# The U.P. Factories (Control of Industrial Major Accident Hazards) Rules, 1996

UTTAR PRADESH India

# The U.P. Factories (Control of Industrial Major Accident Hazards) Rules, 1996

# Rule

# THE-U-P-FACTORIES-CONTROL-OF-INDUSTRIAL-MAJOR-ACCIDENT of 1996

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The U.P. Factories (Control of Industrial Major Accident Hazards) Rules, 1996Published vide Notification No. 195/36-3-41(F)-88, dated June 14, 1996, published in the U.P. Gazette, (Extraordinary) Part 4, Section (Kha), dated 14th June, 1996In exercise of the powers under Section 112 read with Sections 41-B and 115 of the Factories Act, 1948 (Act 63 of 1948) the Governor is pleased to make the following rules after previous publication in the Government Notification No. 2952/XXXVI-3-41(F)-88 dated December 22, 1994 of said date.

#### 1. Short title and commencement.

(1) These rules may be called the Uttar Pradesh Factories (Control of Industrial Major Accident Hazards) Rules, 1996.(2) They shall come into force with effect from the date of their publication in the Uttar Pradesh Gazette.

#### 2. Definition.

- In these rules, unless the context otherwise requires-(a)"hazardous chemical" means-(i)any chemical which satisfies any of the criteria laid down in Part I of Schedule 1 and is listed in Column 2 of Part II of Schedule 1; or(ii)any chemical listed in Column 2 of Schedule 2; or(iii)any chemical listed in Column 2 of Schedule 3;(b)"Industrial activity" means-(i)an operation or process carried out in an industrial installation referred to in Schedule 4 involving or likely to involve one or more hazardous chemicals and includes on-site storage or on-site transport which is associated with that operation or process as the case may be; or(ii)isolated storage;(c)"isolated storage" means storage

1

where no other manufacturing process other than pumping of hazardous chemical is carried out and that storage involves at least a quantity of that chemical set out in Schedule 2, but does not include storage associated with any installation specified in Schedule 4 on the same site;(d)"major accident" means an occurrence (including in particulars, a major omission, fire or explosion) involving one or more hazardous chemicals and resulting from uncontrolled developments in the course of an industrial activity or owing to natural events, leading to a serious danger to persons, whether immediate or delayed, inside or outside the installation or damage to property or adverse effects on the environment;(e)"pipeline" means a pipe (together with any apparatus and works associated therewith), for 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;(f)"Schedule" means Schedule appended to these rules;(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 occupier;(h)Words and expressions not defined in these Rules but defined or used in the Factories Act, 1948 and the rules made thereunder will have the same meaning as assigned therein.

### 3. Collection, development and dissemination of information.

(1) This rule shall apply to an industrial activity in which a hazardous chemical which satisfies any of the criteria laid down in Part I of Schedule 1 and is listed in Column 2 of Part II of this Schedule is or may be involved.(2) An occupier, who has control of an industrial activity in terms of sub-rule (1) of this rule, shall arrange to obtain or develop detailed information on hazardous chemical in the form of a material safety data sheet as indicated in Schedule 5. The information shall be accessible to workers upon request for reference.(3) The occupier while obtaining or developing a material safety data sheet, as indicated 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 material safety data sheet as indicated 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 as per the criteria given in Part I of Schedule 1.(5)In terms of sub-rule (4) of this rule where it is impractical to label a chemical in view of the size of the container or the nature of the package, provision should be made for other effective means like tagging or accompanying documents.

# 4. General responsibility of the occupiers.

(1)This rule shall apply to-(a)an industrial activity, other than isolated storage, in which a hazardous chemical which satisfies any of the criteria laid down in Part I of Schedule 1 and is listed in Column 2 of Part II of this Schedule therein is or may be involved; and(b)isolated storage in which there is involved a quantity of hazardous chemical listed in Column 2 of Schedule 2 which is equal to or more than the quantity specified in the Schedule for that chemical in Column 3 thereof.(2)An occupier who has control of an industrial activity in terms of sub-rule (1) of this rule shall provide evidence to show that he has-(a)identified the major accident hazards; and(b)taken adequate steps

to-(i)prevent such major accident and to limit their consequences to persons and the environment; and(ii)provide the persons working on the site with the information training and equipment including antidotes necessary to ensure their safety.

# 5. Notification of Major accidents.

(1)Where a major accident occurs on a site, the occupier shall forthwith notify the Inspector and the Chief Inspector of that accident, and furnish thereafter to the Inspector and the Chief Inspector a report relating to the accident in instalments, if necessary, in Schedule 6.(2)The Chief Inspector shall on receipt of the report in accordance with sub-rule (1) of this rule, shall undertake a full analysis of the accident and send the requisite information to the Directorate General, Factory Advice Service and Labour Institutes (DGFASLI) and the Ministry of Labour through appropriate channel.

# 6. Industrial activities to which Rules 7 to 15 apply.

(1)(a)Rules 7 to 9 and 13 to 15 shall apply to an industrial activity, other than isolated storage, in which there is involved a quantity of a hazardous chemical listed in Column 2 of Schedule 3 which is equal to or more than the quantity specified in the entry for that chemical in Column 3;(b)Rules 10 to 12 shall apply to an industrial activity, other than isolated storage, in which there is involved a quantity of a hazardous chemical listed in Column 2 of Schedule 3 which is equal to or more than the quantity specified in the entry for that chemical in Column 4;(c)Rules 7 to 9 shall apply to an isolated storage in which there is involved a quantity of a hazardous chemical listed in Column 2 of Schedule 2 which is equal to or more than the quantity specified in the entry for that chemical in Column 3; and(d)Rules 10 to 15 shall apply to an isolated storage in which there is involved a quantity of a hazardous chemical listed in Column 2 of Schedule 2 which is equal to or more than the quantity specified in the entry for that chemical in Column 4.(2)For the purposes of Rules 7 to 15-(a)a "new industrial activity" means an industrial activity which-(i)was commenced after the date of coming into operation of these Rules; or (ii) if commenced before that date, is an industrial activity in which there has been since that date a modification which would be likely to have important implications for major accident hazards and that activity shall be deemed to have been commenced on the date on which the modification was made; and(b)an "existing industrial activity" means an industrial activity which is not a new industrial activity.

#### 7. Notification of industrial activities.

(1)An occupier shall not undertake any industrial activity unless he has submitted a written report to the Chief Inspector containing the particulars specified in Schedule 7 at least three months before commencing that activity or before such shorter time as the Chief Inspector may agree and for the purposes of this sub-rule, an activity in which subsequently there is or is liable to be a 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)No report under sub-rule (1) of this rule need to be submitted by the occupier, if he submits a report under sub-rule (1) of Rule 10.

