THE MEGHALAYA CONTROL OF INDUSTRIAL MAJOR ACCIDENT HAZARDS RULES,1994

(As amended upto May,2009)

NOTIFICATION

The 9th November 1994

No. LBG. 112/89/287— Inexercise of the powers conferred by Section 112 of the Factories Act,1948 (Act No.63 of 1948) The Government of Meghalaya after previous notice of its intention to do so was published in the *Gazette of Meghalaya(Part-V A)*,dated 28th March 1991 *vide* Notification No: LBG-112/89/213, dated 21st February,1991.

S.K.Srivastava,
Commissioner & Secretary to the Government of Meghalaya,
Labour department.

THE MEGHALAYA CONTROL OF INDUSTRIAL MAJOR ACCIDENT HAZARDS RULES,1994

1. **Short title and commencement:**
   (1) These Rules may be called ' The Meghalaya Control of Industrial Major Accident Hazards Rules,1994'.
   (2) They extend to the whole of Meghalaya.
   (3) They shall come into force with immediate effect.

Notes: These Rules supplement the Rules already notified under Chapter IV-A of the Factories Act,1948.

2. **Definitions:**
   In these Rules, unless the context otherwise requires,
   (a) 'Hazardous chemical' means—
      (i) any chemical which satisfies any of the criteria laid down in Part I of Schedule I and is listed in column-2 of Part II of this Schedule; or,
      (ii) any chemical listed in Column 2 of Schedule 2; or,
      (iii) any chemical listed in Column 2 of Schedule 3.
   (b) 'Industrial Activity' means—
      (i) an operation or process carried out in a factory referred to in Schedule 4 involving or likely to involve one or more hazardous chemicals and includes on-site storage or on-site transport which is associated with that operation or process, as the case may be; or,
      (ii) isolated storage.
   (c) 'Isolated storage' means storage where no other manufacturing process other than pumping of hazardous chemical is carried out and that storage involves at least a quantity of that chemical set out in Schedule 2, but does not include storage associated with a factory specified in Schedule 4 on the same site;
   (d) 'Major Accident ' means an incident involving ***loss of life inside or outside the site*** or ***10 (ten) or more injuries inside*** and/or ***one or more injuries outside*** or ***release of toxic chemical*** *or* ***explosion*** or ***fire*** or ***spillage of hazardous chemical*** resulting in on-site or off-site emergencies or damage to equipment leading to stoppage of process or adverse effects to the environment.
   (e) 'Pipeline' means a pipe (together with any apparatus and works associated therewith), or system of pipes (together with any apparatus and works associated there with), for the conveyance of a hazardous chemical, other than a flammable gas as set out in Column 2 of Part II of Schedule 3 at a pressure of less than 8 bars absolute.
   (f) 'Schedule' means Schedule appended to these Rules.
   (g) Words and expressions not defined in these Rules but defined or used in the Factories Act, 1948 and the Rules made thereunder have the same meaning as assigned therein.

3. **Collection, development and dissemination of information:**
   (1) This Rule shall apply to an *industrial activity* or *isolated storage* in which a hazardous chemical, which satisfies any of the criteria laid down in part I of Schedule1 or is listed in column 2 of Part II of this Schedule, is or may be involved.
   (2) An Occupier of an 'industrial activity' or 'isolated storage' in terms of Sub-Rule (1) of this Rule, shall arrange to obtain or develop information in the form of *Safety Data Sheet* as specified in Schedule 5. The information shall be accessible to workers upon request for reference.
   (3) The occupier while obtaining or developing a Safety Data Sheet as specified in Schedule 5 in respect of a hazardous chemical handled by him, shall ensure that the information is recorded accurately and reflects the scientific evidence used in making the hazard determination. In case, any significant information regarding hazard of a chemical is available, it shall be added to the safety data sheet as specified in schedule 5 as soon as practicable.
   (4) Every container of a hazardous chemical shall be clearly labelled or marked to identify:—
      (a) the contents of the container;
      (b) the name and address of the manufacturer or the importer of the hazardous chemical; and
      (c) the physical, chemical and toxicological data of the hazardous chemical.
   (5) In terms of Sub-Rule (4) of this Rule where it is impractical to label a chemical in view of the size of the container or the nature of the package, provision should be made for other effective means like tagging or accompanying documents.

3 A. **Duties of Inspector:**
   The Inspector shall—
   (a) Inspect the 'industrial activity'or 'isolated storage' at least once in a calendar year;
   (b) Send annually status report on the compliance with the Rules by occupiers to the Ministry of Environment and Forests through the Directorate General, Factory Advice Service and Labour Institutes and Ministry of Labour, Government of India; and

(c) enforce directions and procedures in respect of industrial activities or isolated storages covered under the Factories Act,1948 and in respect of pipelines upto a distance of 500 metres from the outside of the perimeter of the factory regarding—

(i) Notification of major accidents as per Rules 5 (1) and 5 (2) of the main Rules;

(ii) Notification of sites as per Rule 7 and 8 of the main Rules;

(iii) Safety Reports and Safety Audits as per Rules 10 to 12 of the main Rules;

(iv) Preparation of On-Site-Emergency-Plans as per Rule 13 and involvement in the preparation of Off-Site-Emergency-Plans, in consultation with District Collector or District Emergency Authority.

4. **General responsibilty of the Occupier:**

(1) This Rule shall apply to—

(a) an industrial activity in which a hazardous chemical which satisfies any of the criteria laid in Part I of Schedule 1 or is listed in Column 2 of Part II of the Schedule therein, is or may be involved; and

(b) isolated storage in which there is involved a quantity of a hazardous chemical listed in Column 2 of Schedule 2 which is equal to or more than the threshold quantity specified in the Schedule for that chemical in Column 3 thereof.

(2) An occupier in terms of Sub-Rule (1) shall provide information on demand to show that he has—

(a) identified the major accident hazards; and

(b) taken adequate steps to—

(i) prevent such major accident and to limit their consequences to persons and the environment; and

(ii) provide the persons working on the site with the information, training and equipment including antidotes necessary to ensure their safety and health.

5. **Notification of major accidents:**

(1) Where a major accident occurs on a site, the occupier shall forthwith notify the Inspector and the Chief Inspector of that accident, and furnish thereafter to the Inspector and the Chief Inspector a report relating to the accidents in instalments, if necessary, in Schedule 6.

(2) The Inspector and the Chief Inspector shall on receipt of the report in accordance with Sub-Rule (1) of this Rule undertake a full analysis of the major accident and send the requisite information to the Ministry of Environment and Forests through the Directorate General Factory Advice Service and Labour Institutes and Ministry of Labour, Government of India.

(3) An Occupier shall notify to the Inspector steps taken to avoid any repetition of such occurrence on a site.

(4) The Inspector and the Chief Inspector shall compile information regarding major accident and make available a copy of the same to the Ministry of Environment and Forests, the Directorate General Factory Advice Service and Labour Institutes and Ministry of Labour, Government of India.

(5) The Inspector and the Chief Inspector shall inform the Occupier in writing of any lacunae which in their opinion need to be rectified to avoid major accidents.

6. **Industrial activities or isolated storages to which Rules 7 to 15 apply:**

(1) (a) Rules 7, 8, 13 and 15 shall apply to an industrial activity other than isolated storage, in which there is involved a quantity of a hazardous chemical listed in Column 2 of Schedule 3 which is equal to or more than the threshold quantity specified in the entry for that chemical in Column 3;

(b) Rules 10 to 12 shall apply to an industrial activity, other than isolated storage, in which there is involved a quantity of a hazardous chemical listed in Column 2 of Schedule 3 which is equal to or more than the threshold quantity specified in the entry for that chemical in Column 4;

(c) Rules 7 and 8 shall apply to an isolated storage in which there is involved a quantity of a hazardous chemical listed in Column 2 of Schedule 2 which is equal to or more than the threshold quantity specified in the entry for that chemical in Column 3; and

(d) Rules 13 and 15 shall apply to an isolated storage in which there is involved a quantity of a hazardous chemical listed in Column 2 of Schedule 2 which is equal to or more than the threshold quantity specified in the entry for that chemical in Column 4.

