

# PART - VI

## 1[THE MAJOR ACCIDENT HAZARDS CONTROL (KARNATAKA) RULES, 1994 (With Up-to-date Amendments).

(Framed under Section 41B read with Section 112 of the Factories Act, 1948.)

1. Title and Commencement .— \*<sup>1</sup>[(1) These rules may be called the Major Accident Hazards Control (Karnataka) Rules, 1994.]

<sup>2</sup>[(2) They shall come into force at once.]

2. Definitions .— In these rules, unless the context otherwise requires,

(a) "hazardous chemical" means, —

(i) any chemical which satisfies any of the criteria laid down in Part I of Schedule 1 and is listed in Column 2 of Part II of this Schedule ; or

(ii) any chemical listed in Column 2 of Schedule 2 ; or

(iii) any chemical listed in Column 2 of Schedule 3.

<sup>3</sup>[(aa) "amendment rules" means the Control of Industrial Major Accident Hazards (Karnataka) (Amendment) Rules, 2001.]

(b) "Industrial activity" means, —

(i) an operation or process carried out in <sup>4</sup>[a factory] referred to in Schedule 4 involving or likely to involve one or more hazardous chemicals and includes on-site storage or on-site transport which is associated with that operation or process as the case may be ; or

<sup>5</sup>[(ii) [ \* \* \* \* \* ]].

Note : \*Earlier, the old Rules known as, "Control of Industrial Major Accident Hazards (Karnataka) Rules, 1994", were published in the Karnataka Gazette (Extraordinary), [Part IV Section 2-C (i)], dated, 22-3-1994, as per Notification No. KAE 170 LLE 90, dated, 22-3-1994.

Note : 1. Substituted/Changed : With effect from 13-12-2001, In Rule 1, the title of these RULES, earlier known as "Control of Industrial Major Accident Hazards (Karnataka) Rules, 1994" are substituted/Changed to be called as, the "Major Accident Hazards Control (Karnataka) Rules, 1994", by the "Control of Industrial Major Accident Hazards (Karnataka) (Amendment) Rules, 2001", as per Notification No. KAI 19 KABANI 98, dated, 29-11-2001, published in the Karnataka Gazette, (Part IV-A), dated, 13-12-2001.

Note : 2. The Amended Rules are in force with effect from 13-12-2001, the date of publication in the Gazette, referred above in "Note: 1" and earlier Rules are in force with effect from 22-3-1994.

Note : (a). It may be noted that these Rules, the, "Major Accident Hazards Control (Karnataka) Rules, 1994" do supplement the Karnataka Factories Rules, 1969, the part of which are already framed under Chapter IV-A of the Factories Act, 1948. Therefore, it is suggested to read with these RULES, the "Major Accident Hazards Control (Karnataka) Rules 1994", with the Rules 88D to 88K of the Karnataka Factories Rules, 1969.

(b). It may also be noted that these Rules, the "Major Accident Hazards Control (Karnataka) Rules, 1994" are framed under Section 41B read with Section 112 of the Factories Act, 1948 and any contravention of the provisions of many of these Rules are also punishable under Section 96A of the Factories Act, 1948, which stipulates that whoever fails to comply with or contravenes, be punishable with imprisonment for a term which may extend to seven years and (Please note, it is not OR), with a fine which may extend to two lakh rupees, etc., etc. (For details, Please refer to Section 96A of the Factories Act, 1948).

Note : 3. Inserted : With effect from 13-12-2001, In Rule 2, after clause (a), a new clause namely, "(aa) amendment rules means the Control of Industrial Major Accident Hazards (Karnataka) (Amendment) Rules, 2001" is inserted by the "Control of Industrial Major Accident Hazards (Karnataka) (Amendment) Rules, 2001" : Notification No. KAI 19 KABANI 98, dated, 29-11-2001, published in the Karnataka Gazette, (Part IV-A), dated, 13-12-2001.

Note : 4. Substituted : With effect from 13-12-2001, In clause (b) of Rule 2, in item (i), for the words, "an Industrial installation", the words, "a factory", is substituted by the Control of Industrial Major Accident Hazards (Karnataka) (Amendment) Rules, 2001 : Notification No. KAI 19 KABANI 98, dated, 29-11-2001, published in the Karnataka Gazette, (Part IV-A), dated, 13-12-2001.

Note : 5. Omitted : With effect from 13-12-2001, the sub-clause (ii) of Clause (b) of Rule 2 is omitted by the "Control of Industrial Major Accident Hazards (Karnataka) (Amendment) Rules, 2001" : Notification No. KAI 19 KABANI 98, dated, 29-11-2001, published in the Karnataka Gazette, (Part IV-A), dated, 13-12-2001.

(c) "isolated storage" means storage where no other manufacturing process other than pumping of hazardous chemical is carried out and that <sup>1</sup>[sotrage] involves at least a quantity of that chemical set out in Schedule 2, but does not include storage associated with <sup>2</sup>[a factory] specified in Schedule 4 on the same site ;

<sup>3</sup>[(d) "major accident" means an incident involving loss of life inside or outside the site or ten or more injuries inside and or one or more injuries outside or release of toxic chemical or explosion or fire or spillage of hazardous chemical resulting in "on-site" or "off-site" emergencies or damage to equipment leading to stoppage of processes or adverse effects to the environment" ] ;

(e) "pipeline" means a pipe (together with any apparatus and works associated therewith), or system of pipes (together with any apparatus and works associated 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 ;

<sup>4</sup>[(g) [ \* \* \* \* \* ]

(h) Words and expression not defined in these Rules but defined or used in the Factories Act, 1948 and the Rules made thereunder have the same meaning as assigned therein.

<sup>5</sup>[ 3. Collection, development <sup>5a</sup>[or] dissemination of information .— (1) This Rule shall apply to an industrial activity <sup>5b</sup>[or isolated storage] in which a hazardous chemical which satisfies any of the criteria laid down in Part I of Schedule I <sup>5c</sup>[or is listed] in Column 2 of Part II of this Schedule is or may be involved.

(2) An occupier, <sup>6</sup>[\* \* \* \* ] of an industrial activity <sup>7</sup>[or isolated storage] in terms of sub-rule (1) of this Rule, shall arrange to obtain or develop <sup>8</sup>[information in the form of safety data sheet as specified] in Schedule 5. The information shall be accessible to workers upon request for reference.

Note : 1. The printing as "Sotrage", printed in the Gazette may be a printing mistake ; it may be read as "Storage".

