The Orissa Factories (Control of Major Accident Hazard) Rules, 2001

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Rule
THE-ORISSA-FACTORIES-CONTROL-OF-MAJOR-ACCIDENT-HAZARD of 2001

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The Orissa Factories (Control of Major Accident Hazard) Rules, 2001Published vide Notification Orissa Gazette Extraordinary No. 387/15.3.2001-Notification No. 28/2001/5.1.21Labour & Employment DepartmentS.R.O. No.28/2001. - Whereas the draft of the Orissa Factories (Control of Major Accident Hazard) Rules, 1999, was published as required by Sub-section (1) of Section 115 of the Factories Act, 1948 (63 of 1948), in the Orissa Gazette dated the 9th February 2000, under the notification of the Government of Orissa in the Labour & Employment Department No. 15921-LL-iv(F)-9/2000, dated the 15th December 1999 as S.R.O. No.843 99, inviting objections and suggestions from all persons likely to be affected thereby to the expiry of a period of three months from the date of publication of the said notification in the Orissa Gazette :-And whereas no objection or suggestion has been received during the period so specified in respect of the said draft:Now, therefore, in exercise of the powers conferred by Section 41 read with Section 112 of the said Act, the State Government do hereby make the following rules, namely

1. Short title and commencement.

(1)These rules may be called the Orissa Factories (Control of Major Accident Hazard) Rules, 2001.(2)They shall come into force on the date of their publication the Orissa Gazette.

2. Definitions.

(1)In these rules, unless the context otherwise require(a)"Act" means the Factories Act, 1948;(b)"Hazardous chemicals" means-(i)any chemical which satisfies any of the criterion laid down

Part-I of Schedule 1 and is listed in Column (2) of Part II Schedule I;(ii)any chemical listed in Column (2) of Schedule II, and(iii)any chemical listed in Column (2) of Schedule III;(c)"Industrial activity" means an operation or process carried out in a factory referred to in Schedule IV, involving or likely involve one or more hazardous chemicals and include on s storage or on site transport which is associated with that operation or process, as the case may be;(d)"Isolated storage" means storage where no other manufacturing process other than pumping of hazardous chemicals is carried out and that storage involves atleast a quantity of that chemical set-out in Schedule II but does not include storage associated with a factory specified in Schedule IV on the same site;(e)"Major accident" involving loss of life inside or outside site ten or more injuries inside and/or one or more injuries outs or release or toxi-chemicals or explosion or fire or spillage of hazardous chemicals resulting in process of adverse effects on the environment;(f)"Schedule" means Schedule appended to these rules; and(g)"Site" means any location where hazardous chemicals are manufactured or processed, stored, handled, used disposed of and includes the whole of an area under the control of an occupier.(2)Words and expressions used but not defined in these rules shall have the same meaning as assigned to them in the Factories Act, 1948 and the Orissa Factories Rules, 1950.

3. Application.

- This rule shall apply to -(a)an industrial activity in which a hazardous chemicals, which satisfies any of the criterion laid down in Part I of Schedule I and is listed in column (2) of Part II, of the said Schedule 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 II which is equal to or more than the threshold quantity specified in Column (3) thereof.

4. Collection development and dissemination of information.

(1)An occupier of a factory carrying on an industrial activity or isolated storage in terms of clauses (a) and (b) of rule 3 shall arrange to obtain or develop information on hazardous chemicals in the form of a material data sheet as specified in Schedule V which shall be accessible to workers upon request for their reference.(2)The occupier while obtaining or developing a material data sheet as specified in Schedule V in respect of 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 the hazard of the chemical is available to the occupier later on, it shall immediately be added to the materials date sheet.(3)An occupier of a factory carrying on an industrial activity or isolated storage shall provide information on demand to show that he has-(a)identified the major accident hazards;(b)taken adequate steps to-(i)Prevent such major accidents 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.(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 importer of the hazardous chemical; and(c)the physical, chemical and toxological data of the hazardous chemical;(5)Where it is impractical to label a chemical in accordance with sub-rule (4) owing to the size of the container or the nature of the

package, provision for identification shall be made for other effective means like tagging or accompanying documents.

5. Duties of Inspector.

- The Inspector shall-(a)Inspect the industrial or isolated storage, atleast once in a calendar year;(b)send annually status report on compliance of these rules by the occupiers to the Ministry of Environment and Forests through the Directorate General of Factory Advice Service and Labour Institute and Ministry or Labour of Government of India; and(c)enforce directions and procedures in respect of Industrial activities or isolated storages covered under the Act and in respect of pipe lines up to a distance of five hundred metres from the outside of the perimeter, of the factory regarding-(i)notification of the major accidents as per sub-rules (1) and (2) of rule 6;(ii)notification of sites as per rules 7 and 8;(iii)safety reports and safety audit as per rules 10 to 12; and(iv)preparation of on-site emergency plans as per rule 12 and involvement in preparation of offsite emergency plans in accordance with directions/instructions of the District Collectors or District Emergency Authority.

6. Notification of major accidents.

(1)Where a major accident occurs in 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 detailed report relating to the accident in instalment, if necessary, as specified in Schedule VI.(2)The Inspector and the Chief Inspector shall on receipt of the report in accordance with sub-rule (1) above shall undertake a full analysis of the major accident and send the requisite information to the Ministry of Environment and Forests through the Directorate General of Factory Advice Services and Labour Institute and the Ministry of Labour of Government of India.(3)An occupier shall inform to the Inspector the steps taken to avoid any repetition of such occurrence on a site.(4)The Inspector and the Chief Inspector shall inform the occupier in writing any lacuna which in their opinion need to be rectified to avoid major accidents.(5)The Inspector and the Chief Inspector shall compile information regarding major accidents and make available a copy of the same to the Ministry of Environment and Forest's through the Directorate General Factory Advice Service and Labour Institute and the Ministry of Labour of Government of India.

7. Application of certain rules.

(1)Rules 8, 12 and 14 shall apply to an industrial activity other than isolated storage which involves a threshold quantity of hazardous chemicals listed in column (2) of Schedule III which is equal to or more than the threshold quantity specified in the entry for that chemical in column (3) thereof.(2)Rules 9 to 11 shall apply to an industrial activity other than isolated storage which involves a quantity of hazardous chemical listed in column (2) of Schedule III which is equal to or more than the threshold quantity specified in the entry for that chemical in column (4) thereof.(3)Rule 8 shall apply to an isolated storage which involves a quantity of hazardous chemical listed in column (2) of Schedule II, which is equal to or more than the threshold quantity specified in the entry for that chemical in column (3) thereof.(4)Rules 9 to 12 and 14 shall apply to an isolated

storage which involves a quantity of hazardous chemical listed in column (2) of Schedule II which is equal to or more than the threshold quantity specified in the entry for that chemical in column (4) thereof.

8. Notification of Sites.

(1)An occupier shall not undertake any industrial activity or isolated storage unless he has notified in a written report to the Chief Inspector containing particulars specified in Scheduled VII atleast 90 (ninety) days before commencing the activity or before such shorter time as the Chief inspector may decide for the purpose of this sub-rule.(2)An activity in which subsequently there is involved or likely to be involved, a threshed, quantity given in column (3) of Schedules II and III or, more of an additional hazardous chemical, (shall be deemed to be a different activity and shall be) notified accordingly.(3)The Chief Inspector within 60 (sixty) days from the date of the receipt of the report in accordance with sub-rule (1), above shall examine the same and on examination, if he is of the opinion that contravention of the provisions of the Act or of the rules has taken place may issue notice to the occupier for compliance of the provisions of the Act or rules so contravened.(4)Where an activity has been notified in accordance with Sub-rule (1) above and the occupier makes a change in it including an increase or decrease in the maximum quantity of hazardous chemical which is or is liable to be involved at the site or in the pipe line at the cessation of the activity, affecting the particulars specified in the report let or any subsequent report made under this rule, the occupier shall forthwith notify in a further report to the Inspector and the Chief Inspector.

