, nitrobenzene, and nitrophenol and halogenated products, respectively. C Polymerisation: Will not occur.

A) Properties:

- Physical State at 15 Deg. C and 1 Atm. Pressure: Gas
- TLV: 2 PPM
- IDLH: 500 PPM
- Molecular weight 91.14.
- Boiling Points: 110.62 Deg C
- Freezing Points: -94.99 Deg C
- Vapour Pressure: 36.7 mm Hg @ 30 deg.c
- Vapour Density: (air=1).3.1
- Liquid Density: (Water=1): 0.8669
- Liquid Vapour conversion:

19.ERDS FOR HYDROGEN FLURIDE

Formula: HF

Gas,(Colourless gas with an irritating odour)

Flammable:	No
Flash Point:	N.A.
LEL- UEL:	N.A.
Toxic:	Yes
IDLH:	300 PPM
TLV:	2 PPM

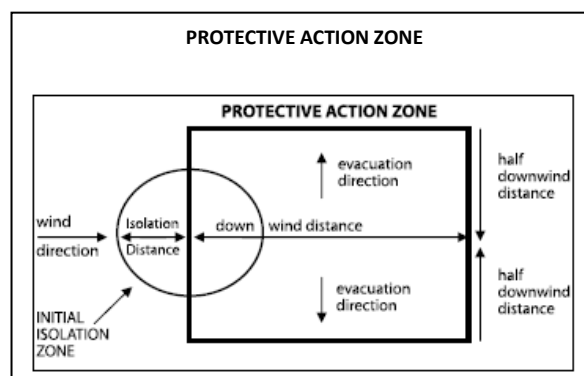
V. General Response Action

- On-SITE: stop HF leakage, if possible, safety.
- PPEs. Use suitable protective equipment.

XIII.Evacuation Zone Dimensions

Sr. No	Mass of Release	Approx. Valnerable Distance (m) (in the direction of wind)	Approx. time to reach Max. Vulnerable Dist. (Min)
1			

* The figures in above table are not true values but arbitrary for demonstrating the concept (The above values are reference values for a particular Maximum Credible Loss Scenario and are to be used only in absence of any other values, only as an aid to form a judgement)



XIV. Fire

- Non flammable
- **Suggested Action:**
 - Use media appropriate for surrounding fire.
 - Use water spray in flooding quantities.

XV.Medical ::

- **Inhalation:**
 - causes irritation of respiratory tract,.
- **Ingestion:**
 - Causes nausea, vomitting, swelling of abdomen, headache, depression.
- **Eyes & Skin:**
 - causes irritataion.

Suggested Action:

- **Inhalation:**

- maintain respiration, give oxygen if needed. positive pressure air line with full face mask should be available.
- **Ingestion:**
 - Do not induce vomiting.
- **Eyes**
 - wash with plenty of water for 15 mins. Gas tight safety goggles with full face shield to be used.

Antidotes: N.A

V. Pollution ::

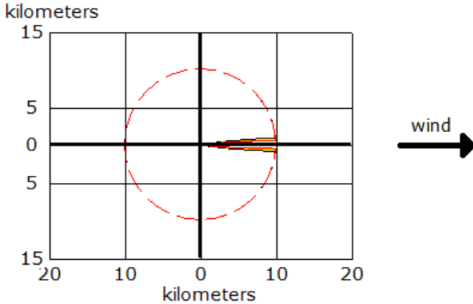
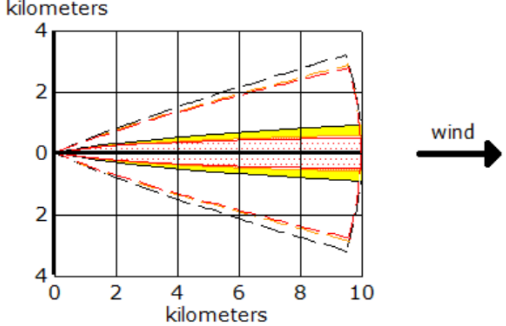
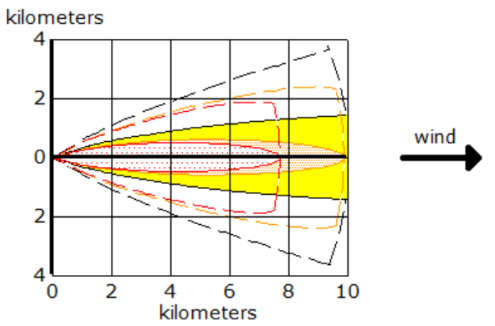
V. Chemical Information ::

- O) Chemical stability: stable
- P) Incompatibility with various substance: Alkalis, Metals
- Q) Polymerisation: will not occur.
- R) Properties:
 - Physical State at 15 Deg. C and 1 Atm. Pressure: Gas
 - TLV: PPM
 - IDLH: 300 ppm
 - Molecular weight: 20.01
 - Boiling Points: -19.5 Deg C
 - Freezing Points: -19.5 Deg C
 - Vapour Pressure: 0.5 (psig)
 - Vapour Density: (air=1). 0.7
 - Density: (Water=1): ---
 - Liquid Vapour conversion: ---

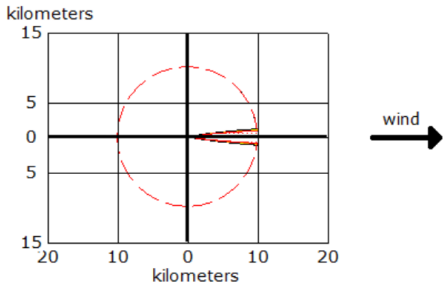
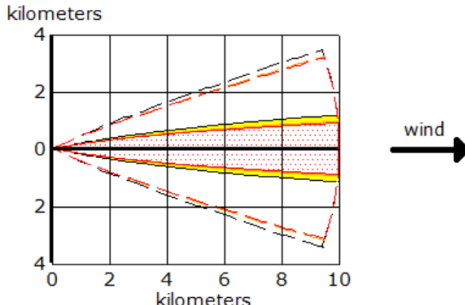
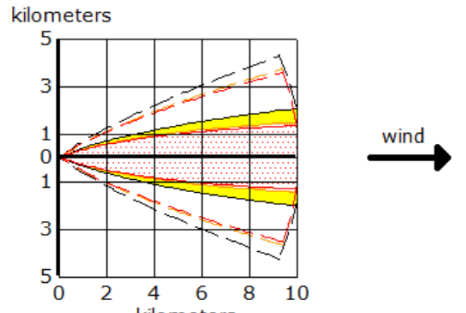
a. Hydrogen Fluoride-900 Kg Tonners

1. Hydrogen Fluoride (900 kg) Tonner: Toxic area of vapour cloud - Catastrophic Rupture		
Wind Speed: 1 m/s Weather Class: F	Wind Speed: 2 m/s Weather Class: F	Wind Speed: 3 m/s Weather Class: D
THREAT ZONE: Model Run: Gaussian Red : 3.2 kilometers --- (30 ppm = IDLH) Orange: 3.7 kilometers --- (20 ppm = ERPG-2) Yellow: greater than 10 km --- (2 ppm = ERPG-1)	THREAT ZONE: Model Run: Gaussian Red : 3.2 kilometers --- (30 ppm = IDLH) Orange: 3.7 kilometers --- (20 ppm = ERPG-2) Yellow: greater than 10 km --- (2 ppm = ERPG-1)	THREAT ZONE: Model Run: Gaussian Red : 1.7 kilometers --- (30 ppm = IDLH) Orange: 2.0 kilometers --- (20 ppm = ERPG-2) Yellow: 4.5 kilometers --- (2 ppm = ERPG-1)
kilometers 15 5 0 5 15 10 0 10 20 30 kilometers greater than 30 ppm (IDLH) greater than 20 ppm (ERPG-2) greater than 2 ppm (ERPG-1) --- wind direction confidence lines Note: Threat zone picture is truncated at the 10 km limit.	kilometers 3 1 0 1 3 0 2 4 6 8 10 kilometers greater than 30 ppm (IDLH) greater than 20 ppm (ERPG-2) greater than 2 ppm (ERPG-1) --- wind direction confidence lines Note: Threat zone picture is truncated at the 10 km limit.	kilometers 3 1 0 1 3 0 2 4 6 8 kilometers greater than 30 ppm (IDLH) greater than 20 ppm (ERPG-2) greater than 2 ppm (ERPG-1) --- wind direction confidence lines Note: Threat zone picture is truncated at the 10 km limit.

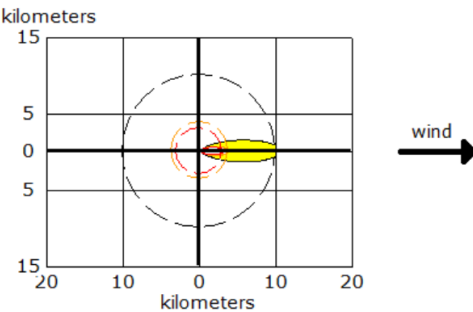
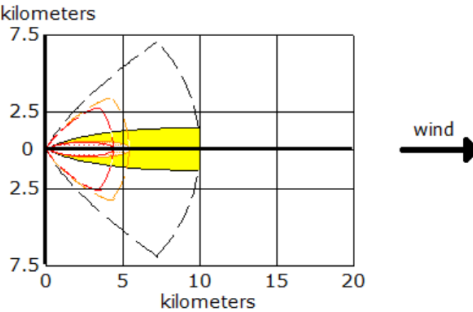
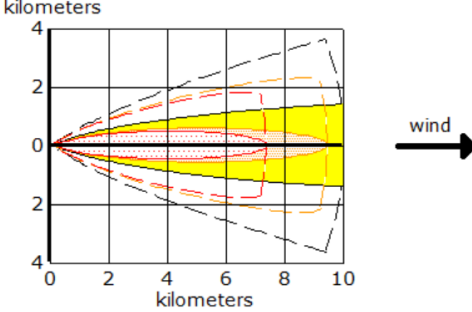
b. Hydrogen Fluoride- 20 KL

Hydrogen Fluoride (20 m ³): Toxic Area Vapour Cloud – 1 inch leakage from nozzle		
Wind Speed: 1 m/s Weather Class: F	Wind Speed: 2 m/s Weather Class: F	Wind Speed: 3 m/s Weather Class: D
THREAT ZONE: Model Run: Gaussian Red: greater than 10 km --- (44 ppm = AEGL-3 [60 min]) Orange: greater than 10 km --- (24 ppm = AEGL-2 [60 min]) Yellow: greater than 10 km --- (1 ppm = AEGL-1 [60 min])	THREAT ZONE: Model Run: Gaussian Red : greater than 10 km --- (44 ppm = AEGL-3 [60 min]) Orange: greater than 10 km --- (24 ppm = AEGL-2 [60 min]) Yellow: greater than 10 km --- (1 ppm = AEGL-1 [60 min])	THREAT ZONE: Model Run: Gaussian Red : 7.7 kilometers --- (44 ppm = AEGL-3 [60 min]) Orange: 9.9 kilometers --- (24 ppm = AEGL-2 [60 min]) Yellow: greater than 10 km --- (1 ppm = AEGL-1 [60 min])
 greater than 44 ppm (AEGL-3 [60 min]) greater than 24 ppm (AEGL-2 [60 min]) greater than 1 ppm (AEGL-1 [60 min]) --- wind direction confidence lines Note: Threat zone picture is truncated at the 10 km limit.	 greater than 44 ppm (AEGL-3 [60 min]) greater than 24 ppm (AEGL-2 [60 min]) greater than 1 ppm (AEGL-1 [60 min]) --- wind direction confidence lines Note: Threat zone picture is truncated at the 10 km limit.	 greater than 44 ppm (AEGL-3 [60 min]) greater than 24 ppm (AEGL-2 [60 min]) greater than 1 ppm (AEGL-1 [60 min]) --- wind direction confidence lines Note: Threat zone picture is truncated at the 10 km limit.

c. Hydrogen Fluoride- 591 KL

Hydrogen Fluoride (591 m ³): Toxic Area Vapour Cloud – 1 inch leakage from nozzle		
Wind Speed: 1 m/s Weather Class: F	Wind Speed: 2 m/s Weather Class: F	Wind Speed: 3 m/s Weather Class: D
THREAT ZONE: Model Run: Gaussian Red: greater than 10 km --- (44 ppm = AEGL-3 [60 min]) Orange: greater than 10 km --- (24 ppm = AEGL-2 [60 min]) Yellow: greater than 10 km --- (1 ppm = AEGL-1 [60 min])	THREAT ZONE: Model Run: Gaussian Red: greater than 10 km --- (44 ppm = AEGL-3 [60 min]) Orange: greater than 10 km --- (24 ppm = AEGL-2 [60 min]) Yellow: greater than 10 km --- (1 ppm = AEGL-1 [60 min])	THREAT ZONE: Model Run: Gaussian Red: greater than 10 km --- (44 ppm = AEGL-3 [60 min]) Orange: greater than 10 km --- (24 ppm = AEGL-2 [60 min]) Yellow: greater than 10 km --- (1 ppm = AEGL-1 [60 min])
 greater than 44 ppm (AEGL-3 [60 min]) greater than 24 ppm (AEGL-2 [60 min]) greater than 1 ppm (AEGL-1 [60 min]) --- wind direction confidence lines Note: Threat zone picture is truncated at the 10 km limit.	 greater than 44 ppm (AEGL-3 [60 min]) greater than 24 ppm (AEGL-2 [60 min]) greater than 1 ppm (AEGL-1 [60 min]) --- wind direction confidence lines Note: Threat zone picture is truncated at the 10 km limit.	 greater than 44 ppm (AEGL-3 [60 min]) greater than 24 ppm (AEGL-2 [60 min]) greater than 1 ppm (AEGL-1 [60 min]) --- wind direction confidence lines Note: Threat zone picture is truncated at the 10 km limit.

d. Hydrogen Fluoride- 18 KL

Hydrogen Fluoride (18 m ³): Toxic Area Vapour Cloud – 1 inch leakage from nozzle		
Wind Speed: 1 m/s Weather Class: F	Wind Speed: 2 m/s Weather Class: F	Wind Speed: 3 m/s Weather Class: D
THREAT ZONE: Model Run: Gaussian Red : 3.1 kilometers --- (44 ppm = AEGL-3 [60 min]) Orange: 3.8 kilometers --- (24 ppm = AEGL-2 [60 min]) Yellow: greater than 10 km --- (1 ppm = AEGL-1 [60 min])	THREAT ZONE: Model Run: Gaussian Red : 4.4 kilometers --- (44 ppm = AEGL-3 [60 min]) Orange: 5.5 kilometers --- (24 ppm = AEGL-2 [60 min]) Yellow: greater than 10 km --- (1 ppm = AEGL-1 [60 min])	THREAT ZONE: Model Run: Gaussian Red : 7.4 kilometers --- (44 ppm = AEGL-3 [60 min]) Orange: 9.5 kilometers --- (24 ppm = AEGL-2 [60 min]) Yellow: greater than 10 km --- (1 ppm = AEGL-1 [60 min])
 greater than 44 ppm (AEGL-3 [60 min]) greater than 24 ppm (AEGL-2 [60 min]) greater than 1 ppm (AEGL-1 [60 min]) --- wind direction confidence lines Note: Threat zone picture is truncated at the 10 km limit.	 greater than 44 ppm (AEGL-3 [60 min]) greater than 24 ppm (AEGL-2 [60 min]) greater than 1 ppm (AEGL-1 [60 min]) --- wind direction confidence lines Note: Threat zone picture is truncated at the 10 km limit.	 greater than 44 ppm (AEGL-3 [60 min]) greater than 24 ppm (AEGL-2 [60 min]) greater than 1 ppm (AEGL-1 [60 min]) --- wind direction confidence lines Note: Threat zone picture is truncated at the 10 km limit.

20.ERDS FOR HSD

Formula:

Liquid, Yellowish brown

Flammable:	YES
Flash Point:	32°C(CC)
LEL- UEL:	0.6. % & 6 %
Toxic:	-
IDLH:	-
TLV:	800 PPM

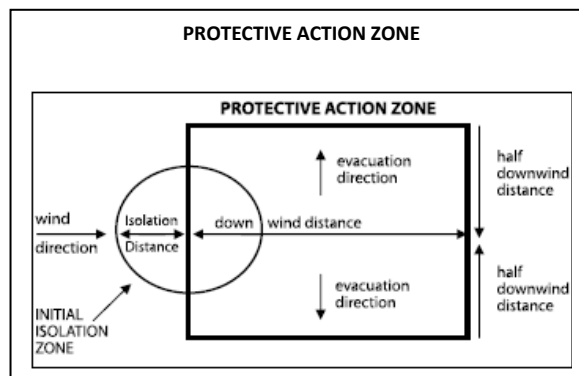
VI. General Response Action

- On-SITE: Avoid contact with liquid
- PPEs. Provide safety goggles/ face shield, to protect eyes, Canister gas mask , hand gloves, eye wash facilities.

XVI.Evacuation Zone Dimensions

Sr. No	Mass of Release (KL)	Approx. Valnerable Distance (Km) (in the direction of wind)	Approx. time to reach Max. Vulnerable Dist. (Min)
1	5639	3.7	3

* The figures in above table are not true values but arbitrary for demonstrating the concept (The above values are reference values for a particular Maximum Credible Loss Scenario and are to be used only in absence of any other values, only as an aid to form a judgement)



XVII. Fire

- Flammable

Suggested Action:

- Do not expose to heat and naked lights.
- keep containers and valves closed when not in use.
- Fire extinguishing media: Foam, Carbon dioxide, Dry Chemical Powder. Water may be used to cool fire-exposed containers.

XVIII. Medical ::

- **Inhalation:**
 - causes irritation of respiratory tract,.
- **Ingestion:**
 - Causes nausea, vomitting, headache, depression.
- **Eyes & Skin:**
 - causes irritataion.

Suggested Action:

- **Inhalation:**
 - maintain respiration, give oxygen if needed.
- **Ingestion:**
 - Give water to conscious victim to drink; do not induce vomiting.
- **Eyes**
 - wash with plenty of water for 15 mins.

Antidotes: N.A

VI. Pollution ::**VI. Chemical Information ::**

S) Chemical stability: Stable.

T) Reactivity with Oxidising material

U) Polymerisation: will not occur.

V) Properties:

- Physical State at 15 Deg. C and 1 Atm. Pressure: Gas
- TLV: 800 PPM
- IDLH: ---
- Molecular weight.
- Boiling Points: 215 to 376 Deg C
- Freezing Points: 18 to 46 Deg C
- Vapour Pressure: 2.12 to 26 mm HG @38° C
- Vapour Density: (air=1). 3-5
- Liquid Density: (Water=1): 0.81 -0.91
- Liquid Vapour conversion: ---

21.ERDS FOR BROMINE

Formula: Br₂

Heavy reddish-brown fuming liq with sharp penetrating odour

Flammable: Non-flammable

Flash Point: N/A

LEL- UEL: NA

Toxic: Yes

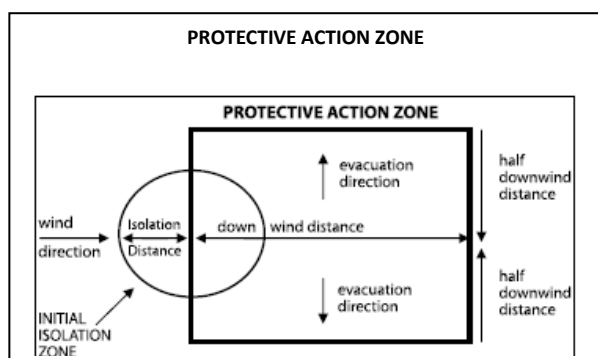
IDLH: 3PPM

TLV: 0.1PPM

VII. General Response Action

- On-SITE:
Protect against physical damage. Store in cool, dry area, out of direct sunlight. Separate from combustibles, organics or oxidizing materials.
- Wear appropriate protective gloves
- Proof or dust-resistant goggles

XIX.Evacuation Zone Dimensions



Sr. No	Mass of Release (Tonners)	Approx. Valnerable Distance (m) (in the direction of wind)	Approx. time to reach Max. Vulnerable Dist. (Min)
1	1		
2	5		
3	10		

XX. Fire

Nonflammable Substance

Suggested Action:

- Avoid contact with reducing material which can cause fire also keep away from combustible material
- Use CO₂ / DCP F/E if necessary.
- Handle with care
- Do not pour water on leaking cylinder
- Keep waay from moisture to prevent foprmation of corrosive vapours.
- cylinders being stored for excessive periods of time.

XXI.Medical ::

Danger

Health Hazards Acute and Chronic:(acute exposure)

Eyes: may cause

irritation, redness, pain, blurred vision, burns.

ingestion: burns of mouth, throat and stomach. brown coloration and corrosion of tongue. vomiting, may cause fatal gastroenteritis.

Skin: may cause cooling sensation followed burning. (chronic)

EYES: may result in conjunctivitis.

effects of overexposure: may cause headache, dizziness, coughing, nausea, copious mucous secretion, nosebleed, feeling of oppression,

vertigo, stomach pains, hoarseness, chest pain, joint pain, brown skin discoloration, second & third degree burns, eye burns,

inflamed tongue, spasms, pain in the heart region, loss of appetite.

Suggested Action:

Wash immediately with water or normal saline, for 15-20 minutes until pH is normal. see doctor quickly.

Skin: wash with soap and water. remove soiled clothes. get medical advice.

Inhale: remove to fresh air. if breathing stops, give CPR. see doctor immediately. ingest: do not use gastric lavage or emesis. dilute by drinking large amounts of water or milk. get immediate medical attention.