7. **Notification of sites:**

(1) An Occupier shall not undertake any industrial activity or isolated storage unless he has submitted a written report to the Chief Inspector containing the particulars specified in Schedule 7 at least 90 days before commencing that activity or storage or before such shorter time as the Chief Inspector may agree and for the purpose of this Sub-Rule, an activity or storage in which subsequently there is or is liable to be a threshold quantity given in Column 3 of Schedules 2 and 3 or more of an additional hazardous chemical shall be deemed to be a different activity or storage and shall be notified accordingly.

(2) The Chief Inspector, within 60 days from the date of receipt of the report in accordance with Sub-Rule (1) of this Rule shall examine, and on examination of the report, if he is of the opinion that contravention of the provisions of the Act or the Rules made thereunder has taken place, he may issue notice for obtaining compliance.

8. **Site notification:**

Where an activity has been reported in accodance with Rule 7(1) and the Occupier makes a change in it (including an increase in the maximum quantity of a hazardous chemical to which this Rule applies which is or is liable to be at the site or in the pipeline or at the cessation of the activity) which effects the particulars specified in that report or any subsequent report made under this Rule, the Occupier shall forthwith furnish a further report to the Inspector and the Chief Inspector.

9. **Transitional provision:**

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10. **Safety Report and Safety Audit Reports:**

(1) Subject to the following Subrules of this Rule, an Occupier shall not undertake any industrial activity or isolated storage to which this Rule applies unless he has prepared a safety report on that industrial activity or isolated storage containing the information specified in Schedule 8 and has sent a copy of that report to the Chief Inspector at least 90 days before commencing that activity or storage.

(2) After commencement of these Rules, the Occupiers of both the new and the existing industrial activities or isolated storages shall arrange to cary out *Safety Audit* by a competent agency to be accredited by an **Accreditation Board** to be constituted by the Ministry of Labour, Government of India, in this behalf.

Further, such auditing shall be carried out as under:—

(i) Internally once a year by a team of suitable plant personnel;

(ii) Externally once in two years by a competent agency accredited in this behalf;

(iii) In the year when an external audit is carried out, internal audit need not be carried out.

(3) The Occupioer within 30 days of the completion of the audit, shall send a report to the Chief Inspector with respect to the implementation of the audit recommendations.

11. **Updating of the Safety Reports under Rule 10:**

(1) Where an Occupier has made a safety report in accordance with Subrule (1) of Rule 10,he shall not make any modification to the industrial activity or isolated storage to which that safey report relates which could materially effect the particulars in that report, unless he has made a further report to take account of those modifications and has sent a copy of that report to the Inspector and Chief Inspector at least 90 days before making those modifications.

(2) Where an Occupier has made a report in accordance with Rule 10 and Subrule (1) of these Rules and that industrial activity or isolated storage is continuing, the Occupier shall within three years of the date of the last such report, make a further report which shall have regard in particular to new technichal knowledge which has effected the particulars in the previous report relating to safety and hazard assessment, and shall within 30 days or in such longer time as the Chief Inspector may agree in writing, send a copy of the report to the Inspector and the Chief Inspector .

12. **Requirements for further information to be sent to the Inspector and the Chief Inspector:**

Where in acordance with Rules 10 and 11, an Occupier has sent safety report and safety audit report relating to an industrial activity or isolated storage to the Inspector and Chief Inspector, the Inspector and the Chief Inspector may by a notice served on the Occupier, require him to provide such additional information as may be specified in the notice and the Occupier shall send that information to the Inspector and Chief Inspector within 90 days.

13. **Preparation of On-Site-Emergency-Plans by Occupiers:**

(1) The Occupier shall prepare, keep up-to-date and furnish to the Chief Inspector and the Inspector an on-site emergency plan containing details specified in Schedule 8A and detailing how major accidents will be dealt with on the site on which the industrial activity or isolated storage is carried on and the plan shall include the name of the person who is responsible for safety on the site and the names of those who are authorised to take action in accordance with the plan in case of an emergency.

(2) The Occupier shall ensure that the emergency plan prepared in accordance with Subrule (1) of this Rule, takes into account any modification made in the industrial activity or isolated storage and that every person on the site who is concerned with the plan is informed of its relevant provisions.

(3) The Occupier shall prepare the emergency plan required under Subrule (1) of this rule—

(a) before the commencement of industrial activity or isolated storage;

(b) within 90 days of coming into operation of these Rules in case of an existing industrial activity or isolated storage.

(4) The Occupier shall ensure that a mock drill of the on-site-emergency is conducted at least once in every six months.

(5) A detailed report of the mock drill conducted under Subrule (4) shall be made immediately available to the Inspector and the Chief Inspector.

14. **Preparation of Off-site-emergency-plans:** D******E******L***E****T****E****D

15. **Information to be given to persons liable to be affected by a major accident:**

(1) The Occupier shall take appropriate steps to inform persons outside the site who are likely to be in an area which may be affected by a major accident about—

(a) the nature of the major accident hazard; and

(b) the safety measures and the Do's and Dont's which should be adopted in the event of a major accident.

(2) The Occupier shall take the steps required under Subrule (1) of this Rule to inform persons about an industrial activity or isolated storage before the activity or storage is commenced, except that, in the case of an existing industrial activity or isolated storage the Occupier shall comply with the requirements of Subrule (1) of this Rule within 90 days of coming into operation of these Rules.

16. **Disclosure of information notified under these Rules:**

Where for the purpose of evaluating information notified under Rule 5 or Rules 7 to 15, the Inspector or the Chief Inspector discloses that information to some other person, that other person shall not use that information for any purpose except a purpose of the Inspector or the Chief Inspector disclosing it, as the case may be, and before disclosing that information, the Inspector or the Chief Inspector, as the case may be, shall inform that other person of his obligations under this Rule.

17. **Improvement notice:** D****E****L****E****T****E****D

18. **Power of the State Government to modify the Schedules:**

The State Government may, at any time, by notification in the Official Gazette, make suitable changes in the Schedules.

—:SCHEDULES:—

SCHEDULE 1

See Rules 2 (a) (i),3(1) and 4(1)(a)

Indicative criteria and list of chemicals

PART—I: INDICATIVE CRITERIA

(a) Toxic Chemicals:

Chemicals having the following values of acute toxicity and which owing to their physical and chemical properties, are capable of producing major accident hazards:

Sl.No.	Degree of toxicity	Medium lethal doses by the oral route toxicity, LD 50(mg/kg body weight of test animals.	Medium lethal doses by the dermal rout.Dermal-LD 50 (mg/kg body weight of test animals).	Medium lethal concentration by inhalation route(Four hours).LC 50(mg/litre inhalation in test animals)
1.	Extremely toxic	1—50	1—200	0.1—0.5
2.	Highly toxic	51—500	201—2000	0.5—2.0

(b) Flammable Chemicals:

(i) Flammable gases: Chemicals which in the gaseous state at normal pressure and mixed with air become flammable and the Boiling Point of which at normal pressure is 20 degrees or below;

(ii) Highly flammable liquids: Chemicals which have a flash point lower than 23 degrees C and the boiling point of which at normal pressure is above 20 degrees C;

(iii) Flammable liquids: Chemicals which have a flash point lower than 65 degrees C and which remain liquid under pressure, where particular processing conditions, such as high pressure and high temperatures, may create major accident hazards;

(c) Explosives:

Chemicals which may explode under the effect of flame, heat or photo chemical condition, or which are more sensitive to shocks or friction than di-nitrobenzene.