Note : 2. Substituted : With effect from 13-12-2001, In clause (c) of Rule 2, For the words, "an installation", the words, "a factory", are substituted by the Control of Industrial Major Accident Hazards (Karnataka) (Amendment) Rules, 2001 : Notification No. KAI 19 KABANI 98, dated, 29-11-2001, published in the Karnataka Gazette, (Part IV-A), dated, 13-12-2001.

Note : 3. Substituted : With effect from 13-12-2001, for Clause (d), of Rule 2, new Clause (d) is substituted as shown in detail at Clause (d) of Rule 2, by the Control of Industrial Major Accident Hazards (Karnataka) (Amendment) Rules, 2001 ; Notification No. KAI 19 KABANI 98, dated, 29-11-2001, published in the Karnataka Gazette (Part IV-A), dated, 13-12-2001.

Note : 4. Omitted : With effect from 13-12-2001, Clause (g) of Rule 2 is omitted, by the Control of Industrial Major Accident Hazards (Karnataka) (Amendment) Rules, 2001 ; Notification No. KAI 19 KABANI 98, dated, 29-11-2001, published in the Karnataka Gazette (Part IV-A), dated, 13-12-2001.

Note : 5 and 5a. Substituted : With effect from 13-12-2001, In the Heading of Rule 3, for the word "and", the word, "or" is substituted by the Control of Industrial Major Accident Hazards (Karnataka) (Amendment) Rules, 2001 ; Notification No. KAI 19 KABANI 98, dated, 29-11-2001, published in the Karnataka Gazette (Part IV-A), dated, 13-12-2001.

Note : The Rule 3 contains many of the information required under similar heading of Rule 88F of the Karnataka Factories Rules, 1969 and the contents of Schedule 5 annexed to this Rule 3 is nothing but the same copy of the "Material Data Sheet", which is prescribed under the Karnataka Factories Rules, 1969.

Note : 5b & 5c. Inserted/Substituted : With effect from 13-12-2001, in sub-rule (1) of Rule 3, after the words, "Industrial Activity", the words, "or isolated storage" are inserted and for the words, "and is listed", the words, "or is listed" are substituted by the Control of Industrial Major Accident Hazards (Karnataka) (Amendment) Rules, 2001 ; Notification No. KAI 19 KABANI 98, dated, 29-11-2001, published in the Karnataka Gazette (Part IV-A), dated, 13-12-2001.

Note : 6. Omitted : With effect from 13-12-2001, in sub-rule (2) of Rule 3, the words, "who has control" are omitted, by the Control of Industrial Major Accident Hazards (Karnataka) (Amendment) Rules, 2001 ; Notification No. KAI 19 KABANI 98, dated, 29-11-2001, published in the Karnataka Gazette (Part IV-A), dated, 13-12-2001.

Note : 7. Inserted : With effect from 13-12-2001, in sub-rule (2) of Rule 3, after the words, "Industrial activity", the words, "or isolated storage" are inserted by the Control of Industrial Major Accident Hazards (Karnataka) (Amendment) Rules, 2001 ; Notification No. KAI 19 KABANI 98, dated, 29-11-2001, published in the Karnataka Gazette (Part IV-A), dated, 13-12-2001.

Note : 8. Substituted : With effect from 13-12-2001, In sub-rule (2) of Rule 3, for the words, "detailed information on hazardous chemical in the form of material data sheet as indicated", the words, "information in the form of safety data sheet as specified" are substituted by the Control of Industrial Major Accident Hazards (Karnataka) (Amendment) Rules, 2001 ; Notification No. KAI 19 KABANI 98, dated, 29-11-2001, published in the Karnataka Gazette (Part IV-A), dated, 13-12-2001.

(3) The occupier while obtaining or developing a <sup>1</sup>[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 <sup>1a</sup>[safety data sheet as specified] in Schedule 5 as soon as practicable.

(4) Every container of hazardous chemical shall be clearly <sup>2</sup>[labeled] 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) 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.

<sup>3</sup>[3A. Duties of Inspector .— The Inspector shall, —

(a) inspect the industrial activity or isolated storage at least once in a calendar year ;

(b) send annually, status report on the compliance with the rules by occupiers, to the Ministry of Environment and Forests through the Directorate General Factory Advice Service and Labour Institutes and Ministry of Labour, Government of India ; and

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

(i) notification of the major accidents as per sub-rules (1) and (2) of rule 5 ;

(ii) notification of sites as per rule 7 and 8 ;

(iii) Safety Reports and Safety Audits as per rules 10 to 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 Deputy Commissioner or District Emergency Authority.]

**4. General responsibilities of the <sup>4</sup>[occupier] .— (1) This Rule shall apply to, —**

(a) an industrial activity, <sup>5</sup>[ \* \* \* \*], in which a hazardous chemical which satisfies any of the criteria laid in Part I of <sup>5a</sup>[Schedule 1 or] is listed in Column 2 of <sup>6</sup>[Part 2] of this Schedule therein is or may be involved ; and

Note : 1 and 1a. Substituted : With effect from 13-12-2001, In sub-rule (3), of Rule 3, for the words, “materials safety data sheet as indicated” in the two places where they occur, the words, “safety data sheet as specified” are substituted by the Control of Industrial Major Accident Hazards (Karnataka) (Amendment) Rules, 2001 ; Notification No. KAI 19 KABANI 98, dated, 29-11-2001, published in the Karnataka Gazette (Part IV-A), dated, 13-12-2001.

Note : 2. In sub-rule (4) of Rule 3, the printing as “labeled”, printed in the Gazette, may be a printing mistake ; it may be read as “labelled”.

Note : 3. Insertion of New Rule 3A : With effect from 13-12-2001, After “Rule 3”, A new, “Rule 3A Duties of Inspector” - is inserted, as shown in detail at new “Rule 3A. Duties of Inspector”, printed after “Rule 3” by the Control of Industrial Major Accident Hazards (Karnataka) (Amendment) Rules, 2001 ; Notification No. KAI 19 KABANI 98, dated, 29-11-2001, published in the Karnataka Gazette (Part IV-A), dated, 13-12-2001.

Note : 4. Substituted : With effect from, 13-12-2001, In Rule 4, in the Heading, for the word, “occupiers”, the word, “occupier” is substituted by the Control of Industrial Major Accident Hazards (Karnataka) (Amendment) Rules, 2001 ; Notification No. KAI 19 KABANI 98, dated, 29-11-2001, published in the Karnataka Gazette (Part IV-A), dated, 13-12-2001.