Antidotes: N.A.

VII. Pollution ::

VII. Chemical Information ::

W) Chemical Reactivity:

Reactivity with Water:

Br₂ is slightly soluble in water.

X) Reactivity with Common Material:

Bromine with Al is quite vigorous resulting in large heat of reaction.

Y) Polymerisation:

Bromine undergoes violent polymerization in reaction with acrylonitrile.

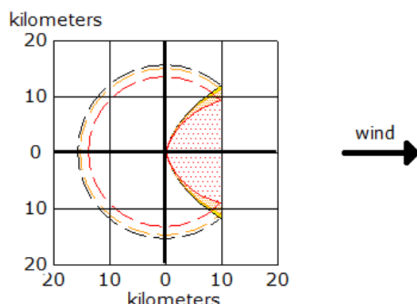
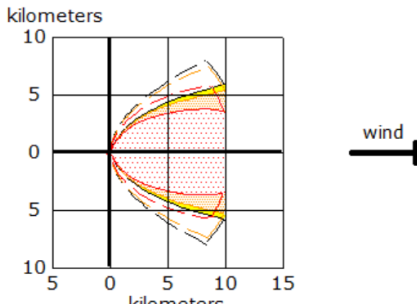
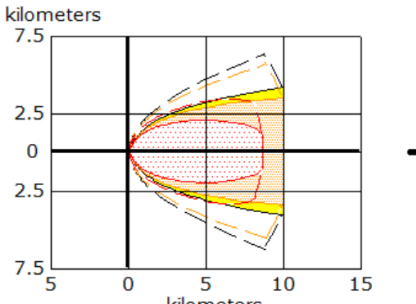
Z) Combustion Products:

--

AA) Properties:

- Physical State at 15 Deg. C and 1 Atm. Pressure: Gas
- TLV: 0.1 PPM
- IDLH: 3ppm
- Molecular weight: 159.83
- Boiling Points: 58.73 Deg C at 1 atm
- Freezing Points: -7.3 Deg C
- Vapour Pressure: 175 mm Hg @ 25° C
- Vapour Density: (air=1): 5.5 @ 20 °C
- Liquid Density: (Water=1): 3.119 @ 20 °C;
- Liquid Vapour conversion:

a. Bromine 24 KL

Bromine (24 m ³): Toxic Area Vapour Cloud – 1 inch leakage from nozzle		
Wind Speed: 1 m/s Weather Class: F	Wind Speed: 2 m/s Weather Class: F	Wind Speed: 3 m/s Weather Class: D
THREAT ZONE: Model Run: Heavy Gas Red : greater than 10 kilometers --- (8.5 ppm = AEGL-3 [60 min]) Orange: greater than 10 kilometers --- (0.24 ppm = AEGL-2 [60 min]) Yellow: greater than 10 kilometers --- (0.033 ppm = AEGL-1 [60 min])	THREAT ZONE: Model Run: Heavy Gas Red: greater than 10 kilometers --- (8.5 ppm = AEGL-3 [60 min]) Orange: greater than 10 kilometers --- (0.24 ppm = AEGL-2 [60 min]) Yellow: greater than 10 kilometers --- (0.033 ppm = AEGL-1 [60 min])	THREAT ZONE: Model Run: Heavy Gas Red: 8.7 kilometers --- (8.5 ppm = AEGL-3 [60 min]) Orange: greater than 10 kilometers --- (0.24 ppm = AEGL-2 [60 min]) Yellow: greater than 10 kilometers --- (0.033 ppm = AEGL-1 [60 min]))
 greater than 8.5 ppm (AEGL-3 [60 min]) greater than 0.24 ppm (AEGL-2 [60 min]) greater than 0.033 ppm (AEGL-1 [60 min]) --- wind direction confidence lines Note: Threat zone picture is truncated at the 10 km limit.	 greater than 8.5 ppm (AEGL-3 [60 min]) greater than 0.24 ppm (AEGL-2 [60 min]) greater than 0.033 ppm (AEGL-1 [60 min]) --- wind direction confidence lines Note: Threat zone picture is truncated at the 10 km limit.	 greater than 8.5 ppm (AEGL-3 [60 min]) greater than 0.24 ppm (AEGL-2 [60 min]) greater than 0.033 ppm (AEGL-1 [60 min]) --- wind direction confidence lines Note: Threat zone picture is truncated at the 10 km limit.

b. Bromine 10 KL

Bromine (10 m³): Toxic Area Vapour Cloud – 1 inch leakage from nozzle		
Wind Speed: 1 m/s Weather Class: F	Wind Speed: 2 m/s Weather Class: F	Wind Speed: 3 m/s Weather Class: D
THREAT ZONE: Model Run: Heavy Gas Red: greater than 10 kilometres --- (8.5 ppm = AEGL-3 [60 min]) Orange: greater than 10 kilometres --- (0.24 ppm = AEGL-2 [60 min]) Yellow: greater than 10 kilometres --- (0.033 ppm = AEGL-1 [60 min])	THREAT ZONE: Model Run: Heavy Gas Red: greater than 10 kilometres --- (8.5 ppm = AEGL-3 [60 min]) Orange: greater than 10 kilometres --- (0.24 ppm = AEGL-2 [60 min]) Yellow: greater than 10 kilometres --- (0.033 ppm = AEGL-1 [60 min])	THREAT ZONE: Model Run: Heavy Gas Red: greater than 10 kilometres --- (8.5 ppm = AEGL-3 [60 min]) Orange: greater than 10 kilometres --- (0.24 ppm = AEGL-2 [60 min]) Yellow: greater than 10 kilometres --- (0.033 ppm = AEGL-1 [60 min])

22.ERDS FOR CARBON DISULFIDE

Formula: CS₂

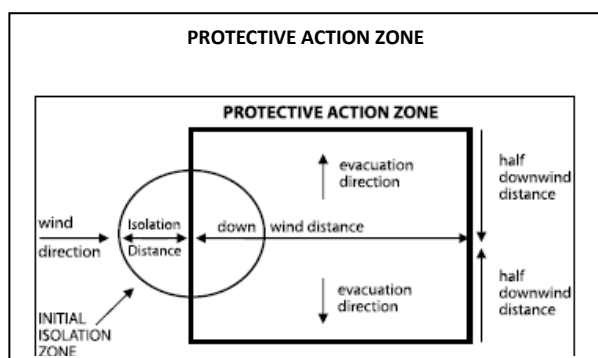
Colour to yellow rotten egg to sweet odour

Flammable:	Flammable liquid
Flash Point:	(UC) – NA (CC) - NA
LEL- UEL:	1.3 % & 50 %
Toxic:	Poisonous chemical
IDLH:	PPM
TLV:	10 PPM

VIII.General Response Action

- On-SITE: Avoid contact with liquid on vapours. Do not eat/site.
- PPEs: Safety goggles face shield, PVC hand gloves, air line or chemical cartridge mask.
- Ful the mash & industrial clothing to be used when entering the vessel.

XXII. Evacuation Zone Dimensions



Sr. No	Mass of Release (Tonners)	Approx. Valnerable Distance (m) (in the direction of wind)	Approx. time to reach Max. Vulnerable Dist. (Min)
1	1		
2	5		
3	10		

XXIII. Fire

- Flammable & Combustible material
- Unusual hazaed
- Sub burns with almost invisible flame.
- Severe explosiv hazaed when exposed to heat/flame.

Suggested Action:

- Fire extinguisher media : DCP, Fog, water spray in case of spill.

XXIV. Medical ::

- Acate exposure : Inpld to moderate initiation of slim eyes & mucuous membrances from liquid on conc. Vapours, headache, breathe, nausea, vomiting, diarrhea, abdominal pain massive vapour exposure.
- CNS depression with respiratory paralis.
- Teeth may occur during coma or atter convalsions.
-

Suggested Action:

- **Inhalation** : Remove the victim from exposure, give artificial respiration & oxygen if necessary.
- **Skin** : Remove the contaminated clothing & shoes, Wash the affected area with large amount of water.

Antidotes: N.A.

VIII.Pollution ::**VIII. Chemical Information ::**

BB) Chemical Reactivity:

Reactivity with Water: N.A.

CC) Reactivity with Common Material:

In compatibility with materials the strong oxidizers & chemically active materials such as Na, K, Zn, Acids Organics amines, Air.

DD) Polymerisation:

Will not occur

EE) Combustion Products:

highly toxic flames of SO_x

FF) Properties:

- Physical State at 15 Deg. C and 1 Atm. Pressure: Gas
- TLV:10 PPM
- IDLH: ... PPM
- Molecular weight.....76/.
- Boiling Points: - 46.5 Deg C
- Freezing Points:-110.8 Deg C
- Vapour Pressure: 400 mm Hg @ 21 deg.c
- Vapour Density: (air=1).2.64.
- Liquid Density: (Water=1): 1.26 @ -34. Deg C
- Liquid Vapour conversion:

23.ERDS FOR STYRENE

Formula: C_8H_8

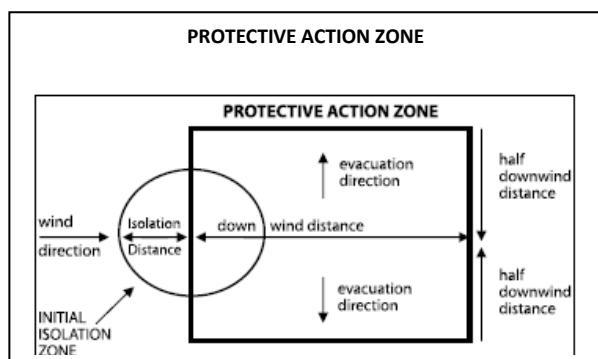
Colorless Liquid. , Sweetish. Aromatic odour

Flammable:	Flammable
Flash Point:	CLOSED CUP: 31.1°C OPEN CUP: 36.7°C
LEL- UEL:	1.1% - 6.1%
Toxic:	Yes
IDLH:	700 PPM
TLV:	50PPM

IX. General Response Action

- On-SITE:
- Keep locked upkeep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/vapour/spray. In case of insufficient ventilation, wear suitable respiratory equipment If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes Safety goggles or glasses plus a face shield

XXV. Evacuation Zone Dimensions



Sr. No	Mass of Release (Tonners)	Approx. Valnerable Distance (m) (in the direction of wind)	Approx. time to reach Max. Vulnerable Dist. (Min)
1	1		
2	5		
3	10		

XXVI. Fire

Flammable

Suggested Action:

Flammable liquid, soluble or dispersed in water.

SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use alcohol foam, water spray or fog.

Cool containing vessels with water jet in order to prevent pressure build-up, autoignition or explosion

XXVII. Medical ::

Danger

Eye: The liquid or vapor will cause transient irritation.

Skin: Slight irritation. Prolonged or repeated contact with the liquid may cause defatting of the skin resulting in drying, redness, and possibly blistering.

Inhalation: May cause headache, nausea, dizziness, muscle weakness. Produces central nervous system depression. Irritates nose, throat and lungs.

Ingestion: May cause nausea, headache, dizziness, muscle weakness. Produces central nervous system depression, and diarrhea. If swallowed, may be aspirated resulting in inflammation and possible fluid accumulation in the lungs.

Suggested Action:

Eye: Flush eyes with running water for at least fifteen minutes. If irritation or adverse symptoms develop, seek medical attention.

Skin: Wash skin with soap and water for at least fifteen minutes. If irritation or adverse symptoms develop, seek medical attention.

Inhalation: Remove from exposure. If breathing becomes difficult or irritation develops, seek medical attention.

Ingestion: Do not induce vomiting. Seek immediate medical attention.

Antidotes: N.A.

IX. Pollution ::

Data not available

IX. Chemical Information ::

GG) Chemical Reactivity:

Reactivity with Water:

Very slightly soluble in cold water.

HH) Reactivity with Common Material:

Oxygen or strong oxidizing materials, water, caustic, peroxides, aluminium chloride, copper, copper alloys and metal halides.

II) Polymerisation:

will not occur.

JJ) Combustion Products: data not available

KK) Properties:

- Physical State at 15 Deg. C and 1 Atm. Pressure: Liquid
- TLV: 50 PPM
- IDLH: 700 ppm
- Molecular weight: 104.14
- Boiling Points: 145.2°C
- Freezing Points: -30.6°C
- Vapour Pressure: 4.5 mm of Hg (@ 20°C)
- Vapour Density: (air=1) 3.59
- Liquid Density: (Water=1): 0.906
- Liquid Vapour conversion:

24. ERDS FOR TOLUENE DI-ISOCYANATE (TDI)

Chemical Identification

Chemical Name: Toluene Diisocyanate

Formula: $C_9H_6N_2O_2$

Appearance: Colorless to pale yellow liquid

Odour : Sharp, pungent

Hazard Classification

Flammable: Combustible (not highly flammable)

Flash Point: ~127°C

LEL – UEL: Not well defined

Toxic: Highly Toxic (Respiratory Sensitizer)

IDLH: 2.5 ppm

- LV (ACGIH): 0.005 ppm (TWA)

◇ General Response Action

ON-SITE:

Isolate the area immediately

Avoid breathing vapors/mist

Use SCBA (Self-Contained Breathing Apparatus)

Ensure proper ventilation

Avoid contact with skin and eyes

Keep away from moisture (reacts with water)

Evacuate non-essential personnel

PPE Required:

Chemical resistant suit

SCBA

Face shield + goggles

Nitrile / butyl rubber gloves

I. Fire

Hazard:

Releases toxic fumes (NO_x, CO, HCN) on burning

Reacts with water → CO₂ formation → pressure build-up

Suggested Action:

SMALL FIRE: Dry chemical powder, CO₂

LARGE FIRE: Foam, water spray (fog only)

Do NOT use direct water jet

Cool containers with water spray

III. Medical

DANGER: Highly Toxic & Sensitizer

Eye:

Severe irritation, redness

Skin:

Burns, sensitization, allergic reaction

Inhalation:

Severe respiratory irritation

Asthma-like symptoms

Lung damage (may be delayed)

Ingestion:

Harmful if swallowed

Suggested First Aid:

Eye: Flush with water for 15 min

Skin: Wash with soap & water immediately

Inhalation: Move to fresh air, give oxygen

Ingestion: Do NOT induce vomiting, seek medical help

Antidote: No specific antidote → symptomatic treatment

IV. Pollution

Harmful to environment

Avoid release to water bodies & soil

Contain spill with inert absorbent

V. Chemical Information

A) Reactivity with Water:

Reacts with water → releases CO₂ gas → pressure hazard

B) Reactivity with Materials:

Reacts with: Alcohols, Amines, Strong bases, Oxidizers

C) Polymerization: Possible under uncontrolled conditions

D) Combustion Products:

Carbon monoxide (CO)

Nitrogen oxides (NO_x)

Sr. No	Mass of Release (Tonners)	Approx. Valnerable Distance (m) (in the direction of wind)	Approx. time to reach Max. Vulnerable Dist. (Min)
1	1	300 – 500	5 – 10
2	5	800 – 1200	10 – 20
3	10	1500 – 2500	15 – 30

Hydrogen cyanide (HCN)

E) Physical Properties

Physical State: Liquid

Molecular Weight: 174.16

Boiling Point: ~251°C

Vapour Pressure: Low

Vapour Density: >1 (heavier than air)

Density: ~1.22

25.ERDS FOR PROPYLENE OXIDE (PO)

Chemical Name: Propylene Oxide

Formula: C_3H_6O

Appearance: Colorless volatile liquid

Odour: Ether-like / sweet

Hazard Classification

Flammable: Highly Flammable

Flash Point: $-37^{\circ}C$

LEL – UEL: 2.3% – 37%

Toxic: Yes (toxic & irritant)

IDLH: 400 ppm

TLV (ACGIH): 2 ppm (TWA)

◇ General Response Action

ON-SITE:

Eliminate all ignition sources immediately

Evacuate area and isolate spill zone

Use explosion-proof equipment

Avoid inhalation and skin contact

Ensure adequate ventilation

Use SCBA for emergency response

PPE Required:

Flame-resistant clothing

Chemical goggles + face shield

SCBA

Chemical resistant gloves

ERDS FOR PROPYLENE OXIDE (PO)

Chemical Identification

Chemical Name: Propylene Oxide

Formula: C_3H_6O

Appearance: Colorless volatile liquid

Odour: Ether-like / sweet

Hazard Classification

Flammable: Highly Flammable

Flash Point: -37°C

LEL – UEL: 2.3% – 37%

Toxic: Yes (toxic & irritant)

IDLH: 400 ppm

TLV (ACGIH): 2 ppm (TWA)

◇ General Response Action

ON-SITE:

Eliminate all ignition sources immediately

Evacuate area and isolate spill zone

Use explosion-proof equipment

Avoid inhalation and skin contact

Ensure adequate ventilation

Use SCBA for emergency response

PPE Required:

Flame-resistant clothing

Chemical goggles + face shield

SCBA

Chemical resistant gloves

II. Fire

Hazard:

Forms explosive vapor-air mixtures

Vapors heavier than air → travel to ignition source

Risk of vapor cloud explosion (VCE)

Suggested Action:

SMALL FIRE: Dry chemical powder, CO₂

LARGE FIRE: Alcohol-resistant foam, water spray (fog)

Do NOT use direct water jet

Cool containers with water spray

III. Medical

DANGER: Flammable + Toxic

Eye: Severe irritation, redness

Skin: Irritation, possible burns

Inhalation: Headache, dizziness, nausea

CNS depression

Respiratory irritation

Sr. No	Mass of Release (Tonners)	Approx. Valnerable Distance (m) (in the direction of wind)	Approx. time to reach Max. Vulnerable Dist. (Min)
1	1	500 – 800	3 – 8
2	5	1200 – 2000	5 – 15
3	10	2500 – 4000	10 – 25

Ingestion: Harmful, may cause systemic toxicity

Suggested First Aid:

Eye: Flush with water for 15 minutes

Skin: Wash thoroughly with soap & water

Inhalation: Move to fresh air, give oxygen if needed

Ingestion: Do NOT induce vomiting, seek immediate medical help

Antidote: No specific antidote

IV. Pollution

Volatile → contributes to air pollution

Harmful to aquatic life

Prevent entry into drains and water bodies

V. Chemical Information

A) Reactivity with Water:

Slightly soluble, but may hydrolyze slowly

B) Reactivity with Materials:

Reacts with:

Strong acids

Strong bases

Oxidizers

C) Polymerisation:

May polymerize violently under certain conditions

D) Combustion Products:

Carbon monoxide (CO)

Carbon dioxide (CO₂)

E) Physical Properties

Physical State: Liquid

Molecular Weight: 58.08

Boiling Point: 34°C

Vapour Pressure: High (very volatile)

Vapour Density: 2.0 (heavier than air)

Density: ~0.83

26. ERDS FOR ETHION

Chemical Identification

Chemical Name: Ethion

Formula: $C_9H_{22}O_4P_2S_4$

Appearance: Colorless to pale yellow liquid

Odour: Mild sulfur / garlic-like

Hazard Classification

Flammable: Slightly combustible

Flash Point: ~120–135°C

LEL – UEL: Not well defined

Toxic: Highly Toxic (Organophosphate Poison)

IDLH: Not established (extremely hazardous at low levels)

TLV (ACGIH): Not established (use ALARA principle)

◇ General Response Action

ON-SITE:

Evacuate and isolate affected area

Avoid inhalation, ingestion, and skin contact

Use SCBA and full chemical protective suit

Prevent spread of contamination

Do NOT touch spilled material without PPE

Inform emergency response team immediately

PPE Required:

Full body chemical suit

SCBA

Chemical goggles + face shield

Nitrile / neoprene gloves

II. Fire

Hazard:

Decomposes to produce toxic fumes (SO_x, PO_x, CO)

Containers may rupture under heat

Suggested Action:

SMALL FIRE: Dry chemical, CO₂

LARGE FIRE: Foam, water spray (fog)

Avoid direct water jet

Cool containers with water spray

III. Medical

DANGER: Highly Toxic (Cholinesterase Inhibitor)

Eye:

Irritation, possible systemic absorption

Skin:

Highly toxic via skin absorption

Inhalation:

Headache, dizziness

Respiratory distress

Muscle twitching, convulsions

Ingestion:

Severe poisoning, vomiting, diarrhea

May be fatal
Symptoms of Poisoning:
Salivation, sweating
Pinpoint pupils
Breathing difficulty
Muscle weakness

Suggested First Aid:

Eye: Flush with water for 15 minutes
Skin: Remove contaminated clothing, wash thoroughly
Inhalation: Move to fresh air, give oxygen
Ingestion: Do NOT induce vomiting
Antidote:
Atropine
Pralidoxime (2-PAM)

IV. Pollution

Highly toxic to aquatic life and wildlife
Avoid contamination of water bodies
Use containment and proper disposal

V. Chemical Information

A) Reactivity with Water:
Slowly hydrolyzes
B) Reactivity with Materials:
Reacts with:
Strong oxidizers
Alkaline substances
C) Polymerisation:
Will not occur
D) Combustion Products:
Sulfur oxides (SO_x)
Phosphorus oxides (PO_x)
Carbon monoxide (CO)
E) Physical Properties
Physical State: Liquid
Molecular Weight: 384.48
Boiling Point: Decomposes before boiling
Vapour Pressure: Very low
Vapour Density: Heavier than air
Density: ~1.2

Sr. No	Mass of Release (Tonners)	Approx. Valnerable Distance (m) (in the direction of wind)	Approx. time to reach Max. Vulnerable Dist. (Min)
1	1	200 – 400	5 – 10
2	5	600 – 1000	10 – 20
3	10	1200 – 1800	15 – 30

