

4188  
1/9/09

**HARYANA GOVERNMENT  
LABOUR DEPARTMENT  
Notification**

The 21<sup>st</sup> August, 2009.

CIF (C)  
PAC  
2088

No. 11/35/2004 - 4 Lab.- In exercise of powers conferred by section 41 read with section 112 of the Factories Act, 1948 (Central Act 63 of 1948), and with reference to Haryana Government, Labour Department, Notification No. 11/35/2004-4-Lab dated the 16<sup>th</sup> April, 2008 the Governor of Haryana hereby makes the following rules regulating the control on major accident hazard in Haryana, namely:-

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Short title and commencement.

1136-ALC  
27/8/09

1. (1) These rules may be called the Haryana Major Accident Hazard Control Rules, 2009.
- (2) They shall come into force on the date of their publication in the Official Gazette.

Definitions.

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2. In these rules, unless the context otherwise requires,-

- (a) "Act" means the Factories Act, 1948 (Central Act 63 of 1948);
- (b) "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 that Schedule; or
  - (ii) any chemical listed in column 2 of Schedule 2; or
  - (iii) any chemical listed in column 2 of Parts I and II of Schedule 3;
- (c) "industrial activity" means 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;
- (d) "isolated storage" means storage where no other manufacturing process other than pumping of hazardous chemicals is carried out and that storage involves at least a quantity of that chemical set out in Schedule 2, but does not

LABOUR DEPARTMENT RECEIPT

Examine process and put up  
Acknowledge the receipt in receipt

Labour Commissioner

|             |      |
|-------------|------|
| ACE         |      |
| ADG         |      |
| Law Officer |      |
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- (e) **"major accident"** means an incident involving loss of life inside or outside the site or 10 or more injuries inside 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;
- (f) **"pipeline"** means a pipe (together with any apparatus and works associated therewith), or system of pipes (together with any apparatus and works associated therewith), 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;
- (g) **"schedule"** means schedule appended to these rules;
- (h) **"section"** means the section of the Act;
- (i) words and expressions not defined in these rules but defined or used in the Factories Act, 1948 (63 of 1948) and the rules made thereunder, shall have the same meaning, as respectively assigned therein.

**Collection,  
development  
and  
dissemination  
of information.  
Section 41 B.**

**3.** (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 Schedule I or is listed in column 2 of Part II of the said 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 made 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 importer of the hazardous chemical; and
- (c) the physical, chemical and toxicological data of the hazardous chemical.

(5) In terms of sub-rule (4), where it is impracticable to label a chemical in view of the size of the container or the nature of the package, provision shall be made for other effective means like tagging or accompanying documents.

**Powers of  
Inspector.  
Sections 8  
and 9.**

**4.** 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 Institute and Ministry of Labour, Government of India; and
- (c) enforce direction 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 m from the outside of the perimeter of the factory, regarding-
  - (i) notification of the major accidents as per rule 6 (1) and 6 (2);
  - (ii) notification of sites as per rules 8 and 9;
  - (iii) safety reports and safety audits as per rules 10, 11 and 12;
  - (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.

**General duties of the occupier. Section 7A.**

- 5. (1) This rule shall apply to-
  - (a) an industrial activity in which a hazardous chemical which satisfies any of the criteria laid down in Part I of Schedule I or 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 2 which is equal to or more than the threshold quantity specified in that 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 accidents and to limit their
    - (ii) consequences to persons and the environment; and provide to the persons working on the site with the information, training and equipment including antidotes necessary to ensure their safety and health.

**Notification of major accident. Sections 88 and 88 A.**

- 6. (1) Where a major accident occurs on a site or in a pipeline, the occupier shall within 48 hours, notify the Inspector and Chief Inspector of Factories of that accident, and furnish thereafter to the Inspector and Chief Inspector a report relating to the accident in installments, if necessary, in Schedule 6.
- (2) The Inspector and 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 occurrences on a site.
- (4) 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 Forests through 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.

**Industrial activity or isolated storage to which rules 8 to 14 apply. Section 41 B.**

- 7. The rules 8 to 14 shall apply to:-
  - (a) an industrial activity in which there is involved a quantity of a hazardous chemical listed in column 2 of Part I and II of Schedule 3 which is equal to or more than the quantity specified in the entry for that chemical in columns 3 and 4 (rules 10-12 only for column 4); 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 quantity specified in the entry for that chemical in columns 3 and 4 (rules 10-12 only for column 4).

**Notification of site. Section 41 B**

8. (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 before such shorter time as the Chief Inspector may agree and for the purpose of this sub-rule, an activity 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 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.

**Updating of the site notification. Section 41 B.**

9. Where an activity has been reported in accordance with rule 8(1) and the occupier makes a change in it (including an increase or decrease in the maximum quantity of a hazardous chemical to which this rules applies which is or is liable to be at the site or in the pipeline or at the cessation of the activity)

which affects 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.

**Safety reports and safety audit reports Section 41 B.**

**10.** (1) Subject to the sub-rules (2) and (3) 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 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.

(2) After the commencement of these rules, the occupiers of both the new and the existing industrial activities, isolated storage shall arrange to carry out safety audit by the officers of Directorate General Factory Advice Service and Labour Institute, Mumbai as approved by competent auditors in this behalf. Further, such auditing 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 accredited in this behalf;
- (c) in the year when an external audit is carried out, internal audit need not be carried out;

(3) The occupier 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.

**Updating of safety reports under rule 10. Section 41B.**

**11.** (1) Where an occupier has made a safety report in accordance with sub-rule (1) of rule 10, he shall not make any modification to the industrial activity or isolated storage to which that safety report relates which could materially affect 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 sub-rule (1) of rule 10 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 technical knowledge

which has affected 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.

**Requirement for further information to be sent to the Inspector and the Chief Inspector. Section 41B.**

**12.** Where in accordance 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 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 days.

**Preparation of on site emergency plan by the occupier. Section 41 B.**

**13.** (1) The occupier shall prepare, keep up-to-date and furnish to the Inspector and Chief Inspector an on-site emergency plan containing details specified in Schedule 9 and detailing how major accidents will be dealt with on the site on which the industrial activity or isolated storage is carried on and that 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 sub-rule (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 sub-rule (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 sub-rule (4) shall be made immediately available to the Inspector and Chief Inspector.

**Information to be given to persons liable to be affected by a major accident.  
Section 41 B.**

**14.** (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 "Don'ts" which should be adopted in the event of major accident.

(2) The occupier shall take steps required under sub-rule (1) of this rule to inform persons about an industrial activity or isolated storage before that activity is commenced, except that in respect of an existing industrial activity or isolated storage, the occupier shall comply with the requirements of sub-rule (1) of this rule within 90 days of coming into operation of these rules.

**Disclosure of information.  
Section 41 B**

**15.** Where for the purpose of evaluating information notified under rule 6 or rules 8 to 14, the Inspector or the Chief Inspector discloses that information to some other persons, that other person shall not use that information for any purpose except for the purpose of the Inspector or the Chief Inspector to disclose 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.

**Power of State Government to modify Schedules.  
Section 112.**

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



9

## SCHEDULE 1

{See rules 2(a)(i), 3(1) and 5(1)(a)}

### PART I

#### (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:

| Serial Number | Toxicity        | Oral toxicity LD50 (milligram/kilogram) | Dermal toxicity (LD50 (milligram/kilogram) | Inhalation toxicity LC50 (Milligram/Litre) |
|---------------|-----------------|---|--|--|
| 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°C and at standard pressure of 101.3 Kilopascal are:-

(a) ignitable when in a mixture of 13 percent or less by volume with air, or

(b) have a flammable range with air of at least 12 percentage point regardless of the lower flammable limits.

**Note:** The flammability shall be determined by tests or by calculation in accordance with methods adopted by International Standards Organisation ISO Number 10156 of 1990 or by Bureau of Indian Standards ISI Number 1446 of 1985.

(ii) **Extremely flammable liquids:** Chemical which have flash point lower than or equal to 23°C and boiling point less than 35°C.

(iii) **Very highly flammable liquids:** Chemicals which have flash point lower than or equal to 23°C and initial boiling point higher than 35°C.

- (iv) **Highly flammable liquids:** Chemicals which have a flash point lower than or equal to 60°C but higher than 23°C.
- (v) **Flammable liquids:** Chemicals which have a flash point higher than 60°C and lower than 90°C.