Note : 5 and 5a. Omitted / Substituted : With effect from 13-12-2001, In Clause (a) of sub-rule (1) of Rule 4, the words, “other than isolated storage” is omitted, and for the words and figure, “Schedule I and” the words and figure, “Schedule 1 or” are substituted by the Control of Industrial Major Accident Hazards (Karnataka) (Amendment) Rules, 2001 ; Notification No. KAI 19 KABANI 98, dated, 29-11-2001, published in the Karnataka Gazette (Part IV-A), dated, 13-12-2001.

Note : 6. In Clause (a) of sub-Rule (1) of Rule 4, the printing as, “Part 2”, printed in the Gazette, may be a printing mistake ; It may be read as, “Part II”.

(b) isolated storage in which there is involved a <sup>1a</sup>[threshold quantity] of a hazardous chemical listed in Column 2 of Schedule 2 which is equal to or more than the <sup>1b</sup>[threshold quantity] specified in the Schedule for that chemical in Column 3 thereof.

(2) <sup>2</sup>[An occupier in terms of sub-rule (1) shall provides 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 <sup>3</sup>[there] consequences to persons and the environmen; and
  - (ii) provide the persons working on the site with the information, training and equipment including antidotes <sup>4</sup>[necessary] to ensure their <sup>5</sup>[safety and health].

**5. Notification of major accidents .—** (1) Where a major accident occurs on a site, the occupier shall forthwith notify the Inspector and the Chief Inspector of that accident and <sup>6</sup>[furnishing thereafter to the Inspector and the Chief Inspector], a report relating to the accident in <sup>7</sup>[installments], if <sup>8</sup>[necessary], in Schedule 6.

<sup>9</sup>[(2) The Inspector and Chief Inspector shall, on receipt of the report in accordance with sub-rule (1) undertake a full analysis of the major accident and send the requisite information to the Ministry of Environment and Forest through the Directorate General Factory Advice Service and Labour Institutes and Ministry of Labour, Government of India].

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

Note : 1a and 1b. Substituted : With effect from 13-12-2001, In Clause (b) of sub-rule (1) of Rule 4, for the word, “quantity”, in the two places i.e., at 1a and 1b, where it occurs, the words, “threshold quantity” are substituted by the Control of Industrial Major Accident Hazards (Karnataka) (Amendment) Rules, 2001 ; Notification No. KAI 19 KABANI 98, dated, 29-11-2001, published in the Karnataka Gazette (Part IV-A), dated, 13-12-2001.

Note : 2. Substituted : With effect from 13-12-2001, In sub-rule (2) of Rule 4, for the words, figure and brackets, “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”, the words, figure and brackets, “An occupier in terms of sub-rule (1) shall provides information on demand to show that he has” are substituted by the Control of Industrial Major Accident Hazards (Karnataka) (Amendment) Rules, 2001 ; Notification No. KAI 19 KABANI 98, dated, 29-11-2001, published in the Karnataka Gazette (Part IV-A), dated, 13-12-2001.

Note : 3. The printing as, “there”, printed in the Gazette, may be a printing mistake; it may be read as, “their”.

Note : 4. In item (ii) of sub-clause (b) of sub-rule (2) of Rule 4, the printing as, “necessary”, printed in the Gazette, may be a printing mistake ; it may be read as, “necessary”.

Note : 5. Substituted : With effect from 13-12-2001, In item (ii) of clause (b) of Rule 4, For the word, “safety”, the words, “safety and health” are substituted by the Control of Industrial Major Accident Hazards (Karnataka) (Amendment) Rules, 2001 ; Notification No. KAI 19 KABANI 98, dated, 29-11-2001, published in the Karnataka Gazette (Part IV-A), dated, 13-12-2001.

Note : 6. Substituted : With effect from 13-12-2001, In sub-rule (1) of Rule 5, for the words, “furnishing thereafter to the Chief Inspector”, the words, “furnishing thereafter to the Inspector and the Chief Inspector” are substituted by the Control of Industrial Major Accident Hazards (Karnataka) (Amendment) Rules, 2001 ; Notification No. KAI 19 KABANI 98, dated, 29-11-2001, published in the Karnataka Gazette (Part IV-A), dated, 13-12-2001.

Note : 7. The printing as, “installments”, printed in the Gazette, may be a printing mistake ; it may be read as, “instalments”.

Note : 8. The printing as, “necessary”, printed in the Gazette, may be a printing mistake ; it may be read as, “necessary”.

Note : 9. Substituted : With effect from 13-12-2001, for sub-rule (2) of Rule 5, a new sub-rule (2), as shown in detail at new sub-rule (2) of Rule 5 is substituted by the Control of Industrial Major Accident Hazards (Karnataka) (Amendment) Rules, 2001 ; Notification No. KAI 19 KABANI 98, dated, 29-11-2001, published in the Karnataka Gazette (Part IV-A), dated, 13-12-2001.

(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 needs to be rectified to avoid major accidents.]

6. Industrial activities, <sup>1</sup>[industrial activity and isolated storage] to which Rules 7 to 15 apply .—

(1) (a) <sup>2</sup>[Rules 7, 8, 13 and 15] shall apply to <sup>3</sup>[and] industrial activity, other than isolated storage, in which there is involved a <sup>4</sup>[threshold quantity] of a hazardous chemical listed in Column 2 of Schedule 3 which is equal to or more than the <sup>5</sup>[threshold quantity] specified in the entry for that chemical in Column 3 ;

(b) Rules 10 to 12 shall apply to an industrial activity, other than isolated storage, in which there is involved a <sup>6</sup>[threshold quantity] of a hazardous chemical listed in Column 2 of Schedule 3 which is equal to or more than the <sup>6a</sup>[threshold quantity] specified in the entry for that chemical in Column 4 ;

(c) <sup>7</sup>[Rules 7 and 8] shall apply to an isolated storage in which there is involved a <sup>8</sup>[threshold quantity] of a hazardous chemical listed in Column 2 of Schedule 2 which is equal to or more than the <sup>9</sup>[threshold quantity] specified in the entry for that chemical in Column 3 ; and

(d) <sup>10</sup>[ Rules 10 to 13 and 15] shall apply to an isolated storage in which there is involved a <sup>11</sup>[threshold quantity] of a hazardous chemical listed in Column 2 of Schedule 2 which is equal to or more than the <sup>12</sup>[threshold quantity] specified in the entry for that chemical in Column 4.

<sup>13</sup>[(2) \* \* \* \* \* ]

Note : 1. Substituted : With effect from 13-12-2001, In Rule 6, In the Heading, after the words, “Industrial activities”, the words, “industrial activity and isolated storage” are substituted by the Control of Industrial Major Accident Hazards (Karnataka) (Amendment) Rules, 2001 ; Notification No. KAI 19 KABANI 98, dated, 29-11-2001, published in the Karnataka Gazette (Part IV-A), dated, 13-12-2001.