27. ERDS FOR XYLENE

Chemical Identification

Chemical Name: Xylene (o-, m-, p-isomers)

Formula: C_8H_{10}

Appearance: Colourless liquid

Odour: Sweet, aromatic (similar to toluene)

Hazard Classification

Flammable: Highly Flammable

Flash Point: ~25–30°C

LEL – UEL: 1.0% – 7.0%

Toxic: Yes (harmful vapours)

IDLH: 900 ppm

TLV (ACGIH): 100 ppm (TWA)

♦ General Response Action

ON-SITE:

Eliminate all ignition sources immediately

Evacuate and isolate affected area

Avoid inhalation of vapours

Use explosion-proof equipment

Ensure adequate ventilation

Use SCBA in emergency conditions

PPE Required:

Flame-resistant clothing

Chemical goggles + face shield

SCBA

Nitrile gloves

II. Fire

Hazard:

Forms flammable vapour-air mixtures

Vapours heavier than air → travel to ignition source

Risk of flashback and explosion

Suggested Action:

SMALL FIRE: Dry chemical powder, CO_2

LARGE FIRE: Foam, water spray (fog)

Do NOT use direct water jet

Cool containers with water spray

III. Medical

DANGER: Flammable + Harmful Vapours

Eye:

Irritation, redness

Skin:

Irritation, dryness

Inhalation:

Headache, dizziness

CNS depression
Respiratory irritation
Ingestion:
Harmful, aspiration hazard

Suggested First Aid:

Eye: Flush with water for 15 minutes
Skin: Wash with soap & water
Inhalation: Move to fresh air
Ingestion: Do NOT induce vomiting
Antidote: No specific antidote

IV. Pollution

Harmful to aquatic life
Avoid entry into drains and water bodies
Vapours contribute to air pollution

V. Chemical Information

A) Reactivity with Water:

Insoluble in water

B) Reactivity with Materials:

Reacts with:

Strong oxidizers

Acids

C) Polymerisation:

Will not occur

D) Combustion Products:

Carbon monoxide (CO)

Carbon dioxide (CO₂)

E) Physical Properties

Physical State: Liquid

Molecular Weight: 106.16

Boiling Point: ~138–144°C

Vapour Pressure: Moderate

Vapour Density: ~3.7 (heavier than air)

Density: ~0.86

28.ERDS FOR PROPYLENE OXIDE (PO)

Chemical Identification

Chemical Name: Propylene Oxide

Formula: C₃H₆O

Appearance: Colourless, highly volatile liquid

Odour: Ether-like / sweet

Hazard Classification

Flammable: Extremely Flammable

Flash Point: -37°C

LEL – UEL: 2.3% – 37%

Toxic: Yes (toxic & irritant)

IDLH: 400 ppm

TLV (ACGIH): 2 ppm (TWA)

♦ General Response Action

ON-SITE:

Immediately eliminate all ignition sources

Evacuate and isolate the affected area

Use explosion-proof equipment only

Avoid breathing vapours

Ensure proper ventilation

Use SCBA for emergency handling

PPE Required:

Flame-resistant clothing

Chemical goggles + face shield

SCBA

Chemical resistant gloves

II. Fire

Hazard:

Forms explosive vapour-air mixtures

Vapours heavier than air → travel and flashback

High risk of Vapour Cloud Explosion (VCE)

Suggested Action:

SMALL FIRE: Dry chemical powder, CO₂

LARGE FIRE: Alcohol-resistant foam, water spray (fog)

Do NOT use direct water jet

Cool containers with water spray

III. Medical

DANGER: Flammable + Toxic Vapours

Eye:

Severe irritation

Skin:

Sr. No	Mass of Release (Tonners)	Approx. Valnerable Distance (m) (in the direction of wind)	Approx. time to reach Max. Vulnerable Dist. (Min)
1	1	500 – 800	3 – 8
2	5	1200 – 2000	5 – 15
3	10	2500 – 4000	15 – 30

Irritation, possible burns
Inhalation:
Headache, dizziness
CNS depression
Respiratory irritation
Ingestion:
Harmful, systemic toxicity

Suggested First Aid:

Eye: Flush with water for 15 minutes
Skin: Wash thoroughly with soap & water
Inhalation: Move to fresh air, give oxygen if required
Ingestion: Do NOT induce vomiting

Antidote: No specific antidote

IV. Pollution

Highly volatile → air pollution risk
Harmful to aquatic life
Prevent entry into drains and water bodies

V. Chemical Information

A) Reactivity with Water:
Slightly soluble; may hydrolyze slowly
B) Reactivity with Materials:
Reacts with:
Strong acids
Strong bases
Oxidizing agents
C) Polymerisation:
May polymerize violently if contaminated
D) Combustion Products:
Carbon monoxide (CO)
Carbon dioxide (CO₂)
E) Physical Properties
Physical State: Liquid
Molecular Weight: 58.08
Boiling Point: 34°C
Vapour Pressure: High (very volatile)
Vapour Density: ~2 (heavier than air)
Density: ~0.83

29. ERDS FOR ARGON (Ar)

Chemical Identification

Chemical Name: Argon

Formula: Ar

Appearance: Colorless, odorless gas

Odour: Odourless

Hazard Classification

Flammable: Non-Flammable

Flash Point: Not applicable

LEL – UEL: Not applicable

Toxic: Non-toxic (but asphyxiant)

IDLH: Not established (oxygen deficiency hazard)

TLV (ACGIH): Not specified

♦ General Response Action

ON-SITE:

Evacuate area if oxygen deficiency suspected

Ensure adequate ventilation

Use oxygen monitoring devices

Do NOT enter confined space without testing

Use SCBA in oxygen-deficient atmospheres

PPE Required:

SCBA (for confined space entry)

Safety goggles

Cryogenic gloves (for liquid argon)

II. Fire

Hazard:

Non-flammable

Does NOT support combustion

May displace oxygen → indirect fire hazard

Suggested Action:

No fire hazard from argon itself

Use extinguishing media suitable for surrounding fire

III. Medical

DANGER: ASPHYXIATION HAZARD

Eye:

No direct effect

Skin:

Liquid argon may cause frostbite

Inhalation:

Oxygen displacement →

Dizziness

Unconsciousness

Death (in confined spaces)

Ingestion:

Not applicable

Suggested First Aid:

Inhalation: Move to fresh air immediately

Provide oxygen / artificial respiration if needed

Seek medical attention urgently
Skin (Cryogenic):

Warm affected area gently

Do NOT rub

Antidote: _Oxygen therapy

IV. Pollution

Environmentally inert

No ecological hazard

Main risk: oxygen displacement

V. Chemical Information

A) _Reactivity with Water:

No reaction

B) Reactivity with Materials:

Chemically inert (non-reactive)

C) Polymerisation:

Will not occur

D) Combustion Products:

None

E) Physical Properties

Physical State: Gas

Molecular Weight: 39.95

Boiling Point: -185.8°C

Vapour Density: 1.38 (heavier than air)

Density: 1.78 kg/m^3

Solubility: Slightly soluble in water

Sr. No	Mass of Release (Tonners)	Approx. Valnerable Distance (m) (in the direction of wind)	Approx. time to reach Max. Vulnerable Dist. (Min)
1	1	100 – 300	2 – 5
2	5	300 – 800	5 – 10
3	10	800 – 1500	10 – 20

30.ERDS FOR SODIUM CYANIDE

Chemical Identification

Chemical Name: Sodium Cyanide

Formula: NaCN

Appearance: White crystalline solid / pellets

Odour: Bitter almond (not detectable by everyone)

Hazard Classification

Flammable: Non-flammable

Flash Point: Not applicable

LEL – UEL: Not applicable

Toxic: Extremely Toxic (Fatal)

IDLH: 25 mg/m³ (as CN⁻)

TLV (ACGIH): 5 mg/m³ (skin)

♦ General Response Action

ON-SITE:

Evacuate and isolate area immediately

Avoid contact and inhalation at all costs

Use SCBA and full chemical protective suit

Prevent contact with acids (releases HCN gas)

Stop leak only if safe

Keep material dry

PPE Required:

Fully encapsulated chemical suit

SCBA

Chemical goggles + face shield

Butyl rubber gloves

Sr. No	Mass of Release (Tonners)	Approx. Valnerable Distance (m) (in the direction of wind)	Approx. time to reach Max. Vulnerable Dist. (Min)
1	1	800 – 1500	5 – 10
2	5	2000 – 3500	10 – 20
3	10	4000 – 6000	15 – 30

II. Fire

Hazard: Non-flammable, but releases Hydrogen Cyanide (HCN) gas in fire Highly toxic combustion products

Suggested Action:

SMALL FIRE: Dry chemical, CO₂

LARGE FIRE: Water spray (fog), foam

Avoid acid contact

Cool containers with water spray

III. Medical

DANGER: EXTREMELY TOXIC – RAPID ACTION POISON

Eye:

Severe irritation

Skin:

Highly toxic (absorbed through skin)

Inhalation (HCN gas):

Rapid poisoning

Headache, confusion
Respiratory failure → death
Ingestion:
Fatal even in small quantities

Symptoms:

Rapid breathing
Seizures
Cardiac arrest

Suggested First Aid:

Inhalation: Immediate removal to fresh air + oxygen
Skin: Remove contaminated clothing, wash immediately
Eye: Flush with water for 15 minutes
Ingestion: Immediate medical attention (life-threatening)

Antidotes:

Hydroxocobalamin
Sodium Nitrite + Sodium Thiosulfate

IV. Pollution

Highly toxic to aquatic life
Prevent entry into drains and soil
Neutralize under expert supervision

V. Chemical Information

A) Reactivity with Water:
Stable in dry conditions
Hydrolysis may release toxic vapours
B) Reactivity with Materials:
Reacts with:
Acids → releases HCN gas (very dangerous)
Oxidizers
C) Polymerisation:
Will not occur
D) Combustion Products:
Hydrogen cyanide (HCN)
Nitrogen oxides (NO_x)
Carbon monoxide (CO)
E) Physical Properties
Physical State: Solid
Molecular Weight: 49.01
Boiling Point: Decomposes
Vapour Pressure: Negligible
Density: ~1.6
Solubility: Highly soluble in water

31. ERDS FOR SODIUM HYPOCHLORITE

Chemical Identification

Chemical Name: Sodium Hypochlorite

Formula: NaOCl

Appearance: Greenish-yellow liquid (solution)

Odour: Strong chlorine-like smell

Hazard Classification

Flammable: Non-flammable

Flash Point: Not applicable

LEL – UEL: Not applicable

Toxic: Yes (corrosive & releases toxic gas)

IDLH: Not established

TLV (as Chlorine): 0.5 ppm (TWA), 1 ppm (STEL)

♦ General Response Action

ON-SITE:

Evacuate and isolate spill area

Avoid inhalation of vapours

Use adequate ventilation

Avoid contact with acids and ammonia

Use SCBA in high exposure conditions

Contain spill safely

PPE Required:

Chemical resistant suit

Goggles + face shield

Rubber gloves

SCBA (if vapour concentration high)

II. Fire

Hazard:

- Non-flammable
- May **decompose in heat** → **release chlorine gas (Cl₂)**
- Reacts with organic materials → fire risk

Suggested Action:

- Use water spray to cool containers
- Use extinguishing media suitable for surrounding fire
- Avoid contamination with incompatible substances

III. Medical

DANGER: CORROSIVE + TOXIC GAS RELEASE

Eye:

- Severe irritation, possible burns

Skin:

- Corrosive, causes burns

Inhalation:

- Irritates respiratory tract
- Exposure to chlorine gas → coughing, choking

Ingestion:

- Corrosive damage to mouth and stomach

Sr. No	Mass of Release (Tonners)	Approx. Valnerable Distance (m) (in the direction of wind)	Approx. time to reach Max. Vulnerable Dist. (Min)
1	1	300 – 600	5 – 10
2	5	800 – 1500	10 – 20
3	10	1500 – 2500	15 – 30

Suggested First Aid:

- **Eye:** Flush with water for 15 minutes
- **Skin:** Wash thoroughly with water
- **Inhalation:** Move to fresh air, give oxygen
- **Ingestion:** Do NOT induce vomiting, seek immediate medical help

Antidote: No specific antidote

IV. Pollution

- Toxic to aquatic life
- Avoid release into drains and water bodies
- Neutralize before disposal

V. Chemical Information**A) Reactivity with Water:**

- Stable in aqueous solution

B) Reactivity with Materials:

- Reacts with:
 - **Acids** → releases chlorine gas (Cl_2)
 - Ammonia → toxic chloramines
 - Organic materials

C) Polymerisation:

- Will not occur

D) Combustion / Decomposition Products:

- Chlorine gas (Cl_2)
- Sodium chloride (NaCl)
- Oxygen

E) Physical Properties

- Physical State: Liquid (aqueous solution)
- Molecular Weight: 74.44
- Boiling Point: Decomposes
- Vapour Pressure: Low
- Density: ~1.1 – 1.2
- Solubility: Completely soluble in water

32. ERDS FOR BENZENE

Chemical Identification

- Chemical Name: Benzene
- Formula: C₆H₆
- Appearance: Colourless liquid
- Odour: Sweet, aromatic

Hazard Classification

- Flammable: Highly Flammable
- Flash Point: -11°C
- LEL – UEL: 1.2% – 7.8%
- Toxic: Yes (Carcinogenic)
- IDLH: 500 ppm
- TLV (ACGIH): 0.5 ppm (TWA), 2.5 ppm (STEL)

♦ General Response Action

ON-SITE:

- Eliminate all ignition sources immediately
- Evacuate and isolate the area
- Avoid inhalation of vapours
- Use explosion-proof equipment
- Ensure adequate ventilation
- Use SCBA during emergency response

PPE Required:

- Flame-resistant clothing
- Chemical goggles + face shield
- SCBA
- Nitrile gloves

II. Fire

Hazard:

Forms highly flammable vapour-air mixtures

Vapours heavier than air → travel to ignition source

Risk of flashback and explosion

Suggested Action:

SMALL FIRE: Dry chemical powder, CO₂

LARGE FIRE: Foam, water spray (fog)

Do NOT use direct water jet

Cool containers with water spray

III. Medical

DANGER: TOXIC + CARCINOGENIC

Eye: Irritation

Skin: Irritation, dryness

Inhalation:

Dizziness, headache
CNS depression
Long-term: affects bone marrow

Ingestion: Harmful, aspiration hazard

Chronic Effects:

Blood disorders
Leukaemia (cancer risk)

Suggested First Aid:

- Eye: Flush with water for 15 minutes
- Skin: Wash with soap & water
- Inhalation: Move to fresh air
- Ingestion: Do NOT induce vomiting

Antidote: No specific antidote

IV. Pollution

- Toxic to aquatic life
- Volatile → air pollution risk
- Prevent entry into drains and soil

V. Chemical Information

A) Reactivity with Water:

- Insoluble

B) Reactivity with Materials:

- Reacts with:
 - Strong oxidizers

C) Polymerisation:

- Will not occur

D) Combustion Products:

- Carbon monoxide (CO)
- Carbon dioxide (CO₂)
- Soot

E) Physical Properties

- Physical State: Liquid
- Molecular Weight: 78.11
- Boiling Point: 80.1°C
- Vapour Pressure: High
- Vapour Density: ~2.7 (heavier than air)
- Density: ~0.88

33.ERDS FOR 2,5-DICHLORONITROBENZENE (DCNB)

Chemical Identification

Chemical Name: 2,5-Dichloronitrobenzene

Formula: C₆H₃Cl₂NO₂

Appearance: Pale yellow crystalline solid

Odour: Slight aromatic

Hazard Classification

Flammable: Combustible (not highly flammable)

Flash Point: ~150°C (approx.)

LEL – UEL: Not well defined

Toxic: Yes (Toxic, harmful if inhaled/absorbed)

IDLH: Not established

TLV (ACGIH): Not established

♦ General Response Action

ON-SITE:

Evacuate and isolate affected area

Avoid dust formation and inhalation

Use adequate ventilation

Avoid skin and eye contact

Use SCBA in case of fire or high exposure

Prevent environmental contamination

PPE Required:

Chemical resistant suit

Gloves (nitrile/neoprene)

Goggles + face shield

Respiratory protection / SCBA

II. Fire

Hazard:

- Combustible solid
- Decomposition releases **toxic fumes (NO_x, HCl, CO)**
- Dust may form explosive mixtures in air (rare but possible)

Suggested Action:

- **SMALL FIRE:** Dry chemical powder, CO₂
- **LARGE FIRE:** Foam, water spray
- Avoid dust dispersion during firefighting
- Cool surrounding containers

III. Medical

DANGER: TOXIC SOLID (INHALATION & SKIN HAZARD)

Eye:

- Irritation, redness

Skin:

- Irritation, possible absorption

Inhalation (dust):

- Respiratory irritation
- Headache, dizziness

Ingestion:

Sr. No	Mass of Release (Tonners)	Approx. Valnerable Distance (m) (in the direction of wind)	Approx. time to reach Max. Vulnerable Dist. (Min)
1	1		
2	5		
3	10		

- Harmful, systemic toxicity

Suggested First Aid:

- **Eye:** Flush with water for 15 minutes
- **Skin:** Wash with soap & water
- **Inhalation:** Move to fresh air
- **Ingestion:** Seek medical attention immediately

Antidote: No specific antidote

IV. Pollution

- Harmful to aquatic life
- Avoid release into environment
- Collect spill using inert absorbent

V. Chemical Information

A) Reactivity with Water:

- Insoluble

B) Reactivity with Materials:

- Reacts with:
 - Strong oxidizers
 - Strong reducing agents

C) Polymerisation:

- Will not occur

D) Combustion Products:

- Nitrogen oxides (NO_x)
- Hydrogen chloride (HCl)
- Carbon monoxide (CO)

E) Physical Properties

- Physical State: Solid
- Molecular Weight: ~192.99
- Boiling Point: Decomposes
- Vapour Pressure: Negligible
- Density: ~1.5
- Solubility: Very low in water

34. ERDS FOR METHYL TERT-BUTYL ETHER (MTBE)

Chemical Identification

Chemical Name: Methyl tert-Butyl Ether

Formula: C₅H₁₂O

Appearance: Colorless volatile liquid

Odour: Ether-like, pungent

Hazard Classification

Flammable: Highly Flammable

Flash Point: -28°C

LEL – UEL: 1.6% – 8.4%

Toxic: Yes (harmful vapours)

IDLH: Not established

TLV (ACGIH): 50 ppm (TWA)

♦ General Response Action

ON-SITE:

Eliminate all ignition sources immediately

Evacuate and isolate the area

Avoid inhalation of vapours

Use explosion-proof equipment

Ensure proper ventilation

Use SCBA for emergency response

PPE Required:

Flame-resistant clothing

Chemical goggles + face shield

SCBA

Chemical resistant gloves

II. Fire

Hazard:

- Forms **flammable vapour-air mixtures**
- Vapours heavier than air → travel and ignite
- Risk of **flashback and explosion**

Suggested Action:

- **SMALL FIRE:** Dry chemical powder, CO₂
- **LARGE FIRE:** Alcohol-resistant foam, water spray (fog)
- Do NOT use direct water jet
- Cool containers with water spray

III. Medical

DANGER: FLAMMABLE + HARMFUL VAPOURS

Eye:

- Irritation

Skin:

- Mild irritation

Inhalation:

- Headache, dizziness
- CNS depression
- Respiratory irritation

Ingestion:

- Harmful, aspiration hazard

Suggested First Aid:

- **Eye:** Flush with water for 15 minutes
- **Skin:** Wash with soap & water
- **Inhalation:** Move to fresh air
- **Ingestion:** Do NOT induce vomiting

Antidote: No specific antidote

IV. Pollution

- Highly mobile in groundwater
- Contaminates water sources
- Harmful to aquatic life

V. Chemical Information

A) Reactivity with Water:

- Slightly soluble

B) Reactivity with Materials:

- Reacts with:
 - Strong oxidizers

C) Polymerisation:

- Will not occur

D) Combustion Products:

- Carbon monoxide (CO)
- Carbon dioxide (CO₂)

E) Physical Properties

- Physical State: Liquid
- Molecular Weight: 88.15
- Boiling Point: 55°C
- Vapour Pressure: High (very volatile)
- Vapour Density: ~3.1 (heavier than air)
- Density: ~0.74

35. ERDS FOR HEXANE

Chemical Identification

Chemical Name: n-Hexane

Formula: C₆H₁₄

Appearance: Colorless, highly volatile liquid

Odour: Mild petroleum-like

Hazard Classification

Flammable: Highly Flammable

Flash Point: ~ -22°C

LEL – UEL: 1.1% – 7.5%

Toxic: Yes (neurotoxic on prolonged exposure)

IDLH: 1100 ppm

TLV (ACGIH): 50 ppm (TWA)

♦ General Response Action

ON-SITE:

Eliminate all ignition sources immediately

Evacuate and isolate the area

Avoid inhalation of vapours

Use explosion-proof equipment

Ensure proper ventilation

Use SCBA during emergency response

PPE Required:

Flame-resistant clothing

Chemical goggles + face shield

SCBA

Nitrile gloves

II. Fire

Hazard:

- Forms **highly flammable vapour-air mixtures**
- Vapours heavier than air → travel and ignite
- Risk of **flashback and explosion**

Suggested Action:

- **SMALL FIRE:** Dry chemical powder, CO₂
- **LARGE FIRE:** Foam, water spray (fog)
- Do NOT use direct water jet
- Cool containers with water spray

III. Medical

DANGER: FLAMMABLE + NEUROTOXIC VAPOURS

Eye:

- Mild irritation

Skin:

- Dryness, irritation

Inhalation:

- Headache, dizziness
- CNS depression
- Long-term: nerve damage (peripheral neuropathy)

Ingestion:

Sr. No	Mass of Release (Tonners)	Approx. Valnerable Distance (m) (in the direction of wind)	Approx. time to reach Max. Vulnerable Dist. (Min)
1	1	400 – 800	5 – 10
2	5	1200 – 2000	10 – 20
3	10	2500 – 3500	15 – 30

- Harmful, aspiration hazard

Suggested First Aid:

- **Eye:** Flush with water for 15 minutes
- **Skin:** Wash with soap & water
- **Inhalation:** Move to fresh air
- **Ingestion:** Do NOT induce vomiting

Antidote: No specific antidote

IV. Pollution

- Harmful to aquatic life
- Volatile → air pollution risk
- Prevent entry into drains and soil

V. Chemical Information

A) Reactivity with Water:

- Insoluble

B) Reactivity with Materials:

- Reacts with:
 - Strong oxidizers

C) Polymerisation:

- Will not occur

D) Combustion Products:

- Carbon monoxide (CO)
- Carbon dioxide (CO₂)

E) Physical Properties

- Physical State: Liquid
- Molecular Weight: 86.18
- Boiling Point: ~69°C
- Vapour Pressure: High
- Vapour Density: ~3 (heavier than air)
- Density: ~0.66

36.ERDS FOR ANHYDROUS HYDROGEN CHLORIDE (HCl)

Chemical Identification

Chemical Name: Hydrogen Chloride

Formula: HCl

Appearance: Colorless gas (forms dense white fumes in moist air)

Odour: Sharp, pungent, irritating

Hazard Classification

Flammable: Non-flammable

Flash Point: Not applicable

LEL – UEL: Not applicable

Toxic: Highly Toxic & Corrosive

IDLH: 50 ppm

TLV (ACGIH): 2 ppm (Ceiling)

♦ General Response Action

ON-SITE:

Evacuate and isolate the area immediately

Approach from upwind direction

Avoid inhalation at all costs

Use SCBA and full chemical protective suit

Stop leak only if safe

Use water spray to knock down vapours

PPE Required:

Fully encapsulated chemical suit

SCBA

Chemical goggles + face shield

Acid-resistant gloves

II. Fire

Hazard:

- Non-flammable
- Reacts with metals → releases **hydrogen gas (flammable)**
- Containers may rupture under heat

Suggested Action:

- Use water spray to cool containers
- Use extinguishing media suitable for surrounding fire
- Avoid direct contact with leaking gas

III. Medical

Danger: Highly Corrosive & Toxic Gas

Eye:

- Severe burns, permanent damage

Skin:

- Severe chemical burns

Inhalation:

- Severe respiratory irritation
- Lung damage (pulmonary edema)
- May be fatal

Ingestion:

Sr. No	Mass of Release (Tonners)	Approx. Valnerable Distance (m) (in the direction of wind)	Approx. time to reach Max. Vulnerable Dist. (Min)
1	1	1000 – 2000	5 – 10
2	5	3000 – 5000	10 – 20
3	10	6000 – 8000	15 – 30

- Severe burns to digestive tract

Suggested First Aid:

- **Eye:** Flush with water for at least 15 minutes
- **Skin:** Wash immediately with plenty of water
- **Inhalation:** Move to fresh air immediately, provide oxygen
- **Ingestion:** Do NOT induce vomiting, seek urgent medical help

Antidote: No specific antidote (supportive treatment)

IV. Pollution

- Causes **acidification of soil and water**
- Harmful to vegetation and aquatic life
- Avoid release to environment

V. Chemical Information

A) Reactivity with Water:

- Reacts readily → forms **hydrochloric acid (highly corrosive)**

B) Reactivity with Materials:

- Reacts with:
 - Metals → hydrogen gas
 - Bases → neutralization
 - Oxidizers

C) Polymerisation:

- Will not occur

D) Combustion / Decomposition Products:

- Hydrogen chloride fumes
- Chlorine (in extreme conditions)

E) Physical Properties

- Physical State: Gas
- Molecular Weight: 36.46
- Boiling Point: -85°C
- Vapour Density: ~ 1.3 (heavier than air)
- Density: $\sim 1.49 \text{ kg/m}^3$
- Solubility: Highly soluble in water

37.ERDS FOR ETHYLBENZENE

Chemical Identification

Chemical Name: Ethylbenzene

Formula: C₈H₁₀

Appearance: Colourless liquid

Odour: Sweet, gasoline-like

Hazard Classification

Flammable: Highly Flammable

Flash Point: ~15°C

LEL – UEL: 1.0% – 6.7%

Toxic: Yes (harmful vapours)

IDLH: 800 ppm

TLV (ACGIH): 20 ppm (TWA)

♦ General Response Action

ON-SITE:

Eliminate all ignition sources immediately

Evacuate and isolate the affected area

Avoid inhalation of vapours

Use explosion-proof equipment

Ensure proper ventilation

Use SCBA for emergency response

PPE Required:

Flame-resistant clothing

Chemical goggles + face shield

SCBA

Nitrile gloves

II. Fire

Hazard:

Forms flammable vapour-air mixtures

Vapours heavier than air → travel and ignite

Risk of flashback and explosion

Suggested Action:

SMALL FIRE: Dry chemical powder, CO₂

LARGE FIRE: Foam, water spray (fog)

Do NOT use direct water jet

Cool containers with water spray

Sr. No	Mass of Release (Tonners)	Approx. Valnerable Distance (m) (in the direction of wind)	Approx. time to reach Max. Vulnerable Dist. (Min)
1	1	400 – 800	5 – 10
2	5	1200 – 2000	10 – 20
3	10	2500 – 3500	15 – 30

III. Medical

DANGER: FLAMMABLE + HARMFUL VAPOURS

Eye: Irritation

Skin: Irritation, dryness

Inhalation: Headache, dizziness

CNS depression

Respiratory irritation

Ingestion: Harmful, aspiration hazard

Suggested First Aid:

Eye: Flush with water for 15 minutes

Skin: Wash with soap & water

Inhalation: Move to fresh air

Ingestion: Do NOT induce vomiting

Antidote: No specific antidote

IV. Pollution

Harmful to aquatic life

Volatile → contributes to air pollution

Prevent entry into drains and soil

V. Chemical Information

A) Reactivity with Water:

Insoluble

B) Reactivity with Materials:

Reacts with:

Strong oxidizers

C) Polymerisation:

Will not occur

D) Combustion Products:

Carbon monoxide (CO)

Carbon dioxide (CO₂)

E) Physical Properties

Physical State: Liquid

Molecular Weight: 106.17

Boiling Point: ~136°C

Vapour Pressure: Moderate

Vapour Density: ~3.6 (heavier than air)

Density: ~0.87

38. ERDS FOR 1,3-BUTADIENE

Chemical Identification

Chemical Name: 1,3-Butadiene

Formula: C₄H₆

Appearance: Colorless gas (stored as liquefied gas)

Odour: Mild aromatic / gasoline-like

Hazard Classification

Flammable: Extremely Flammable Gas

Flash Point: ~ -85°C

LEL – UEL: 2.0% – 11.5%

Toxic: Yes (Carcinogenic)

IDLH: 2000 ppm

TLV (ACGIH): 2 ppm (TWA)

♦ General Response Action

ON-SITE:

Eliminate all ignition sources immediately

Evacuate and isolate area

Approach from upwind direction

Avoid inhalation of gas

Use explosion-proof equipment

Use SCBA for emergency response

PPE Required:

Flame-resistant clothing

SCBA

Chemical goggles / face shield

Anti-static PPE

II. Fire

Hazard:

Forms highly explosive vapour-air mixtures

Vapours heavier than air → travel and ignite

High risk of Vapour Cloud Explosion (VCE)

May polymerize violently if not inhibited

Suggested Action:

SMALL FIRE: Dry chemical, CO₂

LARGE FIRE: Water spray (fog), foam

Do NOT extinguish gas leak fire unless leak is controlled

Cool containers with water spray

III. Medical

Danger: Flammable + Carcinogenic Gas

Eye:

Irritation (liquid contact may cause frostbite)

Skin:

Frostbite (liquefied gas)

Inhalation:

Dizziness, headache

CNS depression

Long-term cancer risk

Ingestion:

Not applicable

Suggested First Aid:

Inhalation: Move to fresh air immediately

Provide oxygen if needed

Seek medical attention

Skin (Cryogenic):

Warm affected area gently

Do NOT rub

Antidote: No specific antidote

IV. Pollution

Contributes to air pollution

Highly volatile

Avoid uncontrolled release

V. Chemical Information

A) Reactivity with Water:

No significant reaction

B) Reactivity with Materials:

Reacts with:

Strong oxidizers

May polymerize if contaminated

C) Polymerisation:

May occur violently if uninhibited

D) Combustion Products:

Carbon monoxide (CO)

Carbon dioxide (CO₂)

E) Physical Properties

Physical State: Gas (liquefied under pressure)

Molecular Weight: 54.09

Boiling Point: -4.4°C

Vapour Density: ~1.9 (heavier than air)

Density: ~0.62 (liquid)

Solubility: Slight

39. ERDS FOR SULPHURIC ACID

Chemical Identification

Chemical Name: Sulfuric Acid

Formula: H_2SO_4

Appearance: Colorless to slightly yellow oily liquid

Odour: Odourless (may produce irritating fumes)

Hazard Classification

Flammable: Non-flammable

Flash Point: Not applicable

LEL – UEL: Not applicable

Toxic: Highly Corrosive

IDLH: 15 mg/m³

TLV (ACGIH): 0.2 mg/m³ (as thoracic fraction)

♦ General Response Action

ON-SITE:

Evacuate and isolate spill area

Avoid contact with liquid and fumes

Use proper ventilation

Neutralize cautiously (under expert supervision)

Avoid contact with water in large quantities (violent reaction)

Use SCBA if mist or fumes present

PPE Required:

Acid-resistant suit

Chemical goggles + face shield

Rubber gloves (butyl/neoprene)

SCBA (if required)

II. Fire

Hazard:

- Non-flammable
- Reacts with metals → releases **hydrogen gas (flammable)**
- Generates heat on dilution
- May decompose to release toxic fumes (SO_x)

Suggested Action:

- Use extinguishing media suitable for surrounding fire
- Cool containers with water spray
- Avoid direct water contact with concentrated acid

III. Medical

DANGER: HIGHLY CORROSIVE

Eye:

- Severe burns, permanent damage

Skin:

- Severe burns, tissue destruction

Inhalation:

- Severe respiratory irritation
- Lung damage (acid mist exposure)

Ingestion:

- Severe burns to digestive tract

Suggested First Aid:

- **Eye:** Flush with water for at least 15 minutes
- **Skin:** Wash immediately with plenty of water
- **Inhalation:** Move to fresh air, provide oxygen
- **Ingestion:** Do NOT induce vomiting, seek immediate medical help

Antidote: No specific antidote

IV. Pollution

- Causes severe environmental damage
- Acidifies soil and water bodies
- Avoid release to environment

V. Chemical Information

A) Reactivity with Water:

- **Highly exothermic reaction** (releases heat)

B) Reactivity with Materials:

- Reacts with:
 - Metals → hydrogen gas
 - Bases → neutralization
 - Organic materials

C) Polymerisation:

- Will not occur

D) Decomposition Products:

- Sulfur oxides (SO_2 , SO_3)

E) Physical Properties

- Physical State: Liquid
- Molecular Weight: 98.08
- Boiling Point: $\sim 337^\circ\text{C}$
- Vapour Pressure: Low
- Vapour Density: Heavier than air
- Density: ~ 1.84

40.ERDS FOR ISOBUTYLENE

Formula: C₄H₈

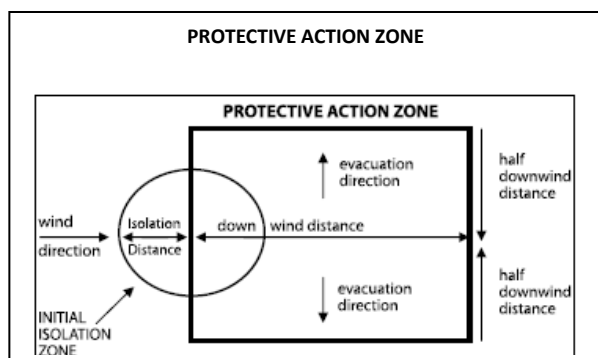
Colourless gas, usually shipped as a liquid compressed gas.

Flammable:	YES
Flash Point:	-105°F (-76°C) (cc)
LEL- UEL:	1.8 % & 9.6 %
Toxic:	Lightly toxic
IDLH:	PPM Not determined
TLV:	PPM Not established

X. General Response Action

- On-SITE: Remove all ignition sources ventilated area.
- Stop flow gas.
- If the sources of leak are a cylinder and cannot be stopped, remove to safe place in open air.
- Repair leak or let cylinder empty.
- If gas not yet ignited use & water spray to knock down vapours & direct then from ignition sources.
- PPEs: Thermal protective gloves, goggles and leather apron.

XXVIII. Evacuation Zone Dimensions



Sr. No	Mass of Release (Tonners)	Approx. Valnerable Distance (m) (in the direction of wind)	Approx. time to reach Max. Vulnerable Dist. (Min)
1	1		
2	5		
3	10		

XXIX. Fire

- Flammable gas

Suggested Action:

- Stop flow gas first use DCP, Co₂ foam or water spray of fire.
- Isobutylene is an extremely flammable very dangerous fire & explosion hazard, poisonous gases are evolved from fire.
- wear SCBA with full face
- Ensure all sources of escaping gas are controlled.
- monitoring are long after fire is extinguished, move containers from area if it can be done without risk.
- use water spray to knock down vapour.
- gas is explosive containers may explode in fire even if fire is extinguished, escaping gas can form explosive mixture in air quickly and ignited without warning.

XXX. Medical ::

- **Inhalation:**
 - An Asphyxiant gas initially symptoms are those of oxygen starvation.
 - Feeling of air hunger, diminished mental alertness, headache, shortness of breath and an impairment in muscle co-ordination.
- **Skin & Eyes:**
 - Contact with the compressed gas or refrigerated can cause frostbites & burns.
- **Ingestion:**
 - Not likely since Isobutylene is a gas at normal working temperature.

Suggested Action:

- **Eyes contact:**
 - Immediately flush with large amount of warm water for 15 mins occasionally lifting eyelids.
- **Skin contact:**
 - Remove all contaminated clothing immediately wash area with large amount of tepid water.
 - If blister occurs, seek medical attention to remove the person from exposure.
- **Inhalation:**
 - Provide CPR transfer promptly to medical facility.

Antidotes: N.A

X. Pollution ::

X. Chemical Information ::

LL) Chemical Reactivity:

Reactivity with Water: Insoluble in water, very soluble in alcohol, ether & sulphuric acid.

MM) Reactivity with Common Material: Isobutylene is reacted in contact with strong oxidizers, chlorine, fluorine, other oxidizers, nickel carbonyl plus oxygen.

NN) Polymerisation: will not occur under.

OO) Combustion Products:

41.ERDS FOR LIQUID OXYGEN

Formula: O₂-L

Light blue, odorless liquid.

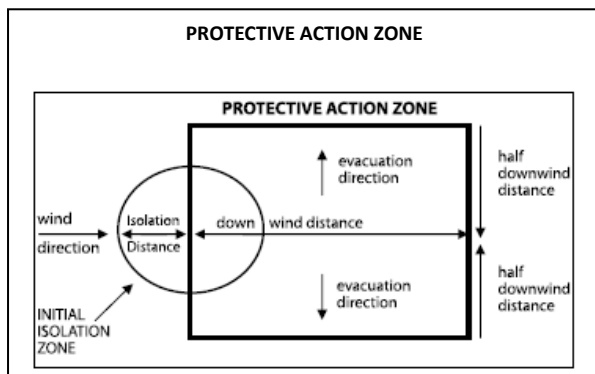
Flammable:	Oxidizer
Flash Point:	NA
LEL- UEL:	NA
Toxic:	Yes
IDLH:	-- PPM
TLV:	-- PPM

XI. General Response Action

- On-SITE:

- Never allow any unprotected part of the body to touch uninsulated pipes or vessels that contain cold fluids. The extremely cold metal of the container will cause moist flesh to stick fast and tear when one attempts to withdraw from it. Protect system components against physical damage. Check all hoses and transfer equipment before filling them with the liquid. Replace any worn or cut hoses prior to use. Liquid Oxygen is extremely cold and is under pressure. A complete hose failure can result in a large release of Oxygen and violent movement of the hose and associated equipment, which may cause severe injury or death. Special care must be taken when depressurizing and disconnecting hoses.
- Wear adequate protective clothes, Safety Shoes, Respirator

XXXI. Evacuation Zone Dimensions



Sr. No	Mass of Release (Tonners)	Approx. Valnerable Distance (m) (in the direction of wind)	Approx. time to reach Max. Vulnerable Dist. (Min)
1	1		
2	5		
3	10		

XXXII. Fire

Negligible fire hazard. Oxidizer. May ignite or explode on contactwith combustible materials. Containers may rupture or explode if exposed to heat.

Suggested Action:

Carbon dioxide, regular dry chemical

Large fires: Use regular foam or flood with fine water spray.

Move container from fire area if it can be done without risk. Cool containers with water spray until well after the fire is out. Stay away from the ends of tanks. For fires in cargo or storage area:

Cool

containers with water from unmanned hose holder or monitor nozzles until well after fire is out. If this is impossible then take the following precautions: Keep unnecessary people away, isolate hazard area and deny

entry. Let the fire burn. For tank, rail car or tank truck, evacuation radius: 800 meters (1/2 mile).

XXXIII. Medical :: Danger

INHALATION:

SHORT TERM EXPOSURE: irritation, changes in body temperature, nausea, difficulty breathing, irregular heartbeat, dizziness, disorientation, hallucinations, mood swings, pain in extremities, tremors, lung

Long Term Exposure: chest pain, lung damage

Skin Contact:

Short Term Exposure: blisters, frostbite

Long Term Exposure: no information on significant adverse effects

EYE CONTACT:

Short Term Exposure: frostbite, blurred vision.

Long Term Exposure: no information on significant adverse effects

INGESTION:

Short Term Exposure: ingestion of harmful amounts is unlikely, frostbite.

Long Term Exposure: ingestion of harmful amounts is unlikely.

Suggested Action:

Inhalation: If adverse effects occur, remove to uncontaminated area. Get medical attention.

Skin Contact: If frostbite or freezing occur, immediately flush with plenty of lukewarm water (105-115 F; 41-46 C). DO NOT USE HOT WATER. If warm water is not available, gently wrap affected parts in blankets. Get immediate medical attention.

Eye Contact: Contact with liquid: Immediately flush eyes with plenty of water for at least 15 minutes. Then get immediate medical attention.

INGESTION: If a large amount is swallowed, get medical attention. Antidotes: N.A.

XI. Pollution ::

No known significant effects or critical hazards

XI. Chemical Information ::

PP) Chemical Reactivity:

Reactivity with Water:

Slightly soluble in water .

QQ) Reactivity with Common Material: combustible materials, halo carbons, metals, bases, reducing agents, amines, metal salts, oxidizing materials.

following materials: oxidizing materials.

RR) Polymerisation:

Will not polymerize.