SCHEDULE-I (Continued)

PART-II LIST OF HAZARDOUS CHEMICALS

Sl.No	Name of the Chemical	Sl.No	Name of the Chemical
1	Acetone	61	Tert-Butyl Peroxyisobutyrate
2	Acetone Cyanohydrine	62	Tert-Butyl Peroxyisopropyl Carbonate
3	Acetyl Chloride	63	Tert-Butyl Peroxymaleate
4	Acetylene (Ethyne)	64	Tert-Butyl Peroxypivalate
5	Acrolein (2-Propenal)	65	Butyl Vinyl Ether
6	Acrylonitrile	66	Butylamine
7	Aldicarb	67	C9-Aromatic Hydrocarbon Fraction
8	Aldrine	68	Cadmium and Compounds
9	Alkyl Pthalate	69	Cadmium Oxide (fumes)
10	Allyl Alcohol	70	Calcium Cyanide
11	Allylamine	71	Captan
12	Alpha Naphthyl Thiourea (Antu)	72	Captofol
13	4-Aminodiphenyl	73	Carbaryl (Sevin)
14	2-Aminophenol	74	Cabofuran
15	Amiton	75	Carbon Disulphide
16	Ammonia	76	Carbon Monoxide
17	Ammonium Nitrate	77	Carbon Tetrachloride
18	Ammonium Nitrate in Fertilizers	78	Carbophenothion
19	Ammonium Sulfamate	79	Cellulose Nitrate
20	Anabasine	80	Chlorates (used in explosives)
21	Aniline	81	Chlordane
22	p-Anisidine	82	Chlorfenvinphos
23	Antimoni and compounds	83	Chlorinated Benzenes
24	Antimoni Hydride (Stibine)	84	Chlorine
25	Arsenic Hydride (Arsine)	85	Chlorine Dioxide
26	Arsenic Pentoxide, Arsenic(V) Acids & Salts	86	Chlorine Oxide
27	Arsenic Trioxide,Arsenious(III) Acids & Salts	87	Chlorine Trifluoride
28	Asbestos	88	Chlormequate Chloride
29	Azinphos-Ethyl	89	Chloroacetal Chloride
30	Azinphos-Methyl	90	Chloroacetaldehyde
31	Barium Azide	91	2-Chloroaniline
32	Benzene	92	4-Chloroaniline
33	Benzidyne	93	Chlorobenzene
34	Benzidyne Salts	94	Chlorodiphenyl
35	Benzoquinone	95	Chloroepoxypropane
36	Benzoyl Chloride	96	Chloroethanol
37	Benzoyl Peroxide	97	Chloroethyl Chloroformate
38	Benzyl Chloride	98	Chlorofluorocarbons
39	Benzyl Cyanide	99	Chloroform
40	Beryllium (Powders, Compounds)	100	4-Chloroformyl, Morpholine
41	Biphenyl	101	Chloromethane
42	BIS (2-Chloromethyl) Ketone	102	Chloromethyl Ether
43	BIS (2,4,6-Trinitrophenyl) Amine	103	Chloronitrobenzene
44	BIS (2-Chloroethyl) Sulphide	104	Chloroprene
45	BIS (Chloromethyl) Ether	105	Chlorosulphonic Acid
46	2,2-BIS(Tert-Butylperoxy) Butane	106	Chlorotrinitrobenzene
47	1,1-BIS (Tert-Butylperoxy) Cyclohexane	107	Chloroxuron
48	BIS-1,2 (Tribromophenoxy)-Ethane	108	Chromium and Compounds
49	BIS Phenol	109	Cobolt and Compounds
50	Boron and Compounds	110	Copper and compounds
51	Bromine	111	Coumafuryl
52	Bromine Pentafluoride	112	Coumaphos
53	Bromoform	113	Coumatetralyl
54	1,3-Butadiene	114	Cresols
55	Butane	115	Crimidine
56	N-Butaenthiol	116	Cumene
57	2-Butanone	117	Cyanophos
58	Butoxy Ethanol	118	Cyanothoate
59	Butyl Glycidal Ether	119	Cyanuric Fluoride
60	Tert-Butyl Peroxyacetate	120	Cyclohexane

SCHEDULE 1(Continued)

Sl.No	Name of the Chemical	Sl.No	Name of the Chemical
121	Cyclohexanol	181	Ethion
122	Cyclohexanone	182	Ethyl Carbamate
123	Cyclohexamide	183	Ethyl Ether
124	Cyclopentadiene	184	2-Ethyl Hexanol
125	Cyclopentane	185	Ethyl Marcaptan
126	Cyclotetramethylenetetranitramine	186	Ethyl Methacrylate
127	Cycloltrimethylenetrinitramine	187	Ethyl Nitrate
128	DDT	188	Ethylamine
129	Decabromodiphenyl Oxide	189	Ethylene
130	Demeton	190	Ethylene Chlorohydrine
131	Di-Isobutyryl Peroxide	191	Ethylene Diamine
132	Di-n- Propyl Peroxydicarbonate	192	Ethylene Dibromide
133	Di-sec-Butyl Peroxydicarbonate	193	Ethylene Dichloride
134	Dialifos	194	Ethylene Glycol Dinitrate
135	Diazodinitrophenol	195	Ethylene Oxide
136	Diazomethane	196	Ethylene Imine
137	Dibenzyl Peroxydicarbonate	197	Ethyl Thyocyanate
138	Dichloroacetylene	198	Fensulphothion
139	O-Dichlorobenzene	199	Fluenetil
140	P-Dichlorobenzene	200	4-Fluoro. 2-Hydroxybutyric Acid &Salts, Esters, Amides
141	Dichloroethane	201	Fluoroacetic Acid & Salts, Esters, Amides
142	Dichloroethyl Ether	202	4-Flurobutyric Acid& Salts,Esters,Amides
143	2. 4-Dichlorophenol	203	4-Flurochrotonic Acid& Salts,Esters,Amides
144	2. 6-Dichlorophenol	204	Formaldehyde
145	2. 4-Dichlorophenoxy Acetic Acid (2,4-1)	205	Glyconitrile (Hydroxyacetonitrile)
146	1, 2-Dichloropropane	206	1-Guanyl-4-Nitrosaminoguanyl-1-Tetrazene
147	3, 5-Dichlorosalicylic Acid	207	Heptachlor
148	Dichlorovos (DDVP)	208	Hexachloro Cyclopentadiene
149	Dicrotophos	209	Hexachloro Cyclohexane
150	Dieldrin	210	Hexachloro Cyclomethane
151	Diepoxybutane	211	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxine
152	Diethyl Peroxydicarbonate	212	Hexafluopropene
153	Diethylene Glycol Dinitrate	213	Hexamethylphosphoramide
154	Diethylene Triamine	214	3,3,6,6,9,9-Hexamethyl-1,2,4,5-Tetroxacyclononane
155	Diethyleneglycol Butyl Ether / Diethyleneglycol Butyl Acetate	215	Hexamethylenediamine
156	Diethylenetriamine (DETA)	216	Hexane
157	Diglycidyl Ether	217	2.2’.4.4’.6.6’-Hexanitrostilbene
158	2, 2-Dihydroperoxypropane	218	Hexavalent Chromium
159	Diisobutyryl Peroxide	219	Hydrazene
160	Dimefox	220	Hydrizine Nitrate
161	Dimethoate	221	Hydrochloric Acid
162	Dimethyl Phosphoramidocyanidic Acid	222	Hydrogen
163	Dimethyl Phtalate	223	Hydrogen Bromide (Hydrobromic Acid)
164	Dimethylcarbomoyl Chloride	224	Hydrogen Chloride (Liquefied gas)
165	Dimethylnitrosamine	225	Hydrgen Cyanide
166	Dinitrophenol, Salts	226	Hydrogen Fluoride
167	Dinitrotoluene	227	Hydrogen Selenide
168	Dinitro-o-cresol	228	Hydrogen Sulphide
169	Dioxane	229	Hydroquinone
170	Dioxathion	230	Iodine
171	Dioxolane	231	Isobenzan
172	Diphacinone	232	Isodrin
173	Diphosphoramide Octamethyl	233	Isophorone Diisocyanate
174	Dipropylene Glycomethylether	234	Isoprpyl Ether
175	Disulfoton	235	Juglone(5-Hydroxynaphthalene-1,4-Dione)
176	Endosulfan	236	Lead (Inorganic fumes & dusts)
177	Endrin	237	Lead 2,4,6-Trinitroresorcinoxide (Lead Styphnate)
178	Epichlorohydrine	238	Lead Azide
179	EPN	239	Leptophos
180	1, 2-Epoxypropane	240	Lindane

SCHEDULE-1(Continued)