9. Safety reports and safety Audit report.

(1)Subject to the provisions of sub-rule (2) of this rule, an occupier shall not undertake any industrial activity on isolated storage (to which these rules apply) unless he has prepared a safety report on that industrial activity or isolated storage containing the information specified in Schedule VIII and has sent a copy there of to the Chief Inspector atleast 90 (ninety) days before commencing of that activity)](2)The occupier of a factory carrying industrial activity or isolated storage shall arrange to carry out safety audit by a competent agency to be accredited by an accredition board constituted by the Ministry of Labour of Government of India in this behalf.(3)The audit under sub-rules (1) and (2) shall be carried out as under-(a)Internally once in a year by a team of suitable plant personnel;(b)externally once in two years by a competent agency duly accredited in this behalf; and(c)in the year when the external audit is carried out, internal audit need not be carried out.(4)The occupier within 30 (thirty) days of the completion of the audit, shall send a report to the Chief Inspector with regard to the implementation of the audit recommendations, if any.

10. Updating of safety reports under rule 9.

(1)Where an occupier has made a safety report in accordance with sub-rule of rule 9, ne shall not make any modification to the industrial activity or isolated storage unless he has made a further report to take-into account those modifications and has sent a copy of the same to the Inspector and the Chief Inspector atleast 90 (ninety) days before making those modification.(2)Where an occupier has made a report in accordance with sub-rule (1) of rule 9 and that industrial activity or isolated

storage is continuing, the occupier shall within three years of the date of the submission of last such report, make a further report which shall have regard in particular to new technical knowledge which has affected the particulars in the previous report relating to safety and hazard assessment and shall within 30 (thirty) days or in such longer time as the Chief Inspector may agree in writing, send a copy of such report to the Inspector and the Chief Inspector.

11. Requirement for further information to be sent to the Inspector and the Chief Inspector.

- Where in accordance with rules 9 and 10 an occupier has sent a safety report and safety audit report related to an industrial activity or isolated storage to the Inspector and the 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 the Chief Inspector within 90 (ninety) days.

12. Preparation of on-site emergency plan by the occupier.

(1)The occupier shall prepare and keep an up-to-date on-site emergency plan containing details specified in Schedule IX giving details of dealing with the major accidents on the site on which the industrial activity or isolated storage is carried on and shall furnish to the Inspector and Chief Inspector of the same which shall also include the name of the person responsible for safety on the site and the names of those who are authorised to take action in accordance with the plan in the event of an emergency.(2)The occupier shall ensure that the emergency plan prepared in accordance with sub-rule (1) above has taken 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 the relevant provisions.(3)The occupier shall prepare the emergency plan required under Sub-rule (1) above-(a)before the commencement of the industrial activity or isolated storage; and(b)within 90 (ninety) days of coming into operation of the rules in case of an existing industrial activity or isolated storage.(4)The occupier shall ensure that a mook-drill of the on-site emergency is conducted atleast once in every six months.(5)A detailed report of the mock-drill conducted under sub-rule (4) shall be made immediately available to the Inspector and the Chief Inspector.

13. 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 affected by a major accident about-(a)the nature of the major accident hazard; and(b)the safety measures and the Do's and the Dont's which shall be adopted in the event of a major accident.(2)The occupier shall take steps as required under sub-rule (1) above to inform persons abut an industrial activity or isolated storage before that activity is commenced except that in respect of an existing industrial activity or isolated storage, where the occupier shall comply with the requirements of sub-rule (1) of this rule within 90 (ninety) days of coming into operation of these rules.

14. Disclosures of information notified under these rules.

(1)Where for the purpose of evaluation, information furnished under rule 4 or rules 8 to 13 is required to be disclosed to some other persons by the Inspector or the Chief Inspector, as the case may be, that other person shall not use that information for any other purpose except for the purpose for which the information was disclosed to him/her by the Inspector or the Chief Inspector, as the case may be.(2)Before disclosing the information to some other person as required under sub-rule (1) the Inspector or the Chief Inspector, as the case may be, shall intimate that other person regarding/his her obligation not to use the information for any other purpose, and shall obtain an undertaking from him/her in this regard.

I

See rules 2 and 3

Part I – (A) Toxic Chemicals - Chemicals having the following values of acute toxicity and which owing for their physical and chemical properties are capable of producing major accident hazards :

Sl. No.	Toxicity	Oral toxicity LD 50 (Mg./Kg.)	Dermal toxicity LD 50 (Mg./Kg.)	Inhalation toxicity LD 50 (Mg./Kg.)
(1)	(2)	(3)	(4)	(5)
1	Extremely toxic	<5	<40	<0.5
2	Highly toxic	>5.50	>40.200	0.5-2.0
3	Toxic	>50-200	>200-1000	>2-10

(B)Flammable Chemicals :(i)Flammable gases-Gases which at 20 OC. and at standard pressure of 101-3K pa. are(a)I genizable when in a mixture of 13 per cent or less by volume with air or(b)have a flammable range with air of atleast 12 percentage, points regardless of the flammable limits.Note - Flammability should be determined by tests or by calculation in accordance with methods adopted by International standard organisation I.S.O. No.10156 of 1990 or by Bureau of India Standards I.S.I. No.1446 of 1985).(ii)extremely flammable liquids-chemicals which have flash point lower than 23 °C, and holding points less than 35 °C.(iii)very highly flammable liquids-chemicals which have a flash point lower than 23 °C and initial boiling point higher than 35 °C.(iv)highly flammable liquids-chemicals which have a flashy point lower than 60 °C. but higher than 23 °C.(v)flammable liquids-chemicals which has a flash point higher than 60 °C, but lower than 90 °C.(C)Explosives-Explosives means a solid or liquid or pyrotechnic substance for a mixture of substances or an article-(a)which is in itself capable by chemical reaction or producing gas at such a temperature and pressure and as such a speed as to cause damage to the surroundings.(b)which is designed to produce an effect by heat, light, sound, gas or a move or a combination of these as the result of

non-denotative self-sustaining exothermic chemical reaction.

Part II – List of Hazardous Chemicals

Column I	Column II	Column I	Column II
1.	Accetaldehyde	343.	Lead azide
2.	Acctaic acid	344.	Lead styphanate
3.	Acceticanhydride	345.	Leptophos
4.	Acetone	346.	Lenisite
5.	Acetone cyanohydrin	347.	Liquified petroleum gas
6.	Acetone thiosemicarbazide	348.	Lithium hydride
7.	Acctonitrite	349.	N-Dinitrobenzen
8.	Acctyleng	350.	Magnesium powder or ribbon
9.	Acetylene tetra chloride	351.	Malathion
10.	Acrolein	352.	Maleic anhydride
11.	Acrylamide	353.	Malononitrile
12.	Acrylonitrile	354.	Manganese Tricarbonyl cyclopentadiene
13.	Adipenitrile	355.	Mechlor ethamine
14.	Aldicarb	356.	Mephospholan
15.	Aldrin	357.	Mercuric chloride
16.	Allyl alcohol	358.	Mercuric oxide
17.	Alylamine	359.	Mercury aetata
18.	Allylchloride	360.	Mercury fulminate
19.	Aluminium (powder)	361.	Mercury methyl chloride
20.	Aluminium acid	362.	Mesitylene
21.	Aluminium borohydride	363.	Methaacrolcin diacetate
22.	Aluminium chloride	364.	Methacrylic anhydride
23.	Aluminium fluoride	365.	Methacrylonitrile
24.	Aluminium phosphid	366.	Methacryloyloxycthyl isocyanate
25.	Amino diphenyl	367.	Methanidophos
26.	Amino pyridine	368.	Methanne
27.	Amnophenol-2	369.	Methanesulphonyl fluoride
28.	Aminopterin	370.	Methidathion
29.	Amiton	371.	Methiocarb
30.	Amiton dialate	372.	Methonyl
31.	Ammonia	373.	