SS) Combustion Products: None

Physical State at 15 Deg. C and 1 Atm. Pressure: Gas

- TLV: --PPM
- IDLH: --ppm
- Molecular weight: 31.9988
- Boiling Points: -183° C
- Freezing Points: -218° C
- Vapour Pressure: -760 mmHg @ -183 C
- Vapour Density: 1.1
- Liquid Density: (Water=1): 1.1407 @ -183 C
- Liquid Vapour conversion:

42. ERDS FOR EPICHLOROHYDRIN (ECH)

Chemical Identification

Chemical Name: Epichlorohydrin

Formula: C_3H_5ClO

Appearance: Colourless liquid

Odour: Sharp, chloroform-like

Hazard Classification

Flammable: Flammable

Flash Point: **~33°C**

LEL – UEL: **3.8% – 21%**

Toxic: Highly Toxic & Carcinogenic

IDLH: **20 ppm**

TLV (ACGIH): **1 ppm (TWA)**

♦ General Response Action

ON-SITE:

Eliminate all ignition sources

Evacuate and isolate the area

Avoid inhalation and skin contact

Use explosion-proof equipment

Ensure proper ventilation

Use SCBA for emergency response

PPE Required:

Chemical-resistant suit

SCBA

Chemical goggles + face shield

Butyl rubber gloves

II. Fire

Hazard:

Forms **flammable vapour-air mixtures**

Vapours heavier than air → travel and ignite

Produces toxic fumes on combustion

Suggested Action:

Small Fire: Dry chemical powder, CO_2

Large Fire: Alcohol-resistant foam, water spray (fog)

Do NOT use direct water jet

Cool containers with water spray

III. Medical

Danger: Toxic + Carcinogenic

Eye: Severe irritation, possible burns

Skin: Corrosive, may cause burns and absorption

Inhalation: Respiratory irritation, Headache, dizziness, Long-term cancer risk

Ingestion: Harmful, systemic toxicity

Suggested First Aid:

Eye: Flush with water for at least 15 minutes

Skin: Wash immediately with soap & water

Inhalation: Move to fresh air, provide oxygen if needed

Ingestion: Do NOT induce vomiting

Antidote: No specific antidote

IV. Pollution: Harmful to aquatic life, Persistent environmental hazard, Prevent release to drains and soil

V. Chemical Information

A) Reactivity with Water: Slightly soluble; may hydrolyse

B) Reactivity with Materials:

Reacts with:

Strong bases

Strong oxidizers

C) Polymerisation: May occur under certain conditions

D) Combustion Products:

Carbon monoxide (CO)

Hydrogen chloride (HCl)

Carbon dioxide (CO₂)

E) Physical Properties

Physical State: Liquid

Molecular Weight: 92.52

Boiling Point: ~117°C

Vapour Pressure: Moderate

Vapour Density: ~3.2 (heavier than air)

Density: ~1.18

43. ERDS FOR ACETONE

Chemical Identification

Chemical Name: Acetone (Propanone)

Formula: C_3H_6O

Appearance: Colourless, highly volatile liquid

Odour: Sweet, fruity

Hazard Classification

Flammable: Highly Flammable

Flash Point: $\sim -20^{\circ}C$

LEL – UEL: 2.6% – 12.8%

Toxic: Low toxicity (but irritant & CNS effects)

IDLH: 2500 ppm

TLV (ACGIH): 250 ppm (TWA), 500 ppm (STEL)

♦ General Response Action

ON-SITE:

Eliminate all ignition sources immediately

Evacuate and isolate spill area

Avoid inhalation of vapours

Use explosion-proof equipment

Ensure good ventilation

Use SCBA in emergency conditions

PPE Required:

Flame-resistant clothing

Chemical goggles + face shield

SCBA (if required)

Nitrile gloves

II. Fire

Hazard:

Forms **highly flammable vapour-air mixtures**

Vapours heavier than air → travel and ignite

High risk of **flash fire / explosion**

Suggested Action:

SMALL FIRE: Dry chemical powder, CO_2

LARGE FIRE: Alcohol-resistant foam, water spray (fog)

Do NOT use direct water jet

Cool containers with water spray

II. Medical

Danger: Flammable + Irritant

Eye: Irritation, redness

Skin: Dryness, irritation

Inhalation: Headache, dizziness, CNS depression, Respiratory irritation

Ingestion: Harmful, may cause drowsiness

Suggested First Aid:

Eye: Flush with water for 15 minutes

Skin: Wash with soap & water

Inhalation: Move to fresh air

Ingestion: Do NOT induce vomiting

Antidote: No specific antidote

IV. Pollution

Volatile → contributes to air pollution

Harmful to aquatic life in high concentrations

Prevent entry into drains

V. Chemical Information

A) Reactivity with Water:

Completely miscible

B) Reactivity with Materials:

Reacts with:

Strong oxidizers

C) Polymerisation:

Will not occur

D) Combustion Products:

Carbon monoxide (CO)

Carbon dioxide (CO₂)

E) Physical Properties

Physical State: Liquid

Molecular Weight: 58.08

Boiling Point: 56°C

Vapour Pressure: High

Vapour Density: ~2 (heavier than air)

Density: ~0.79

44. ERDS FOR ACETIC ACID

Chemical Identification

Chemical Name: Acetic Acid (Glacial Acetic Acid – concentrated form)

Formula: CH₃COOH (C₂H₄O₂)

Appearance: Colourless liquid

Odour: Strong, pungent (vinegar-like)

Hazard Classification

Flammable: Flammable (especially ≥ 80% concentration)

Flash Point: ~39°C

LEL – UEL: 4.0% – 19.9%

Toxic: Yes (Corrosive & Irritant)

IDLH: 50 ppm

TLV (ACGIH): 10 ppm (TWA), 15 ppm (STEL)

♦ General Response Action

ON-SITE:

Isolate and evacuate spill area

Eliminate ignition sources

Avoid inhalation of vapours

Ensure adequate ventilation

Contain and neutralize spill cautiously

Use **SCBA in high vapour concentration**

PPE Required:

Acid-resistant suit

Chemical goggles + face shield

Rubber / neoprene gloves

SCBA (if required)

II. Fire

Hazard: Flammable liquid (glacial form)

Vapours form explosive mixtures with air.

Containers may rupture on heating

Suggested Action:

SMALL FIRE: Dry chemical, CO₂

LARGE FIRE: Alcohol-resistant foam, water spray (fog)

Do NOT use direct water jet

Cool containers with water spray

III. Medical

Danger: Corrosive

Sr. No	Mass of Release (Tonners)	Approx. Valnerable Distance (m) (in the direction of wind)	Approx. time to reach Max. Vulnerable Dist. (Min)
1	1	300 – 600	5 – 10
2	5	800 – 1500	10 – 20
3	10	1500 – 2500	15 – 30

Eye: Severe burns, possible permanent damage

Skin: Severe irritation and burns

Inhalation: Respiratory irritation, Coughing, breathing difficulty

Ingestion: Severe burns to mouth and stomach

Suggested First Aid:

Eye: Flush with water for at least 15 minutes

Skin: Wash immediately with plenty of water

Inhalation: Move to fresh air, provide oxygen if needed

Ingestion: Do NOT induce vomiting, seek immediate medical help

Antidote: No specific antidote

IV. Pollution

Harmful to aquatic life in high concentration

Avoid discharge into drains

Neutralize before disposal

V. Chemical Information

A) Reactivity with Water:

Completely miscible (releases heat on dilution)

B) Reactivity with Materials:

Reacts with:

Strong oxidizers

Bases

Metals → releases hydrogen gas

C) Polymerisation:

Will not occur

D) Combustion Products:

Carbon monoxide (CO)

Carbon dioxide (CO₂)

E) Physical Properties

Physical State: Liquid

Molecular Weight: 60.05

Boiling Point: 118°C

Vapour Pressure: Moderate

Vapour Density: ~2.1 (heavier than air)

Density: ~1.05

45. ERDS FOR PROPANE

Chemical Identification

Chemical Name: Propane

Formula: C₃H₈

Appearance: Colourless gas (stored as liquefied gas under pressure)

Odour: Odourless (commercial LPG contains odorant)

Hazard Classification

Flammable: Extremely Flammable Gas

Flash Point: ~ -104°C

LEL – UEL: 2.1% – 9.5%

Toxic:

Non-toxic (but **asphyxiant**)

IDLH: 2100 ppm

TLV: Not specified

♦ General Response Action

ON-SITE:

Immediately eliminate all ignition sources

Evacuate and isolate area

Approach from **upwind direction**

Stop leak only if safe

Use gas detection instruments

Use **SCBA in confined or high concentration areas**

PPE Required:

Flame-resistant clothing

SCBA

Anti-static PPE

Cryogenic gloves (for liquid contact)

II. Fire

Hazard:

Forms **highly explosive vapour-air mixtures**

Vapours heavier than air → accumulate in low areas

Risk of:

Flash fire

Vapour Cloud Explosion (VCE)

BLEVE (Boiling Liquid Expanding Vapour Explosion)

Suggested Action:

Small Fire: Dry chemical, CO₂

Large Fire: Water spray (fog) to cool tanks

Do NOT extinguish flame unless leak is controlled

Evacuate large area in case of tank fire

III. Medical

DANGER: FIRE + ASPHYXIATION

Eye: Frostbite (liquid exposure)

Skin: Frostbite / cold burns

Inhalation:

Dizziness

Suffocation due to oxygen displacement

Ingestion: Not applicable

Suggested First Aid:

Inhalation: Move to fresh air immediately

Provide oxygen if required

Seek medical attention

Skin (Cryogenic):

Warm slowly

Do NOT rub

Antidote: Oxygen therapy

IV. Pollution

No long-term environmental toxicity

Major hazard: **fire/explosion + oxygen displacement**

V. Chemical Information

A) Reactivity with Water:

No reaction

B) Reactivity with Materials:

Stable; reacts with strong oxidizers

C) Polymerisation: Will not occur

D) Combustion Products:

Carbon monoxide (CO)

Carbon dioxide (CO₂)

E) Physical Properties

Physical State: Gas (liquefied under pressure)

Molecular Weight: 44.10

Boiling Point: -42°C

Vapour Density: ~1.5 (heavier than air)

Density (liquid): ~0.5

Solubility: Slight

46. ERDS FOR GASOLINE

Chemical Identification

Chemical Name: Gasoline

Formula: Mixture of hydrocarbons (typically C₄–C₁₂ range)

Appearance: Clear to pale yellow liquid

Odour: Strong petroleum smell

Hazard Classification

Flammable: Extremely Flammable Liquid

Flash Point: ~ -43°C

LEL – UEL: 1.4% – 7.6%

Toxic: Yes (vapours harmful, contains benzene traces)

IDLH: ~500 ppm (as hydrocarbon mixture)

TLV (ACGIH): ~300 ppm (varies by composition)

♦ General Response Action

ON-SITE:

Eliminate all ignition sources immediately

Evacuate and isolate spill area

Prevent vapour accumulation in low areas

Use explosion-proof equipment

Stop leak only if safe

Use **foam for vapour suppression**

Use **SCBA in high vapour zones**

PPE Required:

Flame-resistant clothing

Chemical goggles + face shield

SCBA

Anti-static PPE

II. Fire

Hazard:

Forms **highly flammable vapour-air mixtures**

Vapours heavier than air → travel to ignition source

Risk of:

Flash fire

Vapour Cloud Explosion (VCE)

Pool fire

Suggested Action:

SMALL FIRE: Dry chemical powder, CO₂

LARGE FIRE: Alcohol-resistant foam

Do NOT use direct water jet
Cool containers with water spray

III. Medical

Danger: Flammable + Toxic Vapours

Eye: Irritation

Skin: Irritation, dermatitis

Inhalation: Headache, dizziness

CNS depression

Long-term exposure risk (benzene content)

Ingestion: Aspiration hazard (can enter lungs)

Suggested First Aid:

Eye: Flush with water for 15 minutes

Skin: Wash with soap & water

Inhalation: Move to fresh air

Ingestion: Do NOT induce vomiting

Antidote: No specific antidote

IV. Pollution

Severe soil and groundwater contamination

Highly toxic to aquatic life

High volatility → air pollution

V. Chemical Information

A) Reactivity with Water:

Insoluble

B) Reactivity with Materials:

Reacts with:

Strong oxidizers

C) Polymerisation: Will not occur

D) Combustion Products:

Carbon monoxide (CO)

Carbon dioxide (CO₂)

Toxic hydrocarbons

E) Physical Properties

Physical State: Liquid

Molecular Weight: Mixture

Boiling Range: ~30–200°C

Vapour Pressure: High

Vapour Density: >3 (heavier than air)

Density: ~0.70 – 0.75

47.ERDS FOR PHOSPHORUS OXYCHLORIDE (POCl₃)

Chemical Identification

Chemical Name: Phosphorus Oxychloride

Formula: POCl₃

Appearance: Colourless to pale yellow fuming liquid

Odour: Sharp, pungent

Hazard Classification

Flammable: Non-flammable

Flash Point: Not applicable

LEL – UEL: Not applicable

Toxic: Highly Toxic & Corrosive

IDLH: Not established (treat as highly hazardous)

TLV (ACGIH): 0.1 ppm (Ceiling, typical guideline)

♦ General Response Action

ON-SITE:

Evacuate and isolate area immediately

Approach from **upwind direction**

Avoid inhalation and contact

Use **SCBA and fully encapsulated suit**

Prevent contact with water/moisture

Contain spill using dry inert material

PPE Required:

Fully encapsulated chemical suit

SCBA

Chemical goggles + face shield

Butyl rubber gloves

II. Fire

Hazard:

Non-flammable

Reacts violently with water → heat + toxic fumes

Releases **HCl gas** and corrosive vapours

Suggested Action:

Use dry chemical, sand

Do NOT use direct water on spill

Use water spray only for cooling containers

III. Medical

Sr. No	Mass of Release (Tonners)	Approx. Valnerable Distance (m) (in the direction of wind)	Approx. time to reach Max. Vulnerable Dist. (Min)
1	1	800 – 1500	5 – 10
2	5	2000 – 3500	10 – 20
3	10	4000 – 6000	15 – 30

Danger: Highly Corrosive + Toxic Fumes

Eye: Severe burns, permanent damage

Skin: Severe burns

Inhalation: Severe respiratory irritation, Lung injury (may be delayed)

Ingestion: Severe internal burns

Suggested First Aid:

Eye: Flush with water for at least 15 minutes

Skin: Wash immediately with large amounts of water

Inhalation: Move to fresh air, provide oxygen

Ingestion: Do NOT induce vomiting

Antidote: No specific antidote

IV. Pollution

Highly corrosive to environment

Causes acidification of soil and water

Avoid release to drains

V. Chemical Information

A) Reactivity with Water:

Violent reaction → **HCl gas + phosphoric acid**

B) Reactivity with Materials:

Reacts with: Water/moisture, Alcohols, Bases

C) Polymerisation: Will not occur

D) Decomposition Products:

Hydrogen chloride (HCl)

Phosphorus oxides

E) Physical Properties

Physical State: Liquid

Molecular Weight: 153.33

Boiling Point: ~105°C

Vapour Pressure: Moderate

Vapour Density: Heavier than air

Density: ~1.67

48.ERDS FOR HEPTANE

Chemical Identification

Chemical Name: n-Heptane

Formula: C₇H₁₆

Appearance: Colourless, volatile liquid

Odour: Mild petroleum-like

Hazard Classification

Flammable: Highly Flammable

Flash Point: ~ -4°C

LEL – UEL: 1.05% – 6.7%

Toxic: Yes (harmful vapours)

IDLH: Not established (use conservative approach)

TLV (ACGIH): 400 ppm (TWA)

♦ General Response Action

ON-SITE:

Eliminate all ignition sources immediately

Evacuate and isolate the area

Prevent vapour accumulation in low areas

Use explosion-proof equipment

Ensure proper ventilation

Use **foam blanket for vapour suppression**

Use **SCBA in high vapour zones**

PPE Required:

Flame-resistant clothing

Chemical goggles + face shield

SCBA

Anti-static PPE

II. Fire

Hazard:

Forms **highly flammable vapour-air mixtures**

Vapours heavier than air → travel to ignition source

Risk of:

Flash fire

Vapour Cloud Explosion (VCE)

Pool fire

Suggested Action:

SMALL FIRE: Dry chemical powder, CO₂

Sr. No	Mass of Release (Tonners)	Approx. Valnerable Distance (m) (in the direction of wind)	Approx. time to reach Max. Vulnerable Dist. (Min)
1	1	200 – 400	3 – 8
2	5	400 – 900	5 – 15
3	10	800 – 1400	10 – 25

LARGE FIRE: Foam (preferred), water spray (fog)

Do NOT use direct water jet

Cool containers with water spray

III. Medical

Danger: Flammable + Harmful Vapours

Eye: Mild irritation

Skin: Irritation, dryness

Inhalation: Headache, dizziness, CNS depression

Ingestion: Harmful, aspiration hazard

Suggested First Aid:

Eye: Flush with water for 15 minutes

Skin: Wash with soap & water

Inhalation: Move to fresh air

Ingestion: Do NOT induce vomiting

Antidote: No specific antidote

IV. Pollution

Harmful to aquatic life

High volatility → air pollution

Prevent entry into drains and soil

V. Chemical Information

A) Reactivity with Water: Insoluble

B) Reactivity with Materials:

Reacts with: Strong oxidizers

C) Polymerisation: Will not occur

D) Combustion Products:

Carbon monoxide (CO)

Carbon dioxide (CO₂)

E) Physical Properties

Physical State: Liquid

Molecular Weight: 100.20

Boiling Point: ~98°C

Vapour Pressure: Moderate

Vapour Density: ~3.5 (heavier than air)

Density: ~0.68

49. ERDS FOR THIONYL CHLORIDE (SOCl₂)

Chemical Identification

Chemical Name: Thionyl Chloride

Formula: SOCl₂

Appearance: Colourless to pale yellow fuming liquid

Odour: Sharp, pungent, suffocating

Hazard Classification

Flammable: Non-flammable

Flash Point: Not applicable

LEL – UEL: Not applicable

Toxic: **Highly Toxic & Corrosive**

IDLH: Not established (treat as highly hazardous)

TLV (ACGIH): 1 ppm (Ceiling, guideline)

♦ General Response Action

ON-SITE:

Evacuate and isolate area immediately

Approach from **upwind direction**

Avoid inhalation and contact

Use **SCBA and fully encapsulated suit**

Prevent contact with water/moisture

Contain spill with dry inert material

PPE Required:

Fully encapsulated chemical suit

SCBA

Chemical goggles + face shield

Butyl rubber gloves

II. Fire

Hazard:

Non-flammable

Reacts violently with water → releases toxic gases

Produces SO₂, HCl fumes

Containers may rupture under heat

Suggested Action:

Use dry chemical, sand

Do NOT use water directly on spill

Use water spray only for cooling containers

III. Medical

Danger: Highly Corrosive + Toxic Fumes

Eye: Severe burns, permanent damage

Skin: Severe burns

Inhalation: Severe respiratory irritation, Lung injury (delayed pulmonary edema possible)

Ingestion: Severe internal burns

Suggested First Aid:

Eye: Flush with water for at least 15 minutes

Skin: Wash immediately with large amounts of water

Inhalation: Move to fresh air, provide oxygen

Ingestion: Do NOT induce vomiting

Antidote: No specific antidote

IV. Pollution

Highly corrosive to environment

Causes acidification of soil and water

Avoid environmental release

V. Chemical Information

A) Reactivity with Water:

Violent reaction → **SO₂ + HCl gas release**

B) Reactivity with Materials:

Reacts with:

Water/moisture

Alcohols

Amines

Bases

C) Polymerisation: Will not occur

D) Decomposition Products:

Sulfur dioxide (SO₂)

Hydrogen chloride (HCl)

E) Physical Properties

Physical State: Liquid

Molecular Weight: 118.97

Boiling Point: ~79°C

Vapour Pressure: Moderate

Vapour Density: Heavier than air

Density: ~1.64

50. ERDS FOR ALUMINIUM CHLORIDE (AlCl₃)

Chemical Identification

Chemical Name: Aluminium Chloride

Formula: AlCl₃

Appearance: White to pale yellow crystalline solid (fumes in moist air)

Odour: Sharp, pungent (due to HCl fumes)

Hazard Classification

Flammable: Non-flammable

Flash Point: Not applicable

LEL – UEL: Not applicable

Toxic: Corrosive & Toxic (fumes)

IDLH: Not established

TLV (ACGIH): 2 mg/m³ (as Al compounds, general guideline)

♦ General Response Action

ON-SITE:

Evacuate and isolate affected area

Avoid inhalation of dust/fumes

Prevent contact with moisture

Use **SCBA and chemical protective suit**

Handle spills dry (avoid water contact initially)

Provide adequate ventilation

PPE Required:

Chemical-resistant suit

SCBA (if fumes present)

Goggles + face shield

Gloves (nitrile/neoprene)

II. Fire

Hazard:

Non-flammable

Reacts with moisture → releases **HCl gas (corrosive)**

Reacts with metals → hydrogen gas (flammable)

Decomposes to toxic fumes under heat

Suggested Action:

Use dry chemical, sand

Avoid direct water on material

Use water spray only for cooling surrounding area

Sr. No	Mass of Release (Tonners)	Approx. Valnerable Distance (m) (in the direction of wind)	Approx. time to reach Max. Vulnerable Dist. (Min)
1	1	300 – 600	5 – 10
2	5	800 – 1500	10 – 20
3	10	1500 – 2500	15 – 30

III. Medical

Danger: Corrosive + Toxic Fumes

Eye: Severe irritation, burns

Skin: Burns, irritation

Inhalation: Respiratory irritation, Coughing, breathing difficulty

Ingestion: Harmful, corrosive effects

Suggested First Aid:

Eye: Flush with water for at least 15 minutes

Skin: Wash thoroughly with water

Inhalation: Move to fresh air

Ingestion: Seek immediate medical attention

Antidote: No specific antidote

IV. Pollution

Harmful to aquatic life

Causes acidification of soil/water

Avoid environmental release

V. Chemical Information

A) Reactivity with Water:

Reacts with moisture → forms **hydrochloric acid (HCl)**

B) Reactivity with Materials:

Reacts with: Water/moisture, Bases, Metals

C) Polymerisation: Will not occur

D) Decomposition Products:

Hydrogen chloride (HCl)

Aluminium oxides

E) Physical Properties

Physical State: Solid

Molecular Weight: 133.34

Boiling Point: Sublimes ~180°C

Vapour Pressure: Low (solid)

Density: ~2.44

Solubility: Reacts with water

Name of the Company

1. LANXESS India Pvt. Ltd
2. Meghmani Organic Ltd .
3. OMNOVA SOLUTIONS INDIA PVT LTD
4. Sterling Auxiliaries Pvt. Ltd,
5. Superform Chemistries Limited ,Jhagadia
6. Vardhman Acrylics Ltd)

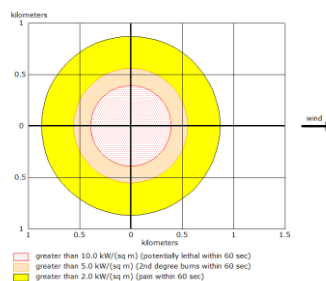
Template-15

Type and name of Chemical and its Capacity		Acrylonitrile				
Type of Leakage	Weather class	Wind Speed m/s	Rate of Release Kg/Min	Probable extent of damage in Meter	In place control measure	Number of people to be affected
Spillage of flammable solvent Confined (Explosion)	F	1	1,130 kg/sec	LOC was never exceeded	FLAME PROOF INSTALATION, SPRINKLER SYSTEM INSTALLED, FIRE HYDRANT PROVIDED WITH MONITOR, CCE APPROVED STORAGE WITH COMPOUND, SBA SETS AND ADEQUATE PPES, SV WITH RD INSTALLED	> 500
		2	1,130 kg/sec	LOC was never exceeded		
	D	3	1,130 kg/sec	523		
Spillage of flammable solvent Unconfined (Explosion)	F	1	1,130 kg/sec	LOC was never exceeded		
		2	1,130 kg/sec	LOC was never exceeded		
	D	3	1,130 kg/sec	LOC was never exceeded		
Major Fire Pool Fire	F	1	13.1	<10		
		2	13.1	<10		
	D	3	13.1	<10		
Fireball / BLEVE	F	1	100%	391		
		2	100%	391		
	D	3	100%	391		