Note : 2. Substituted : With effect from 13-12-2001, In clause (a) of sub-rule (1) of Rule 6, for the words and figures, “Rules 7 to 9 and 13 to 15”, the words and figures, “rules 7, 8, 13 and 15” are substituted by the Control of Industrial Major Accident Hazards (Karnataka) (Amendment) Rules, 2001 ; Notification No. KAI 19 KABANI 98, dated, 29-11-2001, published in the Karnataka Gazette (Part IV-A), dated, 13-12-2001.

Note : 3 . The printing as, “and” printed in the Gazette, may be a printing mistake ; it may be read as, “an”.

Note : 4, 5, 6, 6a, 8, 9, 11, 12. Substituted : With effect from 13-12-2001, In clause (a), clause (b), clause (c) and clause (d) of sub-rule (1) of Rule 6, for the word, “quantity”, the words, “threshold quantity” are substituted by the Control of Industrial Major Accident Hazards (Karnataka) (Amendment) Rules, 2001 ; Notification No. KAI 19 KABANI 98, dated, 29-11-2001, published in the Karnataka Gazette (Part IV-A), dated, 13-12-2001.

Note : 7. Substituted : With effect from 13-12-2001, In clause (c) of sub-rule (1) of Rule 6, for the words and figures, “Rules 7 to 9”, the words and figures, “Rules 7 and 8” are substituted by the Control of Industrial Major Accident Hazards (Karnataka) (Amendment) Rules, 2001 ; Notification No. KAI 19 KABANI 98, dated, 29-11-2001, published in the Karnataka Gazette (Part IV-A), dated, 13-12-2001.

Note : 10. Substituted : With effect from 13-12-2001, In clause (d) of sub-rule (1) of Rule 6, for the words and figures, “Rules 10 to 15”, the words and figures, “Rules 10 to 13 and 15” are substituted by the Control of Industrial Major Accident Hazards (Karnataka) (Amendment) Rules, 2001 ; Notification No. KAI 19 KABANI 98, dated, 29-11-2001, published in the Karnataka Gazette (Part IV-A), dated, 13-12-2001.

Note : 13. Omitted : With effect from 13-12-2001, sub-rule (2) of Rule 6 is omitted by the Control of Industrial Major Accident Hazards (Karnataka) (Amendment) Rules, 2001 ; Notification No. KAI 19 KABANI 98, dated, 29-11-2001, published in the Karnataka Gazette (Part IV-A), dated, 13-12-2001.

7. <sup>1</sup>[Notification of sites] .— (1) An occupier shall not undertake any industrial activity, <sup>2</sup>[or start an isolated storage] unless he has submitted a written report to the Chief Inspector containing the particulars specified in Schedule 7 at least <sup>3</sup>[ninety days] before commencing that activity <sup>4</sup>[or isolated storage] or before such shorter time as the Chief Inspector may agree and for the purposes of this sub-rule, an activity <sup>5</sup>[or isolated storage] in which subsequently there is or is liable to be a <sup>6</sup>[threshold quantity] given in Column 3 of Schedule 2 and 3 or more of an additional hazardous chemical shall be deemed to be a different activity <sup>7</sup>[or isolated storage] and shall be notified accordingly.

<sup>8</sup>(2) The Chief Inspector shall within sixty days from the date of receipt of the report in accordance with sub-rule (1) examine the report and on such examination if he is of the opinion that contravention of the <sup>9</sup>[of the] provisions of the Act or the rules made thereunder has taken place, he may issue notice for obtaining compliance].

8. Updating of <sup>10</sup>[site notification] .— Where an activity has been reported in accordance with Rule 7 (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 Rule applies which is or is liable to be at the site or in <sup>11</sup>[the pipeline or at the] cessation of the activity) which affects the particulars specified in the report or any subsequent report made under this Rule, that the occupier shall forthwith furnish a further report to the <sup>12</sup>[Inspector and Chief Inspector].

<sup>13</sup>9. Omitted : \* \* \* \* \*

10. <sup>14</sup>[Safety report and Safety audit report] :— (1) Subject to the following sub-rules of this Rule, an occupier shall not undertake any <sup>15</sup>[or isolated storage] to which this Rule applies, unless he has prepared a safety report on that <sup>16</sup>[or isolated storage] containing the information specified in Schedule 8 and has sent a copy of that report to the Chief Inspector at least <sup>17</sup>[90 days] before commencing that activity.

Note : 1, 2, 3, 4, 5, 6 and 7. Substituted/Inserted : With effect from 13-12-2001, In the Heading of Rule 7, for the words, "Notification of industrial activities", the words, "Notification of sites" are substituted and In sub-rule (1) of Rule 7, for the word and figure, "3 months", the words, "ninety days" are substituted and for the word, "quantity", the words "threshold quantity" are substituted : and after the words, "industrial activity", the words, "or start an isolated storage" are inserted ; and after the words, "activity" wherever it occurs, the words, "or isolated storage" are inserted by the Control of Industrial Major Accident Hazards (Karnataka) (Amendment) Rules, 2001 ; Notification No. KAI 19 KABANI 98, dated, 29-11-2001, published in the Karnataka Gazette (Part IV-A), dated, 13-12-2001.

Note : 8. Substituted : With effect from 13-12-2001, For sub-rule (2) of Rule 7, a new sub-rule (2) is substituted as shown in detail at new "sub-rule (2)" by the Control of Industrial Major Accident Hazards (Karnataka) (Amendment) Rules, 2001 ; Notification No. KAI 19 KABANI 98, dated, 29-11-2001, published in the Karnataka Gazette (Part IV-A), dated, 13-12-2001.

Note : 9. Repeated : In new sub-rule (2) of Rule 7, the words printed in the Gazette are repeated as "of the" ; Therefore, the repeated words, "of the" may be omitted.

Note : 10, 11 and 12 : Substituted : With effect from 13-12-2001, In the Heading of Rule 8, for the words and figure, "the notification under Rule 7", the words, "site notification" are substituted and for the words, "the pipeline or the", the words, "the pipeline or at the" are substituted ; and for the words, "Chief Inspector", the words, "Inspector and Chief Inspector" are substituted by the Control of Industrial Major Accident Hazards (Karnataka) (Amendment) Rules, 2001 ; Notification No. KAI 19 KABANI 98, dated, 29-11-2001, published in the Karnataka Gazette (Part IV-A), dated, 13-12-2001.