**(c) Explosives:**

Explosives means a solid or liquid or pyrotechnic substance (or a mixture of substances) or an article-

- (a) Which is in itself capable of chemical reaction of producing gas at such a temperature and pressure and such a speed as to cause damage to the surroundings;
- (b) Which is designed to produce an effect by heat, light, sound, gas or smoke or a combination of these as the result of non-detonative self sustaining exothermic chemical reaction.

**PART II**

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**Serial Number      List of Hazardous Chemicals**

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1.      Acetaldehyde
2.      Acetic Acid
3.      Acetic anhydride
4.      Acetone
5.      Acetone Cyanohydrin
6.      Acetone Thiosemicarbazide
7.      Acetonitrile
8.      Acetylene
9.      Acetylene Tetra Chloride
10.     Acrolein
11.     Acrylamide
12.     Acrylonitrile
13.     Adiponitrile
14.     Aldicarb
15.     Aldrin
16.     Allyl Alcohol
17.     Allyl Amine

18. Allyl Chloride
19. Aluminium (powder)
20. Aluminium Azide
21. Aluminium Borohydride
22. Aluminium Chloride
23. Aluminium Fluoride
24. Aluminium phosphide
25. Amino diphenyl
26. Amino pyridine
27. Aminophenol-2
28. Aminopterin
29. Amiton
30. Amiton dialate
31. Ammonia
32. Ammonium Chloro platinate
33. Ammonium Nitrate
34. Ammonium Nitrite
35. Ammonium picrate
36. Anabasine
37. Aniline
38. Aniline 2,4,6, - Trimethyl
39. Anthraquinone
40. Antimony pentafluoride
41. Antimycin A
42. ANTU
43. Arsenic pentoxide
44. Arsenic Trioxide
45. Arsenous Trichloride
46. Arsine
47. Asphalt
48. Azinpho-ethyl
49. Azinphos methyl
50. Bacitracin
51. Barium azide
52. Barium Nitrate

53. Barium Nitride
54. Benzal Chloride
55. Benzenamine, 3-Trifluoromethyl
56. Benzene
57. Benzene sulfonyl chloride
58. Benzene, 1-(Chloromethyl)-4-Nitro
59. Benzene arsenic acid
60. Benzidine
61. Benzidine salts
62. Benzimidazole, 4,5-Dichloro-2 (Trifluoromethyl)
63. Bezoquinone-P
64. Benzotrichloride
65. Benzoyl Chloride
66. Benzoyl peroxide
67. Benzyl Chloride
68. Beryllium (powder)
69. Bicyclo (2,2,1) Heptane-2- Carbonitrile
70. Biphenyl
71. Bis (2-chloroethyl) Sulphide
72. Bis (Chloromethyl) Ketone
73. Bis (Tert-butyl peroxy) Cyclohexane
74. Bis (Terbutylperoxy) butane
75. Bis (2,4,6-Trinitrophenylamine)
76. Bis (Chloromethyl) Ether
77. Bismuth and compounds
78. Bisphenol-A
79. Bitoscanate
80. Boron Powder
81. Boron Trichloride
82. Boron Trifluoride
83. Boron Trifluoride comp. With methylether, 1:1
84. Bromine
85. Bromine pentafluoride
86. Bromo Chloro methane
87. Bromodialone

88. Butadiene
89. Butane
90. Butanone-2
91. Butyl amine tert
92. Butyl glycidal ether
93. Butyl isovalarate
94. Butyl peroxy maleate tert
95. Butyl vinyl ether
96. Butyl-n-mercaptan
97. C.I. Basic green
98. Cadmium Oxide
99. Cadmium Stearate
100. Calcium arsenate
101. Calcium Carbide
102. Calcium Cyanide
103. Camphechlor (Toxaphene)
104. Cantharidin
105. Captan
106. Carbachol Chloride
107. Carbaryl
108. Carbofuran (Furadan)
109. Carbon Tetrachloride
110. Carbon disulphide
111. Carbon monoxide
112. Carbophenothion
113. Carvone
114. Cellulose Nitrate
115. Chloroacetic Acid
116. Chlordane
117. Chlorofenvinphos
118. Chlorinated benzene
119. Chlorine
120. Chlorine Oxide
121. Chlorine Trifluoride
122. Chlormephos

- 123. Chloromequat Chloride
- 124. Chloroacetalchloride
- 125. Chloroacetadhyde
- 126. Chloroaniline-2
- 127. Chloroaniline-4
- 128. Chlorobenzene
- 129. Chloroethyl Chloroformate
- 130. Chloroform
- 131. Chloroformyl morpholine
- 132. Chloromethane
- 133. Chloromethyl methylether
- 134. Chloromtrobenzene
- 135. Chlorophacinone
- 136. Chlorosulphonic
- 137. Chlorothiophos
- 138. Chloroxuron
- 139. Chromic Acid
- 140. Chromic Chloride
- 141. Chromium powder
- 142. Cobalt Carbonyl
- 143. Cobalt Nitrilmethylidyne compound
- 144. Cobalt (powder)
- 145. Colchicine
- 146. Copper and compounds
- 147. Copperoxychloride
- 148. Coumafuryl
- 149. Coumaphos
- 150. Coumatertralyl
- 151. Crimidine
- 152. Crotenaldehyde
- 153. Crotonaldehyde
- 154. Cumene
- 155. Cyanogen bromide
- 156. Cyanogen iodide
- 157. Cyanophos

158. Cyanothoate
159. Cyanuric fluoride
160. Cyclo Hexylamine
161. Cyclohexane
162. Cyclohexanone
163. Cycloheximide
164. Cyclopentadiene
165. Cyclopentane
166. Cyclotetramethy lenetetranitramine
167. Cyclotramethylenetrinnitranine
168. Cypermethrin
169. DDT
170. Decaborane(1:4)
171. Demeton
172. Demeton S-Methyl
173. Di-n-propyl peroxydicarbonate(Concentration=80%)
174. Dialifos
175. Diazodinitrophenol
176. Dibenzyl peroxydicarbonate (Concentration>-90%)
177. Diborane
178. Dichloroacetylene
179. Dichlorobenzalkonium Chloride
180. Dichloroethyl ether
181. Dichloromethyl phenylsilane
182. Dichlorophenol-2.6
183. Dichlorophenol-2.4
184. Dichlorophenoxy Acetic Acid
185. Dichloropane-2.2
186. Dichlorosalicylic Acid-3.5
187. Dichlorvos (DDVP)
188. Dicrotophos
189. Dieldrin
190. Diepoxy butane
191. Diethyl carbamazine citrate
192. Diethyl chlorophosphate

193. Diethyl ethanolamine
194. Diethyl peroxydicarbonate (Concentration=30%)
195. Diethyl phenylene diamine
196. Diethylamine
197. Diethylene glycol
198. Diethylene glycol dinitrate
199. Diethylene Triamine
200. Diethleneglycol butyl ether
201. Diglycidyl ether
202. Digitoxin
203. Dihydroperoxypropane (Concentration>=30%)
204. Dissobutyl peroxide
205. Dimefox
206. Dimethoate
207. Dimethyl dichlorosilane
208. Dimethyl Hydrazine
209. Dimethyl Nitrosoamine
210. Dimethyl P phenylene diamine
211. Dimethyl phosphoramidi cyanidic acid (TABUM)
212. Dimethyl phosphorochloridithioate
213. Dimethyl Sulfolane (DMS)
214. Dimethyl Sulphide
215. Dimethylamine
216. Dimthylamine
217. Dimethlearbonylchloride
218. Dimetilan
219. Dinitro O-cresol
220. Dinitrorphenol
221. Dinitrotoluene
222. Dinoseb
223. Dinoterb
224. Dioxane-p
225. Dioxathion
226. Dioxine N
227. Diphacinone



228. Diphosphoramid Octamethyl
229. Diphenyl methane di-isocynate (MDI)
230. Dipropylene Glycol Butyl ether
231. Dipropylene glycolmethy lether
232. Disec-butyl peroxydicarbonate (Concentration>80%)
233. Disufoton
234. Dithiazamine iodide
235. Dithiobiurate
236. Endosulfan
237. Endothion
238. Endrin
239. Epichlorohydrine
240. EPN
241. Ergocalciferol
242. Ergotamine 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 bis amine
251. Ethyl bromide
252. Ethyl Carbanmate
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 glycol dinitrate
269. Ethylene Oxide
270. Ethylenimine
271. Ethylene di Chloride
272. Femamilhos
273. Femitrothion
274. Fensulphothion
275. Fluemetill
276. Fluorine
277. Fluori-Hydroxy butyric acid amid salt and ester
278. Fluoroacetamide
279. Fluoroacetic acid amide salts and esters
280. Fluoroacetyl Chloride
281. Fluorobutyric acid amide salt esters
282. Fluorobutyric acid amides salts esters
283. Fluorouracil
284. Fonofos
285. Formaldyhyde
286. Formetanate hydrochloride
287. Formic Acid
288. Formoparanate
289. Formothion
290. Fosthiotan
291. Fuberidazole
292. Furan
293. Gallium Trichloride
294. Glyconitrile (Hydroxyacetonitrile)
295. Guanyl-4-nitrosaminoguynyl-I-Tetrazene
296. Heptachlor
297. Hexa methyl-terta-Oxyacyclonoate (Concentration75%)