			Methoxy ethanol (2-methylcellosolve)
32.	Ammonium chloroplatinate	374.	Methoxyethyl mercuric acetate
33.	Ammonium nitrate	375.	Methyacrylol chloride
34.	Ammonium nitrite	376.	Methyl 2-chloroacrylate
35.	Ammonium picrate	377.	methyl alcohol
36.	Anabasine	378.	Methylamine
37.	Aniline	379.	Methyl bromide (Bromomethane)
38.	Aniline 2, 4, 6 = Trimethy]	380.	Methoyl chloride
39.	Anthraquinone	381.	Methyl chloroform
40.	Antimony pentrafluorid	382.	Methyl chloroformate
41.	Antimyein A	383.	Methyl cyclohexene
42.	ANTU	384.	Methyl disulphide
43.	Arsenic pentoxide	385.	Methylethy, ketone peroxide (Cone. 60%)
44.	Arsenic trioxide	386.	Methyl formate
45.	Aresenous trichloride	387.	Methyl hydrazine
46.	Arsine	388.	Methyl isobutyl ketone
47.	Asphalt	389.	Methyl isoeyanate
48.	Azinpho-ethyl	390.	Methylisothiocyanate
49.	Azinphos-methyl	391.	Methyl mercuric dicyanamide
50.	Bacitracin	392.	Methyl Mercaptan
51.	Barium azide	393.	Methyl Methacrylate
52.	Barium nitrate	394.	Methyl phencapton
53.	Barium nitride	395.	Methyl phosponic dichloride
54.	Benzal chloride	396.	Methyl thiocyanate
55.	Benzenamine 3-Trifluoromethyl	397.	Methyl trichlorosilane
56.	Benzene	398.	Methyl vinyl ketone
57.	Benzene sulfonyl chloride	399.	Methylenebis (2-chloroanlllfie)
58.	Benzene I (chloromethyl)-4 Nitro	400.	Methylene chloride
59.	Benzeno arsenic acid	401.	Methylencbis-4, 4 (2 chloroaniline)
60.	Benzene	402.	Metolcarb
61.	Benzidine salts	403.	Mevinphos
62.	Benzimidazole, 4, 5-Dichloro-2 (Trifluoromethyl)	404.	Mezacarbate
63.	Benzoquinon-P	405.	Mitomycin C
64.	Benzotrichloride	406.	Molybdenum powder
65.	Benzoyl chloride	407.	Monocrotophos

66.	Benzoyl peroxide	408.	Morpholine
67.	Benzyl chloride	409.	Muscinol
68.	Beryllium (Powder)	410.	Mustard gas
69.	Bicyclo (2,2,1) Heptane-2 carbonitrile	411.	N-Butylacctate
70.	Biphenyl	412.	N-Butylalcohol
71.	Bis (2-chloroethyl) sulphide	413.	N-Hexane
72.	Bis (chloromethyl) ketone	414.	N. Methyl-N, 2, 4, 6-Tetranitroaniline
73.	Bis (Tert-butyl peroxy) cyclohexane	415.	Naphtha
74.	Bis (terbutylperoxy) butane	416.	Naphtha solvent
75.	Bis (2, 4, 6-Trimitrophenylamine)	417.	Naphthalene
76.	Bis (Chloromethyl) Other	418.	Naphthyl amine
77.	Bismuth and compounds	419.	Nickel carbony/nickel tetracarnolyl
78.	Bisphenol-A	420.	Nickel powder
79.	Bitoseanate	421.	Nicotine
80.	Boron powder	422.	Nicotine sulphate
81.	Boron trichloride	423.	Nitric acid
82.	Boron trifluoride	424.	Nitric oxide
83.	Boron trifluoride Comp, with methyiether, 1:1	425.	Nitrobenzene
84.	Bromine	426.	Nitrocellulose (dry)
85.	Bromine pentafluroride	427.	Nitrochlorobenzene
86.	Bromo chloro methane	428.	Nitrocyclohexane
87.	Bromodialone	429.	Nitrogen
88.	Butadiene	430.	Nitrogen dioxide
89.	Butane	431.	Nitrogen oxide
90.	Butanone-2	432.	Nitrogen trifluouide
91.	Butylamine tert	433.	Nitroglycerine
92.	Butyl glycidal ether	434.	Nitropropane-1
93.	Butyl isovalarate	435.	Nitropropane-2
94.	Butyl peroxymaleate tert	436.	Nitroso dimethyl amine
95.	Butyl vinyl ether	437.	Nonanc
96.	Butyl-n mercaptan	438.	Norbormide
97.	C.I. Basic green	439.	O-Cresol
98.	Cadmium oxide	440.	O-Nitro Toluene
99.	Cadmium sterate	441.	O-Toludine
100.	Calcium arsenate	442.	O-Xylene

101.	Calcium carbide f
102.	Calcium cyanide A .
103.	Camphecholor (Toxaphene)
104.	Cantharidin
105.	Captan
106.	Carbachol chirodie
107.	Carbaryl
108.	Carbofuran (Furadan)
109.	Carbon tetrachloride
110.	Carbon disulphide
111.	Carbon monoxide
112.	Carbophenothion
113.	Carvone
114.	Cellulose nitrate
115.	Chloroacctic acid
116.	Chlordane
117.	Chlorofenvinphos
118.	Chlorinated benzene
119.	Chlorine
120.	Chlorine oxide
121.	Chlorine trifluoride
122.	Chlormephos
123.	Chlormequat chloride
124.	Chloroacctal chloride
125.	Chloroacetaldehyde
126.	Chloroaniline-2
127.	Chloroaniline-4
128.	Chlorobenzene
129.	Chloroethyl chloroformate
130.	Chloroform
131.	Chloroformyl morpholine
132.	Chlormethane
443.	O/P Nitroaniline
444.	Oleum
445.	O.O. Diethyl Sethylsuph. methyl phos
446.	O.O. Diethyl S. propythio methyl phosdithioate.
447.	O.O. Diethyl sethylsulphinylmethyl phoshorothicate.
448.	O.O. Diethyls ethylsulphonylmethyl phospherothioate.
449.	O.O. Diethylse thylthiomethyl phosphorothioate.
450.	Oganorhodium complex
451.	Orotic acid
452.	Osmium tetroxide
453.	Oxabaia
454.	Oxamyl
455.	Oxetane, 3, 3, -bis (chloromethyl)
456.	Oxidiphenoxiarsine
457.	Oxy disulfoton
458.	Oxygen (liquid)
459.	Oxygen difluoride
460.	Ozone
461.	P-Mitrophenol
462.	Paraffin
463.	Paraoxn (Diethyl 4 Nitropheynl phosphate)
464.	Paraquat
465.	Paraquat methosulphate
466.	Parathion
467.	Parathion methyl
468.	Paris green
469.	Penta borane
470.	Penta chloro ethane
471.	Penta chlophenol
472.	Pentabromophenol
473.	Pentachioro naphthalene
474.	Pentadecyl-amine