### 8. Updating of the notification under Rule 7.

- Where an activity has been reported in accordance with sub-rule (1) of Rule 7 and the occupier makes a change in it (including an increase or decrease in the maximum quantity of a hazardous chemical to which this Rule applies which is or liable to be at the site or in the pipeline or 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 Chief Inspector.

# 9. Transitional provisions.

- Where,-(a)at the date of coming into operation of these Rules, an occupier who is in control of an existing industrial activity which is required to be reported under sub-rule (1) of Rule 7; or(b)within six months after that date an occupier commences any such new industrial activity; it shall be a sufficient compliance with that rule if he reports to the Chief Inspector as per the particulars in Schedule 7 within three months after the date of coming into operation of these rules or within such longer time as the Chief Inspector may agree in writing.

## 10. Safety reports and Safety audit.

(1)Subject to the following sub-rules of this Rule, an occupier shall not undertake any industrial activity 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 three months before commencing that activity.(2)In the case of new industrial activity which an occupier commences, or by virtue of sub-clause (ii) of clause (a) of sub-rule (2) of Rule 6 is deemed to commence, within six months after coming into operation of these Rules, it shall be a sufficient compliance with sub-rule (1) of this Rule if the occupier sends to the Chief Inspector a copy of the report required in accordance with that sub-rule within three months after the date of coming into operation of these Rules.(3)In the case of an existing industrial activity, until five years from the date of coming into operation of these Rules, it shall be a sufficient compliance with sub-rule (1) of the Rule if the occupier on or within the three months after the date of coming into the operation of these Rules sends to the Chief Inspector the information specified in Schedule 7 relating to that activity.

# 11. Updating of reports under Rule 10.

(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 to which that a 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 Chief Inspector at least three months before making those modifications.(2)Where an occupier has made a report in accordance with Rule 10 and sub-rule (1) of this Rule and that industrial activity 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 one month or in such longer time as the Chief Inspector may agree in writing, send a copy of the report to the Chief Inspector.

#### 12. Requirements for further information.

- Where in accordance with Rule 10(1), an occupier has sent a safety report relating to an industrial activity to the Chief Inspector, the Chief Inspector may, by a notice served on the occupier, require him to provide such additional information as is specified in the notice and the occupier shall send that information to the Chief Inspector within such time as is specified in the notice or within such extended time as the Chief Inspector may subsequently specify.

# 13. Preparation of on-site emergency plan by the occupiers.

(1)An occupier who has control of an industrial activity to which this rule applies shall prepare in consultation with the Chief Inspector and keep up-to-date and furnish to the Chief Inspector and the Inspector an on-site emergency plan detailing how major accidents will be dealt with on the site on which the industrial activity 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 and that every person on the site who is affected by 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)in the case of a new industrial activity before that activity is commenced except that in the case of a new industrial activity which is commenced or is deemed to have been commenced before a date of three months after the coming into operation of these Rules by that date; or(b)in the case of an existing industrial activity, within three months of coming into operation of these Rules.

# 14. Preparation of off-site emergency plan.

(1)It shall be the duty of the District Magistrate or the District Emergency Authority designate by the State Government in whose area there is a site on which an occupier carries upon an industrial activity to which this Rule applies to prepare and keep up-to-date an adequate off-site emergency plan detailing emergencies relating to a possible major accident on that site will be dealt with and in preparing that plan the authority shall consult the occupier, the Chief Inspector and such other persons as appear to the authority to be appropriate.(2)The occupier shall provide the District Magistrate or the District Emergency Authority with such information relating to the industrial activity under his control as may be necessary to enable the District Magistrate or the District Emergency Authority to prepare an off-site Emergency plan under sub-rule (1) of this Rule including the nature, extent and likely effects off-site of possible major accidents as well as any additional information as the District Magistrate or the District Emergency Authority may require in this regard.(3)The District Magistrate or the District Emergency Authority shall provide the occupier with information from the off-site emergency plan which relates to his duties under Rule 13 or

sub-rule (2) of this rule.(4)The District Magistrate or the District Emergency Authority shall prepare its emergency plan for any industrial activity required under sub-rule (1) of this Rule-(a)in the case of a new industrial activity, before that activity is commenced;(b)in the case of an existing industrial activity, within six months of its being notified by the occupier of the industrial activity.

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

(1) The occupier shall take appropriate steps to inform persons outside the site who are likely to be in an area which might be affected by a major accident at any site on which an industrial activity under his control to which this Rule applies is carried on either directly or through the District Emergency Authority about-(a) the nature of the major accident hazard; and(b) the safety measure and the correct behaviour which should be adopted in the event of a major accident.(2) The occupier shall take the steps required under sub-rule (1) of this Rule to inform persons about an industrial activity, before that activity is commenced, except that, in the case of an existing industrial activity in which case the occupier shall comply with the requirements of sub-rule (1) of this Rule within three months of coming into operation of these Rules.

#### 16. Disclosure of information notified under these Rules.

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

# 17. Improvements notice.

(1)If an Inspector is of the opinion that an occupier-(a)is contravening one or more of these Rules, or(b)has contravened one or more of that Rules in circumstances that make it likely that the contravention will continue or be repeated, he may serve on him a notice (in this Rule referred to as "an improvement notice") stating the reasons for his opinion, requiring the occupier to remedy the contravention within such period as may be specified in the notice.(2)A notice served under sub-rule (1) of this Rule may include directions as to the matters to be taken by the occupier to remedy any contravention or the matters to which the notice relates.

# 18. Power of the State Government to modify the Schedules.

- The State Government may, at any time, by notification in the Official Gazette, modify the Schedules:

[See Rules 2(a)(i), 3(1) and 4(1)(a)]Indicative criteria and list of chemicalsIndicative criteria

# Part I – (a) Toxic Chemicals: Chemicals having the following values of acute toxicity and which, owning to their physical and chemical properties, are capable of producing major accident hazards:

Serial No.	Degree of toxicity	LD 50 absorbed orally in rats (mg/kg bodyweight)	LD 50 by cutaneous absorption in rats orrabbits (mg/kg body weight)	LD 50 absorbed by inhalation (4 hours) inrats (mg/litre)
1	Extremely toxic	L-50	L-200	0.1-0.5
2	Highly toxic	51-500	201-2000	0.5-2.0

(b)Flammable Chemicals:(i)Flammable gases. - Chemicals which in the gaseous state at normal pressure and mixed with air become flammable and the boiling point of which at normal pressure is 20 degree C or below;(ii)Highly flammable liquids. - Chemicals which have a flash point lower than 23 degree C and the boiling point of which at normal pressure is above 20 degree C;(iii)Flammable liquids. - Chemicals which have a flash point lower than 65 degree C and which remain liquid under pressure, where particular processing conditions, such as high pressure and high temperature, may create major accident hazards.(c)Explosives: Chemicals which may explode under the effect of flame, heat or photo chemical conditions or which are more sensitive to shocks or frictions than dinitrobenzene:

# Part II – List of Hazardous Chemicals

Sl. No. Name of Chemicals

- 1 2
- 1. Acetone
- 2. Acetone Cyanohydrine
- 3. Acetyl Chloride
- 4. Acetylene (Ethyne)
- 5. Acrolein (2 Propenal)
- 6. Acrylonitrile
- 7. Aldicarb
- 8. Aldrine
- 9. Alkyl Phthalate
- 10. Allyl Alcohol

- 11. Allylamine
- 12. Alpha Napthyl Thiourea (A.N.T.U.)
- 13. 4-Aminodiphenyl
- 14. 2-Aminophenol
- 15. Amiton
- 16. Ammonia
- 17. Ammonium Nitrate
- 18. Ammonium Nitrate Fertilizers
- 19. Ammonium Sulfamate
- 20. Anabasine
- 21. Aniline
- 22. P-Anisidine
- 23. Antimony and Compounds
- 24. Antimony Hydrine (Stibine)
- 25. Arsenic Hydrine (Arsine)
- 26. Arsenic Pentoxide, Arsenic (v) Acid and Salts
- 27. Arsenic Trioxide, Arsenious (III) Acids and Salts
- 28. Asbestos
- 29. Azinphos-Ethyl
- 30. Azinphos-Methyl
- 31. Barium Azide
- 32. Benzene
- 33. Benzidine
- 34. Benzidine Salts
- 35. Benzoquinone
- 36. Benzoyl Chloride
- 37. Benzoyl Peroxide
- 38. Benzyl Chloride
- 39. Benzyl Cyanide
- 40. Beryllium (Powders, Compounds)
- 41. Biphenyl
- 42. BIS (2-Chrokethyl) Ketone
- 43. BIS (2, 4, 6-Trinitrophenyl) Amine
- 44. BIS (2-Chloroethyl) Sulphide
- 45. BIS (Chloromethyl) Ether
- 46. 2, 2-BIS (Tert-Butylperoxy) Butane
- 47. 1, 1-BIS (Tert Butylperoxy) Cylohexane

- 48. BIS-1, 2 (Tribromophenoxy) Ethane
- 49. Bisphenol
- 50. Boron and Compounds
- 51. Bromine
- 52. Bromine Pentafluoride
- 53. Bromoform
- 54. 1, 3 Butadiene
- 55. Butane
- 56. N-Butanethiol
- 57. 2-Butanone
- 58. Butoxy Ethanol
- 59. Butyl Glycidal Ether
- 60. Tert Butyl Peroxyacetate
- 61. Tert Butyl Peroxyisobutyrate
- 62. Tert-Butyl Peroxyisopropyl-carbonate
- 63. Tert-Butyl Peroxymaleate
- 64. Tert-Butyl Peroxypivalate
- 65. Butyl Vinyl Ether
- 66. Butyl-n-Mercaptan
- 67. Butylamine
- 68. C9-Aromatic Hydrocarbon Fraction
- 69. Cadmium and Compounds
- 70. Cadmium Oxide (fumes)
- 71. Calcium Cyanide
- 72. Captan
- 73. Captofol
- 74. Carbaryl (Sevin)
- 75. Carbofuran
- 76. Carbon Disulphide
- 77. Carbon monoxide
- 78. Carbon Tetrachloride
- 79. Carbonphenothion
- 80. Cellulose Nitrate
- 81. Chlorates (use in Explosives)
- 82. Chlordane
- 83. Chlorofenvinphos
- 84. Chlorinated benzenes

- 85. Chlorine
- 86. Chlorine Dioxide
- 87. Chlorine Oxide
- 88. Chlorine Trifluoride
- 89. Chlormequate Chloride
- 90. Chloroacetal Chloride
- 91. Chloroacetaldehyde
- 92. 2-Chloroaniline
- 93. 4-Chloroaniline
- 94. Chlorobenzene
- 95. Chlorodiphenyl
- 96. Chloropexopropane
- 97. Chloroethanol
- 98. Chloroethyl Chloroformate
- 99. Chlorofluoracarbons
- 100. Chloroform
- 101. 4-(Chloroformyl)/ Morpholine
- 102. Chloromethane
- 103. Chloromethyl Ether
- 104. Chloronitrobenzene
- 105. Chloroprene
- 106. Chlorosulphonic Acid
- 107. Chlorotrinitrobenzene
- 108. Chloroxuron
- 109. Chromium and Compounds
- 110. Cobolt and Compounds
- 111. Copper and Compounds
- 112. Coumfuryl
- 113. Coumaphos
- 114. Coumatetralyl
- 115. Cresols
- 116. Crimidine
- 117. Cumene
- 118. Cyanophos
- 119. Cyanothoate
- 120. Cyanuric Fluoride
- 121. Cyclohexane

- 122. Cyclohexanol
- 123. Cyclohexanone
- 124. Cyclohexamide
- 125. Cyclopentadiene
- 126. Cyclopentane
- 127. Cyclotetramethylenetetrani- tramine
- 128. Cyclotrimethylenetrinitramine
- 129. DDT
- 130. Decabromodiphenyl Oxide
- 131. Demetone
- 132. DI-Isobutryl Peroxide
- 133. DI-n Prophyl Peroxydicarbonate
- 134. DI-sec-Bytyl Peroxydicarbonate
- 135. Dialifos
- 136. Diazodinitrophenol
- 137. Diazomethane
- 138. Dibenzyl Peroxydicarbonate
- 139. Dichloroacetylene
- 140. O-Dichlorobenzene
- 141. P-Dichlorobenzene
- 142. Dichloroethane
- 143. Dichloroethyl Ether
- 144. 2, 4-Dichlorophenol
- 145. 2, 6-Dichlorophenol
- 146. 2, 4-Dichlorophenoxyt Acetii Acid, (2, 4-D)
- 147. 1, 2-Dichlorpropane
- 148. 3, 5 Dichlorosalicylic Acid
- 149. Dichlorovos (DDPV)
- 150. Dicrotophos
- 151. Dieldrin
- 152. Diepoxybutane
- 153. Diethyl Peroxydicarbonate
- 154. Diethylene Glycol Dinitrate
- 155. Diethylene Triamine
- 156. Diethyleneglycol Butyl Ether/ Diethylenglycol Butyl Acetate
- 157. Diethylentrimanie (DETA)
- 158. Diglycidyl Ether