298. Hexachlorobenzene
299. Hexachlorocyclohexan (Lindane)
300. Hexachlorocyclopentadiene
301. Hexachlorodibenze-p-dioxin
302. Hexachloronapthalene
303. Hexafluoropropanone sesquihydrate
304. Hexamethyl phosphoroamide
305. Hexamethylene diamine N N dibutyl
306. Hexane
307. Hexanitrostilbene 2 2 4 4 6 6
308. Hexane
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. Indine
321. Indium powder
322. Indomethacin
323. Iodine
324. Iridium tetrachloride
325. Ironpentacarbonyl
326. Iso benzan
327. Isoamyl Alcohol
328. Isobutyl Alcohol
329. Isobutro Nitrile
330. Isocyanic anid 3 4-dichlorophenyl ester
331. Isodrin
332. Isofluorophosphate

- 333. Isophorone diisocyanate
- 334. Isopropyl Alcohol
- 335. Isopropyl Chlorocarbonate
- 336. Isopropyl formate
- 337. Isopropyl methyl pyrazolyl dimethyl carbamate
- 338. Juglone (5-Hydroxy Naphthalent-1,4 dione)
- 339. Ketene
- 340. Lactonitrile
- 341. Lead arsenite
- 342. Lead at high temp (molten)
- 343. Lead azide
- 344. Lead Styphante
- 345. Leptophos
- 346. Lenisite
- 347. Liquified petroleum gas
- 348. Lithium Hydride
- 349. N-Dinitrobenzene
- 350. Magnesium powder or ribbon
- 351. Malathion
- 352. Maleic anhydride
- 353. Malononitrile
- 354. Manganese Tricarbonyl Cyclopentadience
- 355. Mechlor ethamine
- 356. Mephospholan
- 357. Mercuric chloride
- 358. Mercuric oxide
- 359. Mercury acetate
- 360. Mercury fulminate
- 361. Mercury methyl Chloride
- 362. Mesitylene
- 363. Methaacrolein diacetate
- 364. Methacrylic anhydride
- 365. Methacrylonitrile
- 366. Methacryloyl Oxyethyl isocyanate
- 367. Methanidophos

368. Methane
369. Methanesulphonyl fluoride
370. Methidathion
371. Methiocarb
372. Methonyl
373. Methoxy ethanol (2-methyl cellosolve)
374. Methoxyethyl mercuric acetate
375. Methyacrylol Chloride
376. Methyl 2-Chloroacrylate
377. Methyl Alcohol
378. Methyl Amine
379. Methyl bromide (Bromonethane)
380. Methyl Chloride
381. Methyl Chloroform
382. Methyl Chloroformate
383. Methyl Cyclohexence
384. Methyl disulphide
385. Methyl ethyl ketone peroxide (Concentration 60%)
386. Methyl formate
387. Methyl Hydrazine
388. Methyl Isobutyl ketone
389. Methyl Isoyanate
390. Methyl Isothiocyanate
391. Methyl mercuric dicyanamide
392. Methyl Mercaptan
393. Methyl Methacerylate
394. Methyl phencapton
395. Methyl phosphonic dichloride
396. Methyl Thiocyanate
397. Methyl Trichlorosilane
398. Methyl vinyl ketone
399. Methylene bis (2-chloroaniline)
400. Methylene Chloride
401. Methylenebis-4 4(2-Chloroaniline)
402. Metolcarb

403. Mevinphos  
404. Mezacarbate  
405. Mitomycin C  
406. Molybdenum powder  
407. Monocrotophos  
408. Morphoine  
409. Muscinol  
410. Mustard gas  
411. N-Butyl Acetate  
412. N-Butyl Alcohol  
413. N-Hexane  
414. N-Methyl-N, 2, 4, 6 Tetranitroaniline  
415. Naphtha  
416. Naphtha solvent  
417. Naphthalene  
418. Naphthyl amine  
419. Nickel carbonyl/nickel tetracarbonyl  
420. Nickel powder  
421. Nicotine  
422. Nicotine Sulphate  
423. Nitric Acid  
424. Nitric Oxide  
425. Nitrobenzene  
426. Nitrocellulose (dry)  
427. Nitrochlorobenzene  
428. Nitrocyclohexane  
429. Nitrogen  
430. Nitrogen dioxide  
431. Nitrogen Oxide  
432. Nitrogen Trifluoride  
433. Nitroglycerine  
434. Nitropropane-I  
435. Nitropropane-II  
436. Nitroso dimethyl amine  
437. Nonane

- 438. Norbormide
- 439. O-Cresol
- 440. O-Nitro Toluence
- 441. O-Toludine
- 442. O-Xylene
- 443. O/P Nitroaniline
- 444. Oleum
- 445. OO-Diethyl-S ethyl suph. Methylphos
- 446. OO-Diethyl-S propythio methyl phosdithioate
- 447. OO-Diethyl-S ethylsulphinylmethylphosphorothioat
- 448. OO-Diethyl-S ethylsulphonylmethylphosphorothioate
- 449. OO-Diethyl-S ethyithiomethylphosphorothioate
- 450. Organo rhodium complex
- 451. Orotic Acid
- 452. Osmium Tetroxide
- 453. Oxabain
- 454. Oxamyl
- 455. Ometane, 3, 3,-bis(chloromethyl)
- 456. Oxidiphenoxarsine
- 457. Oxy disulfoton
- 458. Oxygen (liquid)
- 459. Oxygen difluoride
- 460. Ozone
- 461. P-nitrophenol
- 462. Paraffin
- 463. Paraoxon (Diethyl 4 Nitropheynl Phosphate)
- 464. Pfaraquat
- 465. Paraquat methosuolophate
- 466. Parathion
- 467. Parathion methyl
- 468. Paris green
- 469. Penta borane
- 470. Penta Chloro ethane
- 471. Penta Chloro phenol
- 472. Pentabromophenol

- 473. Pentachloro Naphthalene
- 474. Pentadecyl Amine
- 475. Pentaerythritol Tetrirate
- 476. Pentane
- 477. Pentanone
- 478. Perchloric Acid
- 479. Perchloroethylene
- 480. Peroxyacetic Acid
- 481. Phenol
- 482. Phenol, 2, 2-Thiobis (4, 6-Dichloro)
- 483. Phenol, 2, 2-Thiobis (4 Chloro 6 methyl phenol)
- 484. Phenol, 3-(I-methyl ethyl)-methylcarbamate
- 485. Phenyl hydrazine 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. Phosphoric Acid dimethyl (4-methyl thio)
- 499. Phosphoric Acid dimethyl S(2-Bis) Ester
- 500. Phosphorothioic Acid methyl (ester)
- 501. Phosphorothioic Acid, OO Dimethyl S-(2-methyl)
- 502. Phosphorothioic, methyl-ethyl ester
- 503. Phosphorous
- 504. Phosphorous Oxychloride
- 505. Phosphorous pentoxide
- 506. Phosphorous Trichloride
- 507. Phosphorous penta chloride



508. Phthalic Anhydride
509. Phylloquinone
510. Physostigmine
511. Physotigmine salicylate (1:1)
512. Picric Acid (2, 4, 6-trinitrophenol)
513. Picrotoxin
514. Piperdine
515. Piprotal
516. Pirinifos-ethyl
517. Platinous Chloride
518. Platinum Tetrachloride
519. Potassium Arsenite
520. Potassium Chlorate
521. Potassium Cyanide
522. Potassium Hydroxide
523. Potassium Nitride
524. Potassium Nitrite
525. Potassium peroxide
526. Potassium silver cyanide
527. Powdered metals and mixtures
528. Promecarb
529. Promurit
530. Propanesultone
531. Propargyl Alcohol
532. Propargyl bromide
533. Propen-2-Chloro-1,3,-diouidiacetate
534. Propiolactone beta
535. Propionitrile
536. Propionitrile,3-Chloro
537. Propiophenone, 4-amino
538. Propyl Chloroformate
539. Propylene dichloride
540. Propylene glycol, allylether
541. Propylene imine
542. Propylene oxide