133. Chlormethyl methylether
134. Chloromtrobenzene
135. Chlorophacineone
136. Chlorosulphenic acid
137. Chlorothiophos
138. Chloroxuron
139. Chromic acid
140. Chromic chloride
141. Chromium powder
142. Cobalt carbonyl
143. Cobalt Nitrimethyidyne compound
144. Cobalt (Powder)
145. Colchicine
146. Copper and compounds
147. Copperoxychloride
148. Coumafuryl
149. Coumaphos
150. Coumateriralyl
151. Crimidine
152. Crotenaldehyde
153. Crotonaldehyde
154. Cumene
155. Cyanogen bromide
156. Cyanogeniodide
157. Cyanophos
158. Cyanothoate
159. Cyanyric fluoride
160. Cyclohexylymine
161. Cyclohexane
162. Cyclohexanone
163. Cycloheximide
164. Cyclopentadiene
165. Cylopentane
475. Pentacry thaiotol tetranitrate
476. Pentane
477. Pentanone
478. Perchloric acid
479. Perchlorcethylene
480. Peroxyacertic acid
481. Phenol
482. Phenol, 2, 2 - thiobis (4-6-Dichloro)
483. Phenol, 2, -2 thiobis (4 chloro 6 methyl phenol)
484. Phenol, 3-(1-methylethyl) methyl carbamate
485. Phenylhydrazine hydrochloride
486. Phenyl mercury acetate
487. Phenyl silatrane
488. Phenyl thiourea
489. Phenylene P. diamine
490. Phorate
491. Phosazetin
492. Phosfolan
493. Phosgene
494. Phosmet
495. Phosphamidon
496. Phosphine
497. Phosphoric acid
498. Phospheric acid dimethyl (4-methithiophenyl).
499. Phosphorothioic acid dimethyl S (2-Bis) Ester.
500. Phosphorothioic acid methyl (ester)
501. Phosphorothioic acid O Dimethyl S-(2-methyl).
502. Phosphorothioic, methyl-ethyl ester
503. Phosphorous
504. Phosphorous oxychloride
505. Phosphorous Pentaoxide
506. Phosphorous trichoride
507. Phosphorous Penta chloride

166. Cyclotetramethylenetetranit-ramine
167. Cyclotrimethylenetrinnit-ranine
168. Cypermerthrin
169. DDT
170. Decaborane(1:4)
171. Demeton
172. Demeton S. Methyl
173. Di-n-propyl propyl peroxydicarbonate (Cone = 80%)
174. Dialifos
175. Diazodinitrophenol
176. Dihenzyl peroxy dicarbonate (Cone>90%)
177. Diborane
178. Dichloroacetyiene
179. Dichlorobenzalkonium chloride
180. Dischloroethyl ether
181. Dicchloromethyl Phenylsilane
182. Dichlorophenol-2, 6
183. Dichlorophenol-2, 4
184. Dichlorophenoxy accetic acid
185. Dichloropropene-2, 2
186. Dichlorosalicylic acid-3, 5
187. Dichlorvos (DDVP)
188. Dicrotophos
189. Dicldrin
190. Dicpoxy butane
191. Diethyl carbamazine citrate
192. Diethyl chlorophosphate
193. Dicthyi enthanolamine
194. Dicthl peroxydicarbonatex (cone = 30%)
195. Dicthyl phenylene diamine
196. Dicthylamine
197. Dichtylene glycol
198. Diclyone glocol dinitrate
199. Dicthylene triamine
200. Dicthloneglycol butyi ether
201. Diglycidyl ether
508. Phthalic anhydride
509. Phylloqurnone
510. Physostignine
511. Physostignine silicylate (1.1.)
512. Pieric acid (2-4, 6-trinitrophenol)
513. Picrotoxin
514. Piperbine
515. Piprotal
516. Pirtnifos-ethyl
517. Platinous chloride
518. Plantinum tertrachloride
519. Potassium arsenite
520. Potassium chlorate
521. Potassium cyanide
522. Potassium hydroxide
523. Potassium nitride
524. Potassium nitrite
525. Potassium peroxida
526. Potassium silver cyanide
527. Powdered metals and mixtures
528. Promeoarb
529. Promurit
530. Propanesultone
531. Propargyl alcohol
532. Propargyl bromide
533. Propen-2-chloro-1, 3-dion diacotate
534. Propiolactone beta
535. Propionitrile
536. Propionitrile, 3-chloro
537. Propiopnenone, 4-amino
538. Propylene Chloroformate
539. Propylene dichloride
540. Propylene glycol, allylether
541. Propylene imine
542. Propylene oxide
543. Prothoate

202.	Digitoxin	544.	Peseudocumene
203.	Dihydroperoxypropane (Con.>30%)	545.	Pyrozoxon
204.	Dilsobutyl peroxide	546.	Pyrene
205.	Dimefox	547.	Pyridine
206.	Dimethoate	548.	Pyrudine, 2-methyl-3-vinyl
207.	Dimethyl dichlorosilane	549.	Pyridine, 4-nitro-l-oxide
208.	Dimethyl hydrazine	550.	Pyridine, 4-nitro-l-oxide
209.	Dimethyl nitrosoamine	551.	Pyriminil
210.	Dimethyl P phenylene diamine	552.	Quinaliphos
211.	Dimethyl phosphoramidi cyanidic acid (TABUM)	553.	Quinone
212.	Dimethl Pho phorochloridothioate	554.	Rhydium trichloride
213.	Dimethyl sufolane (DMS)	555.	Salcomine
214.	Dimethyl sulphide	556.	Sarine
215.	Dimethylamine	557.	Selenious acid
216.	Dimethylaniline	558.	Selenium Hexafluoride
217.	Dimethylcarbonyl chloride	559.	Selenum oxychloride
218.	Dimetilan	560.	Semicarbazide hydrochloride
219.	Dinitro O-cresol	561.	Sillane (4-amino butyl), diethyxymeth
220.	Dinitrophenol	562.	Sodium
221.	Dinitrotoluene	563.	Sodium anthra-quinononc-1-sulphonato
222.	Dinoseb	564.	Sodium arsenate
223.	Dinoterb	565.	Sodium arsenite
224.	Dioxane-p	566.	Sodium azide
225.	Dioxathion	567.	Sodium cacodylato
226.	Dioxine N	568.	Sodium chlorate
227.	Diphacinone	569.	Sodium cyanide
228.	Diphosphoramide octamethyl	570.	Sodium fluro-acctate
229.	Diphenyl methane de-isocynate (MDI)	571.	Sodium hydroxide
230.	Dipropylene Glycol Butylether	572.	Sodium pentachloro-phenate
231.	Dipropylene glycolmethyleter	573.	Sodium picramate
232.	Disee-butyl peroxydicarbonate (Cone. 80%).	574.	Sodium selenate
233.	Disufoton	575.	Sodium solenite
234.	Dithiazamne redide	576.	Sodium sulphide
235.	Dithiobiurate	577.	Sodium tellorite

236.	Endosulfan
237.	Endothion
238.	Endrin
239.	Epichlorohydrine
240.	E. P. N.
241.	Ergocalciferol
242.	Erogotamine tartarate
243.	Ethanesulfenyl chloride, 2 chloro
244.	Ethanol 1-2 dichloracetate
245.	Ethion
246.	Ethoprophos
247.	Ethyl acetate
248.	Ethyl alcohol
249.	Ethyl benzene
250.	Ethyl bisamine
251.	Ethyl bromide
252.	Ethyl carbamate
253.	Ethyl ether
254.	Ethyl hexanol-2
255.	Ethyl mercaptan
256.	Ethyl mercuric phosphate
257.	Ethyl methacrylate
258.	Ethyl nitrate
259.	Ethyl thiocyanate
260.	Ethylamine
261.	Ethylene
262.	Ethylene chlorohydrine
263.	Ethylene dibromide
264.	Ethylene diamine
265.	Ethylene diamine hydrochloride
266.	Ethylene flourohydrine
267.	Ethylene glycol
268.	Ethylene gyecol dinitrate
269.	Ethylene oxid
270.	Ethylenimine
578.	Stannane aceloxy triphenyl
579.	Stibine (Antimony hydride)
580.	Strychine
581.	Strychine sulphate
582.	Styphinic acid (2-4, 6-trinitroresorcinol)
583.	Stryne
584.	Sulphotec
585.	Sulphoxide, 3-chloropropyloctyl
586.	Sulphur dichlaride
587.	Sulphur dioxide
588.	Sulpher monochloride
589.	Sulphur tetrufluoride
590.	Sulphur trioxide
591.	Sulphuric acid
592.	Tellurium (powder)
593.	Tellurium hexoffuoride
594.	TEPP (Tetracthylpyrophosphate)
595.	Terbufos
596.	Tert-Butyl alcohol
597.	Tert-Butylperoxy carbonate
598.	Tert-Butylperoxy isopropyl
599.	Tert-Butylperoxyncetate (Cone 70%)
600.	Tert-Butylperoxypi valate (Cone.+77%)
601.	Tert-Butyperoxylso-butyrate
602.	Terta hydrofuram
603.	Terta methyl lead
604.	Tetra nitromethane
605.	Terta-chlorodibenzo-p-dioxin, 1, 2, 3, 7, 8 (TCDD).
606.	Tetraethyllead
607.	Tert-fluoriethyne
608.	Tetramethylene disulphoteramine
609.	Thallic oxide
610.	Thallium carbonate
611.	Thallium sulphate
612.	Thallous chloride