- 159. 2,2-Dihydroperoxypropane
- 160. Disobutyryl Peroxide
- 161. Dimefox
- 162. Dimethoate
- 163. Dimethyl Phosphoramidocynidic Acid
- 164. Dimethyl Phthalate
- 165. Dimethylcarbomoyl Chloride
- 166. Dimethylnitrosamine
- 167. Dinitrophenol, Salts
- 168. Dinitrotoluene
- 169. Dinitro-o-Cresol
- 170. Dioxane
- 171. Dioxathion
- 172. Dioxolane
- 173. Diphacinone
- 174. Diphosphormide Octamethyl
- 175. Dipropylene Glycolmethyl Ether
- 176. Disulfoton
- 177. Endosulfan
- 178. Endrin
- 179. Epichlorohydrine
- 180. EPN (Ethyl-p-Nitrophenyl thionobenzene Phosphate)
- 181. 1, 2-Epoxypropane
- 182. Ethion
- 183. Ethyl Carbamate
- 184. Ethyl Ether
- 185. 2-Ethyl Hexanol
- 186. Ethyl Mercaptan
- 187. Ethyl Methacrylate
- 188. Ethyl Nitrate
- 189. Ethylamine
- 190. Ethylene
- 191. Ethylene Chlorohydrine
- 192. Ethylene Diamine
- 193. Ethylene Dibromide
- 194. Ethylene Dichloride
- 195. Ethylene Glycol Dinitrate

- 196. Ethyl Oxide
- 197. Ethyl lmine
- 198. Ethylthiocyanate
- 199. Pensulphothion
- 200. Fluenetil
- 201. 4-Fluoro, 2-Hydroxybutyric Acid and Salts, Esters, Amides
- 202. Fluoracetic Acid and Salts, Esters, Amides
- 203. 4-Fluorobutyric Acid and Salts, Esters, Amides
- 204. 4-Fluorochrotonic Acid and Salts, Esters, Amides
- 205. Formaldehyde
- 206. Glyconitrile (Hydroxyaceto-nitrile)
- 207. 1-Guanyl-4-Nitrosaminoguanyl-1-Tetrazene
- 208. Heptachlor
- 209. Hexachloro Cyclopentadiene
- 210. Hexachlorocyclohexane
- 211. Hexachlorocyclomethane
- 212. 1,2,3, 7,8,9-Hexachlorodibenzo-p-Dixoine
- 213. Hexafluopropene
- 214. Hexamethylphosphoramide
- 215. 3, 3, 6, 6, 9, 9-Hexamethyl-1, 2, 4, 5-Tetroxacyclononane.
- 216. Hexamethylenediamine
- 217. Hexane
- 218. 2, 2, 4, 4, 6, 6-Hexanitrostilbene
- 219. Hexavalent Chromium
- 220. Hydrazine
- 221. Hydrazine Nitrate
- 222. Hydrochloric Acid
- 223. Hydrogen
- 224. Hydrogen Bromide (Hydrobromic Acid)
- 225. Hydrogen Chloride (Liquefied Gas)
- 226. Hydrogen Cyanide
- 227. Hydrogen Fluoride
- 228. Hydrogen Senenide
- 229. Hydrogen Sulphide
- 230. Hydroquinone
- 231. Iodine
- 232. Isobenzene

- 233. Isodrin
- 234. Isophorone Diisocyanate
- 235. Isopropyl Ether
- 236. Juglone (5-Hydroxynaphthalene-1, 4 Dione)
- 237. Lead (Inorganic fumes and dusts)
- 238. lead 2, 4, 6-Trinitroresorcinoxide (Lead Styphnate)
- 239. Lead Azide
- 240. Leptophos
- 241. Lindane
- 242. Liquefied Petroleum Gas (LPG)
- 243. Maleic Anhydride
- 244. Manganese and Compounds
- 245. Mercapto Benzothiazole
- 246. Mercury Alkyl
- 247. Mercury Fulminate
- 248. Mercury Methyl
- 249. Methacrylic Anhydride
- 250. Methacrylonitrile
- 251. Methacryloyl Chloride
- 252. Methamidophos
- 253. Methanesuphony Fluoride
- 254. Methanethiol
- 255. Methoxy Ethanol (2-Methyl Cellosolve)
- 256. Methoxyethylmercuric Acetate
- 257. Methyl Acrylate
- 258. Methyl Alcohol
- 259. Methyl Amylketone
- 260. Methyl Bromide (Bromomethane)
- 261. Methyl Chloride
- 262. Methyl Chloroform
- 263. Methyl Cyclohexene
- 264. Methyl Ethyl Ketone Peroxide
- 265. Methyl Hydrazine
- 266. Methyl Isobutyl Ketone
- 267. Methyl Isobutyl Ketone Peroxide
- 268. Methyl Isocyanate
- 269. Methyl Isothiocyanate

- 270. Methyl Mercaptan
- 271. Methyl Methacrylate
- 272. Methyl Parathion
- 273. Methyl Phosphonic Dichloride
- 274. N-Methyl 2, 4, 6-Tetranitroaniline
- 275. Methyl Chloride
- 276. 4, 4-Methylenebis (2-Chloro-aniline)
- 277. Methyltrichlorosilane
- 278. Mevinphos
- 279. Molybdenum and Compounds
- 280. N-Methyl-N, 2, 4, 6-N-Tetra-nitroaniline
- 281. Naphtha (Coal Tar)
- 282. 2-Naphthylamine
- 283. Nickel and Compounds
- 284. Nickel Tetraocarbonyl
- 285. O-Nitroaniline
- 286. p-Nitroanilinc
- 287. Nitrobenzene
- 288. p-Nitrochlorobenzene
- 289. Nitrocyclohexane
- 290. Nitroethane
- 291. Nitrogen Dioxide
- 292. Nirogen Oxides
- 293. Nitrogen Trifluoride
- 294. Nitroglycerine
- 295. p-Nitrophenol
- 296. 1-Nitropropane
- 297. Nitropropane
- 298. Nitrosodimethylamine
- 299. Niotrotolune
- 300. Octobromophenyl Oxide
- 301. Oleum
- 302. Oleylamine
- 303. OO-Diethyl S-Ethaylsulphinyl-methyl Phosphorothioate
- 304. OO-Diethyl S-Ethaylsulphonyl-methyl Phosphorothioate
- 305. OO-Diethyl S-Ethylthiomethyl Phosphorothioate
- 306. OO-Diethyl S-Isopropylthio-methyl phosphorodithioate

- 307. OO-Diethyl S-Propylthiomethyl Phosphorodithioate
- 308. Oxyamyl
- 309. Oxydisulfoton
- 310. Oxygen (Liquid)
- 311. Oxygen Difluoride
- 312. Ozone
- 313. Paraoxon (Diethyl 4-Nitrophenyl Phosphate)
- 314. Paraquat
- 315. Parathion
- 316. Parathion Methyl
- 317. Paris Green (Bis Aceto Hexa-meta-arsenitotetra Copper)
- 318. Pentaborane
- 319. Pentabromodiphenyl Oxide
- 320. Pentabromophenol
- 321. Pentachloro Naphthalene
- 322. Pentachloroethane
- 323. Pentachlorophenol
- 324. Pentaerythritol Tetranitrate
- 325. Pentane
- 326. Peracetic Acid
- 327. Perchloroethylene
- 328. Perchloromethyl Mercaptan
- 329. 2-Pantanone, 4-Methyl
- 330. Phenol
- 331. Phynyl Glycidal Ether
- 332. Phenylene P-Diamine
- 333. Phenylmercury Acetate
- 334. Phorate
- 335. Phosacetim
- 336. Phosalane
- 337. Phosfolan
- 338. Phosgene (Carbonyl Chloride)
- 339. Phosmet
- 340. Phosphamidon
- 341. Phosphine (Hydrogen Phosphide)
- 342. Phosphoric Acid and Esters
- 343. Phosphoric Acid, Bromoethyl Bromo (2, 2-Dimethylpropyl)Bromethyl Ester