HEAT RADIATION CONTOUR FOR ACRYLONITRILE LEAKAGE AT DIFFERENT WEATHER CONDITION

EXPLOSION BLEVE Wind Speed 3m/s W. Class- D

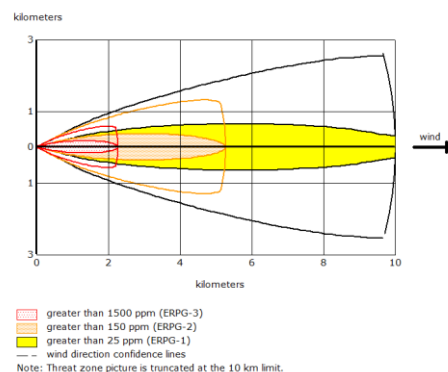
Template-15A



Template-5

Name of the Company			1. Akyl Amines Chemical Ltd 2. Deepak Fertilisers and Petrochemical Corporation Limited 3. Hindalco Ind. Ltd. 4. Jubilant Ingrevia Limited & Jubilant Infrastructure Limited 5. JUBILANT LIFE SCIENCE LIMITED (UNIT-2)(FORMERLY JUBILANT ORGANOSYS LTD) 6. SANJANA CRYOGENIC STORAGES LTD 7. Superform Chemistries Limited (Unit – 92) Template-5				
Type and name of Chemical and its Capacity			Ammonia				
Type of Leakage	Weather class	Wind Speed m/s	Rate of Release Kg/Min	Probable extent of damage in KM		In place control measure	Number of people likely to
Intermittent Release	F	1	1640 kilograms/min	2.4 kilometres		PROVISION OF U/G EMERGENCY ST. TANK.	1400
		2	1640 kilograms/min	1.5 kilometres			
	D	3	1640 kilograms/min	501 metres			
Rapid Release	F	1	1480 kilograms/sec	4.2 km			
		2	1480 kilograms/sec	4.2 km			
	D	3	1480 kilograms/sec	2.2 km			
Massive Release	F	1	1,640 kilograms/sec	4.4 km			
		2	1,640 kilograms/sec	4.4 km			
	D	3	1,640 kilograms/sec	2.3 km			
DISPERSION CONTOUR FOR AMMONIA LEAKAGE AT DIFFERENT WEATHER CONDITION							

Massive RELEASE Wind Speed 3m/s W. Class- D



Template-5A

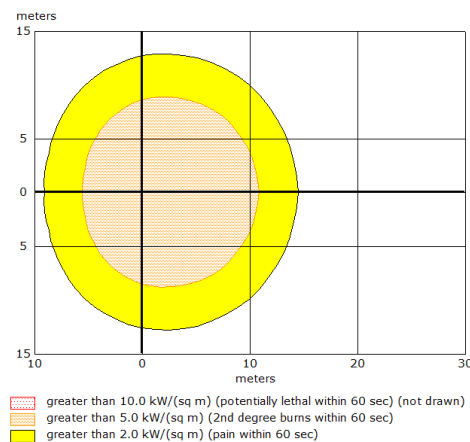
Template-40

Name of the Company		1. PI Industries Ltd . 2. Savla Chemicals Ltd				
Type and name of Chemical and its Capacity		ISOBUTYLENE				
Type of Leakage	Weather class	Wind Speed m/s	Rate of Release Kg/Min	Probable extent of damage in Meter	In place control measure	Number of people likely to be affected
Spillage of flammable solvent Confined (Explosion)	F	1	1800 kg/sec	LOC was never exceeded	FLAME PROOF INSTALATION, SPRINKLER SYSTEM INSTALLED, FIRE HYDRANT PROVIDED WITH MONITOR, CCE APPROVED STORAGE WITH COMPOUND, SBA SETS AND ADEQUATE PPES, SV WITH RD INSTALLED	> 500
		2	1800 kg/sec	LOC was never exceeded		
	D	3	1800 kg/sec	LOC was never exceeded		
Spillage of flammable solvent Unconfined (Explosion)	F	1	1800 kg/sec	LOC was never exceeded		
		2	1800 kg/sec	LOC was never exceeded		
	D	3	1800 kg/sec	LOC was never exceeded		
Jet Fire	F	1	-	<10		
		2	-	<10		
	D	3	-	<10		

HEAT RADIATION CONTOUR FOR ISOBUTYLENE LEAKAGE AT DIFFERENT WEATHER CONDITION

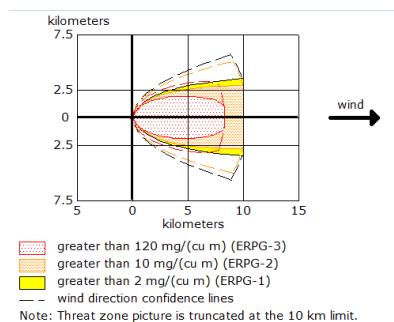
EXPLOSION Wind Speed 3m/s W. Class- D

Template-40A



Name of the Company			8. Amal Speciality Chemicals Limited. 9. Amal Ltd. 10. Ion Exchange (India) Limited 11. Solvay Specialities India Pvt Ltd, Panoli			
Type and name of Chemical and its Capacity			SO3- 90 MT			
Type of Leakage	Weather class	Wind Speed m/s	Rate of Release Kg/Min	Probable extent of damage in KM	In place control measure	Number of people likely to be
Intermittent Release	F	1	2,600 kilograms/min	6.2 kilometers	• Tank inside closed room, • Fumes detector, • Evacuation tank. • Thickness testing & painting • Level transmitter • Scrubber system • SCBA set • Positive air mask	500
		2	2,600 kilograms/min	5.0 kilometers		
	D	3	2,600 kilograms/min	4.1 kilometers		
Rapid Release	F	1	2,340 kilograms/sec	8.0 kilometers		
		2	2,340 kilograms/sec	9.5 kilometers		
	D	3	2,340 kilograms/sec	9.5 kilometers		
Massive Release	F	1	2,600 kilograms/sec	greater than 10 kilometers		
		2	2,600 kilograms/sec	10.0 kilometers		
	D	3	2,600 kilograms/sec	8.3 kilometers		
DISPERSION CONTOUR FOR SO3 LEAKAGE AT DIFFERENT WEATHER CONDITION						

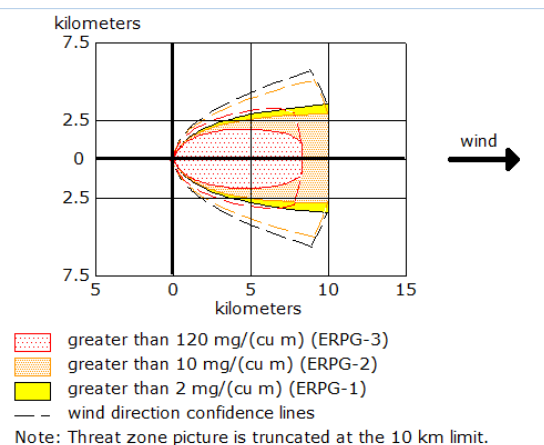
RAPID RELEASE Wind Speed 3m/s W. Class- D



Name of the Company			1. Amal Speciality Chemicals Limited. 2. Amal Ltd. 3. Ion Exchange (India) Limited 4. Solvay Specialities India Pvt Ltd, Panoli			
Type and name of Chemical and its Capacity			SO ₃ - 90 MT			
Type of Leakage	Weather class	Wind Speed m/s	Rate of Release Kg/Min	Probable extent of damage in KM	In place control measure	Number of people likely
Intermittent Release	F	1	1,810 kilograms/min	5.1 kilometers	• Tank inside closed room, • Fumes detector, • Evacuation tank. • Thickness testing & painting • Level transmitter • Scrubber system • SCBA set • Positive air mask	500
		2	1,810 kilograms/min	4.2 kilometers		
	D	3	1,810 kilograms/min	3.4 kilometers		
Rapid Release	F	1	2,340 kilograms/sec	9.4 kilometers		
		2	2,340 kilograms/sec	8.1 kilometers		
	D	3	1,630 kilograms/sec	7.0 kilometers		
Massive Release	F	1	1,810 kilograms/sec	9.9 kilometers		
		2	1,810 kilograms/sec	8.4 kilometers		
	D	3	1,810 kilograms/sec	7.3 kilometers		

DISPERSION CONTOUR FOR SO₃ LEAKAGE AT DIFFERENT WEATHER CONDITION

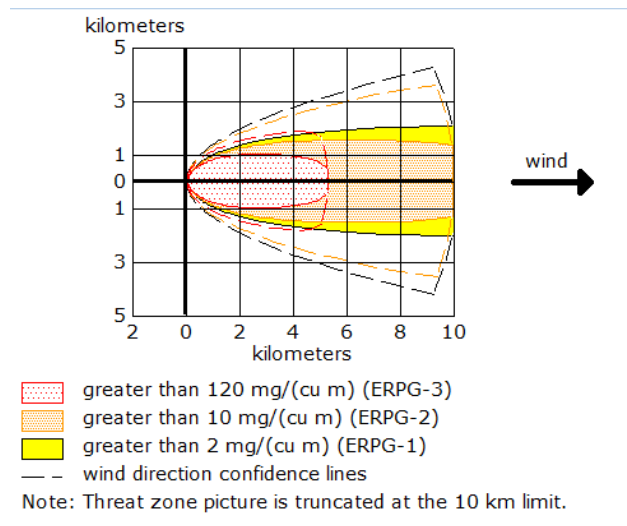
RAPID RELEASE Wind Speed 3m/s W. Class- D



Name of the Company			1. Amal Speciality Chemicals Limited. 2. Amal Ltd. 3. Ion Exchange (India) Limited 4. Solvay Specialities India Pvt Ltd, Panoli			
Type and name of Chemical and its Capacity			SO ₃ - 90 MT			
Type of Leakage	Weather class	Wind Speed m/s	Rate of Release Kg/Min	Probable extent of damage in KM	In place control measure	Number of people likely to
Intermittent Release	F	1	756 kilograms/min	3.2 kilometers	• Tank inside closed room, • Fumes detector, • Evacuation tank. • Thickness testing & painting • Level transmitter • Scrubber system • SCBA set Positive air mask	500
		2	756 kilograms/min	2.7 kilometers		
	D	3	756 kilograms/min	2.2 kilometers		
Rapid Release	F	1	680 kilograms/sec	6.2 kilometers		
		2	680 kilograms/sec	5.5 kilometers		
	D	3	680 kilograms/sec	5.1 kilometers		
Massive Release	F	1	756 kilograms/sec	6.6 kilometers		
		2	756 kilograms/sec	5.7 kilometers		
	D	3	756 kilograms/sec	5.3 kilometers		

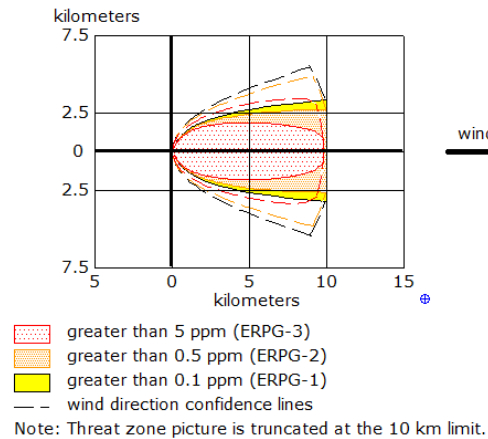
DISPERSION CONTOUR FOR SO₃ LEAKAGE AT DIFFERENT WEATHER CONDITION

RAPID RELEASE Wind Speed 3m/s W. Class- D



Name of the Company			7. Coromandel International Limited 8. Gujarat Insecticides Ltd. 9. Hemani Industries Limited (unit 1 & 2) 10. Hikal Limited 11. NACL SPEC-CHEM LIMITED 12. PI Industries Ltd 13. SRF Limited 14. Sudarshan Gujarat MFG Private Limited				Template-21	
Type and name of Chemical and its Capacity			Bromine -90 MT					
Type of Leakage	Weather class	Wind Speed m/s	Rate of Release Kg/Min	Probable extent of damage in KM		In place control measure		Number of people likely to
Intermittent Release	F	1	1,360 kilograms/min	8.9 kilometers		Dyke wall , PPE, Fire hydrant & sprinkler system	1000	
		2	1,360 kilograms/min	8.4 kilometers				
	D	3	1,360 kilograms/min	6.1 kilometers				
Rapid Release	F	1	1,240 kilograms/sec	greater than 10 kilometers				
		2	1,240 kilograms/sec	greater than 10 kilometers				
	D	3	1,240 kilograms/sec	9.5 kilometers				
Massive Release	F	1	1,360 kilograms/sec	greater than 10 kilometers				
		2	1,360 kilograms/sec	greater than 10 kilometers				
	D	3	1,360 kilograms/sec	9.8 kilometers				
DISPERSION CONTOUR FOR BROMINE LEAKAGE AT DIFFERENT WEATHER CONDITION								

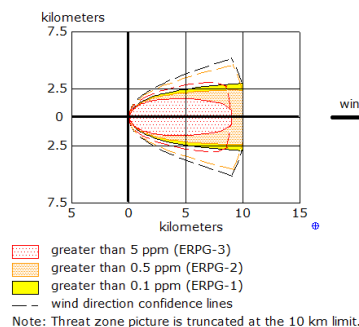
RAPID RELEASE Wind Speed 3m/s W. Class- D



Template-21 A

Name of the Company			1. Coromandel International Limited 2. Gujarat Insecticides Ltd. 3. Hemani Industries Limited (unit 1 & 2) 4. Hikal Limited 5. NACL SPEC-CHEM LIMITED 6. PI Industries Ltd 7. SRF Limited 8. Sudarshan Gujarat MFG Private Limited			
Type and name of Chemical and its Capacity			Bromine- 70 MT			
Type of Leakage	Weather class	Wind Speed m/s	Rate of Release Kg/Min	Probable extent of damage in KM	In place control measure	Number of people likely to
Intermittent Release	F	1	1,060 kilograms/min	7.9 kilometers	Dyke wall , PPE, Fire hydrant & sprinkler system	1000
		2	1,060 kilograms/min	7.4 kilometers		
	D	3	1,060 kilograms/min	7.3 kilometers		
Rapid Release	F	1	953 kilograms/sec	greater than 10 kilometers		
		2	953 kilograms/sec	9.6 kilometers		
	D	3	953 kilograms/sec	9.9 kilometers		
Massive Release	F	1	1,060 kilograms/sec	greater than 10 kilometers		
		2	1,060 kilograms/sec	greater than 10 kilometers		
	D	3	1,060 kilograms/sec	9.0 kilometers		
DISPERSION CONTOUR FOR BROMINE LEAKAGE AT DIFFERENT WEATHER CONDITION						

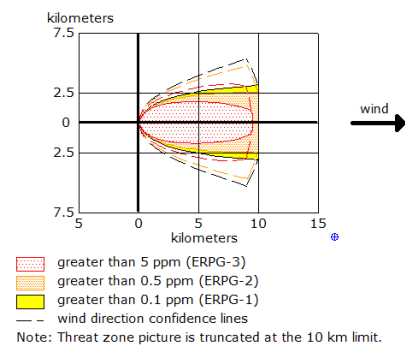
RAPID RELEASE Wind Speed 3m/s W. Class- D



Template-21 B

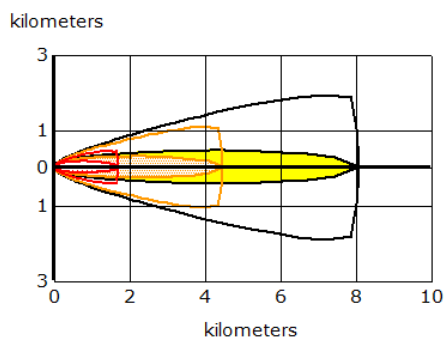
Name of the Company			1. Coromandel International Limited 2. Gujarat Insecticides Ltd. 3. Hemani Industries Limited (unit 1 & 2) 4. Hikal Limited 5. NACL SPEC-CHEM LIMITED 6. PI Industries Ltd 7. SRF Limited 8. Sudarshan Gujarat MFG Private Limited			
Type and name of Chemical and its Capacity			Bromine- 25 KI			
Type of Leakage	Weather class	Wind Speed m/s	Rate of Release Kg/Min	Probable extent of damage in KM	In place control measure	Number of people likely to
Intermittent Release	F	1	1,230 kilograms/min	7.9 kilometers	PROVISION OF U/G EMERGENCY ST. TANK.	1400
		2	1,230 kilograms/min	7.4 kilometers		
	D	3	1,230 kilograms/min	7.3 kilometers		
Rapid Release	F	1	1,110 kilograms/sec	greater than 10 kilometers		
		2	1,110 kilograms/sec	greater than 10 kilometers		
	D	3	1,110 kilograms/sec	9.2 kilometers		
Massive Release	F	1	1,230 kilograms/sec	greater than 10 kilometers		
		2	1,230 kilograms/sec	greater than 10 kilometers		
	D	3	1,230 kilograms/sec	9.5 kilometers		
DISPERSION CONTOUR FOR BROMINE LEAKAGE AT DIFFERENT WEATHER CONDITION						

RAPID RELEASE Wind Speed 3m/s W. Class- D



Name of the Company			1. Shiva Pharma chem Limited 2. Yashashvi Rasayan Pvt. Ltd 3. Atul Ltd (Aromatics Business)			
Type and name of Chemical and its Capacity			SO2- 900 KG			
Type of Leakage	Weather class	Wind Speed m/s	Rate of Release Kg/Min	Probable extent of damage in KM	In place control measure	Number of people likely to be
Intermittent Release	F	1	15 kilograms/Min	425 meters	• SCBA Set, • Emergency Kit, • Positive air mask, • Online SO2 monitor, • Evacuation tank • Thickness testing & painting	500
		2	15 kilograms/Min	401 meters		
	D	3	15 kilograms/Min	283 meters		
Rapid Release	F	1	13.5 kilograms/sec	1.0 kilometers		
		2	13.5 kilograms/sec	1.2 kilometers		
	D	3	13.5 kilograms/sec	1.7 kilometers		
Massive Release	F	1	15 kilograms/sec	1.1 kilometers		
		2	15 kilograms/sec	1.3 kilometers		
	D	3	15 kilograms/sec	1.7 kilometers		
DISPERSION CONTOUR FOR SO2 LEAKAGE AT DIFFERENT WEATHER CONDITION						

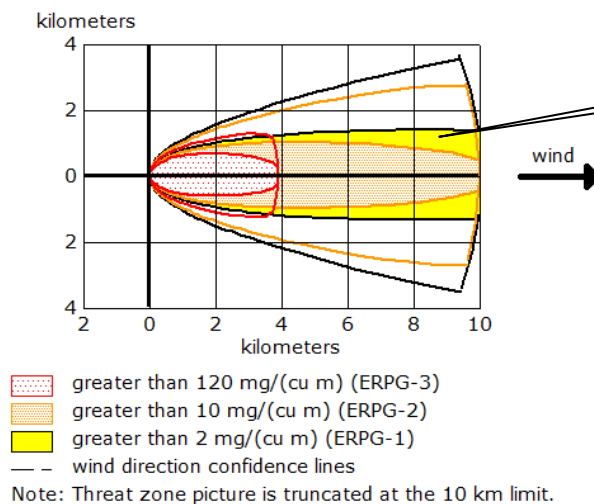
RAPID RELEASE Wind Speed 3m/s W. Class- D



- greater than 120 mg/(cu m) (ERPG-3)
- greater than 10 mg/(cu m) (ERPG-2)
- greater than 2 mg/(cu m) (ERPG-1)
- wind direction confidence lines

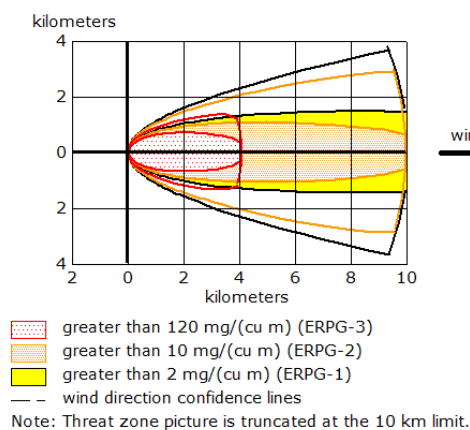
Name of the Company			1. Shiva Pharma chem Limited 2. Yashashvi Rasayan Pvt. Ltd 3. Atul Ltd (Aromatics Business)				Template-6
Type and name of Chemical and its Capacity			SO ₂ - 20 MT				
Type of Leakage	Weather class	Wind Speed m/s	Rate of Release Kg/Min	Probable extent of damage in KM		In place control measure	Number of people likely to be
Intermittent Release	F	1	302 kilograms/min	2.0 kilometers		• SCBA Set, • Emergency Kit, • Positive air mask, • Online SO₂ monitor, • Evacuation tank • Thickness testing & painting	500
		2	302 kilograms/min	1.7 kilometers			
	D	3	302 kilograms/min	1.4 kilometers			
Rapid Release	F	1	272 kilograms/sec	4.0 kilometers			
		2	272 kilograms/sec	3.7 kilometers			
	D	3	272 kilograms/sec	3.9 kilometers			
Massive Release	F	1	302 kilograms/sec	4.2 kilometers			
		2	302 kilograms/sec	3.9 kilometers			
	D	3	302 kilograms/sec	3.9 kilometers			
DISPERSION CONTOUR FOR SO ₂ LEAKAGE AT DIFFERENT WEATHER CONDITION							