271.	Ethylene dichloride	613.	Thallous maionate
272.	Femamiphos	614.	Thallous sulphate
273.	Femitrothion	615.	Thiocarbazide
274.	Fensulphothion	616.	Thiocynamicacid, 2-(Benzothiazolythio) methyl.
275.	Flumetil	617.	Thiotamox
276.	Fluorine	618.	Thiometon
277.	Flouro 2-bydroxy butyric acid amid salt ester.	619.	Thionazin
278.	Fluoraccitamide	620.	Thionyl chloride
279.	Fluoraacetic acid amide salts and caters	621.	Thiophenol
280.	Fluoroacetylchloride	622.	Thiosemicarbazide
281.	Fluorobutyric acid amide salt esters	623.	Thiourea (2-choloro-pheny)
282.	Fluorocrotonic acid amides salts esters	624.	Thiourea (2-methylphenyl)
283.	Fluorouracil	625.	Tirpate (2, 4, -dimethyl-1-3-di-thiolone)
284.	Fonofos	626.	Titanium powder
285.	Formaidchyde	627.	Titanium tetra-chloride
286.	Formtanate hydrochloride	628.	Tolueno
287.	Formic acid	629.	Toluene 2, 4, -di isocyanate
288.	Formoparanate	630.	Tolune 2, 6-di isodyanate
289.	Formothion	631.	Trans-1, 4-di chloro-butene
290.	Fosthiotan	632.	Tri nitro anisole
291.	Fuberidazole	633.	Tri (Cyclohexyl) mothylstannyl 1, 2, 4 trinzole
292.	Furan	634.	Tri (Cylohexyl) stanyl-III-1, 2, 3, -triazole
293.	Gallium Trichloride	635.	Triaminotrinitrobenzene
294.	Glyconitrile (Hydroxyacetonitrile)	636.	Triamphos
295.	Guanyl-4-nitrosaminoguynyl-1-tetrazene	637.	Triazophos
296.	Heptachlor	638.	Tribromophenol 2, 4, 6
297.	Hexa methyl terta-oxyacyclononate (Con. 75%)	639.	Trichloro napthalene
298.	Hexechlorobenzene	640.	Trichloro chloromethyl silane
299.	Hexachlorocyclohexan (Liudane)	641.	Trichloroacetylchloride
300.	Hexachlorocyclopenthdiene	642.	Trichlorodichlorophenyl silane
301.	Hexachlorodibenzo-p-dioxin	643.	Trichloroctbyl silane
302.	Hexachioronnapthalene	644.	Trichloroethylene

303. Hexafluoropropanone sesquihydrate
304. Hexamethyl phosphoromide
305. Hexamethylene diamine N N dibutyl
306. Hexane
307. Hexanitrostilbene 2 2 4 4 6 6
308. Hexene
309. Hydrogen selenide
310. Hydrogen sulphide
311. Hydrazine
312. Hydrazine nitrate
313. Hydrochloric acid (gas)
314. Hydrogen
315. Hydrogen bromide
316. Hydrogen cyanide
317. Hydrogen fluoride
318. Hydrogen peroxide
319. Hydroquinone
320. Indene
321. Indium powder
322. Indomethacin
323. Iodine
324. Iridium tetrachloride
325. Ironpentacarbonyl
326. Iso benzan
327. Isoamyl alcohol
328. Isobutylacohol
329. Isobutyro nitrile
330. Isocyanic acid 34-dichlorophenyl ester
331. Isodrin
332. IsofluoroPhophate
333. Isophrone dilisocyanate
334. Isopropyl alcohol
335. Isopropyl chlorocarbonate
336. Isopropyl formate
337. Isopropyl methyl pyrozolyl dimeihyl carbamate
338. Juglone (5-Hydroxy Napthalene-1, 4 dione)
645. Trichloromethane sulphonyl chloride
646. Trichloronate
647. Trichlorophenol 2, 3, 6
648. Trichlorophenol 2, 4, 5
649. Trichloro Phenylsilane
650. Trichlorophon
651. Trioxysilane
652. Triethylamine
653. Triethylene melamine
654. Trimethyl chlorosilane
655. Trimothyl propane phosphite
656. Trimethyl tin chloride
657. Trinitroanilne
658. Trinitro benzene
659. Trinitro benzoic acid
660. Trinitro phenetole
661. Trinitro-m-cresol
662. Trinitrotolune
663. Triothocrecyl phosphate
664. Triphenyl tin chloride
665. Tris (2-chloroethyl) amine
666. Turpentine
667. Uranium and its compounds
668. Valino mycin
669. Vanadiumpentaoxide
670. Vinyl acetate mononer
671. Vinyl bromide
672. Vinyl chloride
673. Vinyl cyclohexane dioxide
674. Vinyl floride
675. Vinyl norbornene
676. Vinyl tolune
677. Vinyledeno chloride
678. Warfarin
679. Warfarin Sodium
680. Xylene dichloride

339.	Kotene	681.	Xylidine
340.	Lactonitrile	682.	Zinc dichloropentnnitrile
341.	Lead arsenite	683.	Zinc phosphide
342.	Lead at high temp, (molten)	684.	Zirconium & compounds

II

[See sub-rules (3) and (4) of rule 7 and sub-rule (2) of rule 8](a)The threshold quantities set-out below relate to each installations belonging to the same occupier where the distance between installations is not sufficient to avoid in foresuable circumstances, any aggrevation of major accident hazards. These threshold 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 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 same 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 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 if any hazardous chemical which is in a vehicle, vessel, aircraft or hovercraft used for transporting it.

Sl. No.	Chemicals	Threshold quantities (tonnes)	
For application of Rules 4, 5, 7 to 9 and 13 to15	For application of Rules 10 to 12		
(1)	(2)	(3)	(4)
1	Acrylonitrile	350.000	5,000.000
2	Ammonia	60.000	600.000
3	Ammonium nitrate (a)	350.000	2,500.000
4	Ammonium nitrate fertilizers (b)	1,250.000	10,000.000
5	Chlorine	10.000	25.000
6	Flammable gasses as defined in Schedule 1, Paragraph (b) (i)	50.000	3,000.000
7	Extremely flammable liquids as defined in Schedule 1,Paragraph (b) (ii)	5,000.000	50,000.000
8	Liquid oxygen	2,000.000	2,000.000
9	Sodium chlorate	25.000	250.000
10	Sulphur dioxide	20.000	500.000
11	Sulphur trioxide	15.000	100.000