Note : 13. Omitted : With effect from 13-12-2001, Rule 9 is omitted by the Control of Industrial Major Accident Hazards (Karnataka) (Amendment), Rules, 2001 ; Notification No. KAI 19 KABANI 98, dated, 29-12-2001, published in the Karnataka Gazette (Part IV-A), dated, 13-12-2001.

Note : 14. Substituted : With effect from 13-12-2001, In Rule 10, In the Heading, for the words, "Safety reports" the words, "Safety report and safety audit report" are substituted by the Control of Industrial Major Accident Hazards (Karnataka) (Amendment), Rules, 2001; Notification No. KAI 19 KABANI 98, dated, 29-11-2001, published in the Karnataka Gazette (Part IV-A), dated, 13-12-2001.

Note : 15, 16 and 17. Substituted : With effect from 13-12-2001, In sub-rule (1) of Rule 10, for the words, "industrial activity", where they occur in two places, the words, "or isolated storage" are inserted and for the figure, "3 months", the words, "90 days" are substituted by the Control of Industrial Major Accident Hazards (Karnataka) (Amendment) Rules, 2001 ; Notification No. KAI 19 KABANI 98, dated, 29-11-2001, published in the Karnataka Gazette (Part IV-A), dated 13-12-2001.

<sup>1</sup>[(2) After the commencement of the amendment rules, the occupiers of both the new and the existing industrial activities or isolated storage shall arrange to carry out safety audit by a competent agency to be accredited by an Accreditation Board to be constituted by the Ministry of Labour. Further, such auditing shall be carried out as under :—

- (a) internally once in a year by a team of suitable plant personnel ; and
- (b) externally once in two years by a competent agency accredited in this behalf :

Provided that where in an year an external audit is carried out, internal audit need not be carried out.

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

**11. Updating of <sup>2</sup>["safety 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 <sup>3</sup>[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 <sup>3a</sup>[Inspector and the Chief Inspector at least ninety days] 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 <sup>4</sup>[or isolated storage] is continuing, the occupier shall within 3 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 <sup>4a</sup>[thirty days] or in such longer time as the Chief Inspector may agree in writing, send a copy of the report to the <sup>4b</sup>[Inspector and the Chief Inspector].

<sup>5</sup>[**12. Requirement for further information to be sent to the Inspector and the Chief Inspector .—** 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 the Chief Inspector, the Inspector and the Chief Inspector may, by a notice served on the occupier require him to provide such additional information as may be specified in the notice and the occupier shall send that information to the Inspector and the Chief Inspector within ninety days].

Note : 1. Substituted : With effect from 13-12-2001, for sub-rules (2) and (3) of Rule 10, the new sub-rules (2) and (3) as shown in detail at "new sub-rules (2) and (3)" are substituted by the Control of Industrial Major Accident Hazards (Karnataka) (Amendment) Rules, 2001 ; Notification No. KAI 19 KABANI 98, dated, 29-11-2001, published in the Karnataka Gazette (Part IV-A), dated 13-12-2001.

Note : 2. Substituted : With effect from 13-12-2001, In the Heading of Rule 11, for the word, "reports", the words, "safety reports" are substituted by the Control of Industrial Major Accident Hazards (Karnataka) (Amendment) Rules, 2001 ; Notification No. KAI 19 KABANI 98, dated, 29-11-2001, published in the Karnataka Gazette (Part IV-A), dated, 13-12-2001.

Note : 3 & 3a. Inserted / Substituted : With effect from 13-12-2001, In sub-rule (1) of Rule 11, after the words, "industrial activity", the words, "or isolated storage" are inserted ; and for the words and figures, "Chief Inspector at least 3 months", the words, "Inspector and the Chief Inspector at least ninety days" are substituted by the Control of Industrial Major Accident Hazards (Karnataka) (Amendment) Rules, 2001 ; Notification No. KAI 19 KABANI 98, dated, 29-11-2001, published in the Karnataka Gazette (Part IV-A), dated, 13-12-2001.

Note : 4, 4a & 4b. Inserted / Substituted : With effect from 13-12-2001, In sub-rule (2) of Rule 11, after the words, "industrial activity", the words, "or isolated storage" are inserted ; and For the words, "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" ; and For the words and figures, "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" are substituted by the Control of Industrial Major Accident Hazards (Karnataka) (Amendment) Rules, 2001 ; Notification No. KAI 19 KABANI 98, dated, 29-11-2001, published in the Karnataka Gazette (Part IV-A), dated 13-12-2001.

Note : 5. Substituted : With effect from 13-12-2001, for Rule 12, a new Rule 12 is substituted, as shown in detail at new Rule 12 by the Control of Industrial Major Accident Hazards ( Karnataka) (Amendment) Rules, 2001 ; Notification No. KAI 19 KABANI 98, dated, 29-11-2001, published in the Karnataka Gazette (Part IV-A), dated 13-12-2001.

13. Preparation of on-site emergency <sup>1</sup>[plan by the occupier] .— <sup>2</sup>[(1) The occupier shall prepare, keep and furnish to the Inspector and the Chief Inspector an on-site emergency plan containing details specified in Schedule SA 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 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 <sup>3</sup>[or isolated storage] and that every person on the site who is <sup>3a</sup>[connected 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, —

<sup>4</sup>[(a) before the commencement of industrial activity or isolates storage.

(b) within ninety days of coming into force of the amendment rules in case of an operation of these rules in case of an existing industrial activity or isolated storage].

<sup>4a</sup>[(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 the Chief Inspector.]

<sup>5</sup>[(14). \* \* \* \* \* ]

15. Information to be given to persons liable to be affected by a major accident :- <sup>6</sup>[(1) The occupier shall take appropriate steps to inform persons out-side the site who are likely to be in an area which may be affected by a major accident,

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

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

[Contd...

Note : 1. Substituted : With effect from 13-12-2001, In Rule 13, in the Heading, For the words, "plans by the occupiers", the words, "plan by the occupier" are substituted by the Control of Industrial Major Accident Hazards (Karnataka) (Amendment) Rules, 2001 ; Notification No. KAI 19 KABANI 98, dated, 29-11-2001, published in the Karnataka Gazette (Part IV-A), dated, 13-12-2001.

Note : 2. Substituted ; For "sub-rule (1)" of Rule 13, a "new sub-rule (1)" as shown in detail at new sub-rule (1) of Rule 13 is substituted by the Control of Industrial Major Accident Hazards (Karnataka) (Amendment) Rules, 2001 ; Notification No. KAI 19 KABANI 98, dated, 29-11-2001, published in the Karnataka Gazette (Part IV-A), dated, 13-12-2001.