RAPID RELEASE Wind Speed 3m/s W. Class- D



Name of the Company				1. Shiva Pharma chem Limited 2. Yashashvi Rasayan Pvt. Ltd 3. Atul Ltd (Aromatics Business)			Template-6
Type and name of Chemical and its Capacity				SO2- 23.4 MT			
Type of Leakage	Weather class	Wind Speed m/s	Rate of Release Kg/Min	Probable extent of damage in KM	In place control measure	Number of people likely to be affected	
Intermittent Release	F	1	354 kilograms/min	2.1 kilometers	• SCBA Set, • Emergency Kit, • Positive air mask, • Online SO2 monitor, • Evacuation tank • Thickness testing & painting	500	
		2	354 kilograms/min	1.9 kilometers			
	D	3	354 kilograms/min	1.5 kilometers			
Rapid Release	F	1	318 kilograms/sec	4.3 kilometers			
		2	318 kilograms/sec	3.9 kilometers			
	D	3	318 kilograms/sec	4.0 kilometers			
Massive Release	F	1	354 kilograms/sec	4.6 kilometers			
		2	354 kilograms/sec	4.1 kilometers			
	D	3	354 kilograms/sec	4.1 kilometers			
DISPERSION CONTOUR FOR SO2 LEAKAGE AT DIFFERENT WEATHER CONDITION							

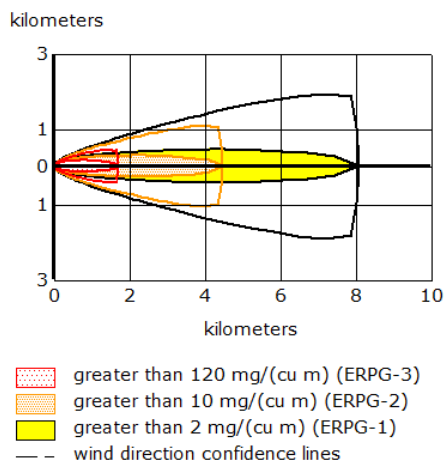
RAPID RELEASE Wind Speed 3m/s W. Class- D



Name of the Company			4. Shiva Pharma chem Limited 5. Yashashvi Rasayan Pvt. Ltd 6. Atul Ltd (Aromatics Business)			
Type and name of Chemical and its Capacity			SO2- 900 KG			
Type of Leakage	Weather class	Wind Speed m/s	Rate of Release Kg/Min	Probable extent of damage in KM	In place control measure	Number of people likely to be
Intermittent Release	F	1	15 kilograms/Min	425 meters	• SCBA Set, • Emergency Kit, • Positive air mask, • Online SO2 monitor, • Evacuation tank • Thickness testing & painting	500
		2	15 kilograms/Min	401 meters		
		3	15 kilograms/Min	283 meters		
Rapid Release	F	1	13.5 kilograms/sec	1.0 kilometers		
		2	13.5 kilograms/sec	1.2 kilometers		
		3	13.5 kilograms/sec	1.7 kilometers		
Massive Release	F	1	15 kilograms/sec	1.1 kilometers		
		2	15 kilograms/sec	1.3 kilometers		
		3	15 kilograms/sec	1.7 kilometers		

DISPERSION CONTOUR FOR SO2 LEAKAGE AT DIFFERENT WEATHER CONDITION

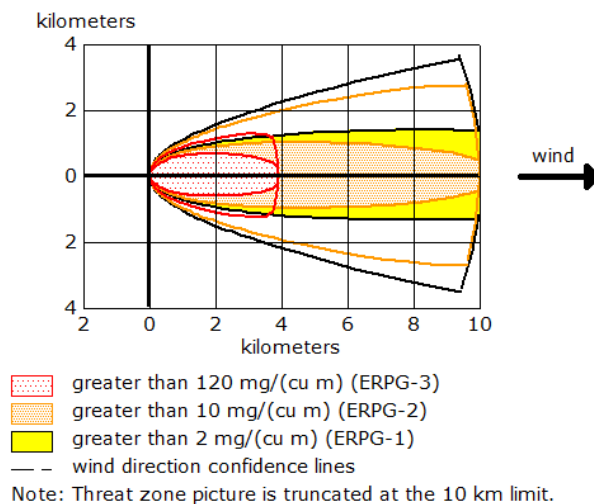
RAPID RELEASE Wind Speed 3m/s W. Class- D



Name of the Company			4. Shiva Pharma chem Limited 5. Yashashvi Rasayan Pvt. Ltd 6. Atul Ltd (Aromatics Business)				Template-6
Type and name of Chemical and its Capacity			SO ₂ - 20 MT				
Type of Leakage	Weather class	Wind Speed m/s	Rate of Release Kg/Min	Probable extent of damage in KM	In place control measure	Number of people likely to be	
Intermittent Release	F	1	302 kilograms/min	2.0 kilometers	• SCBA Set, • Emergency Kit, • Positive air mask, • Online SO₂ monitor, • Evacuation tank • Thickness testing & painting	500	
		2	302 kilograms/min	1.7 kilometers			
	D	3	302 kilograms/min	1.4 kilometers			
Rapid Release	F	1	272 kilograms/sec	4.0 kilometers			
		2	272 kilograms/sec	3.7 kilometers			
	D	3	272 kilograms/sec	3.9 kilometers			
Massive Release	F	1	302 kilograms/sec	4.2 kilometers			
		2	302 kilograms/sec	3.9 kilometers			
	D	3	302 kilograms/sec	3.9 kilometers			

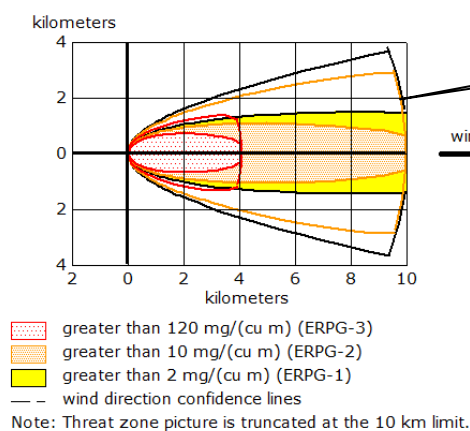
DISPERSION CONTOUR FOR SO₂ LEAKAGE AT DIFFERENT WEATHER CONDITION

RAPID RELEASE Wind Speed 3m/s W. Class- D



Name of the Company			4. Shiva Pharma chem Limited 5. Yashashvi Rasayan Pvt. Ltd 6. Atul Ltd (Aromatics Business)				Template-6
Type and name of Chemical and its Capacity			SO2- 23.4 MT				
Type of Leakage	Weather class	Wind Speed m/s	Rate of Release Kg/Min	Probable extent of damage in KM	In place control measure	Number of people likely to be affected	
Intermittent Release	F	1	354 kilograms/min	2.1 kilometers	• SCBA Set, • Emergency Kit, • Positive air mask, • Online SO2 monitor, • Evacuation tank • Thickness testing & painting	500	
		2	354 kilograms/min	1.9 kilometers			
	D	3	354 kilograms/min	1.5 kilometers			
Rapid Release	F	1	318 kilograms/sec	4.3 kilometers			
		2	318 kilograms/sec	3.9 kilometers			
	D	3	318 kilograms/sec	4.0 kilometers			
Massive Release	F	1	354 kilograms/sec	4.6 kilometers			
		2	354 kilograms/sec	4.1 kilometers			
	D	3	354 kilograms/sec	4.1 kilometers			
DISPERSION CONTOUR FOR SO2 LEAKAGE AT DIFFERENT WEATHER CONDITION							

RAPID RELEASE Wind Speed 3m/s W. Class- D



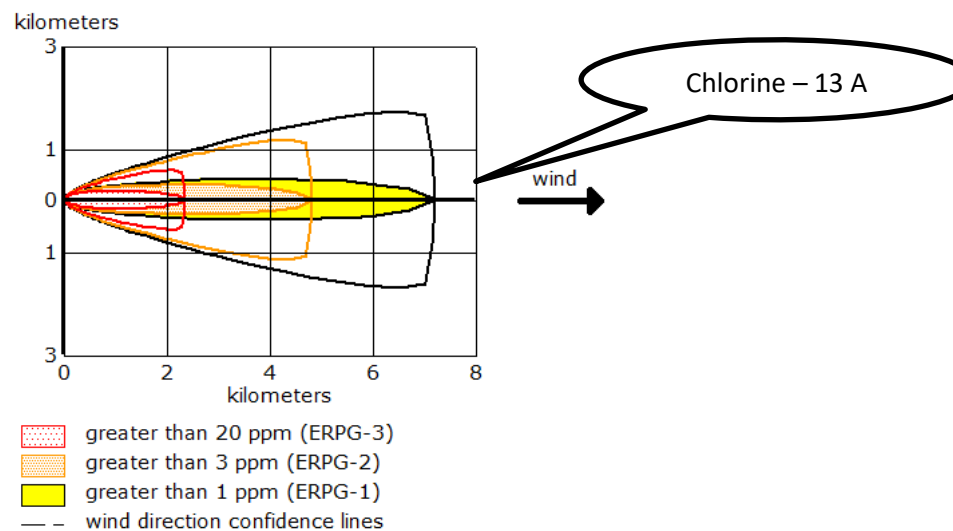
Name of the Company

1. Anugrah Industries Private Limited
2. Bodal Chemicals Limited
3. Cohizon Life Sciences Limited (Unit – 2)
4. Cohizon Life Sciences Limited,
5. DCM Shriram Ltd (Unit: Shriram Alkali & Chemicals)
6. Deepak Chem Tech Limited
7. Dhanveen Pigments Pvt. Ltd
8. Epigral Limited
9. Gail (India) Limited,
10. Glomet Tech Pvt.Ltd.
11. GUJARAT ALKALIES & CHEMICAL LTD.
12. GACL-NALCO Alkalies And Chemicals Pvt. Ltd.
13. Grasim Industries Limited
14. GUJARAT FLUOROCHEMICALS LIMITED
15. Gujarat Insecticides Ltd.
16. Jal aqua international llp,
17. Jayshree Aromatics Limited
18. Jubilant Ingrevia Limited & Jubilant Infrastructure Limited
19. JUBILANT LIFE SCIENCE LIMITED (UNIT-2)(FORMERLY JUBILANT ORGANOSYS LTD)
20. KLJ Organic Limited
21. Meridian Chem-Bond Private Limited
22. National Thermal Power Corporation Ltd.
23. NACL SPEC-CHEM LIMITED
24. Navjeevan-O-Chem
25. Organic Industries Pvt. Ltd
26. Panoli Products Pvt. Ltd.
27. Panorama Aromatics Ltd.
28. Shiva Pharma chem Limited
29. Shivam Incorporation
30. Shyam Chemicals Pvt.Itd
31. Sudarshan Gujarat MFG Private Limited,
32. Sukha chemicals Industries Unit -II
33. Tagros Chemicals India Pvt. Ltd
34. Wanksons Chemical Industries Pvt. Ltd.

Chlorine – 13

Type and name of Chemical and its Capacity				Chlorine Toner		
Type of Leakage	Weather class	Wind Speed	Rate of Release Kg/Min	Probable extent of damage in KM	In place control measure	Number of people likely to

Intermittent Release	F	1	15 kilograms/min	713 meters	Dedicated storage, CCE approved storage with most of units, FRP hood with caustic scrubbers with many units, Cross Ventilation, Fire Extinguisher, Fire hydrant system, SCABA set, Air line with bubble hood. Canister Mask, Chlorine Kit and O2 cylinder for any emergency	>5000
		2	15 kilograms/min	689 meters		
	D	3	15 kilograms/min	432 meters		
Rapid Release	F	1	13.5 kilograms/sec	1.4 kilometers		
		2	13.5 kilograms/sec	1.7 kilometers		
	D	3	13.5 kilograms/sec	2.3 kilometers		
Massive Release	F	1	15 Kg/Sec	1.5 kilometers		
		2	15 Kg/Sec	1.8 kilometers		
	D	3	15 Kg/Sec	2.3 kilometers		



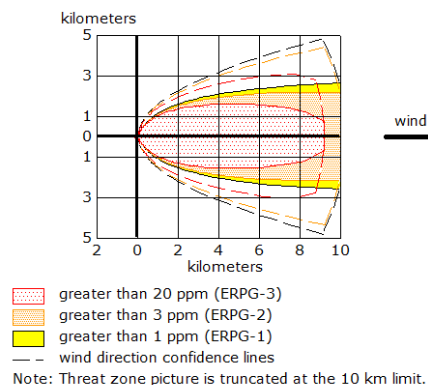
Name of the Company

1. Anugrah Industries Private Limited
2. Bodal Chemicals Limited
3. Cohizon Life Sciences Limited (Unit – 2)
4. Cohizon Life Sciences Limited,
5. DCM Shriram Ltd (Unit: Shriram Alkali & Chemicals)
6. Deepak Chem Tech Limited
7. Dhanveen Pigments Pvt. Ltd
8. Epigral Limited
9. Gail (India) Limited,
10. Glomet Tech Pvt.Ltd.
11. GUJARAT ALKALIES & CHEMICAL LTD.
12. GACL-NALCO Alkalies And Chemicals Pvt. Ltd.
13. Grasim Industries Limited
14. GUJARAT FLUOROCHEMICALS LIMITED
15. Gujarat Insecticides Ltd.
16. Jal aqua international llp,
17. Jayshree Aromatics Limited
18. Jubilant Ingrevia Limited & Jubilant Infrastructure Limited
19. JUBILANT LIFE SCIENCE LIMITED (UNIT-2)(FORMERLY JUBILANT ORGANOSYS LTD)
20. KLJ Organic Limited
21. Meridian Chem-Bond Private Limited
22. National Thermal Power Corporation Ltd.
23. NACL SPEC-CHEM LIMITED
24. Navjeevan-O-Chem
25. Organic Industries Pvt. Ltd
26. Panoli Products Pvt. Ltd.
27. Panorama Aromatics Ltd.
28. Shiva Pharma chem Limited
29. Shivam Incorporation
30. Shyam Chemicals Pvt.Itd
31. Sudarshan Gujarat MFG Private Limited,
32. Sukha chemicals Industries Unit -II
33. Tagros Chemicals India Pvt. Ltd
34. Wanksons Chemical Industries Pvt. Ltd.

Chlorine – 13

Type and name of Chemical and its Capacity				Chlorine Toner		
Type of Leakage	Weather class	Wind Speed	Rate of Release Kg/Min	Probable extent of damage in KM	In place control measure	Number of people likely to

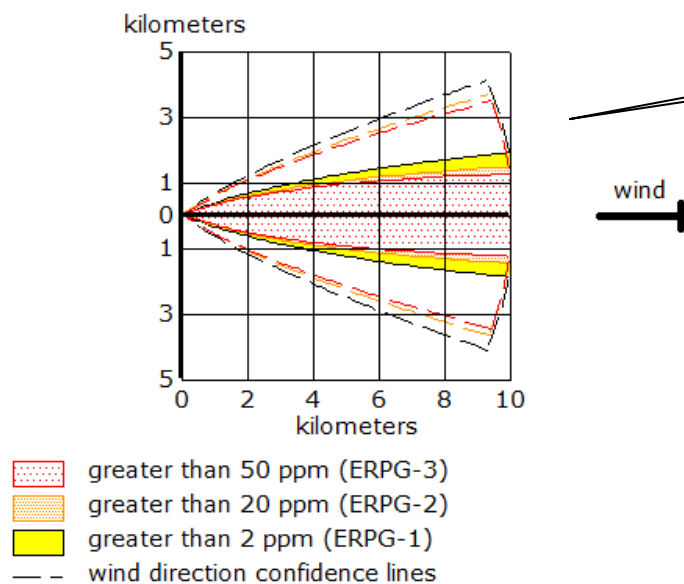
Intermittent Release	F	1	1,510 kilograms/min	7.3 kilometers	Dedicated storage, CCE approved storage with most of units, FRP hood with caustic scrubbers with many units, Cross Ventilation, Fire Extinguisher, Fire hydrant system, SCABA set, Air line with bubble hood. Canister Mask, Chlorine Kit and O2 cylinder for any emergency	>5000
		2	1,510 kilograms/min	6.4 kilometers		
	D	3	1,510 kilograms/min	6.2 kilometers -		
Rapid Release	F	1	1,360 kilograms/sec	greater than 10 kilometer		
		2	1,360 kilograms/sec	10.0 kilometers		
	D	3	1,360 kilograms/sec	greater than 10 kilometer		
Massive Release	F	1	1,510 kilograms/sec	greater than 10 kilometers		
		2	1,510 kilograms/sec	greater than 10 kilometers		
	D	3	1,510 kilograms/sec	9.2 kilometers		



Chlorine – 13 B

Name of the Company			1. Cohizon Life Sciences Limited (Unit – 2) 2. Gujarat Fluorochemicals Limited, 3. Piramal Pharma Limited 12. SRF Limited				
Type and name of Chemical and its Capacity			HF- 2218 KL				
Type of Leakage	Weather class	Wind Speed m/s	Rate of Release Kg/Min	Probable extent of damage in KM		In place control measure	Number of people
Intermittent Release	F	1	35,200 kilograms/min	greater than 10 kilometers		Dedicated storage, CCE approved storage with most of units, Fire hydrant system, SCABA set, Air line with bubble hood. Canister Mask, Chlorine Kit and O2 cylinder for any	
		2	35,200 kilograms/min	greater than 10 kilometers			
	D	3	35,200 kilograms/min	greater than 10 kilometers			
Rapid Release	F	1	31,600 kilograms/sec	greater than 10 kilometers			
		2	31,600 kilograms/sec	greater than 10 kilometers			
	D	3	31,600 kilograms/sec	greater than 10 kilometers			
Massive Release	F	1	35,200 kilograms/sec	greater than 10 kilometers			
		2	35,200 kilograms/sec	greater than 10 kilometers			
	D	3	35,200 kilograms/sec	greater than 10 kilometers			
DISPERSION CONTOUR FOR HF LEAKAGE AT DIFFERENT WEATHER CONDITION							

RAPID RELEASE Wind Speed 3m/s W. Class- D

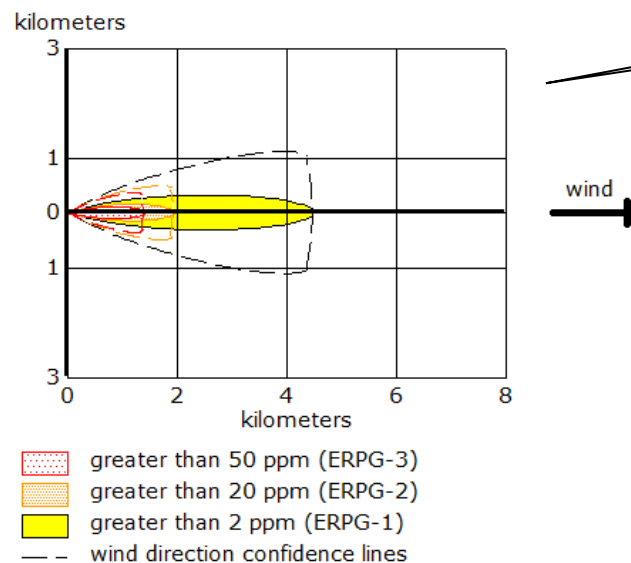


Note: Threat zone picture is truncated at the 10 km limit.