Sl.No.	Name of the Chemical	Sl.No.	Name of the Chemical
241	Liquefied Petroleum gas (LPG)	301	Oleylamine
242	Maleic Anhydride	302	oo-Diethyl S-Ethylsulphinylmethyl Phosphorothioate
243	Manganese & Compounds	303	oo-Diethyl S-Ethylsulphonylmethyl Phosphorothioate
244	Mercapto Benzothiazole	304	oo-Diethyl S-Ethylthiomethyl Phosphorothionate
245	Mercury Alkyl	305	oo-Diethyl S-Isopropylthiomethyl Phosphorodithioate
246	Mercury Fulminate	306	oo-Diethyl S-Propylthiomethyl Phosphorodithioate
247	Mercury Ethyl	307	Oxyamyl
248	Methacrylic Anhydride	308	Oxydisulfoton
249	Methacrylonitrile	309	Oxygen (Liquid)
250	Methacryloyl Chloride	310	Oxygen Difluoride
251	Methamidophos	311	Ozone
252	Methanesuphonyl Fluoride	312	Paraoxon (Diethyl 4-Nitrophenyl Phosphate)
253	Methanethiol	313	Paraquat
254	Methoxyethanol (2-Methyl Cellosolve)	314	Parathion
255	Methoxyethylmercuric Acetate.	315	Parathion Methyl
256	Methyl Acrylate	316	Paris green (BIS Aceto Hexametaarsenitotetra Copper)
257	Methyl Alcohol	317	Pentaborane
258	Methyl Amylketone	318	Pentabromodiphenyl Oxide
259	Methyl Bromide (Bromomethane)	319	Pentabromophenol
260	Methyl Chloride	320	Pentachloro Naphthalene
261	Methyl Chloroform	321	Pentachloroethane
262	Methyl Cyclohexene	322	Pentachlorophenol
263	Methyl Ethyl Ketone Peroxide	323	Pentaerythritol Tetranitrate
264	Methyl Hydrazine	324	Pentane
265	Methyl Isobutyl Ketone	325	Peracetic Acid
266	Methyl Isobutyl Ketone Peroxide	326	Perchloroethylene
267	Methyl Isocyanate	327	Perchloromethyl Mercaptan
268	Methyl Isothiocyanate	328	2-Pentanone, 4-methyl
269	Methyl Mercaptan	329	Phenol
270	Methyl Methacrylate	330	Phenyl Glycidal Ether
271	Methyl Parathion	331	Phenylene P-Diamine
272	Methyl Phosphonic Dichloride	332	Phenylmercury Acetate
273	N-Methyl,2,4,6,-Tetranitroaniline	333	Phorate
274	Methylene Chloride	334	Phosasetim
275	4,4'-Methylenebis (2-Chloroaniline)	335	Phosalane
276	Methyltrichlorosilane	336	Phosfolan
277	Mevinphos	337	Phosgene (Carbonyl Chloride)
278	Molybdenum & Compounds	338	Phosmet
279	N-Methyl-N,2,4,6-N-Tetranitroaniline	339	Phosphamidon
280	Naphtha (Coal Tar)	340	Phosphine (Hydrogen phosphide)
281	2-Naphthylamine	341	Phosphoric Acid and Esters
282	Nickel & Compounds	342	Phosphoric Acid. Bromethyl Bromo (2,2-Dimethylpropyl) Bromomethyl Ester
283	Nickel Tetracarbonyl	343	Phosphoric Acid. Bromethyl Bromo (2,2-Dimethylpropyl) Chloroethyl Ester
284	o-Nitroaniline	344	Phosphoricf Acid, Chloroethyl Bromo (2,2-Dimethxylpropyl) Chloroethyl ester
285	p-Nitroaniline	345	Phosphorus & Compounds
286	Nitrobenzene	346	Phostalan
287	p-Nitrochlorobenzene	347	Picric acid (2,4,6-Trinitrophenol)
288	Nitrocyclohexane	348	Polybrominated Biphenyls
289	Nitroethane	349	Potassium arsenite
290	Nitrogen Dioxide	350	Potassium Chlorate
291	Nitrogen Oxides	351	Promurit (1-(3,4-Dichlorophenyl)-3-Triazenethiocarboxamide)
292	Nitrogen Trifluoride	352	1,3-Propanesultone
293	Nitroglycerine	353	1-Propen,-2-Chloro-1,3-Diol-Diacetate
294	p-Nitrphenol	354	Propylene Dichloride
295	1-Nitropropane	355	Propylene Oxide
296	2-Nitropropane	356	Propyleneimine
297	NitrosodiMethylamine	357	Pyrazoxon
298	Nitrotolune	358	Selenium Hexafluoride
299	Octabromophenyl Oxide	359	Semicarbazide HydroChloride
300	Oleum	360	Sodium Arsenite

SCHEDULE-1(Continued)

Sl.No.	Name of the Chemical	Sl.No.	Name of the Chemical
361	Sodium Azide	397	Trichloro Acetyl Chloride
362	Sodium Chlorate	398	Trichloro Ethane
363	Sodium Cyanide	399	Trichloro Naphthalene
364	Sodium Picramate	400	Trichlorochloromethylsylane
365	Sodium Selenite	401	Trichlorodichlorophenylsilane
366	Styrene,1,1,2,2-Tetrachloroethane	402	1,1,1-Trichloroethane
367	Sulfotep	403	Trichloroethyl Silane
368	Sulphur Dichloride	404	Trichloroethylene
369	Sulphur Dioxide	405	Trichloromethanesulphenyl Chloride
370	Sulphur Trioxide	406	2,2,6-Trichlorophenol
371	Sulphuric Acid	407	2,4,5-Trichlorophenol
372	Sulphoxide, 3-Chloropropyloctyl	408	Triethylamine
373	Tellurium	409	Triethylenemelamine
374	Teelurium Hexafluoride	410	Trimethyl Chlorosilane
375	TEPP	411	Trimethylolpropane Phosphite
376	Terbufos	412	Trinitroaniline
377	Alpha-Terabromobisphenol	413	2,4,6-Trinitroanisole
378	2 2 5 6-Tetrachloro-2, 5-Cyclohexadiene-1, 4--Dione	414	Trinitrobenzene
379	2 3 7 8-Tetrachlorodibenzo-p-Dioxin (TCDD)	415	Trinitrobenzoic Acid
380	Tetraethyl Lead	416	Trinitrocresol
381	Tetrafluoroethane	417	2,4,6-Trinitrophenetole
382	Tetramethylenedisulphotetramine	418	2,4,6-Trinitroresocrinol (Styphnic Acid)
383	Tetramethyl lead	419	Trinitrotoluene
384	Tetranitromethane	420	Triorthocresyl Phosphate
385	Thallium & Compounds	421	Triphenyltin Chloride
386	Thionazin	422	Terpentine
387	Thionyl Chloride	423	Uranium & Compounds
388	Tirpate	424	Vanadium & Compounds
389	Toluene	425	Vinyl Chloride
390	Toluene-2-4-Diisocyanate	426	Vinyl Fluoride
391	o-Toluidine	427	Vinyl Toluene
392	Toluene 2,6-Diisocyanate	428	Warfarin
393	Trans-1,4-Chlorobutene	429	Xylene
394	1-Tri,(Cyclohexyl) Stannyl-1H-1,2,4-Triazole	430	Xylidine
395	1 3 5-Triamino-2,4,6-Trinitrobenzene	431	Zinc & Compounds
396	2 4 6-Tribromophenol	432	Zirconium & Compounds

SCHEDULE-2

[*(See Rule 2(c), 4(1)(b), 5, 6(1)(c) and (d)*

(a) The threshold quantities set out below relate to each installation or group of installations belonging to the same Occupier where the distance between installations is not sufficient to avoid, in foreseeable circumstances, any aggravation of major accident hazards.These threshold quantities apply in any case to each of the installations belonging to the same Occupier where the distance between the installations is less than 500 metres.