- 543. Prothoate
- 544. Pseudosumene
- 545. Pyrazoxon
- 546. Pyrene
- 547. Pyridine
- 548. Pyridine, 2-methyl-3-vinyl
- 549. Pyridine, 4-Nitro-1-Oxide
- 550. Pyridine, 4-Nitro-1-Oxide
- 551. Pyriminil
- 552. Quinaliphos
- 553. Quinone
- 554. Rhodium Trichloride
- 555. Salcomine
- 556. Sarin
- 557. Selenious Acid
- 558. Selenium Hexafluoride
- 559. Selenium Oxychloride
- 560. Semicarbazide Hydrochloride
- 561. Silane (4-amino butyl) diethoxymeth
- 562. Sodium
- 563. Sodium anthrax-quinone-1-sulphonate
- 564. Sodium arsenate
- 565. Sodium arsenite
- 566. Sodium azide
- 567. Sodium Cacodylate
- 568. Sodium Chlorate
- 569. Sodium Cyanide
- 570. Sodium fluoro-acetate
- 571. Sodium Hydroxide
- 572. Sodium pentachloro-phenate
- 573. Sodium picramate
- 574. Sodium selenate
- 575. Sodium selenite
- 576. Sodium sulphide
- 577. Sodium Tellorite

- 578. Stannane acetoxy triphenyl
- 579. Stibine (Antimony hydride)
- 580. Strychnine
- 581. Strychnine Sulphate
- 582. Styphinic Acid (2, 4, 6-trinitoresorcinol)
- 583. Styrene
- 584. Sulphotec
- 585. Sulphoxide, 3-Chloropropyl octyl
- 586. Sulphur dichloride 23
- 587. Sulphur dioxide
- 588. Sulphur monochloride
- 589. Sulphur Tetrafluoride
- 590. Sulphur Trioxide
- 591. Sulphur Acid
- 592. Tellurium (Powder)
- 593. Tellurium Hexafluoride
- 594. TEPP (Tetraethyl pyrophosphate)
- 595. Terbufos
- 596. Tert-Butyl Alcohol
- 597. Tert-Butyl peroxy carbonate
- 598. Tert-Butyl peroxy isopropyl
- 599. Tert-Butyl peroxyacetate (Concentration >-70%)
- 600. Tert-Butyl peroxyvalerate (Concentration >-77%)
- 601. Tert-Butylperoxyiso-butyrate
- 602. Tetra hydrofuran
- 603. Tetra methyl lead
- 604. Tetra nitromethane
- 605. Tetra-chlorodebenzo-p-dioxin, 1,2,3,7,8 (TCDD)
- 606. Tetraethyl lead
- 607. Tetrafluoroethyne
- 608. Tetramethylene disulphotetramine
- 609. Thallic Oxide
- 610. Thallium Carbonate
- 611. Thallium Sulphate
- 612. Thallous Chloride

613. Thallous malonate
614. Thallous Sulphate
615. Thicarbazide
616. Thiocynamicacid, 2 (Benzothiazolyethio) methyl
617. Thiofamox
618. Thiometon
619. Thionazin
620. Thionyl Chloride
621. Thiophenol
622. Thiosemicarbazide
623. Thiourea (2-Chloro-phenyl)
624. Thiourea (2-methyl-phenyl)
625. Tripate (2,4-dimethyl-1, 3-dithiolane)
626. Titanium powder
627. Titanium Tetra-Chloride
628. Toluene
629. Toluene 2,4-di isocyanate
630. Toluene, 2, 6-di isocyanate
631. Trans-1, 4-di Chloro-butene
632. Tri Nitro anisole
633. Tri (Cyclohexyl) methylstannyl 1,2,4, Triazole
634. Tri (Cyclohexyl) stannyl-1H-1, 2,3-Triazole
635. Triaminotrinitrobenzene
636. Triamphos
637. Triazophos
638. Tribromophenol 2,4,6
639. Trichloro Naphthalene
640. Trichloro Chloromethyl Silane
641. Trichloroacetyl Chloride
642. Trichlorodichlorphenylsilane
643. Trichloroethyl Cilane
644. Trichloroethylene
645. Trichloromethane Sulphenyl Chloride
646. Trichloronate
647. Trichlorophenol 2,3,6

- 648. Trichlorophenol 2,4,5
- 649. Trichlorophenyl Silane
- 650. Trichlorophon
- 651. Triethoxy Silane
- 652. Triethylamine
- 653. Triethylene melamine
- 654. Trimethyl Chlorosilane
- 655. Trimethyl propane phosphite
- 656. Trimethyl tin Chloride
- 657. Trinitro aniline
- 658. Trinitro benzene
- 659. Trinitro benzoic acid
- 660. Trinitro phenetole
- 661. Trinitro-m-cresol
- 662. Trinitrotoluene
- 663. Tri orthocresyl phosphate
- 664. Triphenyl tin Chloride
- 665. Tris (2-Chloroethyl) amine
- 666. Trupentine
- 667. Uranium and its compounds
- 668. Valino mycin
- 669. Vanadium pentaoxide
- 670. Vinyl acetate monomer
- 671. Vinyl bromide
- 672. Vinyl Chloride
- 673. Vinyl Cyclohexane dioxide
- 674. Vinyl fluoride
- 675. Vinyl Norbornene
- 676. Vinyl Toluene
- 677. Vinylethene Chloride
- 678. Warfarin
- 679. Warfarin Sodium
- 680. Xylene dichloride
- 681. Xylidine
- 682. Zinc dichloropentanitrile

683.

Zinc phosphide

684.

Zirconium and compounds

**SCHEDULE 2**

**[See rules 2(a) (ii), 2(c), 5(1) (b), 7 (b), 8 (1)]**

**ISOLATED STORAGE AT INSTALLATION OTHER THAN THOSE COVERED BY SCHEDULE 4**

- (a) The threshold quantities set out below relate to such 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 group of installations belonging to the same occupier where the distance between the installations is less than 500 meters.
- (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 meters 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 meters 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 it;

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

| Serial Number | Chemicals | Threshold Quantities (Tones)                   |                                   |
|---------------|-----------|--|-----------------------------------|
|               |           | For application of rules 5, 6, 8, 9, 13 and 14 | For application of rules 10 to 12 |
|               |           |  |                                   |

|     |  |       |        |
|-----|--|-------|--------|
| 1.  | Acrylonitrile  | 3,50  | 5,000  |
| 2.  | Ammonia  | 60    | 600    |
| 3.  | Ammonium Nitrate (a)   | 350   | 2,500  |
| 4.  | Ammonium Nitrate Fertilizers (b)                                     | 1,250 | 10,000 |
| 5.  | Chlorine   | 10    |        |
| 6.  | Flammable gases as defined in Schedule 1. paragraph (b)(i)           | 50    | 3,00   |
| 7.  | Highly flammable liquids as defined in Schedule 1, paragraph (b)(ii) | 5000  | 50,000 |
| 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  | 4     | 50     |
| 15. | Hydrogen Cyanide   | 5     | 50     |
| 16. | Carbon Disulphide  | 20    | 200    |
| 17. | Bromine  | 50    | 500    |
| 18. | Ehtylene Oxide   | 5     | 501    |
| 19. | Propylene Oxide  | 5     | 50     |
| 20. | 2-Propenal (Acrolein)  | 20    | 200    |
| 21. | Bromomethane (Methyl bromide)  | 20    | 200    |
| 22. | Methyl Isoncyanate   | 0.150 | 0.150  |
| 23. | Tetraethy lead or Tetramethyl lead                                   | 5     | 50     |
| 24. | 1, 2 Dibromoethane (Ethylene dibromide)                              | 5     | 50     |
| 25. | Hydrogen Chloride (liquefied gas)                                    | 25    | 250    |
| 26. | Diphenyl Methane (di-isocyanate (HDI))                               | 20    | 200    |
| 27. | Toluene di-isocyanate TDI)   | 10    | 100    |
| 28. | Very Highly flammable liquids as defined                             | 7,000 | 7,000  |



|    |  |        |          |
|----|--|--------|----------|
|    | in Schedule 1, paragraph b(iii)                                    |        |          |
| 29 | Highly flammable liquids as defined in Schedule 1, paragraph b(iv) | 10,000 | 10,000   |
| 30 | Flammable liquids as defined in Schedule 1, paragraph b(v)         | 15,000 | 1,00,000 |

- (a) This applies to ammonium nitrate and mixtures 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 then 90 percent 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 is (a compound-fertilizer contains ammonium nitrate together with phosphate and/or potash).