Note : 3 & 3a. Inserted/Substituted : With effect from 13-12-2001, In sub-rule (2) of Rule 13, after the words, "industrial activity", the words, "or isolated storage" are inserted ; and for the words, "affected by", the words, "connected with" are substituted by the Control of Industrial Major Accident Hazards (Karnataka) (Amendment) Rules, 2001 ; Notification No. KAI 19 KABANI 98, dated, 29-11-2001, published in the Karnataka Gazette (Part IV-A), dated, 13-12-2001.

Note : 4. Substituted : With effect from 13-12-2001, In sub-rule (3) of Rule 13, for clauses "(a) and (b)", new clauses "(a) and (b)" as shown in detail at new clauses "(a) and (b)" of Rule 13 are substituted by the Control of Industrial Major Accident Hazards (Karnataka) (Amendment) Rules, 2001 ; Notification No. KAI 19 KABANI 98, dated, 29-11-2001, published in the Karnataka Gazette (Part IV-A), dated, 13-12-2001.

Note : 4a. Inserted : With effect from 13-12-2001, After sub-rule (3), new sub-rules (4) and (5) are inserted by the Control of Industrial Major Accident Hazards (Karnataka) (Amendment) Rules, 2001 ; Notification No. KAI 19 KABANI 98, dated, 29-11-2001, published in the Karnataka Gazette (Part IV-A), dated, 13-12-2001.

Note : 5. Omitted : With effect from 13-12-2001, Rule 14 is omitted by the Control of Industrial Major Accident Hazards (Karnataka) (Amendment) Rules, 2001 ; Notification No. KAI 19 KABANI 98, dated, 29-11-2001, published in the Karnataka Gazette (Part IV-A), dated, 13-12-2001.

Note : 6. Substituted : With effect from 13-12-2001, In Rule 15, for "sub-rules (1) and (2)", new "sub-rules (1) and (2)" are substituted, as shown in detail at new "sub-rules (1) and (2)" of Rule 15 by the Control of Industrial Major Accident Hazards (Karnataka) (Amendment) Rules, 2001 ; Notification No. KAI 19 KABANI 98, dated, 29-11-2001, published in the Karnataka Gazette (Part IV-A), dated, 13-12-2001.



(2) The occupier shall take the steps required under sub-rule (1) 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) within ninety days of coming into force of Amendment rules.]

16. Disclosure of information <sup>1</sup>[\* \* \* \* \*] .— Where for the purpose of evaluating information notified under Rule 5 or Rules 7 to 15, the Inspector or the Chief Inspector <sup>2</sup>[\* \* \* \* \*] discloses that information to some other person, that other person shall not use that information for any purpose except a purpose of the Inspector or the Chief Inspector <sup>3</sup>[\* \* \* \* \*] disclosing it, as the case may be, and before disclosing that information the Inspector or the Chief Inspector <sup>4</sup>[\* \* \* \* \*] as the case may be, shall inform that other person of his obligations under this Rule.

<sup>5</sup>[17. Omitted : \* \* \* \* \*]

18. Power of the State Government to modify the Schedules .— The State Government may, at any time, by notification in the Official Gazette, make suitable changes in the Schedules.

[ SCHEDULE 1

[ See Rules 2 (a) (i), 3 (i) and 4 (i) (a) ]

(a) Toxic Chemicals :

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

Sl. No.	Degree of Toxicity	Medium lethal dose by the oral routine toxicity) TD50 (mg/kg body weight of test animals)	Medium lethal dose by the dermal route (dermal LD50 body weight of test animals)	Medium lethal concentration by inhalation route (Four hours) LC50 (mg/l Inhalation in test animals.)
1.	Extremely toxic	1 - 50	1 - 200	0.1 - 0.5
2.	Highly toxic.	51-500	201 - 2000	0.5 - 2.0

(b) Flammable Chemicals :

(i) Flammable gases : Chemicals in which in the gaseous stage at normal pressure and mixed with air becomes flammable and the boiling point of which at normal pressure is 20 degree Centigrade or below.

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Note : 1,2,3 and 4. Omitted : With effect from 13-12-2001, In the Heading of Rule 16, the words, "notified under these rules" are omitted ; and the words, "or the District Emergency Authority", wherever they occur are omitted by the Control of Industrial Major Accident Hazards (Karnataka) (Amendment) Rules, 2001 ; Notification No. KAI 19 KABANI 98, dated, 29-11-2001, published in the Karnataka Gazette (Part IV-A), dated, 13-12-2001.

Note : 5. Omitted : With effect from 13-12-2001, Rule 17 is omitted by the Control of Industrial Major Accident Hazards (Karnataka) (Amendment) Rules, 2001 ; Notification No. KAI 19 KABANI 98, dated, 29-11-2001, published in the Karnataka Gazette (Part IV-A), dated, 13-12-2001.

Note : 6. Substitution of Schedules : With effect from 13-12-2001, for SCHEDULES 1, 2, 3, 4 and 7, new SCHEDULES 1, 2, 3, 4 and 7 are substituted as shown in detail at new SCHEDULES 1, 2, 3, 4 and 7, by the the Control of Industrial Major Accident Hazards (Karnataka) (Amendment) Rules, 2001 ; Notification No. KAI 19 KABANI 98, dated, 29-11-2001, published in the Karnataka Gazette (Part IV-A), dated, 13-12-2001.

(ii) **Highly flammable liquids** : Chemicals in which have a flash point lower than 23 degree Centigrade and boiling point of which at normal pressure is above 20 degree Centigrade.

(iii) **Flammable liquids** : Chemicals which have a flash point lower than 65 degree Centigrade and which remain liquids under pressure, where particular processing condition 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 photochemical conditions are which are more sensitive to shocks or friction than dinitrobenzene.