(b) For the purpose of determining the quantity of a hazardous chemical at an isolated storage, account shall also be taken of any hazardous chemical which is:—

(i) in that part of any pipeline under the control of the Occupier having control of the site, which is within 500 metres of that site and connected to it;

(ii) at any other site under the control of the Occupier any part of the boundary of which is within 500 metres of the said site; and

(iii) in any vehicle, vessel,aircraft or hovercraft under the control of the same Occupier which is used for storage purpose either at the site or within 500 metres of it,

but no account shall be taken of any hazardous chemical which is in a vehicle, vessel, aircraft or hovercraft for transporting it.

Sl.No.	Chemical or Groups of Chemical	Threshold Quantity (tonnes)	
		For application of Rules 4, 5,7 and 8	For application of Rules 10 to 15
(1)	(2)	(3)	(4)
1	Acrolonitrile	350	5,000
2	Ammonia	60	600
3	Ammonium Nitrate (a)	350*	2,500*
4	Ammonium Nitrate Fertiliser (b)	1,250	10.000
5	Chlorine	10	25
6	Flammable gases as specified in Schedule 1 paragraph (b) (i)	50	300
7	Highly flammable liquids as defined in Schedule 1, paragraph (b) (ii)	10,000	1,00,000
8	Liquid Oxygen	200	2,000
9	Sodium Chlorate	25	250
10	Sulphur Dioxide	20	500
11	Sulphur Trioxide	15	100
12	Carbonyl Chloride	0.750	0.750
13	Hydrogen Sulphide	5	50
14	Hydrogen Fluoride	5	50
15	Hydrogen Cyanide	5	20
16	Carbon Disulphide	20	200
17	Bromine	50	500
18	Ethylene Oxide	5	501
19	Propylene Oxide	5	50
20	2-Propenal (Acroletin)	20	200
21	Bromomethane (Methyl Bromide)	20	200
22	Methyl Isocyanate	0.15	0.15
23	Tetraethyl Lead or Tetramethyl Lead	5	50
24	1,2 Dibromo ethane (Ethylene Bromide)	5	50
25	Hydrogen Chloride (Liquified Gas)	25	250
26	Diphenyl Methane Di-isocyanate (MDI)	20	200
27	Toluene Di-isocyanate (TDI)	10	100

*Where this chemical is in a state which gives it properties capable of creating a major accident hazard.

Foot Notes:

(a) This applies to Ammonium Nitrate and mixturres of Ammonium Nitrate where the nitrogen content derived from the Ammonium Nitrate is greater than 28% by weight and to aqueous solution of Ammonium Nitrate where the concentration of Ammonium Nitrate is greater than 90% by weight.

(b) This applies to straight Ammonium Nitrate Fertilisers and to Compound Fertilisers where the nitrogen content derived from the Ammonium Nitrate is greater than 28% by weight.(A Compound Fertiliser contains Ammonium Nitrate togetherwith Phosphate and/or Potash)

SCHEDULE-3

[See Rules 2(a)(iii), 5 and 6(1)(a) and (b)]

(a) The quantities set our below relate to each installation or group of installations belonging to the same Occupier where the distance between the installations is not sufficient to avoid, in forseeable circumstances, any aggravation of major accident hazards. These quantities apply in any case to each group of installations belonging to the same Occupier where the distance between the installations is less than 500 metres.

(b) For the purpose of determining the threshold quantity of a hazardous chemical in an industrial installation, account shall also be taken of any hazardous chemical which is:—

(i) in that part of any pipeline under the control of the Occupier having control of the site, which is within 500 metes of that site and connected to it;

(ii) at any other site under the control of the same Occupier any part of the boundary of which is within 500 metres of the said site; and

SCHEDULE-3 (Continued)

(iii) in any vehicle, vessel, aircraft or hovercraft under the control of the same Occupier which is used for storage purpose either at the site or within 500 metres of it;

but no acount shall be taken of any hazardous chemical which is in a vehicle, vessel, aircraft or hovercraft used for transporting it.

PART-I : NAMED CHEMICALS

Group 1-Toxic Chemicals

Sl.No.	Chemicals	Quantity		CAS Number
		For application of Rules 5,7,8,13 and 15 (Kg)	For application of Rules 10 to 12 (Kg)	
(1)	(2)	(3)	(4)	(5)
1	Aldicarb	100		116-06-3
2	4-Aminodiphenyl	1		92-67-1
3	Amiton	1		78-53-5
4	Anabasine	100		494-52-0
5	Arsenic Pentoxide, Arsenic(V) Acid & Salts	500		
6	Arsenic Trioxide, Arsenious(III) Acid& Salts	100		
7	Arsine (Arsenic Hydride)	10		7784-42-1
8	Azinphos-ethyl	100		2642-71-9
9	Azinphos-methyl	100		86-50-0
10	Benzidine	1		92-87-5
11	Benzidine Salts	1		
12	Beryllium (Powders, Compounds)	10		
13	Bis (2-Chloroethyl) Sulphide	1		505-60-2
14	Bis (Chloromethyl) ether	1		542-88-1
15	Carbofuran	100		1563-66-2
16	Carbophenothion	100		786-19-6
17	Chlorfenvinphos	100		470-90-6
18	4-(Chloroformyl) morpholine	1		15159-40-7
19	Chloromethyl methyl ether	1		107-30-2
20	Cobalt metal,oxides,carbonates,sulphides, as powders	1 T		
21	Crimidine	100		535-89-7
22	Cyanthoate	100		3734-95-0
23	Cycloheximide	100		66-81-9
24	Demeton	100		8065-48-3
25	Dialifos	100		10311-84-9
26	oo-Diethyl, S-ethylsulphinyl methyl phosphorothioate	100		2588-05-8
27	oo-Diethyl,S-ethylsulphonyl methyl phosphorthioate	100		2588-06-9
28	oo-Diethyl,S-ethylthiomethyl phosphorodithioate	100		2600-69-3
29	oo-Diethyl,S-isopropylthiomethyl phosphorodithioate	100		78-52-4
30	oo-Diethyl,S-propylthiomethyl phosphorothioate	100		3309-68-0
31	Dimefox	100		115-26-4
32	Dimethylcarbamoyl Chloride	1		79-44-7
33	Dimethylnitrosamine	1		62-75-9
34	Dimethyl phosphoramidocyanidic acid	1 T		63917-41-9
35	Diphacinone	100		82-66-6
36	Disulphoton	100		298-04-4
37	EPN	100		2104-64-5
38	Ethion	100		563-12-2
39	Fensulfothion	100		115-90-2
40	Fluenetil	100		4301-50-2
41	Fluoroacetic acid	1		144-49-0
42	Fluoroacetic acid, salts	1		
43	Fluoroacetic acid,esters	1		
44	Fluoroacetic acid, amides	1		
45	Fluorobutyric acid	1		462-23-7
46	Fluorobutyric acid, salts	1		
47	4-Fluorobutyric esters	1		
48	4-Fluorobytyric acid, amides	1		
49	4-Fluorocrotonic acid	1		37759-72-1

SCHEDULE-3, part-I, (Continued)