**SCHEDULE 3**

**[See rules 2(a)(iii), 7(a), 8 (1)]**

**LIST OF HAZARDOUS CHEMICALS FOR APPLICATION OF RULES 6 AND 8 TO 14**

- (a) The quantities set-out-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 foreseeable 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 to less than 500 meters.
  - (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 chemicals which is:-
    - (i) In that part of any pipeline under the control of the occupier having control of the site, which is within 500 meters 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 metres of it;
- but no account shall be taken of any hazardous chemical, which is in a vehicle, vessel, aircraft or hovercraft used for transporting it.

**PART I**  
**NAMED CHEMICALS**

| Serial Number                  | Chemical  | Threshold Quantity                          |                                   | Chemical Abstracts Service Number |
|--------------------------------|---|---|-----------------------------------|-----------------------------------|
|                                |   | For application of rules 6, 8, 9, 13 and 14 | For application of rules 10 to 12 |                                   |
| 1                              | 2   | 3   | 4                                 | 5                                 |
| <b>GROUP 1-TOXIC CHEMICALS</b> |   |   |                                   |                                   |
| 1.                             | Aldicarb  | 100<br>Kilogram                             |                                   | 116-06-3                          |
| 2.                             | 4-Aminodiphenyl                                     | 1 Kilogram                                  |                                   | 92-67-1                           |
| 3.                             | Amiton  | 1 Kilogram                                  |                                   | 78-53-5                           |
| 4.                             | Anabasine   | 100<br>Kilogram                             |                                   | 494-52-0                          |
| 5.                             | Arsenic Pentoxide,<br>Arsenic(V)acid and salts      | 500<br>Kilogram                             |                                   |                                   |
| 6.                             | Arsenic Trioxide, Arsenious<br>(III) acid and salts | 100<br>Kilogram                             |                                   |                                   |
| 7.                             | Arsine (Arsenic Hydride)                            | 10 Kilogram                                 |                                   | 7784-42-1                         |
| 8.                             | Azinphos-ethyl                                      | 100<br>Kilogram                             |                                   | 2642-71-9                         |
| 9.                             | Azinphos-methyl                                     | 100<br>Kilogram                             |                                   | 86-50-0                           |
| 10.                            | Benzidine   | 1 Kilogram                                  |                                   | 92-87-5                           |
| 11.                            | Benzidine salts                                     | 1 Kilogram                                  |                                   |                                   |
| 12.                            | Beryllium(Powders,<br>Compounds)                    | 10 Kilogram                                 |                                   |                                   |
| 13.                            | Bis (2-Chloroethyl) Sulphide                        | 1 Kilogram                                  |                                   | 505-60-2                          |
| 14.                            | Bis (Chloromethyl) ether                            | 1 Kilogram                                  |                                   | 542-88-1                          |
| 15.                            | Carbofuran  | 100<br>Kilogram                             |                                   | 1563-66-2                         |
| 16.                            | Carbophenothion                                     | 100<br>Kilogram                             |                                   | 786-19-6                          |

|     |  |                 |            |
|-----|--|-----------------|------------|
| 17. | Chlorfenvinphos  | 100<br>Kilogram | 470-90-6   |
| 18. | 4-(Chloroformyl)<br>Morpholine                             | 1 Kilogram      | 15159-40-7 |
| 19. | Chloromethyl Methyl ether                                  | 1 Kilogram      | 107-30-2   |
| 20. | Cobalt Metal Oxide<br>Carbonates, Sulphides, as<br>powders | 1 Ton           |            |
| 21. | Crimidine  | 100<br>Kilogram | 535-89-7   |
| 22. | Cynthoate  | 100<br>Kilogram | 3734-95-0  |
| 23. | Cycloheximide  | 100<br>Kilogram | 66-81-9    |
| 24. | Demeton  | 100<br>Kilogram | 8065-48-3  |
| 25. | Dialifos   | 100<br>Kilogram | 10311-84-9 |
| 26. | Co-Diethyl<br>S-ethyl Sulphinyl methyl<br>phosphorothioate | 100<br>Kilogram | 2588-05-8  |
| 27. | 00-Diethyl<br>S-ethylsulphonyl methyl<br>Phosphorthioate   | 100<br>Kilogram | 2588-06-9  |
| 28. | 00-Diethyl<br>S-ethylthiomethyl<br>Phosphorodithioate      | 100<br>Kilogram | 2600-69-3  |
| 29. | 00-Diethyl<br>S-isopropylthio-methyl<br>Phosphorodithioate | 100<br>Kilogram | 78-52-4    |
| 30. | 00-Diethyl<br>S-propylthiomethyl<br>Phosphorothioate       | 100<br>Kilogram | 3309-68-0  |
| 31. | Dimefox  | 100<br>Kilogram | 115-26-4   |
| 32. | Dimethylcarbamoyl  | 1 Kilogram      | 79-44-7    |

|     |   |                 |  |            |
|-----|---|-----------------|--|------------|
|     | Chloride                                  |                 |  |            |
| 33. | Dimethylnitrosamine                       | 1 Kilogram      |  | 62-75-9    |
| 34. | Dimethyl<br>Phosphoramidocyanidic<br>Acid | 1 ton           |  | 63917-41-9 |
| 35. | Diphacinone                               | 100<br>Kilogram |  | 82-66-6    |
| 36. | Disulfoton                                | 100<br>Kilogram |  | 298-04-4   |
| 37. | EPN                                       | 100<br>Kilogram |  | 2104-64-5  |
| 38. | Ethion                                    | 100<br>Kilogram |  | 563-12-2   |
| 39. | Fensufothion                              | 100<br>Kilogram |  | 115-90-2   |
| 40. | Fluenetil                                 | 100<br>Kilogram |  | 4301-50-2  |
| 41. | Fluoroacetic Acid                         | 1 Kilogram      |  | 144-49-0   |
| 42. | Fluoroacetic Acid, Salts                  | 1 Kilogram      |  |            |
| 43. | Fluoroacetic Acid, esters                 | 1 Kilogram      |  |            |
| 44. | Fluoroacetic Acid, amides                 | 1 Kilogram      |  |            |
| 45. | 4-Fluorobutyric Acid                      | 1 Kilogram      |  | 462-23-7   |
| 46. | 4-Fluorobutyric Acid, Salts               | 1 Kilogram      |  |            |
| 47. | 4-Fluorobutyric Acid, esters              | 1 Kilogram      |  |            |
| 48. | 4-Fluorobutyric Acid, amides              | 1 Kilogram      |  |            |
| 49. | 4-Fluorocrotonic Acid                     | 1 Kilogram      |  | 37759-72-1 |
| 50. | 4-Fluorocrotonic Acid, salts              | 1 Kilogram      |  |            |
| 51. | 4-Fluorocrotonic Acid, esters             | 1 Kilogram      |  |            |
| 52. | 4-Fluorocrotonic Acid, amides             | 1 Kilogram      |  |            |
| 53. | 4-Fluoro-2-Hydroxy-butyric<br>acid        | 1 Kilogram      |  |            |
| 54. | 4-Fluoro-2-Hydroxy-butyric<br>acid, salts | 1 Kilogram      |  |            |
| 55. | 4-Fluoro-2-Hydroxy-butyric                | 1 Kilogram      |  |            |

|     |  |              |              |            |
|-----|--|--------------|--------------|------------|
|     | acid, esters   |              |              |            |
| 56. | 4- Fluoro-2-Hydroxy-butyric acid, amides               | 1 Kilogram   |              |            |
| 57. | Glycolonitrile (Hydroxyacetonitrile)                   | 100 Kilogram |              | 107-16-4   |
| 58. | 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin                 | 100 Kilogram |              | 19408-74-3 |
| 59. | Hexamethylphosphoramide                                | 1 Kilogram   |              | 680-31-9   |
| 60. | Hydrogen Selenide                                      | 10 Kilogram  |              | 7783-07-5  |
| 61. | Isobenzan  | 100 Kilogram |              | 297-78-9   |
| 62. | Isodrin  | 100 Kilogram |              | 465-73-6   |
| 63. | Juglone (5-Hydroxynaphthalene-1,4-dione)               | 100 Kilogram |              | 481-39-0   |
| 64. | 4,4- Methylenebis (2-Chloroaniline)                    | 10 Kilogram  |              | 101-14-4   |
| 65. | Methyl isocyanate                                      | 150 Kilogram | 150 Kilogram | 624-83-9   |
| 66. | Mevinphos  | 100 Kilogram |              | 7786-34-7  |
| 67. | 2- Naphthylamine                                       | 1 Kilogram   |              | 91-59-8    |
| 68. | Nickle metal, Oxides, Carbonates, Sulphide, as powders | 1 ton        |              |            |
| 69. | Nickle Tetracarbonyl                                   | 10 Kilogram  |              | 13463-39-3 |
| 70. | Oxydisulfoton  | 100 Kilogram |              | 2497-07-6  |
| 71. | Oxygen difluoride                                      | 10 Kilogram  |              | 7783-41-7  |
| 72. | Paraoxon (dirthyl 4-nitrophenyl Phosphate)             | 100 Kilogram |              | 311-45-5   |
| 73. | Parathion  | 100 Kilogram |              | 56-38-2    |