Template-19 A

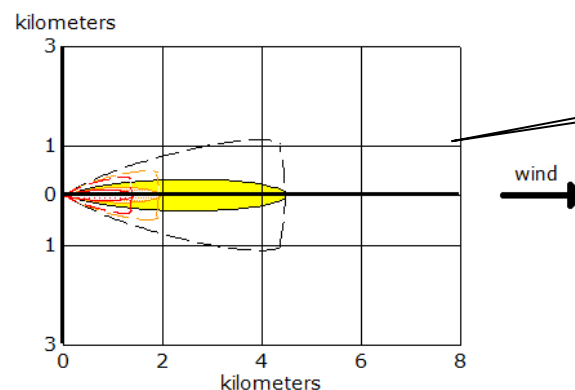
Name of the Company			4. Cohizon Life Sciences Limited (Unit – 2) 5. Gujarat Fluorochemicals Limited, 6. Piramal Pharma Limited 7. SRF Limited				Template-	
Type and name of Chemical and its Capacity			HF- 900 kg					
Type of Leakage	Weather class	Wind Speed m/s	Rate of Release Kg/Min	Probable extent of damage in KM		In place control measure		Number of people likely to
Intermittent Release	F	1	15 kilograms /min	1.0 kilometers		Dedicated storage, CCE approved storage with most of units, Fire hydrant system, SCABA set, Air line with bubble hood. Canister Mask, Chlorine Kit and O2 cylinder for any	500	
		2	15 kilograms /min	675 meters				
	D	3	15 kilograms /min	249 meters				
Rapid Release	F	1	13.5 kilograms/sec	2.4 kilometers				
		2	13.5 kilograms/sec	2.4 kilometers				
	D	3	13.5 kilograms/sec	1.4 kilometers				
Massive Release	F	1	15 kilograms/sec	2.5 kilometers				
		2	15 kilograms/sec	2.5 kilometers				
	D	3	15 kilograms/sec	1.4 kilometers				
DISPERSION CONTOUR FOR HF LEAKAGE AT DIFFERENT WEATHER CONDITION								

RAPID RELEASE Wind Speed 3m/s W. Class- D



Name of the Company			1. Cohizon Life Sciences Limited (Unit – 2) 2. Gujarat Fluorochemicals Limited, 3. Piramal Pharma Limited 1. SRF Limited			
Type and name of Chemical and its Capacity			HF- 40 MT			
Type of Leakage	Weather class	Wind Speed m/s	Rate of Release Kg/Min	Probable extent of damage in KM	In place control measure	Number of people likely to
Intermittent Release	F	1	605 kilograms/min	greater than 10 km	Dedicated storage, CCE approved storage with most of units, Fire hydrant system, SCABA set, Air line with bubble hood. Canister Mask, Chlorine Kit and O2 cylinder for any	500
		2	605 kilograms/min	7.7 kilometers		
	D	3	605 kilograms/min	1.8 kilometers		
Rapid Release	F	1	544 kilograms/sec	greater than 10 km		
		2	544 kilograms/sec	greater than 10 km		
	D	3	544 kilograms/sec	5.2 kilometers		
Massive Release	F	1	605 kilograms/sec	greater than 10 km		
		2	605 kilograms/sec	greater than 10 km		
	D	3	605 kilograms/sec	5.4 kilometers		
DISPERSION CONTOUR FOR HF LEAKAGE AT DIFFERENT WEATHER CONDITION						

RAPID RELEASE Wind Speed 3m/s W. Class- D



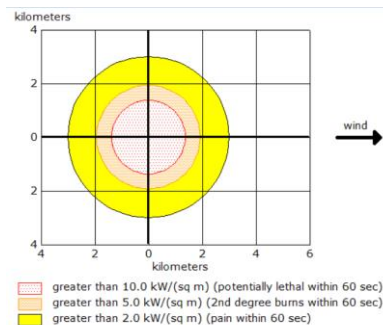
- greater than 50 ppm (ERPG-3)
- greater than 20 ppm (ERPG-2)
- greater than 2 ppm (ERPG-1)
- wind direction confidence lines

Template-19 C

Name of the Company		1. Bharat Glass Tube Ltd.. 2. Borosil Renewables Limited. 3. Gail (India) Limited, 4. Ganesh LPG Bottling Plant 5. Gujarat Chemical Port Limited 6. Gujarat Guardian Ltd 7. Hindustan Petroleum Corpn., Ltd. 8. Indian Oil Corpn. Ltd. 9. SAINT-GOBAIN INDIA PRIVATE LTD				
Type and name of Chemical and its Capacity		LPG -2000 Ton				
Type of Leakage	Weather class	Wind Speed m/s	Rate of Release Kg/Min	Probable extent of damage in Meter	In place control measure	Number of people likely to be affected
Spillage of flammable solvent Confined (Explosion)	F	1	31600	LOC was never exceeded	FLAME PROOF INSTALATION, SPRINKLER SYSTEM INSTALLED, FIRE HYDRANT PROVIDED WITH MONITOR, CCE APPROVED STORAGE WITH COMPOUND, SBA SETS AND ADEQUATE PPES, SV WITH RD INSTALLED	> 500
		2	31600	LOC was never exceeded		
	D	3	31600	LOC was never exceeded		
Spillage of flammable solvent Unconfined (Explosion)	F	1	31600	LOC was never exceeded		
		2	31600	LOC was never exceeded		
	D	3	31600	LOC was never exceeded		
Major Fire Pool Fire	F	1	30.4	<10		
		2	30.4	<10		
	D	3	30.4	<10		
Fireball / BLEVE	F	1	100%	1.4 km		
		2	100%	1.4 km		
	D	3	100%	1.4 km		

HEAT RADIATION CONTOUR FOR LPG LEAKAGE AT DIFFERENT WEATHER CONDITION

EXPLOSION BLEVE Wind Speed 3m/s W. Class- D

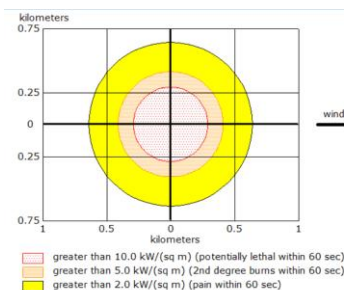


Template-3

Name of the Company		1. Bharat Glass Tube Ltd.. 2. Borosil Renewables Limited. 3. Gail (India) Limited, 4. Ganesh LPG Bottling Plant 5. Gujarat Chemical Port Limited 6. Gujarat Guardian Ltd 7. Hindustan Petroleum Corpn., Ltd. 8. Indian Oil Corpn. Ltd. 9. SAINT-GOBAIN INDIA PRIVATE LTD				
Type and name of Chemical and its Capacity		LPG-15 MT				
Type of Leakage	Weather class	Wind Speed m/s	Rate of Release Kg/Min	Probable extent of damage in Meter	In place control measure	Number of people likely to be affected
Spillage of flammable solvent Confined (Explosion)	F	1	236	LOC was never exceeded	FLAME PROOF INSTALATION, SPRINKLER SYSTEM INSTALLED, FIRE HYDRANT PROVIDED WITH MONITOR, CCE APPROVED STORAGE WITH COMPOUND, SBA SETS AND ADEQUATE PPES, SV WITH RD INSTALLED	> 500
		2	236	LOC was never exceeded		
	D	3	236	LOC was never exceeded		
Spillage of flammable solvent Unconfined (Explosion)	F	1	236	LOC was never exceeded		
		2	236	LOC was never exceeded		
	D	3	236	LOC was never exceeded		
Major Fire Pool Fire	F	1	31.6	<10		
		2	31.6	<10		
	D	3	31.6	<10		
Fireball / BLEVE	F	1	100%	291		
		2	100%	291		
	D	3	100%	291		

HEAT RADIATION CONTOUR FOR LPG LEAKAGE AT DIFFERENT WEATHER CONDITION

EXPLOSION BLEVE Wind Speed 3m/s W. Class- D



Template-3C

PAC Analysis for Emergency Scenarios

Introduction

The PAC analysis is a method developed by PRESTELS for developing Emergency Response Plan for a particular emergency scenario. The PAC analysis clarifies the roles and responsibilities of various responders, actions to be taken and communication to be made. The PAC analysis throws light on the resources required to combat emergency. It also draws attention to the specific of communication that must be made.

P-A-C

The term PAC stands for Person – Action – Communication during an emergency, each responder is required to take certain Action and make certain Communication. The PAC analysis charts the Actions to be taken and the Communication to be made against every responder. The analysis begins at the onset of signs for a looming disaster and ends with the 'calling off' of the off-site emergency.

Person

The person is an individual authority or role such as District Collector or Site Controller. It may also be group of people such as Police Constables, Bus Drivers or NGOs volunteers.

Action

The action is an act undertaken by person such as assessment of damage potential or projection of vulnerable zone or transportation of person from one place to another or diversion of traffic.

Communication

Communication is a message communicated from one person to other person(s) to initiate actions from the person(s) to whom the message is communicated.

Explanation of Columns on the PAC sheet

Person

Primary

Here, enters name of authority, role such as District Collector, Police officer or Site Incident Controller Enter the name of persons in brackets.

Alternate

Here, enters name of person who will assume temporary charge in absence of the person listed in The Primary.

Action***Act***

Here, enter the activities to be undertaken such as Assess Damage, Divert Traffic and others by Concerned persons.

Resource

Here enter the resource(s) required by the person to carry out his Act sufficiently and efficiently. e.g.: Nose Masks, Ambulances, and Water etc.

Communication***Whom***

Here enter the authority, role to which the communication must be made. Enter the name of person in brackets

How

Here, enter the means of communication and phone numbers as:

INT: for internal line numbers

O: for office landline numbers

R: for residence landline numbers

M: for mobile numbers

What

Here, enter the specifics of message to be communicated

Remarks

This section is to be used for making observations on the Person – Action – Communication proceeds. This section may be filled during a Mock Drill exercise

Time

Here, enters the clock time at the completion of a particular Person – Action – Communication Sequence

Resource Gap

Here, enters the shortcoming in resources and additional resources necessary

Communication Gap

Here, enters communication gaps observed

Other

Here, enter other observations, comments or suggestions

Serial Numbering Rules for PAC Sheet

Every row of PAC corresponds to the entity 'Person'. Number rows as '1, 2, 3...etc.' for every 'Person', there will be numbers of actions. Label 'Act' as 'a, b, c...etc'. Every 'Act' will have its resource requirement. Label 'Resources' as 'a, b, c...etc' corresponding to the respective 'Act'. Likewise, one 'Person' may have to communicate to many others. Under communication Columns, label 'Whom' as 'a, b, c...etc' and label the 'How' and 'What' as 'a, b, c...etc' corresponding to the 'Whom' respectively. (See examples for clarity of labelling serial numbers. Wherever required grouping of serial numbers such as 'a, b)' or 'a-f)' is permitted. Were Where only one item exists labelling can be dropped. However, every label in 'Act' column must have a corresponding label in 'Resources' column and every label in 'Whom' column must have a corresponding label in 'How' and 'What' column. In case a particular 'Act' does not require any 'Resources', then the entry may be made as '-' in the Resources column.

Benefits of PAC

The benefits of PAC are as under:

- Clarity of roles and responsibilities to people involved in emergency management.
- Identification of resource gaps for resource planning and procurement.
- Specificity of communication and improvement in communication messages, which is crucial to efficient response mitigation.
- Improved specificity of observations during mock-drills and identification of improvement opportunities.
- The PAC can be a very effective tool for training emergency responders.

Case Study 1 - Chlorine Leak

Scenario

A chlorine pipeline connected to the bulk storage tank is ruptured. Initially about 500 kg of liquid Chlorine leaks out creating a major emergency. The flow is stopped by applying special cement, and the transfer of chlorine to the spare tank is started. However, there is a danger of escalation because the cement could give way to the internal pressure before the transfer is completed. Thus, the off-site plan is activated including evacuation. The scenario incorporates situations illustrating how the plan is activated, how each responder responds and what problems arise.

Development

- The incident occurs at 4-30 pm when the second shift has started. As soon as the emergency occurs, the shift maintenance engineer assumes charge of Incident Controller. The Dy. Chief Engineer who oversees the factory at that time assumes the charge of Site Controller. He informs the District Collector, Fire Brigade, Police, Medical Officer and other agencies. He informs the Chief Maintenance Engineer, who arrives and takes over as the Incident Controller. He informs the CEO/Manager, who immediately reaches factory and then takes over as Site Controller from Dy. Chief Engineer.
- The RDC who was in the office when the message is received assumes the charge and informs the Collector who reaches office in 15 minutes. Before the Collector arrives, the RDC has activated the Plan and has informed the Fire Brigade, Police, Medical Officer, Transport provider among responders and has confirmed that they have received the information and have initiated their action.
- Meanwhile the Site Controller procures and projects the details on extent of emergency and informs it to the District Collector, Fire Brigade, Police and other responders. He informs that the situation is getting under control but can develop into a major emergency requiring intimation to public to stay confined indoors and evacuation from certain areas. He also identifies the area likely to be affected and gives the details to the agencies.
- The Police block the traffic; send a vehicle with loudspeaker to alert public to go stay confined indoors. Those who are on the streets are directed to walk crosswind.
- Police realize that a public meeting is going on an open ground nearby. A constable is sent to ask the public to walk away in particular direction and get inside confined shelters. The leaders of the political party conducting the meeting (which is the opposition party) take it amiss and refuse to disperse, taking it as a ploy to prevent their meeting. A senior officer is deputed with a police van. The leaders understand the gravity and situation is under control. People start evacuating the ground.
- In a nearby cinema house a show is going on. Police inform the manager of cinema theatre. An announcement is made to ask the people to stay inside. The air conditioning system is stopped. As the AC system is stopped the people are uncomfortable and in bad mood. Situation is tactfully controlled.

- Hutments near the factory, are not “gas-proof”, staying inside is not safe. The Collector asks State Transport to dispatch buses to undertake evacuation. The ST drivers refuse, questioning about their safety. There are no PPE for them. They are persuaded to go with wet cloth tied over the nose. A decision is taken to evacuate women, children and old people first. They are shifted to “shelters” (such as school). Food and water arrangements are made through the civil supplies department and help from NGOs.
- There is a milk dairy in the vicinity. The cattle are in open sheds and hence not safe. Evacuation is difficult. The dairy owners are asked to cover the sides of the sheds by tarpaulin sheets, which are provided by the nearby supplier. People affected by chlorine are shifted to hospitals and treated by medical teams.
- The Fire Brigade tenders help the Incident Controller to establish water curtains.
- Ambulance is kept ready near the incident-spot, in case anybody from the incident controller’s team gets affected.
- The District Collector continuously monitors the actions being taken and ensures proper coordination amongst the responding agencies. The District Collector also requests for additional assistance from the neighbouring districts and the State Authorities. The Collector also is constantly in touch with the Site Controller at the factory to know the status and to ascertain the developing situation. (For example, the wind direction may change, leak may aggravate.)
- The Incident Controller and his team work hard and ensure that the emergency does not escalate further, and Chlorine is transferred from the affected tank to the spare tank.
- When the Chlorine transfer to safe spare tank is complete, the Site Controller informs the District Collector, who calls off the emergency.
- Arrangements are made to ensure that the people who were shifted from the hutments are again brought back to their homes. The Factory Inspectorate initiates accident investigation. The Pollution Control Board alerts the District Collector on the possible pollution and its effects on near and distant future. The long term cleans up and post-emergency restoration activities and initiated.

Case Study 2 - Transportation Emergency

Scenario

A tanker carrying highly flammable naphtha overturns on mountainous road (ghat) and develops a leak after its valve is damaged. The leak is minimum but can develop further if untreated. The driver and his assistant (cleaner) are luckily not injured. The tanker belongs to Kerala state and accident takes place in Karnataka state.

Development

- The driver, using his cell phone, tries to call the Police Control Room but the network is weak. Meanwhile, the cleaner requests a passing vehicle to report the incidence to the next police station on way.
- The driver succeeds in calling the Police Control Room and informs them about the type of emergency, location and what help is required. The driver also tries to contact his employer. (The Police also receive information from the driver of a passing vehicle, which had seen the overturned vehicle.)
- The cleaner tries to keep the moving traffic as far away as possible by using stones and tree branches. (He improvises because he is not carrying the equipment for road blockage like the portable plastic cones or a barrier stand). He is unable to repair or stop the leak.
- Some local nomads gather and try to collect the leaking liquid. Driver tries to stop them, warns them about the hazard.
- Traffic jam ensues.
- The police team reaches the spot. The police control room alerts and transmits information to District Collector, Fire Brigade, Medical Office, Police headquarters for additional staff to control the situation. The District Collector declares and off-site emergency. The technical team to repair and stop the leakage, a spare tanker and a crane to move the overturned tanker is called for.
- The driver briefs the police who have arrived at the spot, and they immediately stop the traffic, and also disperse the crowd local nomad™.
- (Observe that first the driver and later the police team are the 'Incident Controllers'. The officer at the Police Control Room is the 'Site Controller')
- The technical team arrives, and the leader of the team takes charge as the 'Incident Controller'. The repairs stopped the leakage, but it is decided that the tanker will be emptied before it is made to stand on its wheels. The fire brigade arrives and is kept on standby in case its service is required. The spare tanker, requested earlier, arrives. The transfer is started. The crane arrives and the overturned tanker is lifted. The police regulate the traffic, and the jam is gradually reduced. The incident is brought under control. The off-site emergency is called off and the post-emergency operations are initiated.

(Note: The following PAC draft may show the same communication or task being done by multiple agencies. This is to ensure that intimation has reached at least from one source or action is initiated in fastest possible manner.)

Role of Incident Controller and Site Controller

The Site Controller and the Incident Controller are the two vital roles in the management of emergency. This note seeks to clarify the two roles.

Incident Controller

The incident controller is responsible for attending to the source or the cause of emergency. He leads the team involved in repairing, controlling and preventing escalation at the source. He is expected to have the required technical knowledge, skill and resources required to attend to the incident causing emergency. For example, if there is a crack in a pipeline carrying toxic gas, he ensures that the valve on the supply line is closed and repairs the damaged pipeline. If a bulk storage tank has a crack, transfer of the contents to a spare tank is started and repairs undertaken.

The incident controller co-ordinates with only the 'Site Controller' (see below). The incident controller must ask for any additional help (staff, tools, material, equipment etc required for dealing with the incident) from the Site controller. The site controller will arrange for the same at the earliest. This enables incident controller to concentrate on his job of attending to the incident without being burdened by communication tasks. Also, in the normal course, the incident controller does not directly interact with the outside industry authorities and agencies such as the District Collector, Fire brigade, Police etc. This is done by the site controller.

The incident controller gives continuous feedback about the status of the operation to the site controller.

Site Controller

The 'Site Controller' is overall in-charge of the operation at the incident-site. While the incident controller attends to the source or the cause of emergency, the site controller will be in the Emergency Control Room (ECR). The ECR is a place to be well equipped with telephones, drawings and maps, computer programs for dispersion modelling etc.

The site controller ensures that the off-site responders (District Collector, Police, Fire Brigade etc) are given quick intimation. He also ensures prompt assistance to the requirements of the incident controller. He may have to arrange the assistance from the factory itself or get help from outside (from fire brigade, mutual aid member, stockiest etc). He will continuously monitor the progress and give information to the offsite responders. He will identify the areas likely to be affected and communicate the same to the responders. He will update all concerned responders

with the emergency status. For example: Escalation in the emergency, change in wind direction etc. The site controller will also communicate the necessary information to the media and public

at large. In short, the site controller acts as the focal point who on the one hand interacts with the incident controller to give him required assistance and know the status and on the other hand, interacts with other district authorities and agencies to give information.

Temporary Assumption of Roles

It needs to be noted that 'Incident Controller' and 'Site Controller' are emergency roles. It is not necessary that only the one person will act as incident controller / site controller from beginning to end. For example, when a valve fails and toxic gas starts leaking, the person on the spot assumes the charge of incident controller till a senior expert, personnel (appointed incident controller) reach the spot and takes over from him. This will be especially true when the incident happens during a late-night shift, when only the skeleton staff may be present. Similarly, a senior person present will assume the charge of site controller till the manager / CEO (appointed Site Controller) reaches the factory and takes over. For a transport emergency, the driver may be the first incident controller till the Police team and subsequently a technical team reaches with tools to take care of the emergency. Then the police and later the technical team leader will be incident controller.

It may be mentioned that it is difficult to lay down specific and rigid guidelines in this respect. What is important is that the relevant functions are carried out efficiently, smoothly and promptly. There should be no loss of time, there should be no conflict, and the aim should be to bring the emergency control as fast as possible with least damage or loss.

Glossary of Terms

Blast wave: A pressure wave generated from explosion.

BLEVE: Boiling Liquid Expanding Vapour Explosion usually occurs from a sudden release of large mass of liquid under pressure. The most likely scenario is a flame of fire impinging on a vessel above the liquid level thereby weakening the vessel and causing sudden rupture.

Consequence: The outcome of an incident.

Consequence analysis: The analysis of the possible manifestation and effect of an incident.

Dispersion model: The mathematical model describing the dispersion of a material release, usually in free atmosphere.

Domino effect: The triggering of secondary incidents from a primary incident, thus leading to increase in the consequence or the vulnerable zone. For example: Explosion of a tank producing high pressure wave leading rupture and subsequent toxic release from a neighbouring tank.

Dovetailing: The process of aligning a sub-level plan to higher level plan. For example, the onsite plan of a factory should be in line and agreement to the offsite plan of the district in which the factory is situated. The onsite procedure or part thereof should not be in conflict with the offsite procedure or a part thereof.

Explosion: Sudden release of energy that causes pressure disturbance.

Fireball: The atmospheric burning of fuel-air mixture in which thermal energy is radiated.

Flash point: The lowest temperature at which the liquid can produce sufficient flammable vapour to ignite in presence of external source of ignition.

Hazard: A chemical or physical condition that has the potential for causing damage to people, property, or the environment.

Hazard Analysis: A process used to identify hazards and select means to controlling or eliminating them.

Incident: The undesirable loss of containment of material or energy. For example, gas release, fire or explosion.

IDLH: Immediately Dangerous to Life and Health is an estimate of the maximum concentration in the air to which a healthy person could be exposed for a specified period of time (30 minutes as per NIOSH standards) without suffering permanent health effects.

Lower Explosive Limit (LEL): The concentration of a flammable vapour in air below which the air –vapour mixture will not ignite.

Maximum Credible Loss Scenario (MCLS): A loss scenario with a maximum damage effect, which is believed to be possible.

Over pressure: The pressure above the normal atmospheric pressure, usually arising from a blast wave.

Plume: The gas cloud resulting from a continuous release.

Pool fire: The combustion of material evaporating from a layer of liquid underneath.

Risk: A measure of human, property or environmental damage in terms of both the magnitude and the likelihood of damage.

Risk assessment: The quantitative estimate of risk.

Upper Explosive Limit (UEL): The concentration of a flammable vapour in air above which the air vapour mixture will not ignite.

UVCE: Unconfined Vapor Cloud Explosion is open explosion of flammable vapour and air. The term is also referred to as Vapor Cloud Explosion.

Vulnerable zone: The area that can get affected by an incident. For toxic release, it is the area over which the airborne concentration of toxic gas exceeds certain accepted level of concentration. For fire, it is the area over which the intensity of heat radiation exceeds certain accepted levels. For explosion, it is area over which the pressure of blast wave excess certain accepted level.