## PART II

### LIST OF HAZARDOUS AND TOXIC CHEMICALS

Sl .No.	Name of the Chemical	Sl. No.	Name of the Chemical
1	2	1	2
1.	Acetone	37.	Benzoyl Peroxide
2.	Acetone Cynohdrine	38.	Benzyl Chloride
3.	Acetyl Chloride	39.	Benzyl Cyanide
4.	Acetylene (Ethyne)	40.	Beryllium (Powders, Compounds)
5.	Acrolein (2-Propenal)	41.	Biphenyl
6.	Acrlonitrile	42.	Bis (2-Chloromethyl) Ketone
7.	Aldicarb	43.	Bis (2, 4, 6-Trinitrophenyl) Amine
8.	Aldrin	44.	Bis (2-Chloroethyl) Sulphide
9.	Alkyl Phthalate	45.	Bis (Chloromethyl) Ketone
10.	Allyl Alcohol	46.	Bis (tert-Butylperoxy) Butane, -2,2
11.	Allylamino	47.	Bis (tert-Butylperoxy) Cyclohexane, 11
12.	Alpha Naphthyl Thiourea (ANTU).	48.	Bis, 1, 2 Tribromophenoxy-Ethane
13.	Aminodiphenyl, -4	49.	Bisphenol
14.	Aminophenol-2	50.	Boron and Compounds
15.	Amiton	51.	Bromine
16.	Ammonia	52.	Bromine Pentafluoride
17.	Ammonium Nitrate	53.	Bromoform
18.	AMMONIUM Nitrates in fertilizers	54.	Butadiene-1, 3
19.	Ammonium Sulfamate	55.	Butane
20.	Anabasine	56.	Butanone
21.	Aniline	57.	Butoxy Ethanol
22.	Anisidine-p	58.	Butyl Glycidal Ether
23.	Antimony and Compounds	59.	Butyl Peroxyacetate, tert
24.	Antimony Hydride (Stibine)	60.	Butyl Peroxyisobutyrate, tert
25.	Arsenic Hydride (Arsine)	61.	Butyl Peroxy inopropye Carbonate, tert
26.	Arsenic Pentaoxide, (Arsenic) (v) Acids and Salts	62.	Butyl Peroxymaleate, tert
27.	Arsenic Trioxide, Arsenious (111) Acids and Salts	63.	Butyl Peroxypivalate, -tert
28.	Asbestos	64.	Butyl Vinyl Ether
29.	Aziophos-Ethyl	65.	Butyl-n-Mercaptan
30.	Aziophos-Methyl	66.	Butylamine
31.	Barium Azide	67.	C 9-Aromatic Hydrocarbon Fraction
32.	Benzene	68.	Cadmium and Compounds
33.	Benzidine	69.	Cadmium Oxide (fumes)
34.	Benzidine Salts	70.	Calcium Cyanide
35.	Benzoquinone	71.	Captan
36.	Benzoyl Chloride	72.	Captofol

[Contd...]

PART II LIST OF HAZADOUS AND TOXIC CHEMICALS (Continued).

Sl. No.	Name of the Chemical	Sl. No.	Name of the Chemical
1	2	1	2
		123.	Cyclohexanone
73.	Carbaryl (Sevin)	124.	Cycloheximide
74.	Carbofuran	125.	Cyclopentadiene
75.	Carbon Disulphide	126.	Cyclopentane
76.	Carbon Monoxide	127.	Cyclotetramethyltetranitramine
77.	Carbon Tetrachloride	128.	Cyclotrimethylene Trinitramine
78.	Carbophenothion	129.	DDT
79.	Cellulose Nitrate	130.	Decabromodiphenyl Oxide
80.	Chlorates (used in explosives)	131.	Demeton
81.	Chlordane	132.	Di-isobutyl Preoxide
82.	Chlorfeneinphos	133.	Di-n-propyl Peroxydicarbonate
83.	Chlorinated Benzenes	134.	Di-sec-Butyl Peroxydicarbonate
84.	Chlorine	135.	Dialifos
85.	Chlorine Dioxide	136.	Diazodinitrophenol
86.	Chlorine Oxide	137.	Diazomethane
87.	Chlorine Trifluoride	138.	Dibenzyl Peroxydicarbonate
88.	Chlormequat Chloride	139.	Dichloroacetylene-O
89.	Chloroacetal Chloride	140.	Dichlorobenzene-O
90.	Chloroacetaldehyde	141.	Dichlorobenzene-P
91.	Chloroaniline,-2	142.	Dichloroethane
92.	Chloroaniline,-4	143.	Dichloroethyl Ether
93.	Chlorobenzene	144.	Dichlorophenol, -2, 4
94.	Chlorodiphenyl	145.	Dichlorophenol, -2, 6
95.	Chloroepoxypropane	146.	Dichlorophenoxy Acetic Acid, 2,4 (2,4 D)
96.	Chloroethanol	147.	Dichloropropane, -1, 2
97.	Chloroethyl Chloroformate	148.	Diclorosalicylic Acid, -3, 5
98.	Chlorofluorocarbons	149.	Dichlorovos (DDVP)
99.	Chloroform	150.	Dicroptos
100.	Chloroformyl, -4, Morpholine	151.	Dieldrin
101.	Chloromethane	152.	Diepoxybutane
102.	Chloromethyl Ether	153.	Diethyl Peroxydicarbonate
103.	Chloromethyl Methyl Ether	154.	Diethylene Glycol Dinitrate
104.	Chloronitrobenzene	155.	Diethylene Triamine
105.	Chloroprene	156.	Diethyleneglycol Butyl Ether / Diethyleneglycol Butyl Acetate
106.	Chlorosulphonic Acid	157.	Diethylenetriamine (DETA)
107.	Chlorotrinitrobenzene	158.	Diglycidyl Ether
108.	Chloroxuron	159.	Dihydroperoxypropane, -2,2
109.	Chromium and Compounds	160.	Di-isobutyryl Peroxide
110.	Cobalt and Compounds	161.	Dimefox
111.	Copper and Compounds	162.	Dimethoate
112.	Coumnfuryl	163.	Dimethyl Phosphoramidocyanidic Acid
113.	Comaphon	164.	Dimethyl Phthalate
114.	Coumatetralyl	165.	Dimethylcarbomyl
115.	Cresols	166.	Dimethylnitrosamine
116.	Crimidine	167.	Dinitrophenol, Salts
117.	Cumene	168.	Dinitrotoluene
118.	Cyanophos	169.	Dintro-oCresol
119.	Cyanothoate	170.	Dioxane
120.	Cyanuric Fluoride		
121.	Cyclohexane		
122.	Cyclohexanol		

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## PART II LIST OF HAZARDOUS AND TOXIC CHEMICALS (Continued)