12	Carbonyl chloride	0.750	0.750
13	Hydrogen sulphide	5.000	50.000
14	Hydrogen fluoride	5.000	50.000
15	Hydrogen cyanide	5.000	20.000
16	Carbon disulphide	20.000	200.000
17	Uromine	50.000	500.000
18	Ethylene oxide	5.000	501.000
19	Propylene oxide	5.000	50.000
20	2-Propenal (Acrolein)	20.000	200.000
21	Bromomethane (methyl bromide)	20.000	200.000
22	Methyl Inocyanate	0.150	0.150
23	Tetraethyllead or tetramethyl lead	5.000	50.000
24	1, 2 Dibromocthane (Ethylene dibromide)	5.000	25.000
25	Hydrogen chloride (liquified gas)	50.000	250.000
26	Diphenyl methane di-isocyanate (HDI)	20.000	200.000
27	Tolune di-sioncynate (TDI)	10.000	100.000
28	Very highly flammable liquids as defined in Schedule ofparagraph (b) (iii)	7,000.000	7,000.000
29	Highly flammable liquids as defined in Schedule I, paragraph(b) (ii)	10,000.000	10,000.000
30	Flammable liquids as defined in Schedule I, paragraph (b) (V)	15,000.000	1,00.000.000

Foot notes-(a)This applies to ammonium nitrate and mixture of ammonium nitrate where the nitrogen content derived from the ammonium nitrate is greater than 20 per cent by weight and to aqueous solutions of ammonium nitrate where the concentration of ammonium nitrate is greater than 90 per cent by weight.(b)This applies to straight ammonium nitrate fertilizer and to compound fertilizers where the nitrogen content derived from the ammonium nitrate is greater than 28 per cent by weight (A compound-fertilizer contains ammonium nitrate together with phosphata and/or potash).

III

[See sub-rule (1) of Rule 7 and sub-rule (2) of Rule 8](a)The quantities set-out below relate to each installation of group of installations belonging to the same occupier where the distance between the installation is not sufficient to avoid, in forceable 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 hazardous chemical in an industrial installation, account shall

also be taken of any. hazardous chemicals which is-(i)in that part of any pipe line 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 same 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 meters of its.But no account shall be taken of any hazardous chemical which is in a vehicle, vessel, aircraft or hovercraft used for transporting it.

III

Part 1 – Named Chemicals

Sl. No.	Chemical	Threshold Quantity	CAS Number	
For application of Rules 5, 7, 8 and 13 and 15	For application of Rules 10 to 12			
(1)	(2)	(3)	(4)	(5)
	GROUP 1 TOXIC CHEMICALS			
1	Adicarb	100 Kg.	...	116-06-3
2	4-Aminodiphenyl	1 Kg.	...	96-67-1
3	Amiton	1 Kg.	...	78-53-5
4	Anabasine	100 Kg.	...	494-52-0
5	Ardanic pentoxide, Arsenic (V) acid & salts	500 Kg	...	...
6	Arsenic trioxide, Arsenious (III) acid & salts.	100 Kg	...	...
7	Arsine (Aresnic hydride)	10 Kg.	...	7784-42-1
8	Azinphos-ethyl	100 Kg.	...	2642-71-9
9	Azinphos-methyl	100 Kg.	...	86-50-0
10	Benzidine	1 Kg.	...	92-87-5
11	Benzidine salts	1 Kg.	...	92-87-5
12	Beryllium (powders compounds)	10 Kg.	...	...
13	Bis (2-chloroethyl) sulphide	1 Kg.	...	505-60-2
14	Bis (Chloromethyl)ether	1 Kg.	...	542-88-1
15	Carbofuran	100 Kg.	...	1563-66-2
16	Carbophenothion	100 Kg.	...	786-19-6
17	Chlorfenvinphos	100 Kg.	...	470-90-6
18	4-(Chloroformyl) morpholine	1 Kg.	...	15159-40-7
19	Chloromethyl methyl ether	1 Kg.	...	107-30-2

20	Crbalt (Metal, oxides, carbonates, sulphides as powders).	1 t.	...	...
21	Crimidine	100 Kg.	...	535-89-7
22	Cyanthoste	100 Kg.	...	3734-95-0
23	Cycloheximide	100 Kg.	...	66-81-9
24	Demeton	100 Kg.	...	8065-48-3
25	Dialifos	100 Kg.	...	10311-84-9
26	00-Diethyl Sethylsulphinyl methyl phosphorothioate.	100 Kg.	...	60-81-9
27	00-Diethyl S-ethylsulphonyl methyl phosphosphorothioate.	100 Kg.	...	2588-05-8
28	00-Diethyl S-isopropylthio methyl phosphorodithioate.	100 Kg.	...	2600-69-3
29	00-Diethyl S-isopropylthio methyl phosphorodithioate	100 Kg.	...	78-52-4
30	00-Diethyl S-propylthiomethyl phosphorodithioate.	100 Kg.	...	3309-68-0
31	Dimefox	100 Kg.	...	115-26-4
32	Dimethylcarbamoyl chloride	1 Kg.	...	79-44-7
33	Dimethylnitrosamine	1 Kg.	...	62-75-9
34	Dimethyl phosphoramido cyanidic acid	1 t.	...	63917-41-9
35	Diphacinone	100 Kg.	...	82-66-6
36	Disulfoton	100 Kg.	...	298-04-4
37	EPN	100 Kg.	...	2104-64-5
38	Ethion	100 Kg.	...	563-12-2
39	Fensulfothion	100 Kg.	...	115-90-2
40	Fluenetil	100 Kg.	...	4301-50-2
41	Fluoroacetic acid	1 Kg.	...	144-49-0
42	Flouroacetic acid, salts	1 Kg.	...	...
43	Fluoroacetic acid, esters	1 Kg.	...	...
44	Fluoroacetic acid, amides	1 Kg.	...	...
45	4-Fluorobutyric acid	1 Kg.	...	462-23-7
46	4-Fluorobutyric acid, salts	1 Kg.	...	...
47	4-Fluorobutyric acid, esters	1 Kg.	...	...
48	4-Fluorobutyric acid, amides.	1 Kg.	...	...
49	4-Fluorocrotonic acid	1 Kg.	...	37759-72-1
50	4-Fluorocrotonic acid, salts	1 Kg.	...	...
51	4-Flurocrotonic acid, esters	1 Kg.	...	...

52	4-Flurocrotonic acid, amides	1 Kg.	...	...
53	4-Fluoro-2-hydroxybutyric acid	1 Kg.	...	...
54	4-Fluoro-2-hydroxybutyric acid, salts	1 Kg.	...	...
55	4-Fluoro-2 hydroxybutryic acid, esters	1 Kg	...	...
56	4-Fluoro-hydroxybutyric acid, amides	1 Kg.	...	...
57	Glycolonitrile (hydroxyacetonitrilo)	100 Kg	...	107-16-4
58	1, 2, 3, 7, 8, 9 -Hexachlorodibenzo-P-dixin.	100 Kg	...	19408-74-3
59	Hexamethylphosphoramide	1 Kg	...	680-31-9
60	Hydrogen selenide	10 Kg.	...	7783-07-5
61	Isobenzan	100 Kg.	...	297-78-9
62	Isodrin	100 Kg.	...	465-73-6
63	Juglone (5-Hydroxynaph-thelene 1, 4 -dione)	100 Kg.	...	181-39-0
64	4, Methylenebis (2-chloroaniline)	10 Kg.	...	101-14-4
65	Methyliscyanate	150 Kg.	150 Kg.	624-83-9
66	Mevinphos	100 Kg.	...	7786-34-7
67	2-Naphthylamine	1 Kg	...	91-59-8
68	Nickel (Metal, oxides, carbonatos sulphide, as powders)	1 t	...	...
69	Nickel tetracarbonyl	10 Kg.	...	13463-9-3
70	Oxydisulfoton	100 Kg.	...	2497-07-6
71	Oxygenfifluoride	10 Kgs	...	7783-41-7
72	Paraxon (Diethyl 4 nitrophenylphosphate)	100 Kg	...	311-45-5
73	Parathion	100 Kg.	...	56-38-2
74	Parathion-methyl	100 Kg.	...	298-00-0
75	Pentaborane	100 Kg.	...	19624-22-7
76	Phoroto	100 Kg.	...	298-02-2
77	Phosacetim	100 Kg.	...	4104-14-7
78	Phosgene (carbonyl chloride)	750 Kg.	...	75-44-5
79	Phosphamiden	100 Kg.	...	13171-21-6
80	Phosphine (Hydrogenphosphide)	100 Kg.	...	7803-51-2
81	Promurit [1-(3, 4-Dicheoropheny)-3-trinazenethiocarb-oxamide]	100 Kg.	...	5836-73-7
82	1, 3-Propanesultone	1 Kg.	...	1120-71-4
83	1-Propen-2-chloro-1, 3-diol diacetate	10 Kg.	...	10118-72-6
84	Pyrazoxon	100 Kg.	100 Kg.	108-34-9
85	Selenium hexafluoride	10 Kg.	...	7783-79-1
86	Sodium scienite	100 Kg.	...	10102-18-8