(1)	(2)	(3)	(4)	(5)
50	4-Fluorocrotonic acid, salts	1		
51	4-Fluorocrotonic acid, esters	1		
52	4-Fluorocrotonic acid, amides	1		
53	4-fluor-2-hydroxybutyric acid	1		
54	4-fluor-2-hydroxybutyric acid, salts	1		
55	4-fluor-2-hydroxybutyric acid, esters	1		
56	4-fluor-2-hydroxybutyric acid, amides	1		
57	Glycolonitrile (hydroxyacetonitrile)	100		107-16-4
58	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	100		19408-74-3
59	Hexamethylphosphoramide	1		680-31-9
60	Hydrogen selenide	10		7783-07-5
61	Isobenzan	100		297-78-9
62	Isodrin	100		465-73-6
63	Juglone (5-Hydroxynaphthalene)-1,4-dione	100		481-39-0
64	4,4'-Methylenebis(2-Chloroaniline)	10		101-14-4
65	Methyl Isocyanate	150	150	624-83-9
66	Meviphos	100		7786-34-7
67	2-Naphthylamine	1		91-59-8
68	Nickel metal, oxides, carbonates,sulphide, as powders	1 T		
69	Nickel Tetracarbonyl	10		13463-39-3
70	Oxydisulfoton	100		2497-07-6
71	Oxygen Difluoride	10		7783-41-7
72	Paraoxon (Diethyl 4-nitrophenyl phosphate	100		311-45-5
73	Parathion	100		56-38-2
74	Parathion-methyl	100		298-00-0
75	Pentaborane	100		19624-22-7
76	Phorate	100		298-02-2
77	Phosacetim	100		4104-14-7
78	Phosgene (Carbonyl Chloride)	750	750	75-44-5
79	Phosphamidon	100		13171-21-6
80	Phosphine (Hydrogen Phosphide)	100		7803-51-2
81	Promurit[1-(3,4-Dichlorophenyl)-3-triazenethiocarboxamide]	100		5836-73-7
82	1,3-propanesultone	1		1120-71-4
83	1-propen-2-chloro-1,3-diol diacetate	10		10118-72-6
84	Pyrazoxon	100		108-34-9
85	Selenium Hexafluoride	10		7783-79-1
86	Sodium selenite	100		10102-18-8
87	Stibine (Antimoni Hydride)	100		7803-52-3
88	Sulfotop	100		3689-24-5
89	Sulphur Dichloride	1 T		10545-99-0
90	Tellurium Hexafluoride	100		7783-80-4
91	TEPP	100		107-49-3
92	2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1		1746-01-6
93	Tetramethylenedisulphotetramine	1		80-12-6
94	Thionazin	100		297-97-2
95	Tirpate(2,4-Dimethyl-1,3-dithiolane-2-carboxaldehyde,o-methylcarbomoyloxime	100		26419-73-8
96	Trichloromethane-Sulphenyl Chloride	100		594-42-3
97	1-Tri(Cyclohexyl)Stannyl-1H-1,2,4-triazole	100		41083-11-8
98	Triethylenemelamine	10		51-18-3
99	Warfarin	100		81-81-2

SCHEDULE-3,Part-1, (Continued)

Group 2 Toxic Chemicals (Quantity ›1 Tonne)

(1)	(2)	(3)	(4)	(5)
100	Accetone cyanohydrin (2-Cyanopropan-2-01)	200 T		75-86-5
101	Acrolein (2-propenal)	20 T		107-02-8
102	Acrylonitrile	20 T	200 T	107-13-1
103	Allyl alcohol (2-Propen-1-01)	200 T		107-18-6
104	Allylamine	200 T		107-11-9
105	Ammonia	50 T	500 T	7664-41-7
106	Bromine	40 T		7726-95-6
107	Carbon Disulphide	20 T	200 T	75-15-0
108	Chlorine	10 T	25 T	7782-50-5
109	Diphenyl methane,Di-isocyanate(MDI)	20 T		101-68-8
110	Ethylene dibromide(1,2-Dibromomethane)	5 T		106-93-4
111	Ethyleneimine	50 T		151-56-4
112	Formaldehyde (Concentration≥ 90%)	5 T		50-00-0
113	Hydrogen chloride (Liquified gas)	25 T	250 T	7647-01-0
114	Hydrogen cyanide	5 T	20 T	74-90-8
115	Hydrogen fluoride	5 T	50 T	7664-39-3
116	Hydrogen sulphide	5 T	50 T	7783-06-4
117	Methyl bromide (Bromomethane)	20 T		74-83-9
118	Nitrogen oxides	50 T		11104-93-1
119	Propyleneimine	50 T		75-55-8
120	Sulphur dioxide	20 T	250 T	7446-09-5
121	Sulphur trioxide	15 T	75 T	7446-11-9
122	Tetraethyl lead	5 T		78-00-2
123	Tetramethyl lead	5 T		75-74-1
124	Toluene di-isocyanate (TDI)	10 T		584-84-9

Group 3- Highly Reactive Chemicals

125	Acetylene (Ethyne)	5 T		74-86-2
126	(a) Ammonium nitrate(1) (b) Ammonium nitrate in the form of fertiliser(2)	350 T 1250T	2500 T	6484-52-2
127	2,2-Bis (tert-butyl-peroxy)butane, (Concentration ≥ 70%)	5 T		2167-23-9
128	1,1-Bis(tert-butyl-peroxy) cyclohexane (Cocentration ≥ 80%)	5 T		3006-86-8
129	Tert-Butyl peroxyacetate (Concentration ≥70%)	5 T		107-71-1
130	Tert-Butyl,peroxyisobutyrate (Concentration≥80%)	5 T		109-13-7
131	Tert-Butyl peroxyisopropyl carbonate (Concentration≥80%)	5 T		2372-21-6
132	Tert-Butyl peroxymaleate (Concentration≥80%)	5 T		1931-62-0
133	Tert-Butyl peroxypivalate (Concentration≥77%)	50 T		927-07-1
134	Dibenzyl peroxydicarbonate (Concentration≥90%)	5 T		2144-45-8
135	Di-sec-bytyl peroxydicarbonate(Concentration≥80%)	5 T		19910-65-7
136	Diethyl peroxdicarbonate (Concentration≥30%)	50 T		14666-78-5
137	2,2-Dihydroperoxypropane(Concentration≥30%)	5 T		2614-76-8
138	Diisobutryl peroxide (Concentration≥50%)	50 T		3437-84-1
139	Di-n-propyl peroxydicarbonate (Concentration≥80%)	5 T		16066-38-9
140	Ethylene oxide	5 T	50 T	75-21-8
141	Ethyl nitrate	50 T		625-58-1
142	3,3,6,6,9,9-Hexamethyl-1,2,4,5-tetroxacyclonane (Concentration ≥75%)	50 T		22397-33-7
143	Hydrogen	2T	50 T	1333-74-0
144	Liquid oxygen	200 T		7782-44-7
145	Methyl ethyl ketone peroxide (Concentration ≥60%)	5 T		1338-23-4
146	Methyl isobutyl ketone peroxide (Concentration≥60%)	50 T		37206-20-5
147	Paracetic acid (Concentration≥60%)	50 T		79-21-0
148	Propylene oxide	5 T		75-56-9
149	Sodium chlorate	25 T		7775-09-9

SCHEDULE-3,Part-1,(Continued)

Group 4- Explosive Chemicals

150	Barium azide	50 T		18810-58-7
151	Bis(2,4,6-trinitophenyl) amine	50 T		131-73-7
152	Chlorotrinitrobenzene	50 T		28260-61-9
153	Cellulose nitrate (Containing › 12.6% Nitrogen)	50 T		9004-70-0
154	Cyclotetramethylene tetranitramine	50 T		2691-41-0
155	Cyclotrimethylenetrinitroamine	50 T		121-82-4
156	Diazodinitrophenol	10 T		7008-81-3
157	Diethylene glycol dinitrate	10 T		693-21-0
158	Dinitrophenol salts	50 T		
159	Ethylene glycol dinitrate	10 T		628-96-6
160	1-Guanyl-4-nitrosamineoguanyl-1-tetrazene	10 T		109-27-3
161	2,2’.4,4’.6,6’-Hexanitrostilbene	50 T		20062-22-0
162	Hydrazene nitrate	50 T		13464-97-6
163	Lead azide	50 T		13424-46-9
164	Lead styphnate (Lead 2,4,6-trinitroresorcinoxide)	50 T		15245-44-0
165	Mercury fulminate	10 T		628-86-4
166	N-Methyl-N, 2,4,6-tetranitroaniline	50 T		479-45-8
167	Nitroglycerine	10 T	10 T	55-63-0
168	Pentaerythritol tetranitrate	50 T		78-11-5
169	Picric acid (2,4,6-Trinitrophenol)	50 T		88-89-1
170	Sodium picramate	50 T		831-52-7
171	Styphnic acid (2,4,6-Trinitroresorcinol)	50 T		82-71-3
172	1,3,5-Triamino-2,4,6-trinitrobenzene	50 T		3058-38-6
173	Trinitroaniline	50 T		26952-42-1
174	2,4,6-Trinitroanisole	50 T		606-35-9
175	Trinitrobenzene	50 T		25377-32-6
176	Trinitrobenzoic acid	50 T		35860-50-5
177	Trinitrocresol	50 T		28905-71-7
178	2,4,6-trinitrophenetole	50 T		4732-14-3
179	2,4,6-Trinitrotoluene	50 T	50 T	118-96-7