- 344. Phosphoric Acid, Bromoethyl Bromo (2, 2-Dimethylpropyl)Chloroethyl Ester)
- 345. Phosphoric Acid, Chloroethyl Bromo (2, 2-Dimethoxylpropyl)Chloroethyl Ester
- 346. Phosphorous and Compounds
- 347. Phostalan
- 348. Picric Acid (2, 4, 6-Trinitro-phenol)
- 349. Polybrominated Biphenyls
- 350. Potassium Arsenite
- 351. Potassium Chlorate
- 352. Promurit [1-(3,4-Dichloro-phenyl)-3-Triazenethio-carboxamide].
- 353. 1, 3-Propanesultone
- 354. 1-Propen, 2-Chloro-1, 4-Diol-Diacetate
- 355. Propylene Dichloride
- 356. Proplene Oxide
- 357. Propyleneimine
- 358. Pyrazoxon
- 359. Selenium Hexafluoride
- 360. Semicarbazide Hydrochloride
- 361. Sodium Arsenit
- 362. Sodium Azide
- 363. Sodium Chlorate
- 364. Sodium Cyanide
- 365. Sodium Picramate
- 366. Sodium Selenite
- 367. Styrene-1, 1, 2, 2-Tetrachloro-ethane
- 368. Sulfotep
- 369. Sulphur Dichloride
- 370. Sulphur Dioxide
- 371. Sulphur Trioxide
- 372. Sulphuric Acid
- 373. Sulphoxide, 3-Chlropropyloctyl
- 374. Tellurium
- 375. Tellurium Hexafluoride
- 376. Tepp (Tetra Ethyl Pyro Phosphate)
- 377. Terbufos
- 378. Alpha Terabromodisphenol
- 379. 2, 2, 5, 6-Tetrachloro-2, 5-Cyclohexadiene 1, 4-Dione
- 380. 2, 3, 7, 8-Tetrachlorodibenzo-p-Dioxin (TCDD)

- 381. Tetraethyl Lead
- 382. Tetrafluoroethane
- 383. Tetramethylenedisulphotetra-mine
- 384. Tetramethyl Lead
- 385. Tetranitromethane
- 386. Thallium and Compounds
- 387. Thionazin
- 388. Thionyl Chloride
- 389. Tripate 390.. Toluene
- 391. Toluene-2-4-Diisocyanate
- 392. O-Toluidine
- 393. Toluene 2, 6-Diisocyanate
- 394. Trans-1, 4-Chlorobutene
- 395. 1-Tri, (Cyclohexyl) Stannyl-1H-1-2-4-Triazole.
- 396. 1, 3, 5-Triamine-2, 4, 6-Trinitro-benzene
- 397. 2, 4-6 Tribromophenol
- 398. Trichloro Acetyl Chloride
- 399. Trichloro Ethane
- 400. Trichloro Napthalene
- 401. Trichlorochloromethylsilane
- 402. Trichlorodichlorophenylsilane
- 403. 1, 1, 1-Trichloroethane
- 404. Trichloroethyl Silane
- 405. Trichloroethylene
- 406. Trichloromethanesulphenyl Chloride
- 407. 2, 2, 6-Trichlorphenol
- 408. 2-4, 5-Trichlorophenol
- 409. Triethlamine
- 410. Triethylenemelamine
- 411. Trimethyl Chlorosilane
- 412. Trimethylolpropane Phosphite
- 413. Trinitroaniline
- 414. 2, 4, 6-Trinitroanisole
- 415. Trinitrobenzene
- 416. Trinitrobenzoic Acid
- 417. Trinitrocresol
- 418. 2, 4, 6-Trinitrophenetole

- 419. 2, 4, 6-Trinitroresorcinol (Styphnic Acid)
- 420. Trinitrotoluene
- 421. Triorthocresyl Phosphate
- 422. Triphenyltin Chloride
- 423. Terpentine
- 424. Uranium and Compounds
- 425. Vanadium and Compounds
- 426. Vinyl Chloride
- 427. Vinyl Fluoride
- 428. Vinyl Toluene
- 429. Warfarin
- 430. Xylene
- 431. Xylidine
- 432. Zinc and Compounds
- 433. Zirconium and Compounds

[See Rules 2 (a) (ii), 4 (1) (b), 4 (2) (a) and 6 (1) (c) and (d)]Isolated Storage at Installation other than those covered by Schedule 4.-(a)The threshold quantities set out below relate to each installation or group of installations belonging to the same occupier where the distance between installations is not sufficient to avoid, in foreseeable circumstances, any aggravation of major accident hazards. These quantities apply in any case to each of the installations belonging to the same occupier where the distance between the installations is less than 500 metres.(b)For the purpose of determining the quantity of a hazardous chemical at an isolated storage account shall also be taken of any hazardous 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 metres of that site ana connected to it;(ii)at any other site under the control of the occupier any part of the boundary of which is 500 metres of the said site; and(iii)in any vehicle, vessels, aircraft or hovercraft under the control of the same occupier which is used for storage purpose either at the site or within 500 metres of it, but no account shall be taken of any hazardous chemical which is in a vehicle, vessel, aircraft or hovercraft for transporting it.

Serial No.	Chemical or groups of chemicals		Quantity (Tonnes)	
For application of Rules 4, 5 and 7 to 9	For application of Rules 10 to 15			
1	2	3	4	
1	Acrylonitrile	350	5000	
2	Ammonia	60	600	
3	Ammonium nitrate (a)	350*	2500*	
4	Ammonium nitrate Fertilizers (b)	1250	10000	

The U.P. Factories (Control of Industrial Major Accident Hazards) Rules, 1996

5	Chlorine	10	25
6	Flammable gases as defined in Schedule 1, paragraph (b) (i)	50	300
7	Highly flammable liquids as defined in Schedule 1, paragraph(b) (ii)	10000	100000
8	Liquid Oxygen	200	2000
9	Sodium chlorate	25	250
10	Sulphur dioxide	20	500
11	Sulphur trioxide	15	100

\*Where this chemical is in a state which gives its properties capable of creating a major accident hazard. Foot notes: (a) This applies to ammonium nitrate and mixtures of ammonium nitrate where the nitrogen content derived from the ammonium nitrate is greater than 28 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 fertilizers 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 phosphate and/or potash).