|     |   |                 |                 |            |
|-----|---|-----------------|-----------------|------------|
| 74. | Parathion-Methyl  | 100<br>Kilogram |                 | 298-00-0   |
| 75. | Pentaborane   | 100<br>Kilogram |                 | 19624-22-7 |
| 76. | Phorate   | 100<br>Kilogram | 100<br>Kilogram | 298-02-2   |
| 77. | Phosacetim  | 100<br>Kilogram |                 | 4104-14-7  |
| 78. | Phosgene (Carbonyl Chloride)                                | 750<br>Kilogram | 750<br>Kilogram | 75-44-5    |
| 79. | Phosphamidon  | 100<br>Kilogram |                 | 13171-21-6 |
| 80. | Phosphine (Hydrogen phosphide)                              | 100<br>Kilogram |                 | 7803-51-2  |
| 81. | Promurit (1-3,4-Dichlorophenyl)-3-Triazenethio Carboxamide) | 100<br>Kilogram |                 | 5836-73-7  |
| 82. | 1,3-Propanesultone  | 1 Kilogram      |                 | 1120-71-4  |
| 83. | 1-Propen-2-chlore-1-3 diacetate                             | 10<br>Kilogram  |                 | 10118-72-6 |
| 84. | Pyrazoxon   | 100<br>Kilogram |                 | 108-34-9   |
| 85. | Selenium hexafluoride                                       | 10 Kilogram     |                 | 7383-79-1  |
| 86. | Sodium selenite   | 100<br>Kilogram |                 | 10102-18-8 |
| 87. | Stibine (Antimony hydride)                                  | 100<br>Kilogram |                 | 7803-52-3  |
| 88. | Sulfotop  | 100<br>Kilogram |                 | 3689-24-5  |
| 89. | Sulphur Dichloride  | 1 ton           |                 | 10545-99-0 |
| 90. | Tellurium Hexafluoride                                      | 100<br>Kilogram |                 | 7783-80-4  |
| 91. | TEPP  | 100<br>Kilogram |                 | 107-49-3   |
| 92. | 2,3,7,8- Tetrachlorodibenzo                                 | 1 Kilogram      |                 | 1746-01-6  |

|                                |   |              |         |            |
|--------------------------------|---|--------------|---------|------------|
|                                | p-dioxin (TCDD)   |              |         |            |
| 93.                            | Tetramethylenedisulpho-Tetramine  | 1 Kilogram   |         | 80-12-6    |
| 94.                            | Thionazin   | 100 Kilogram |         | 297-97-2   |
| 95.                            | Tirpate(2,4-Dimethyl-1, 3-dithiolane-2-Carboxaldehyde,O-methylcarbomoy, loxime) | 100 Kilogram |         | 26419-73-8 |
| 96.                            | Trichloromethane-sulphenyl chloride   | 100 Kilogram |         | 594-42-3   |
| 97.                            | 1-Tri(cyclohexyl) stannyl-1H-1,2,4-Triazole                                     | 100 Kilogram |         | 41083-11-8 |
| 98.                            | Triethylenemelamine   | 10 Kilogram  |         | 51-18-3    |
| 99.                            | Warfarin  | 100 Kilogram |         | 81-81-2    |
| <b>GROUP 2-TOXIC CHEMICALS</b> |   |              |         |            |
| 100.                           | Acetone cyanohydrin (2-Cyanopropan-2-ol)  | 200 ton      |         | 75-86-5    |
| 101.                           | Acrolein (2-Propenal)   | 20 ton       |         | 107-02-8   |
| 102.                           | Acrylonitrile   | 20 ton       | 200 ton | 107-13-1   |
| 103.                           | Allyl alcohol (2-Propenal)  | 200 ton      |         | 107-18-6   |
| 104.                           | Allylamine  | 200 ton      |         | 107-11-9   |
| 105.                           | Ammonia   | 50 ton       | 500 ton | 7664-41-7  |
| 106.                           | Bromine   | 40 ton       |         | 7726-95-6  |
| 107.                           | Carbon disulphide   | 20 ton       | 200 ton | 75-15-0    |
| 108.                           | Chlorine  | 10 ton       | 25 ton  | 7782-50-5  |
| 109.                           | Diphenyl methane di-isocyanate (MDI)  | 20 ton       |         | 101-68-8   |
| 110.                           | Ethylene dibromide (1,2-Dibromomethane)   | 5 ton        |         | 106-93-4   |
| 111.                           | Ethyleneimine   | 50 ton       |         | 151-56-4   |
| 112.                           | Formaldehyde (Concentration >=90%)  | 5 ton        |         | 50-00-0    |



|   |  |                     |         |            |
|---|--|---------------------|---------|------------|
| 113.                                      | Hydrogen Chloride, (liquefied gas)   | 25 ton              | 250 ton | 7647-01-0  |
| 114.                                      | Hydrogen Cyanide   | 5 ton               | 20 ton  | 74-90-8    |
| 115.                                      | Hydrogen Fluoride  | 5 ton               | 50 ton  | 7664-39-3  |
| 116.                                      | Hydrogen Sulphide  | 5 ton               | 50 ton  | 7783-06-4  |
| 117.                                      | Methyl bromide<br>(Bromomethane)   | 20 ton              |         | 74-83-9    |
| 118.                                      | Nitrogen Oxides  | 50 ton              |         | 11104-93-1 |
| 119.                                      | Propyleneimine   | 50 ton              |         | 75-55-8    |
| 120.                                      | Sulphur Dioxide  | 20 ton              | 250 ton | 7446-09-5  |
| 121.                                      | Sulphur Trioxide   | 15 ton              | 75 ton  | 7446-11-9  |
| 122.                                      | Tetraethyl lead  | 5 ton               |         | 78-00-2    |
| 123.                                      | Tetramethyl lead   | 5 ton               |         | 75-74-1    |
| 124.                                      | Toluene di-isocyanate (TDI)  | 10 ton              |         | 584-84-9   |
| <b>GROUP 3- HIGHLY REACTIVE CHEMICALS</b> |  |                     |         |            |
| 125.                                      | Acetylene (ethyne)   | 5 ton               |         | 74-86-2    |
| 126.                                      | a. Ammonium Nitrate (1)<br>b. Ammonium Nitrate in the form of fertiliser (2) | 350 ton<br>1250 ton |         | 6484-52-2  |
| 127.                                      | 2,2 Bis (tert-butyl-peroxy) butane (Concentration $\geq$ 70%)                | 5 ton               |         | 2167-23-9  |
| 128.                                      | 1-1-Bis(tert-butyl-peroxy)cyclohexane (Concentration $\geq$ 80%)             | 5 ton               |         | 3006-86-8  |
| 129.                                      | Tert-Butyl peroxyacetate (Concentration $\geq$ 70%)                          | 5 ton               |         | 107-71-1   |
| 130.                                      | Tert-Butyl peroxyisobutyrate (Concentration $\geq$ 80%)                      | 5 ton               |         | 109-13-7   |
| 131.                                      | Tert-Butyl peroxyisopropyl carbonate (Concentration $\geq$ 80%)              | 5 ton               |         | 2372-21-6  |
| 132.                                      | Tert-Butyl peroxy maleate (Concentration $\geq$ 80%)                         | 5 ton               |         | 1931-62-0  |
| 133.                                      | Tert-Butyl peroxy pivalate   | 50 ton              |         | 927-07-1   |