PART-II,CLASSES OF CHEMICALS NOT SPECIFICALLY NAMED IN PART-I

Sl.No.	Classes of chemicals	Quantity	
		For application of Rules 5,7 8, 13 and 15	For application of Rules10 to 12
(1)	(2)	(3)	(4)
Group 5-Flammable chemicals			
1	**Flammable gases:** Chemicals which in gaseous state at normal pressure and mixed with air becomes flammable and the boiling point of which at normal pressure is 20 degrees C or below;	15 t	200 t
2	**Highly flammable liquids:** Chemicals which have a flash point lower than 23 degree C and the boiling point of which at normal pressureis above 20 degree C;	1000 t	50,000 t
3	**Flammable liquids:** Chemicals which have a flash point lower than 65 degree C and which remain liquid under pressure, where particular processing conditions, such as high pressure and high temperature, may create major accident hazards.	25 t	200 t

Footnotes:—

(1) This applies to Ammonium Nitrate and mixtures of Ammonium Nitrate where the Nitrogen content derived from the Ammonium Nitrate is greater than 2% by weight and aqueous solution of Ammonium Nitrate where the concentration of Ammonium Nitrate is greater than 90% by weight.

Contd.15/-

SCHEDULE-3,Part-II(Continued)

(2) This applies to Straight Ammonium Fertilisers and to Compound Fertilisers where the Nitrogen content derived from the Ammonium Nitrate is greater tha 28% by weight (a Compound fertiliser contains Ammonium Nitrate together with Phosphate and/or Potash).

- CAS Number Chemical Abstract Service Number):— means the number assigned to the chemical by the *Chemical Abstracts Service.*

: SCHEDULE 4:

[SeeRule 2(b) (1)]

1. Factories involving in the production, processing or treatment of organic or inorganic chemicals using for this purpose, among others:

(a)	Alkylation	(k)	Polymerization
(b)	Amination by amonolysis	(l)	Sulphonation
(c)	Carbonylation	(m)	Desulphurization, manufacture and transformation of sulphur-containing compounds
(d)	Condensation	(n)	Nitration and manufacture of nitrogen-containing compounds
(e)	Dehydrogenation	(o)	Manufacture of phosphorus-containing compounds
(f)	Estefication	(p)	Formulation of pesticide and of pharmaceutical products
(g)	Halogenation and manufacture of halogens	(q)	Distillation
(h)	Hydrogenation	(r)	Extraction
(i)	Hydrolysis	(s)	Solvation
(j)	Oxydation	(t)	Mixing

2. Factories involving in distillation, refining or other processing of petroleum or petroleum product.

3. Factories involving in the total or partial disposal of solid or liquid chemicals by incineration or chemical decomposition.

4. Factories involving in production, processing or treatment of energy gases; for example: LPG, LNG, SNG.

5. Factories involving in the dry distillation of coal or lignite.

6. Factories involving in the production of metals by a wet process or by means of electrical energy.

SCHEDULE-5

Format of Material Safety Data Sheet

See Rule 3(2) and (3)]

1. IDENTITY OF MATERIAL

<table>
<tr><td colspan="2">Product Name:</td><td colspan="2">Chemical Designation</td></tr>
<tr><td colspan="2">Trade Name:</td><td colspan="2">Synonyms:</td></tr>
<tr><td>Formula:</td><td>Label: Category
Class</td><td>CAS Number</td><td>UN Number</td></tr>
<tr><td rowspan="2">Regulated Identification</td><td colspan="2">Shipping name
Codes/ Label</td><td>Hazchem Code:</td></tr>
<tr><td colspan="3">Hazardous Waste
Identification Number</td></tr>
</table>

SCHEDULE-5 (Continued)

Sl.	Hazardous Ingredients	CAS Number
1		
2		
3		
4		

2. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: (Gas/Liquid/Solid)	Boiling Point in Degree C:	Vapour Pressure at 35 Degree C ----------mm Hg
Appearance	Melting/Freezing Point in Degree C:	Evaporation rate at 30 Degree C
Odour	Vapour Density (air-1)	Solubility in water at 30◦C
Others (Corrosivity etc.)	Specific Gravity (Water-1)	PH

3. FIRE AND EXPLOSIVE HAZARDS DATA

Exploasion/Flammability	Flash Point (◦C)	LEL %	Autoignition Temperature (◦C)
	Flash Point (◦C)	UEL %	TDG Flammability (Classification)

4. REACTIVE HAZARDS

Stability to:→	Impact	(Hazardous Combustion Products)
	Static Discharge	(Hazardous Decomposition Products)
	Reactivity	(Conditions to avoid)
Hazardous Polymerisation:→	May/May not occur	(Conditions to avoid)
Incompatibility:→	(Materials to avoid)	

5. HEALTH HAZARD DATA

Routes of Entry: (Inhalation, skin, mucuous membranes and eye contact and ingestion) :

Effects of exposure/symptoms:

LD50:[(In rat);(orally or percutaneous absorption); mg/kg body weight)]	LC50:[(In rat); (mg/l)/4 hourss]

Permissible Exposure Limit (PEL): ppm mg/cu.m	Short term ppm mg/cu.m Exoosure Limit; (STEL)
Threshold Limit Value (TLV) ; ppm mg/cu.m Of ACGIH	Odour Threshold ppm mg/cu.m

Emergency Treatment:

6. HAZARD SPECIFICATION

NEPA Hazard Signal	Health	Flammability	Stability	Special

SCHEDULE-5 (Continued)

Known Hazards:

Combustible Liquid:	Water Reactive Material:	Irritant:
Flammable Material:	Oxidiser:	Sensitizer:
Pyrophoric Material:	Organic Peroxide:	Carcinogen:
Explosive Material:	Corrisive material:	Mutagen:
Unstable Material:	Compressed Gas:	Others (Specify):

7. SAFE USAGE DATA

Ventilation:→	General/Mechanical
	Local Exhaust
Protective Equipment :→ Required	Eyes (Specify):
	Respiratory (Specify):
	Gloves (Specify):
	Clothing (Specify):
	Others (Specify):
Precautions:→	Handling & Storage:
	Others (Specify):

8. EMERGENCY RESPONSE DATA

Fire:→	Fire Extinguishing Media:
	Special Procedures:
	Unusual Hazards
Exposure(Inhalation, skin and eye contact, ingestion):→	First-Aid Measures:
Spills:→	Steps to be taken:
	Waste Disposal Method:

9. ADDITIONAL INFORMATION

10. SOURCES USED
Reference Books, Journals etc:

11. MANUFACTURER / SUPPLIER DATA

Firm's Name:	Standard Packing:
Mailing Address:	
Telephone Number:	Other;
Telex Number:	
	Other:
Telegraphic Address:	
Contact Person In Emergency:	Emergency Telephone In Transit Area:

SCHEDULE-5 (Continued)

Acronyms and Glossary of terms:—

CAS:	Chemical Abstract Service Registration Number.
UN Number:	United Nations Number.
HAZCHEM CODE:	Emergency Action Code (EAC): allocated by the Joint Committee of Fire Brigade Operations, UK.
TDG Flammability:	Transport of Dangerous Goods- Flammability classification by United Nations.
NFPA:	National Fire Protection Association, USA.
LD50 and LC50:	Represents the dose in mg/kg of body weight and the concentration in mg/l for 4 hours having lethal effect on 50% of the animals (rats) treated.
PEL:	Permissible Exposure Limit as laid down in the statutes.
TEL:	Threshold Limit Value as laid down by the American Conference of Governmental Industrial Hygienists (ACGIH), USA.
STEL:	Short Term Exposure Limit as laid down in the statutes or by the ACGIH.

GUIDELINES:

All efforts should be made to fill in all the columns. No column should be left blank. In case certain information is not applicable or available, 'N/App.' or 'N/Av.' sign may be used.