#### Schedule 3

[See Rules 2 (a) (iii), 5 and 6 (1) (a) and (b)]List of Hazardous Chemicals for application of Rules 5 and 7 to 15(a)The quantities set out below relate to each installation or group of installation 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 is less than 500 metres.(b)For the purpose of determining the quantity of a hazardous chemical in an industrial installation, account shall also be taken of any hazardous chemical which is-(i)in that part of any pipeline under the control of the occupier having control of the site, which is within 500 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 of 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 No.| Chemical | Quantity | CAS Number |-| For application of Rules 5, 7 to 9 and 13 to

#### 15.

| For application of Rules 10 to 12|-| 1| 2| 3| 4| 5|-|| Group 1-Toxic Chemicals|-| 1.| Aldicarb| 100 Kg.|| 116-06-3|-| 2.| 4-Aminodiphenyl| 1 Kg.|| 92-67-1|-| 3.| Amiton| 1 Kg.|| 78-53-5|-| 4.| Anabasine| 100 Kg.|| 494-52-0|-| 5.| Arsenic pentoxide, Arsenic (v) acid and salts| 500 Kg.||-| 6.|

Arsenic troxide, Arsenious (iii) acid and salts 100 Kg. | | - | 7. | Arsine (Arsenic hydride) | 10 Kg. | | - | 8. Azinphos-ethyl 100 Kg. | | - | 9. | Azinphos-methyl 100 Kg. | | - | 10. | Benzidine | 1 Kg. | | - | 11. | Benzidine salts | 1 Kg. | | - | 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.| Chlorfevinphos| 100 Kg.|| 470-90-6|-| 18.| 4-(Chloroformyl) morpholine| 1 Kg.|| 15159-40-7|-| 19.| Chloromethyl methyl ether | 1 Kg. | 107-30-2 | 20. | Cobalt metal, oxides, carbonates, sulphides, as powders | 1 t. | 21. | Crimidine 100 Kg. | 535-89-7|- 22. | Cyanathoate 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.| oo-Diethyl S-ethysulphinyl methyl phosphorothioate | 100 Kg. | 2588-05-8 | 27. | 00-Diethyl S-ethylsulphonyl methyl phosphorthioate | 100 Kg. | 2588-06-9 | 28. | 00-Diethyl S-ethylthiomethyl phosphorthioate | 100 Kg. | 2600-69-3|- | 29. | 00-Diethyl S-isopropylthio methyl phosphorodithioate 100 Kg. | 78-52-4|-| 30. | 00-Diethyl S-propylthio-methyl phosphorothioate 100 Kg.|| 3309-68-0|-| 31.| Dimefox| 100 Kg.|| 115-26-4|-| 32.| Dimethylcarbamonyl 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. | Fluoroacetic 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 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-Fluorocrotonic acid esters 1 Kg. | | - | 52. | 4-Fluorocrotonic 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-hydroxybutyric acid, esters | 1 Kg.|||-| 56.| 4-Fluoro-2-hydroxybutryic acid amides| 1 Kg.|||-| 57.| Glycolonitrile (hydroxyacetonitrile)| 100 Kg.|| 107-16-4|-| 58.| 1, 2, 3, 7, 8, 9 Hexachlorodi-benzo-p-dioxin| 100 Kg.|| 19408-74-3|-| 59.| Hexamethyl phosphoramide| 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-Hydroxynaphtha-lene-1, 4-dione) | 100 Kg. | 481-39-0 | 64. | 4, 4-Methylenabis (2-chloroaniline)| 10 Kg.|| 101-14-4|-| 65.| Methyl isocyanate| 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, carbonates sulphide, as powders 1 t. | | |- | 69. | Nickel tetracarbony | 10 Kg. | 13463-39-3 | - | 70. | Oxydisulfoton | 100 Kg. | 2497-07-6 | 71. | Oxygen difluoride | 10 Kg. | 7783-41-7 | 72. | Paraoxon (diethyl 4-nitrophenyl phosphate)| 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.| Phorate| 100 Kg.|| 298-02-2|-| 77.| Phosacetim| 100 Kg.|| 4104-14-7|-| 78.| Phosgene (Carbonyl Chloride)| 750 Kg. | 750 Kg. | 75-44-5|-| 79. | Phosphamidon | 100 Kg. | 13171-21-6|- | 80. | Phosphine (Hydrogen phosphide) 100 Kg. | 7803-51-2|-| 81. | Promurit/(1, 3, 4-Dichlorophenyl)-3-triazenethiocarboxamide)| 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.|| 108-34-9|-| 85.| Selenium hexafluoride| 10 Kg.|| 7783-79-1|-| 86.| Sodium selenite| 100 Kg.|| 10102-18-8|-| 87.| Stibine (Antimonyhydride)| 100 Kg.|| 7803-52-3|-| 88.| Sulfotop| 100 Kg.|| 3689-24-5|-| 89.| Sulphur dichloride| 1 t.|| 10545-99-0|-| 90.| Tellurim hexafluoride| 100 Kg.||