|                                      |   |         |        |            |
|--------------------------------------|---|---------|--------|------------|
|                                      | (Concentration >=77%)   |         |        |            |
| 134.                                 | Dibenzyl peroxydicarbonate<br>(Concentration >=90%)                               | 5 ton   |        | 2144-45-8  |
| 135.                                 | Di-sec-butyl peroxydicarbonate<br>(Concentration >=80%)                           | 5 ton   |        | 19910-65-7 |
| 136.                                 | Diethyl peroxydicarbonate<br>(Concentration >=30%)                                | 50 ton  |        | 14666-78-5 |
| 137.                                 | 2,2-Dihydroperoxypropane<br>(Concentration >=30%)                                 | 5 ton   |        | 2614-76-8  |
| 138.                                 | Di-isobutryl peroxide<br>(Concentration >=90%)                                    | 50 ton  |        | 3437-84-1  |
| 139.                                 | Di-n-propyl peroxydicarbonate<br>(Concentration >=80%)                            | 5 ton   |        | 16066-38-9 |
| 140.                                 | Ethylene Oxide  | 5 ton   | 50 ton | 75-21-8    |
| 141.                                 | Ethyl Nitrate   | 50 ton  |        | 625-58-1   |
| 142.                                 | 3,3,6,6,9,9,- Hexamethyl -<br>1,2,4,5- Tetraoxacyclonane<br>(Concentration >=75%) | 50 ton  | 50 ton | 22397-33-7 |
| 143.                                 | Hydrogen  | 2 ton   | 50 ton | 1333-74-0  |
| 144.                                 | Liquid Oxygen   | 200 ton |        | 7782-44-7  |
| 145.                                 | Methyl ethyl ketone peroxide<br>(Concentration >=60%)                             | 5 ton   | 5 ton  | 1338-23-4  |
| 146.                                 | Methyl isobutyl ketone peroxide<br>(Concentration >= 60%)                         | 50 ton  |        | 37206-20-5 |
| 147.                                 | Peracetic Acid (Concentration >= 60%)   | 50 ton  |        | 79-21-0    |
| 148.                                 | Propylene Oxide   | 5 ton   | 5 ton  | 75-56-9    |
| 149.                                 | Sodium Chlorate   | 25 ton  |        | 7775-09-9  |
| <b>GROUP 4 – EXPLOSIVE CHEMICALS</b> |   |         |        |            |
| 150.                                 | Barium Azide  | 50 ton  |        | 18810-58-7 |
| 151.                                 | Bis (2,4,6-Trinitrophenyl)amine   | 50 ton  |        | 131-73-7   |
| 152.                                 | Chlorotrinitrobenzene   | 50 ton  |        | 28260-61-9 |
| 153.                                 | Cellulose Nitrate (containing >   | 50 ton  |        | 9004-70-0  |

|      |  |        |      |            |
|------|--|--------|------|------------|
|      | 12.6% Nitrogen)  |        |      |            |
| 154. | Cyclotetramethylene<br>Tetranitramine                  | 50 ton |      | 2691-41-0  |
| 155. | Cyclotrimethylene Trinitroamine                        | 50 ton |      | 121-82-4   |
| 156. | Diazodinitrophenol                                     | 10 ton |      | 7008-81-3  |
| 157. | Diethylene glycol<br>dinitrate                         | 10 ton |      | 693-21-0   |
| 158. | Dinitrophenol, Salts                                   | 50 ton |      |            |
| 159. | Ethylene glycol dinitrate                              | 10 ton |      | 628-96-6   |
| 160. | 1-Guanyl-4-<br>Nitrosaminoguanyl-1-Tetrazene           | 10 ton |      | 109-27-3   |
| 161. | 2,2',4,4',6,6'-Hexanitrostilbene                       | 50 ton |      | 20062-22-0 |
| 162. | Hydrazine Nitrate                                      | 50 ton |      | 13464-97-6 |
| 163. | Lead Azide   | 50 ton |      | 13424-46-9 |
| 164. | Lead Styphnate (lead 2,4,6-<br>Trinitro-resorcinoxide) | 50 ton |      | 15245-44-0 |
| 165. | Mercury Fulminate                                      | 10 ton |      | 628-86-4   |
| 166. | N-Methyl-N,2,4,6-<br>Tetranitroaniline                 | 50 ton |      | 479-45-8   |
| 167. | Nitroglycerine   | 10 ton | 10 t | 55-63-0    |
| 168. | Pentaerythritol<br>Tetranitrate                        | 50 ton |      | 78-11-5    |
| 169. | Picric acid (2,4,6 –<br>Trinitrophenol)                | 50 ton |      | 88-89-1    |
| 170. | Sodium picramate                                       | 50 ton |      | 831-52-7   |
| 171. | Styphnic acid (2,4,6 –<br>Trinitroresorcinol)          | 50 ton |      | 82-71-3    |
| 172. | 1,3,5 – Triamino-2,4,6-<br>Trinitrobenzene             | 50 ton |      | 3058-38-6  |
| 173. | Trinitroaniline  | 50 ton |      | 26952-42-1 |
| 174. | 2,4,6 – Trinitroanisole                                | 50 ton |      | 606-35-9   |
| 175. | Trinitrobenzene  | 50 ton |      | 25377-32-6 |
| 176. | Trinitrobenzoic Acid                                   | 50 ton |      | 35860-50-5 |
| 177. | Trinitrocresol   | 50 ton |      | 28905-71-7 |
| 178. | 2,4,6- Trinitrophenetole                               | 50 ton |      | 4732-14-3  |

|      |                        |        |        |          |
|------|------------------------|--------|--------|----------|
| 179. | 2,4,6- Trinitrotoluene | 50 ton | 50 ton | 118-96-7 |
|------|------------------------|--------|--------|----------|

**PART II**  
**CLASSES OF SUBSTANCES AS DEFINED IN PART I, SCHEDULE -1 AND NOT SPECIFICALLY NAMED IN PART-I OF THIS SCHEDULE**

| Serial Number                       | Classes of Chemicals   | Threshold Quantity                          |                                   |
|-------------------------------------|--|---|-----------------------------------|
|                                     |  | For application of rules 6, 8, 9, 13 and 14 | For application of rules 10 to 12 |
| 1                                   | 2  | 3   | 4                                 |
| <b>GROUP-5-FLAMMABLE SUBSTANCES</b> |  |   |                                   |
| 1.                                  | Flammables Gases   | 15 Ton                                      | 200 Ton                           |
| 2.                                  | Extremely flammable liquids                                  | 1,000 Ton                                   | 5,000 Ton                         |
| 3.                                  | Very Highly flammable liquids                                | 1,500 Ton                                   | 10,000 Ton                        |
| 4.                                  | Highly flammable liquids which remains liquid under pressure | 25 Ton                                      | 200 Ton                           |
| 5.                                  | Highly Flammable liquids                                     | 2,500 Ton                                   | 20,000 Ton                        |
| 6.                                  | Flammable liquids  | 5,000 Ton                                   | 50,000 Ton                        |

- (1) This applies to ammonium nitrate and mixtures of ammonium nitrate where the nitrogen content derived from the ammonium nitrate is greater than 28% by weight and aqueous solutions of ammonium nitrate where the Concentration of ammonium nitrate is greater than 90% by weight.
- (2) This applies to straight ammonium nitrate fertilizers and to compound fertilizers where the nitrogen content derived from the ammonium nitrate is greater than 28% by weight (a compound fertilizer contains ammonium nitrate together with phosphate and/or potash).

A CAS Number (Chemical Abstracts Service Number) means the number assigned to the chemical by the Chemical Abstracts Service.

**SCHEDULE 4**

**[See rule 2 (b) (c)]**

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 & manufacture of halogens
  - (h) hydrogenation
  - (i) hydrolysis
  - (j) oxidation
  - (k) polymerization
  - (l) sulphonation
  - (m) desulphurization, manufacture and transformation of sulphur-containing compounds.
  - (n) nitration and manufacture of nitrogen-containing compounds
  - (o) manufacture of phosphorous-containing compounds
  - (p) formulation of pesticides and of pharmaceutical products
  - (q) distillation
  - (r) extraction
  - (s) solvation
  - (t) mixing
2. Factories involving in distillation, refining or other processing of petroleum or petroleum products.
3. Factories involving in total or partial disposal of solid or liquid substances by incineration or chemical decomposition.
4. Factories involving in production, processing, use or treatment of energy gases, for example, LPG LNG, SNG.
5. Factories involving in dry distillation of coal of lignite.