87	Stibine (Antimony hydride)	100 Kg.	...	7303-52-3
88	Sulfotep	100 Kg.	...	3689-24-5
89	Sulphr dichloride	1t.	...	10545-99-0
90	Tellurium hexafluoride	100 Kg.	...	7783-80-4
91	TEPP	100 Kg.	...	107-49-3
92	2, 3, 7, 8,-Teterachlorodi-benjo-P-dioxin (TCDD)	1 Kg.	...	1746-01-6
93	Tetramethylendisulpho-tetramine	1 Kg.	...	80-12-6
94	Thionazin	100 Kg.	...	197-97-2
95	Tirpate (2, 4-Dimethel-1, 3-dithiolane-2 carboxaldehydeO-methylcarbamoyloxime)	100 Kg.	...	24419-73-8
96	Trichioromethanesulphenyl chloride	100 Kg.	...	594-42-3
97	1-Tri (cyclohexyl) stannyl-1H-1, 2, 4,-triazole	100 Kg	...	41083-11-8
98	Tricthylenemelamine	10 Kg.	...	51-18-3
99	Warfarin	100 Kg	...	81-81-2
	GROUP 2-TOXIC SUBSTANCES		...	
100	Acetone 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	Allylalochal (Propen-1-01)	200 t	...	107-18-6
104	Allylamine	200 t	...	107-11-9
105	Ammonia	50 t.	500 t.	7665-41-7
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-socynate (MDI)	20 t	...	101-68-8
110	Ethylene diteromide (1, 2-Dibronloethane)	5 t.	...	106-93-4
111	Ethyieneeimine	50 t.	...	151-56-4
112	Formaldehyde (concentration -90%)	5 t.	...	50-00-C
113	Hydrogen chloride (liqufied 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	Suipher 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	Tolune di-isocyanate (TDI)	10 t.	...	584-84-9
	GROUP 3-HIGHLY REACTIVE SUBSTANCES			
125	Acetylene (ethyne)	5 t.	...	74-86-2
126	a. Ammonoium nitrate (1)	350 t.	2500 t.	6484-52-2
	b. Ammonium nitrate in form of fertiliser (2)	1250 t	...	...
127	2,2-Bis (tert-butylperoxy) butane (concentration=70%)	5 t.	...	2167-23-9
128	1,1-Bis (tert-butylperoxy) cyclohexane (concentration=80%)	5 t.	...	3006-86-8
129	tert-Butylperoxyacetate (concentration=70%)	5 t.	...	107-71-1
130	tert-Butyl peroxyisobutyrate (concentration=80%)	5 t.	...	109-13-7
131	tert-Butyl peroxy is isopropyl carbonate (concentration =80%)	5t.	...	2372-21-6
132	tert-Butyl peroxymaleate (concentratidn=80%)	5 t.	...	1931-2-0
133	tert-Butyl peroxynivalate (concentration=77%)	50 t.	...	927-07-1
134	Dibenzyl peroxydicarbonate (concentration=90%)	5 t.	...	2144-45-8
135	Di-scc-butyl peroxydicarbonate (concentration=80%)	5 t.	...	19910-5-0
136	Diethyl peroxydicarbonate (concentration=30%)	50 t.	...	14666-78-5
137	2,2-Dihydroperoxypropane (concentration=30%)	5 t.	...	2614-76-8
138	Di-isobutyryl peroxide (concentration=50%)	50 t.	...	3437-84-1
139	Din-propyl peroxydicarbonate (concentration =80%)	5 t.	...	16066-39-9
140	Ethylene oxide	5 t.	50 t.	75-21-8 0
141	Ethyl nitrate	50 t.	...	625-58-1
142	3, 3, 6, 6, 9, 9-Hexarnethyl-1 tetroxacy-clononenence 2, 4,5, (concentration-75%).	50 t.	...	22397-33-7
143	Hydrogen	2 t.	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 isobuty ketone peroxide (concentration -60%).	50 t.	...	37206-20-5
147	Peracetic acid (concentration-60%)	50 t.	...	79-21-0

148	Propylene oxide	5 t.	...	75-56-9
149	Sodium chlorate	25 t.	...	7775-09-9
	GROUP 4-EXPLOSIVE SUBSTANCES		...	
150	Barium azide	50 t.	...	18810-58-7
151	Bis (2,4,6-trinitropheny) amine	50 t.	...	131-73-7
152	Chlorotrinitrobenzene	50 t.	50 t.	28260-61-9
153	Cellulote nitrate containing (12%6 Nitrogen)	50 t.	...	9004-70-0
154	Cycloterramethylenctcrani-tramine	50 t.	...	2691-51-0
155	Cyclotrimethylenctrini-tramine	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-nitorsa minoguannyl-1-tetrazene.	10 t.	...	109-27-3
161	'2','2','4,'4','6,6' -Hexanitrostibene	50 t.	...	20062-22-0
162	Hydrazine nitrate	50 t.	...	13464-97-6
163	Lead oxide	50 t.	...	13424-46-9
164	Lead styphnate (Lead 2, 4, 6-trinitroresor-einoxide).	50 t.	...	15245-44-0
165	Mercury fulminate	10 t.	...	20820-45-5-628-86-4
166	N-Methyl-N, 2,4,6-tetranitroaniline	50 t.	...	479-45-8
167	Nitroglycerine	10 t.	10 t.	55-63-0
168	Pentacrythritol tetranitrate	50 t.	...	78-11-5
169	Priorio acid (2,4,6-Trinitrophenol	50 t.	...	88-89-1
170	Sodium pleramate	50 t.	...	831-52-7
171	Styphnic acid (2, 4, 6-Trinitroresorcinol)	50 t.	...	82-71-2
172	1,3,5, - Triamine-2,4,6,-trinitrobenzen	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	Trinitroceresol	50 t.	...	28905-71-7
178	2, 4, 6,-Trinitrophenetole	50 t.	...	4732-14-3
179	2, 4, 6,-Trinitrophenetole	50 t.	50 t.	118-96-7

Part II – Classes of substances as defined in Part I, Schedule I and not specifically named in Part I this Schedule (tonne).

Sl. No.	Chemical	Threshold Quantity (tonnes)	CAS Number	
For application of Rules 5, 7, 8, 13 and 15	For application of Rules 10 to 12			
(1)	(2)	(3)	(4)	(5)
1	Flammable gases	15 T.	200 T	
2	Extremely flammable liquids	1000 T.	5000 T	
3	Very highly flammable liquids	1500 T.	10,000 T	
4	Highly flammable liquids remains liquid under pressure.	25 T.	200 T	
5	Highly flammable liquids	2300 T.	20,000 T	
6	Flammable liquids	5000 T.	50,000 T	

As Number (Chemical Abstracts Service Number) means thenumber assigned to the Chemical by the Chemical AbstractService.