7783-80-4|-| 91.| TEPP (Tetra Ethyl-Pyro-phosphate)| 100 Kg.|| 107-49-3|-| 92.| 2, 3, 7, 8-Tetrachlorodibenzo P-dioxin (TCDD)| 1 Kg.|| 1746-01-6|-| 93.| Tetramethy lenedisul-photetramine | 1 Kg. | 80-12-6|- | 94. | Thionazia | 100 Kg. | 297-97-2|- | 95. | Tirpate (2,4-Dimethyl-1, 3- dithiolane-2-carboxaldehydeO-methylcarbomoy-loxime)| 100 Kg.|| 26419-73-8|-| 96.| Trichloromethane-sulphoh-enyl chloride| 100 Kg.|| 594-42-3|-| 97.| 1-Tri (Cyclohexyl) stannyl-1 H-1, 2, 4-triazole 100 Kg. | 41083-11-8 | 98. | Triethylenemenlamine 10 Kg.|| 51-18-3|-| 99.| Warfarin| 100 Kg.|| 81-81-2|-|| Group 2-Toxic Chemicals Quantity (> 1tonne)|||-| 100.| Acetone Cyanohydrin (2-Cyanopropan-2-ol)| 200 t.|| 75-88-5|-| 101.| Acrolein (2-propenal)| 20 t.|| 107-02-8|-| 102.| Acrylonitrile| 20 t.| 200 t.| 107-13-1|-| 103.| Ally alcohol (2-propen-l-01)| 200 t.|| 107-18-6|-| 104.| Allylamine| 200 t.|| 107-11-9|-| 105.| Ammonia| 50 t.| 500 t.| 7664-41-7|-| 106.| Bromine| 40 t.|| 7726-95-6|-| 107.| Carbon disulphide| 20 t.| 200 t.| 75-15-0|-| 108.| Chlorine | 10 t. | 25 t. | 7782-56-5|-| 109. | Diphenyl methane Di-isocyanate (MDI) | 20 t.|| 101-68-8|-| 110.| Ethylene Dibromide (1, 2-Dibromomethane)| 5 t.|| 106-93-4|-| 111.| Ethyleneimine | 50 t. | 151-56-4 | 112. | Formaldehyde (concentration >=90%) | 5 t. | 50-00-0 | -113.| Hydrogen Chloride (liquefied 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 (Bromo-methane)| 20 t.|| 74-83-9|-| 118.| Nitrogen Oxides| 50 t.|| 11104-93-1|-| 119.| Propyleneimine| 50 t.|| 75-55-8|-| 120.| Sulphur Dioxide| 20 t.| 250 t.| 7446-09-5|-| 121.| Sulphur Trioxide| 15 t.| 75 t.| 7446-11-9|-| 122.| Tetraethyl Lead| 5 t.|| 78-00-2|-| 123. | Tetramethyl Lead | 5 t. | | 75-74-1 | | 124. | Toluene Di-Isocyanate (TDI) | 10 t. | | 584-84-9 | - | | Group 3-Highly reactive Chemicals||||-| 125.| Acetylene Ethyne| 5 t.|| 74-86-2|-| 126.| a-Ammonium Nitrate (1) | 350 t. | 2500 t. | 6484-52-2|-|| b-Ammonium Nitrate in the form of fertiliser (2) | 1250 t.||-| 127.| 1, 1-Bis (Tert-butyl Peroxy) Butane (concentration >=7C%) | 5 t.|| 2167-23-9|-| 128.| 1, 1-Bis (Tert-Butyl Peroxy cyclohexane (concentration >=80%)| 5 t.|| 3006-86-8|-| 129.| Tert-Butyl Peroxyacetate (concentration >=70%)| 5 t.|| 107-71-1|-| 130.| Tert-Butyl Peroxyisobutyrate (concentration >=80%)| 5 t.|| 109-13-7|-| 131.| Tert-Butyl Peroxyisopropyl Corbonate (concentration>=80%)| 5 t.|| 2372-21-6|-| 132.| Tert-Butyl Peroxymaleate (concentration>=80%)| 5 t.|| 1931-62-0|-| 133.| Tert-butyl peroxypivalate (concentration>=77%)| 50 t.|| 927-07-1|-| 134.| Dibenzyl peroxydicarbonate (concentration>=90%)| 5 t.|| 2144-45-8|-| 135.| Di-Sec-Butyl Peroxydicarbonate (concentration>=80%)| 5 t.|| 19910-65-7|-| 136.| Diethyl Peroxydicarbonate (concentration>=30%)| 50 t.|| 14666-78-5|-| 137.| 2, 2-Dihydroperoxypropane (concentration>=30%)| 5 t.|| 2614-76-8|-| 138.| Di-isobutryl peroxide (concentration>=50%)| 50 t.|| 3437-84-1|-| 139.| Di-n-Propyl peroxydicarbonate (concentration>=80%)| 5 t.|| 16066-38-9|-| 140. Ethylene Oxide 5 t. 50 t. 75-21-8 - 141. Ethyl Nitrate 50 t. 625-58-1 - 142. 3, 3, 6, 6, 9, 9, Hexamethyl-1, 2, 4, 5-tetroxacyclonane(concentration >=75%)| 50 t.|| 22397-33-7|-| 143.| Hydrogen | 2 t. | 50 t. | 1333-74-0 | - | 144. | Liquid oxygen | 200 t. | | 7782-44-7 | - | 145. | Methyl Ethyl Ketone Paroxide (concentration>=60%)| 5 t.|| 1338-23-4|-| 146.| Methyl Isobutyl 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 Group 4-Explosive Chemicals | 25 t. | 7775-09-0 | 150. | Barium Azide | 50 t. | 18810-58-7 | 151. | Bis (2, 4, 6-Trinito Phenyl) amine | 50 t. | | 131-73-7 | 152. | Chlorotrinitrobenzene | 50 t. | 28260-61-9 | 153. | Cellulose Nitrate (containing >=12.6% nitrogen)| 50 t.|| 9004-70-0|-| 154.| Cyclotetramethylene tetranitramine | 50 t. | 2691-41-0 | 155. | Cyclotrimethylene trinitroamine | 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.| l-Guanyl-4-Nitrosamineoguanyl 1-Tetrazene| 10 t.|| 109-27-3|-| 161.| 2, 2', 4, 4', 6, 6 -Hexanitro-stilbene| 50 t.|| 20062-22-0|-| 162.| Hydrazine Nitrate| 50 t.|| 13464-97-6|-| 163.| Lead Azide| 50 t.|| 13424-46-9|-| 164.| Lead styphnate (lead 2, 4, 6-trinitrorescorc inoxide)| 50 t.|| 15245-44-0|-| 165.| Mercury Fulminate| 10 t.|| 628-86-4|-| 166.| N-Methyl-N-2, 4, 6-Tetranitro-aniline| 50 t.|| 479-45-8|-| 167.| Nitrogylcerine| 10 t.| 10 t.| 55-63-0|-| 168.| Pentaerythritol Tetranitrate| 50 t.|| 78-11-5|-| 169.| Picric Acid (2,4/6-Trinitro-phenol)| 50 t.|| 88-89-1|-| 170.| Sodium Picramate| 50 t.|| 831-52-7|-| 171.| Styphnic Acid (2, 4, 6-trinitro-resorcinol| 50 t.|| 82-71-3|-| 172.| 1, 3, 5-Triamino-2, 4, 6-trinitrobenzene| 50 t.|| 3058-38-6|-| 173.| Trinitroaniline| 50 t.|| 26952-42-1|-| 174.| 2, 4, 6-Trinitroanisole| 50 t.|| 606-35-9|-| 175.| T rinitrobenzene| 50 t.|| 25377-32-6|-| 176.| Trinitrobenzoic Acid| 50 t.|| 35860-50-5|-| 177.| Trinitrocresol| 50 t.|| 28905-71-7|-| 178.| 2, 4, 6-Trinitrophenetole| 50 t.|| 4732-14-3|-| 179.| 2, 4, 6-Trinitrotolune| 50 t.|| 50 t.|| 118-96-7|}

# Part II – Classes of Chemicals not specifically named in Part I {|

|-| Serial No.| Class of Chemicals| Quantity|-| For application of Rules 5, 7 to 9 and 13 to

#### 15.

| For application of Rules 10 to 12|-|1|2|3|4|-|| Group 5-Flammable Chemicals|||-|1.| Flammable gases:|||-|| Chemicals which in gaseous state at normal pressure and mixed with air become flammable and the boilingpoint of which at normal pressure is 20 degree C or below;|15 t.|200 t.|-|2.| Highly flammable liquids:|||-|| Chemicals which have a flash point lower than

# 23. degree C and the boiling point of which at normal pressure is

above 20 degree C;| 1000 t.| 50000 t.|-| 3.| Flammable liquids :|||-|| Chemicals which have flash point lower than 65degree C and which remain liquid under pressure, whereparticular processing conditions, such as high pressure and hightemperature may create major accident hazards.| 25 t.| 200 t.|} Footnotes;(1) This applies to Ammonium Nitrate and mixtures of Ammonium Nitrate where the Nitrogen content derived from the Ammonium Nitrate is greater than 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 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).\*CAS Number (Chemical Abstracts Service Number) means the number assigned to the chemical by the Chemical Abstracts Service.