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

**SCHEDULE 5**  
**[See rule 3 (2) (3)]**  
**Safety Data Sheet**

| <b>1. IDENTITY OF MATERIAL</b>             |                                       |                                       |           |
|--|---------------------------------------|---------------------------------------|-----------|
| Product Name                               |                                       | Chemical Designation                  |           |
| Trade Name                                 |                                       | Synonyms                              |           |
| Formula                                    | Label: Category                       | Chemical Abstracts Service Number     | UN Number |
| Regulated Identification                   | Shipping Name Codes/Label             | HAZCHEM CODE                          |           |
|  | Hazardous Waste Identification Number |                                       |           |
| Hazardous Ingredients                      |                                       | Chemical Abstracts Service Number     |           |
| 1.   |                                       |                                       |           |
| 2.   |                                       |                                       |           |
| 3.   |                                       |                                       |           |
| 4.   |                                       |                                       |           |
| <b>2. PHYSICAL AND CHEMICAL PROPERTIES</b> |                                       |                                       |           |
| Physical State:<br>(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 degree C    |           |
| Others<br>(corrosivity etc.)               | Specific Gravity (Water=1)            | PH                                    |           |

**3. FIRE AND EXPLOSIVE HAZARDS DATA**

|                        |                      |                         |   |
|------------------------|----------------------|-------------------------|---|
| Explosion/Flammability | Flash Point (deg.) C | Lower Explosive Limit % | Autoignition Temp. degree C                             |
|                        | Flash Point (deg.) C | Upper Explosive Limit % | Transport Dangerous Goods 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    | (Condition to avoid)               |
| Incompatibility          | (Materials to avoid) |                                    |

**5. HEALTH HAZARD DATA**

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

Effect of Exposure/Symptoms:

|  |  |
|--|--|
| Lethal dose 50 (in rat) (Orally or percutaneous absorpotion) (mg/Kilogram body weight) | Lethal Concentration 50 (in rat) (mg/1)/4 hour.              |
| Permissible Exposure   | ppm mg/cu. m<br>Short term Exposure Limit (STEL) ppm mg/cu.m |
| Threshold Limit Value (TLV) of ACGIH   | ppm mg/cu. m<br>Odour Threshold ppm mg/cu. m                 |

Emergency Treatment

**6. HAZARD SPECIFICATION**

|                    |                         |              |           |         |
|--------------------|-------------------------|--------------|-----------|---------|
| NFPA Hazard signal | Health                  | Flammability | Stability | Special |
| Known Hazards      |                         |              |           |         |
| Combustible Liquid | Water Reactive Material | Irritant     |           |         |
| Flammable Material | Oxidiser                | Sensitizer   |           |         |



|  |                          |                  |
|--|--------------------------|------------------|
| Pyrophoric Material                                    | Organic Peroxide         | Carcinogen       |
| Explosive Material                                     | Corrosive Material       | Mutagen          |
| Unstable Material                                      | Compressed Gas           | Others (specify) |
| <b>7. SAFE USAGE DATA</b>                              |                          |                  |
| Ventilation  | General/Mechanical       |                  |
|  | Local Exhaust            |                  |
| Protective Equipment Required                          | Eyes (specify)           |                  |
|  | Respiratory (specify)    |                  |
|  | Gloves (specify)         |                  |
|  | Clothing (specify)       |                  |
|  | Others (specify)         |                  |
| Precautions  | Handling & Storage       |                  |
|  | Others (specify)         |                  |
| <b>8. EMERGENCY RESPONSE DATA</b>                      |                          |                  |
| 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    |                  |
| <b>9. ADDITIONAL INFORMATION</b>                       |                          |                  |
|  |                          |                  |
|  |                          |                  |
| <b>10. SOURCES USED</b>                                |                          |                  |
| Reference to books, journals, etc.                     |                          |                  |
| <b>11. MANUFACTURER/SUPPLIER DATA</b>                  |                          |                  |

|   |                                |
|---|--------------------------------|
| Firm's 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:   |                                |
| CAS: Chemical Abstracts Service   |                                |
| 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   |                                |
| Lethal dose 50 and Lethal Concentration 50 represent the dose in mg/Kilogram of body weight and the Concentration I mg/1 for 4 hours having lethal effect on 50 of the animals (rats) treated   |                                |
| PEL: Permissible Exposure Limit as laid down in the statutes  |                                |
| TLV: 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 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. |                                |

**SCHEDULE 6**

[(See rule 6 (1)]

**INFORMATION TO BE FURNISHED REGARDING NOTIFICATION OF A MAJOR ACCIDENT**

Report Number of Particular Accident .....

| <b>1. General data</b>                      |  |  |
|---|--|--|
| (a)   | Name of the site   |  |
| (b)   | Name and address of the occupier<br>(Also state the telephone/telex number)  |  |
| (c)   | (i)  | Registration number  |
|   | (ii)   | Licence number<br>(As may have been allotted under any statute applicable to the site, e.g. the Factories Act) |
| (d)   | (i)  | Nature of industrial activity<br>(Mention what is actually manufactured stored etc.)                           |
|   | (ii)   | National Industrial Classification 1987 at the four digit level.   |
| <b>2. Type of major accident</b>            |  |  |
| Explosion                                   | Fire   | Emission of hazardous chemical   |
| <b>3. Description of the major accident</b> |  |  |
| (a)   | Date, Shift and hour of the accident   |  |
| (b)   | Department/Section and exact place where the accident took place.  |  |
| (c)   | The process/operation under taken 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  |                                       |
| <b>4.</b>  | <b>Emergency measures taken and measures envisaged to be taken to alleviate short-term effects of the accident</b>               |                                       |
| <b>5.</b>  | <b>Causes of the major accident known</b><br>(to be specified)<br>Not known<br>Information will be supplied as soon as possible. |                                       |
| <b>6.</b>  | <b>Nature and extent of damage</b>   |                                       |
| <b>(a)</b> | Within the establishment casualties  | Killed<br><br>Injured<br><br>Poisoned |
| (i)        | - persons exposed to the major accident  |                                       |
| (ii)       | - material damage  |                                       |
| (iii)      | - damage is still present  |                                       |
| (iv)       | - danger no longer exists  |                                       |
| <b>(b)</b> | Outside the establishment  |                                       |
| (i)        | - Casualties   | Killed<br><br>Injured<br><br>Poisoned |
| (ii)       | - persons exposed to the major accident  |                                       |

|           |  |  |
|-----------|--|--|
| (iii)     | - material damage  |  |
| (iv)      | - damage to environment  |  |
| (v)       | - damage is still present  |  |
| (vi)      | - danger no longer exists  |  |
| <b>7.</b> | <b>Data available for assessing the effects of the accident on persons and environment</b> |  |
| <b>8.</b> | <b>Steps already taken or envisaged</b>  |  |
|           | (a) To alleviate medium or long term effects of the accident.                              |  |
|           | (b) To prevent recurrence of similar major accident.                                       |  |
|           | (c) Any other relevant information.  |  |

**SCHEDULE 7**

[See rule 8(1)]

**INFORMATION TO BE FURNISHED FOR THE NOTIFICATION OF SITES**

Information to be furnished for the Notification of Site.

Particulars 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 out.
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 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 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 scale plan of the site showing the location 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 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 processes, 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) 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 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 relevant components.



6. Description of safety relevant units, among others;
  - (a) Special design criteria.
  - (b) Controls and alarms,
  - (c) Pressure relief systems,
  - (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 systems,
  - (f) Known accident history.
7. 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 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 of organisation used to fight the emergency, the alarm and the communication routes,
  - (d) Coordination 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 9****[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 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. 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 out side.
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 organizational 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.
  - (i) continuous surveillance of operations.
  - (ii) maintenance and repair work according 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.

RAJ KUMAR  
 Financial Commissioner and Principal Secretary to  
 Government, Haryana, Labour Department.

Endst No: 11/35/2004 -4 Lab.                      Dated: 24.08.2009

A copy is forwarded to the Controller, Printing and Stationery Department, Haryana, Chandigarh with the request that the above notification may be published in Haryana Government (Extra Ordinary) Gazette positively and 250 printed copies thereof may be supplied to this Department.

2. This draft of notification has been got vetted from Legal Remembrancer and Secretary to Government, Haryana, Law and Legislative Department vide their U.O. No. 587.Leg.II(21)B/2009/273,dated 25.02.2009.

*Sol*  
 Superintendent Labour  
 for Financial Commissioner and Principal Secretary to  
 Government, Haryana, Labour Departments.

✓ Endst No: 11/35/2004 -4 Lab.                      Dated: 24.08.2009

A copy is forwarded to the Labour Commissioner-cum-Chief Inspector of Factories, Haryana, Chandigarh for information and necessary action.

*Rajiv*  
 Superintendent, Labour  
 for Financial Commissioner and Principal Secretary to  
 Government, Haryana, Labour Departments. *2*