IV

[See clause (c) of sub-rule (1) of Rule 2]

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

(a)alkylation .(b)amination by amonolysis(c)carbonylation(d)condensation(e)dehydrogenation(f)estefication(g)halogenation and manufacture of halogens(h)hydrolyis(i)oxidation(j)polymerization(k)sulphonation(l)desulphurization, manufacture and transformation of sulphur containing compounds(m)nitration and manufacture of nitrogen containing compounds(n)manufacture of phosphorous containing compounds(o)formulation of pesticides and of pharmaceutical products(p)distillation(q)extraction(r)solvation(s)mixing

2. Factories involving in distillation refining or other processing petroleum or petroleum products.

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

4. Factories involving in productibn processing or treatment of energy gases, for example, L.P.G. L.H.G., S.H.Q.

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

6. Factories involving in production of metals or non-metals by a wet process or by means of electric energy.

V

(See Rule 4)Format of a Safety Data Sheet)

1. IDENTITY OF MATERIAL

Product Name	Chem Desig
Trade Name	
Formula	Label Categ class
Regulated identification	Shipp Name Codes
	Hazar waste
	Identi Numb
Hazardous Ingredients	CAS N
1.....	
2.....	
3.....	
4.....	

2. PHYSICAL AND CHEMICAL PROPERTIES

Physical state : (Gas, Liquid, Solid)	Poling point in degree C	Vapour pressure at 35 degree C mm Hg.
Appearance	Melting/Freezing point in degree C	Evaporation rate 30° C
Odour	Vapour Density (air-1)	Solubility in water at 30 degree C
Others	Specific Gravity	PH.
(Corrosivity, etc.)	Water-1	

3. FIRE AND EXPLOSIVE HAZARDS DATA

Explosion/flammability	Flash point (deg.C)	LEL	Autoignition Temperature degree C
	Flash point deg. C.	UEL	TDG Flammability (Classification)

4. REACTIVE HAZARDS

Stability to	ImportStatic DischargeReactivity	(Hazardous Composition Products)(Hazardous Decomposition Products)(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 andeye contact and ingestion)

Effects of Exposure/Symptoms :

L.D. 50 (in rat) absorption	(Orally or percutaneous (mg/kg body weight)	L.C.50 (in rat) (mg/1) 4 hours			
Permissible Exposure Limit (PEL) Threshold	ppm	mg/cu.m	Short term Exposure Limit (STEL)	ppm	mg/cu.m
Value (TLV) Limit of ACGIH	ppm	mg/cu.m	Odour Threshold	ppm	mg/cu.m

Emergency Treatment :

6. HAZARDS SPECIFICATION

NFPA Hazard signal	Health	Flammability	Stability	Special
Known Hazards				
Combustible Liquid	Auter Reactive Material	Irritant		
Flammable Material	Oxidiser	Sensitizer		
Pyrophoric material	Organic Peroxide	Carcinogen		
Explosive Material	Corrosive 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 Existing MediaSpecial ProcedureUnusual Hazards
Exposure (inhalation,skin and eye contact, ingection)	FirstAid Measures
Spills	Steps to be taken Waste Disposal Method

9. ADDITIONAL INFORMATION

10. SOURCES USED

Reference to books, journals, etc.

11. Manufacturer/Supplier Data

Firms name	Standard Packing
Mailing Address	
Telephone Number	
Telex Number	Other
Telegraphic Address	Other
Contact person in emergency	Emergency Tel. in Transit Areas

Acronyms and Glossary of Terms :

GAS-Chemical Abstract Service Registration Number

UN Number-United Nations Number

Emergency Action Code (EAC), allocated by the joint committeeof Brigade Operations, UK.

TDC Flammability-Transport ofDangerous Goods-Flammability classification by United Nations.NFPA-National Fire ProtectionAssociation, USA LD 50 AND LC 50 represent the does in rhg/Kg.of body weight and the concentration in mg/1 for 4 hours havinglethal effect on 50% of the animals (rats) treated.PEL-Permissible Exposure Limit aslaid down in the statutesTLV-Threshold Limit Value as laiddown by he American Conference of Governmental IndustrialHygienists, (ACG III), USA.STEL-Short-Term Exposure Limit aslaid down in the statutes or by the ACG III GUIDELINES :All efforts should be made to fill in all the columns. Nocolumn should be left blank. In case certain information is not.

VI

(See Rule 6)Information to be furnished regarding notification of a Major AccidentReport Number.....of the particular accident.

1. General data-

(a)	Name of the site
(b)	Name and address of the occupier (Also state thetelephone/telex number)
(c)	(i) Registration number
	(ii) Licence number (As may have been allotted under anystatute applicable to the site, e.g. the Factories Act.)
(d)	(i) Nature of industrial activity (mention what is actuallymanufactured, stored etc.)
	(ii) National Industrial Classification 1987 at the four digitlevel.

Type of major accident Explosion.....

2. 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 tookplace.
(c)	The process/operation undertaken in the Department/Sectionwhere the accident took place, (Attach a flow chart, ifnecessary).
(d)	The circumstances of the accident and the hazardous chemicalinvolved.

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

5. Causes of the major accident known.

(to be specified)	.....
Not known	.....
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	.....
-danger is still present	.....
-danger no longer exists	.....
(b) Outside the establishment	
-Causalities	.....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 onpersons and environment.

Steps already taken or envisaged-

(a)	to alleviate medium or long term effects of the accident.
(b)	to prevent recurrence of similar major accident.
(c)	Any other relevant information

VII

(See Rule 8)Information to be furnished for the notification of siteParticulars to be included in a notification of site-

1. The name and address of the occupier making the notification.

2. The full Postal address of the site where the notifiable industrial 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 notificable 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. Orgnaisation structure, namely, organisation diagram for the proposed industrial activity and set up for ensuring safety and health.

7. Information relating to the potential for major accident, namely-

(a)identification for 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 scale plan of the site showing the location and quantity of all significant inventories of the hazardous chemicals;(c)a description of the processes or storages involving the hazardous chemicals, the maximum amount of such a hazardous chemical in the given process or storage and an indication of the condition 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.

VIII

(See Rule 10)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 person exposed to the hazard.

3. Description of the processes, namely-

(a)technical purpose of the industrial activity,(b)basic principles of the technological process,(c)process and safety-related data individual process stages,(d)process description,(e)safety-related types of utilities,

4. Description of the hazardous chemicals, namely-

(a)chemicals (quantities, substance data on physical and chemical properties, safety-related data on explosive limits flash-point, thermal stability, toxicological data and threshold limit values, lethal concentrations.)(b)the form in which the chemicals may occur of 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 element or foreseen events that can lead to a major accident(c)hazards,(d)safety-relevant components

6. Description of safety- relevant units, among others-

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

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 system,(f)known accident history,

8. Description of information on organisational systems used to carry on industrial activity safety, namely :

(a)maintenance and inspection schedules,(b)guidelines for the training of personnel(c)allocation and delegation of responsibility 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 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 of organisation used to fight the emergency, the alarm and the communication routes, guide lines for fighting the emergency, examples of possible 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 hazardous chemical

IX

(See Rule 12)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 is case of an emergency.

3. Outside organisations if involved in assisting during on-site emergency-

(a)type of accidents,(b)responsibility assigned

4. Details of liaison arrangement between the organisations

5. Information on the preliminary hazard analysis-

(a)type of accidents,(b)system elements or events that can lead to a major accident,(c)hazards.(d)safety relevant components

6. Detail 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)chemical (Quantities and toxilogical data)(b)transformation if any which could occour,(c)purity of hazardous chemicals

8. Likely dangers to the plant

9. Emunerate of affects 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 system,(ii)alarm and hazard control plans in line with disaster control and hazard control planning, ensuring the necessary technical and organisational precaution.(iii)reliable measuring instruments, control units and servicing of such equipments.(iv)precaution in designing of the foundation and load bearing parts of the building,(v)continuous survilleance of operations,(vi)maintenance and prepair work according to the generally reorganised 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 it adequacy].