[See Rule 2 (b) (i)] Industrial installation within the meaning of Rule 2 (b) (i)

1. Installations for the 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)esterification.(g)halogenation and manufacture of

halogens.(h)hydrogenation.(i)hydrolysis.(j)oxidation.(k)polymerization.(l)sulphonation.(m)desulphurizatio manufacture and transformation of sulphur-containing compounds.(n)nitration and manufacture of nitrogen-containing compounds.(o)manufacture of phosphorus-containing compounds.(p)formulation of pesticides and of pharmaceutical products.(q)distillation.(r)extraction.(s)solvation.(t)mixing.

- 2. Installations for distillation refining of other processing of petroleum or petroleum products.
- 3. Installations for the total or partial disposal of solid or liquid chemicals by incineration or chemical decomposition.
- 4. Installations for the production, processing, or treatment of energy gases for example, LPG, LNG, SNG.
- 5. Installations for the dry distillation of coal or lignite.
- 6. Installations for the production of metals or non-metals by a wet process or by means of electrical energy.

# Schedule 5

[See Rule 3(2) and (3)](Material Safety Data Sheet)

1. Chemical Identity:

Chemical Name Chemical

Classification

Synonyms Trade Name

C.A.S. No. U.N.

Formula

No.

1	Shipping Name Codes/Label Hazchem No.	·	,		
Regulated Identification	Hazardous Waste I.D. No.				
Hazardous Ingredients	C.A.S. No.	Hazardous Ingredients	C.A.S. No.		
1.	3.				
2.	4.				
2. Physical and Chemical Data :					
Boiling Range/Point	°C	Physical State Vapour	Appearance		
Meeting/Freezing Point	°C	Pressure @ 35°C mm Hg	Odour		
Vapour Density (Air=l)		Solubility in Water @ 30°C	Others		
Specific Gravity Water=l 3. Fire and Explosion Hazard Data :	PH				
Flammability Yes/No	LEL	%	Flash Point	°C	Autoignition Temperature °C
TDG Flammability	UEL	%	Flash Point	°C	Hazardous products of combustion
Explosion Sensitivity to Impact	Explosion Sensitivity to State Electricity				
Hazardous Polymerisation					
Combustible Liquid	Explosive Material	Corrosive Material			
Flammable Material	Oxidiser	Others			
Pyrophoric Material	Organic Peroxide				
4. Reactivity Data:					
Chemical Stability					
Incompatibility with other Materials					

The U.P. Factories (Control of Industrial Major Accident Hazards) Rules, 1996				
Reactivity				
Hazardous Products of Reaction				
5. Health Hazard Data :				
Routes of Entry				
Effects of				
Exposures/Symptoms				
<b>Emergency Treatment</b>				
TLV (ACGIH)	ppm	mg/m3	STEL	ppm mg/m3
Permissible Exposure LimitLD50	ppm	mg/m3	Order ThresholdLD50	ppm mg/m3
NFPA Hazard Signals	Health	Flammability	Stability Special	
6. Preventive Measures :				
Personal Protective				
Equipments				
Handling and Storage				
Precautions				
7. Emergency and First-aid				
Measures:				
Fire	Fire Extinguishing			
Media				
	Special Procedures			
Unusual Hazards	Troccaures			
	First-aid			
Exposure	Measures			
Antidotes/Dosages				
Spills	Steps to be taken			
Waste Disposal Method				

waste Disposai Method

8. Additional

Information/References:

9. Manufacturer/Suppliers

Data:

Name of Firm Mailing Address Telephone/Telex nos. TelegraphicAddress

Contact Person in Emergency

Local Bodies involved

**Standard Packing** 

Tremcard

Details/Reference

Others

#### 10. Disclaimer:

Information contained in this material data sheet is believed to be reliable but no representation, guarantee or warranties of any kind are made as to its accuracy, suitability for a particular application of results to be obtained from them. It is up to the manufacture/seller to ensure that the information contained in the material safety data sheet is relevant to the product manufactured/handled or sold by him as the case may be. The Government makes no warranties expressed or implied in respect of the adequacy of this document for any particular purpose.

# Schedule 6

Report number of the particular

[See Rule 5 (1)]Information to be furnished regarding notification of a Major Accident.

± ±		
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 any statute applicable to thesite, e.g. the Factories Act).	
(d)(i)	Nature of industrial activity	
	(mention what is actually manufactured, stored etc.)	
(ii)	National Industrial Classification, 1987 at the four digitlevel.	{
-  2.  Type of major accident : -  Explosion {		
Fire		
Emission of hazardous chemical		

} -  Substance(s) emitted -  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, if necessary). -  (d)  The circumstances of the accident and the hazardous chemicalinvolved. -  4.  Emergency measures taken and measure 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 -
-casualtiesKilled -
-   -material damage
-   -danger is still present
-   -danger no longer exists
-  (b)  Outside the establishment  -   -casualtiesKilled -
Injured -
Poisoned -   -persons exposed to the major accident
-   -material damage
-   -damage to environment
-   -danger is still present
-   -danger no longer exists
-  7.  Data available for assessing the effects of the accident orpersons and environment. -  8.
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. }

[See Rule 7 (1)]Information to be furnished for the notification of Activities/SitesParticulars 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 (2).
- 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 potency for major accidents, namely-

(a)Identification of major accidents hazards;(b)the condition or 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 as may be significant in the assessment of the hazard or risk associated with the site;(i) are 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 quantities of all significant inventories of the hazardous chemicals-(c) a description of the processes or storages as involving the hazardous chemicals, the maximum amount of such a hazardous chemicals 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 hazards.

# 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 date 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 chemicals.

# 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.

# 8. Description of information on organisational system used 10 carry on industrial activity safely, 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 as assessment of the consequences of major accidents, namely-

(a) assessment of the possible release of hazardous chemicals 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 plant containing system of organisation used to fight the emergency, the alarm and the communication routes, guidelines for fighting the emergency, examples of possible accident sequences, (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 release of hazardous chemicals.