SCHEDULE 6

[See Rule 5(1)]

Information to be furnished regarding Notification of Major Accident

Report Number of the particular accident: —

1. General Data:
   (a) Name of the site:
   (b) Name and address of the Occupier:
   (Also state the telephone/ telex Number)
   (c) (i) Registration Number:
   (ii) Licence Number (As may have been allocated under any statute applicable to the site, *e.g:* The Factories Act):
   (d) (i) Nature of industrial activity (Mention what is actually manufactured,stored etc.):

   (ii) National Industrial Classification, 1987 at the four digit level: | | | | |

2. Type of Major Acident:

   Explosion: ☐ Fire ☐ Emission of Hazardous Chemical ☐

3. Description of the Major accident:
   (a) Date, Shift and Hour of the accident:
   (b) Department, Section and exact place where the accident took place:

   (c) The process, operation undertaken in the Department/ Section where the accident took place (Attach a Flow Chart, if necessary):

   (d) The circumstances of the accident and the hazardous chemical involved:

4. Emergency measures taken and measures envisaged to be taken to alleviate short term effects of the accident:

5. Causes of the Major Accident:

Known :
(to be specified) ☐

Not known: ☐

SCHEDULE-6 (Continued)

Information will be supplied as soon as possible: | |

6. Nature and extent of damage:
   (a) Within the establishment:

Casualties:	.....Killed
	.....Injured.
	.....Poisoned
Persons exposed to the Major Accident:	
Material Damage:	

Damage is still present: | |

Danger no longer exists: | |

   (b) Outside the establishment:

Casualties:	.....Killed
	.....Injured
	.....Poisoned
Persons exposed to the Major Accident:	
Material Damage	

Damage to environment | |

Damage is still present: | |

Danger no longer exists | |

7. Data available for assessing the effects of the accident on persons and environment:

8. Steps already taken or envisaged:
   (a) To alleviate medium or longterm effects of the accident:

   (b) To prevent recurrence of similar Major Accident:

   (c) Any other relevant information:

SCHEDULE 7

[See Rule 7(1)]

Information to be furnished for the Notification of Sites

- Particulars to be inhcluded in a notification of sites :

1. The name and address of the Occupier making the notification;
2. The full postal address of the site where the notifiable idustrial activity will be carried on;
3. The area of the site covered by the notification and of any adjacent site which is required to be taken into account by virtue of Schedule 2(b) and Schedule 3(b);
4. The date on which it is anticipated that the notifiable industrial activity will commence or if it has already commenced, a statement to that effect;
5. The name and maximum quantity liable to be on the site of each hazardous chemical for which notification is being made;
6. Organisation structurer, namely, Organisation diagram for the proposed industrial activity and set up for ensuring safety and health;

SCHEDULE-7 (Continued)

7. Information relating to the potential for major accidents, namely:—
   (a) identification of major accident hazards;
   (b) the condition of events which could be significant in bringing one about;
   (c) a brief description of the measures taken.

8. Information relating to the site, namely:—
   (a) a map of the site and its surrounding area to a scale large enough to show any features that may be significant in the assessment of the hazard or risk associated with the site;
      (i) area likely to be affected by the major accident;
      (ii) population distribution in the vicinity;
   (b) a scaled plan of the site showing the location and quantity of all significant inventories of the hazardous chemical;
   (c) a description of the processes or storages involving the hazardous chemical, the maximum amount of such a hazardous chemical in the given process or storage and an indication of the conditions under which it is normally held;
   (d) the maximum number of persons likely to be present on site.

9. The arrangement for training of workers and equipment necessary to ensure safety of such workers.

SCHEDULE 8

[See Rule 10(1)]

Information to be furnished in a Safety report

1. The name and address of the person furnishing the information;
2. Description of the industrial activity, namely:—
   (a) Site;
   (b) construction design;
   (c) protection zones (explosion protection,separation distances);
   (d) accessibility of plant;
   (e) maximum number of persons working on the site and particularly of those persons exposed to the hazard.
3. Description of the process, namely:—
   (a) technical purpose of the industrial activity;
   (b) basic principles of the technological process;
   (c) process and safety related data for the individual process stages;
   (d) process description;
   (e) safety-related types of utilities.
4. Description of the hazardous chemicals, namely:—
   (a) chemical (quantities, substance data on physical and chemical properties, safety-related data on explosive limits, flas point, thermal stability, toxicological data and threshold limit values, lethal concentrations);
   (b) the form in which the chemicals may occur or into which they may be transformed in the event of abnormal conditions;
   (c) the degree of purity of the hazardous chemical.
5. Information on the 'preliminary hazard analysis', namely:—
   (a) type of accident;
   (b) system elements or foreseen events that can lead to a major accident;
   (c) hazards;
   (d) safety-related components.
6. Description of safety-relevant units, among others:—

(a) special design criteria;	(e) collecting tanks/damp tanks;
(b) controls and alarms;	(f) sprinkler systems;
(c) pressure relief systems;	(g) fire protection.
(d) quick acting valves;	

7. Information on the hazard assessment, namely:—
   (a) identification of hazards;
   (b) the causes of major accidents;
   (c) assessment of hazards according to their occurrence frequency;
   (d) assessment of accident consequences;
   (e) safety systems;
   (f) known accident history.

SCHEDULE-8 (Continued)

8. Description of information on organisational systems used to carry on industrial activity safely, namely:—
   (a) maintenance and inspection schedules;
   (b) guidelines for the training of personnel;
   (c) allocation and delegation of responsibilty for plant safety;
   (d) implementation of safety procedures.
9. Information on assessment of the consequences of major accidents, namely:—
   (a) assessment of the possible release of hazardous chemicals or of energy;
   (b) possible dispersion of released chemicals;
   (c) assessment of the effects of the releases (size of the affected area, health effects, property damage).
10. Information on the mitigation of major accidents, namely:—
   (a) fire brigade;
   (b) alarm systems;
   (c) emergency plan containing system or organisation used to fight the emergency, the alarm and the communication routes, guidelines for fighting the emergency, examples of posible accident sequences;
   (d) co-ordination with the District Collector or the District Emergency Authority and its 'Off-site Emergency Plan'.
   (e) notification of the nature and scope of the hazard in the event of an accident;
   (f) antidotes in the event of a release of a hazardous chemical.

SCHEDULE 8A

[See Rule 13(1)]

Details to be furnished in the 'On-site Emergency Plan'

1. Name and address of the person furnishing the information.
2. Key personnel of the organisation and responsibilities assigned to them in case of an emergency;
3. Outside Organisation if involved in assisting during 'on-site-emergency':—
   (a) Type of accident;
   (b) Responsibility assigned.
4. Details of liaison arrangement between the organisations.
5. Information on the premilinary hazard analysis:—
   (a) Type of accident;
   (b) System elements or events that can lead to a major accident;
   (c) Hazards;
   (d) Safety relevant components.
6. Details about the site:—
   (a) Location of dangerous substances; (b) Seat of key personnel; (c) Emergency Control Room.
7. Description of hazardous chemicals at plant site:—
   (a) Chemicals (Quantities and toxicological data);
   (b) Transformation, if any, which could occur;
   (c) Purity of hazardous chemicals.
8. Likely dangers to the plant.
9. Enumerate effects of:—
   (i) Stress and strain caused during normal operation;
   (ii) Fire and explosion inside the plant and effect, if any, of fire and explosion outside.
10. Details regarding:—
   (i) Warning, alarm and safety and security systems;
   (ii) Alarm and hazard control plans in line with disaster control and hazard control planning ensuring the necessary technical and organisational precautions;
   (iii) Reliable measuring instruments, control units and servicing of such equipments;
   (iv) Precautions in designing of the foundation and load bearing parts of the building;
   (v) Continuous surveillance of operations;
   (vi) Maintenance and repair work acording to the generally recognised rules of good engineering practices;
11. Details of communication facilities available during emergency and those required for an off-site-emergency;
12. Details of fire-fighting and other facilities available and those required for an off-site-emergency;
13. Details of first-aid and hospital services available and its adequacy;

Sd/-
Commissioner & Secretary to the Govt. of Meghalaya,
Labour Department

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