Sl. No.	Name of the Chemical	Sl. No.	Name of the Chemical
1	2	1	2
171.	Dioxathion	220.	Hydrazine
172.	Dioxolane	221.	Hydrazine Nitrate
173.	Diphacinone	222.	Hydrochloric Acid
174.	Diphosphoramidate Octamethyl	223.	Hydrogen.
175.	Dipropylene Glycomethylether	224.	Hydrogen Bromide (Hydrobromic Acid)
176.	Disulfoton	225.	Hydrogen Chloride (Liquified Gas)
177.	Endosulfan	226.	Hydrogen Cyanide.
178.	Endrin	227.	Hydrogen Fluoride
179.	Epichlorohydrine	228.	Hydrogen Selenide.
180.	EPN	229.	Hydrogen Sulphide
181.	Epoxypropane, 1, 2	230.	Hydroquinone
182.	Ethion	231.	Iodine
183.	Ethyl Carbamate	232.	Isobenzan
184.	Ethyl Ether	233.	Isodrin
185.	Ethyl Hexanol, -2	234.	Isophorone Diisocyanate
186.	Ethyl Mercaptan	235.	Isopropyl Ether
187.	Ethyl Methacrylate	236.	Juglone (5-Hydroxynaphthalene-1,4-Dione)
188.	Ethyl Nitrate	237.	Lead (inorganic fumes and dusts)
189.	Ethylamine	238.	Lead 2, 4, 6-trinitroresorcin oxide (Lead Styphnate)
190.	Ethylene	239.	Lead Azide
191.	Ethylene Chlorohydrine	240.	Leptophos
192.	Ethylene Diamine	241.	Lindane
193.	Ethylene Dibromide	242.	Liquified Petroleum Gas (LPG)
194.	Ethylene Dichloride	243.	Maleicanhydride
195.	Ethylene Glycol Dinitrate	244.	Manganese and Compounds
196.	Ethylene Oxide	245.	Mercapto Benzothiazole
197.	Ethyleneimine	246.	Mercury Alkyl
198.	Ethylthiocyanate	247.	Mercury Fulminate
199.	Fenusulphothion	248.	Mercury Methyl
200.	Fluometil	249.	Methacrylic Anhydride
201.	Fluoro, -4, -2-Hydroxybutyric Acid and Salts Esters, Amides	250.	Methacrylonitrile
202.	Fluoroacetic Acids and Salts, Esters and Amides	251.	Methacryloyl Chloride
203.	Fluorobutyric Acid, -4, and Salts, Esters, Amides	252.	Methamidophos
204.	Fluorocortonic Acid, -4, Salts, Esters, Amides	253.	Methanesulphonyl Fluoride
205.	Formaldehyde	254.	Methanthiol
206.	Glyconitrile (Hydroxyacetonitrile)	255.	Methoxy Ethanol (2-Methyl Cellosolve)
207.	Guanyl, -1, -4 - Nitrosaminoguanyl -1- Tetrazene	256.	Methoxyethylmercuric Acetate
208.	Heptachlor	257.	Methyl Acrylate
209.	Hexachloro Cyclopentadiene	258.	Methyl Alcohol
210.	Hexachlorocyclohexane	259.	Methyl Amylketone
211.	Hexachlorocyclohexane	260.	Methyl Bromide (Bromomethane)
212.	Hexachlorodibenzo-b-Dioxin, 1, 2, 3, 7, 8, 9	261.	Methyl Chloride
213.	Hexafluoropropene	262.	Methyl Chloroform
214.	Hexamethylphosphoramide	263.	Methyl Cyclohexene
215.	Hexamethyl, -3, 3, 6, 9, 9, 1, 2, 4, 5-Tetraoxacyclononane	264.	Methyl ethyl Ketone Peroxide
216.	Hexamethylenediamine	265.	Methyl Hydrazine
217.	Hexane	266.	Methyl Isobutyl Ketone
218.	Hexanitrostilbene, -2, 2, 4, 4, 6, 6	267.	Methyl Isobutyl Ketone Peroxide
219.	Hexavalent Chromium		

[Contd...]

**PART II LIST OF HAZARDOUS AND TOXIC CHEMICALS (Continued)**

Sl. No.	Name of the Chemical	Sl. No.	Name of the Chemical
1	2	1	2
		318.	Pentaborane
268.	Methyl Isoocyanate	319.	Pentabromodiphenyl Oxide
269.	Methyl Isothiocyanate	320.	Pentabromophenol
270.	Methyl Mercaptan	321.	Pentachloro Naphthalene
271.	Methyl Methacrylate	322.	Pentachloroethane
272.	Methyl Parathion	323.	Pentachlorophenol
273.	Methyl Phosphonic Dichloride	324.	Pentaerythritol Tetranitrate
274.	Methyl-N, 2, 4, 6-Tetranitroaniline	325.	Pentane
275.	Methylene Chloride	326.	Peracetic Acid
276.	Methylenebis, -4, 4, (2, -chloroaniline)	327.	Perchloroethylene
277.	Methyltrichlorosilane	328.	Perchloromethyl Mercaptan
278.	Mevinphos	329.	Pentanone, 2, 4-Methyl
279.	Molybdenum & Compounds	330.	Phenol
280.	N-Methyl-N, 2, 4, 6-Tetranitroaniline	331.	Phenyl Glycidal Ether
281.	Naphtha (Coal Tar)	332.	Phenylene P-Diamine
282.	Nathynamine, 2	333.	Phenylmercury Acetate
283.	Nickel & Compounds	334.	Phorate
284.	Nickel Tetracarbonyl	335.	Phosacetim
285.	Nitroaniline-O	336.	Phosalone
286.	Nitroaniline-P	337.	Phosfolan
287.	Nitrobenzene	338.	Phosgene (carbonyl chloride)
288.	Nitrochlorobenzene-P	339.	Phosmet
289.	Nitrochlorohexane	340.	Phosphamidon
290.	Nitroethane	341.	Phosphine (Hydrogen Phosphide)
291.	Nitrogen Dioxide	342.	Phosphoric Acid & Esters
292.	Nitrogen Oxides	343.	Phosphoric Acid, Bromoethyl Bromo (2, 2-Dimethylpropyl) Bromoethyl Ester
293.	Nitrogen Trifluoride	344.	Phosphoric Acid, Bromoethyl Bromo (2, 2-Dimethylpropyl) Chloroethyl Ester
294.	Nitroglycerine	345.	Phosphoric Acid Chloroethyl Bromo (2, 2-Dimethoxypropyl Chloroethyl Ester)
295.	Nitrophenol-P	346.	Phosphorous & Compounds
296.	Nitropropane-1	347.	Phostalan
297.	Nitropropane-2	348.	Picric Acid (2, 3, 6-Trinitrophenol )
298.	Nitrosodiummethylamine	349.	Polybrominated Biphenyls
299.	Nitrotoluene	350.	Potassium Arsenite
300.	Octabromophenyl Oxide	351.	Potassium Chlorate
301.	Oleum	352.	Promurit (1-(3, 4-Dichlorophenyl)-3 Triazenethiocarboxamide)
302.	Oleylamine	353.	Propanesultone-1, 3
303.	OO-Diethyl S-Ethylsulphonylmethyl	354.	Propen-1, 2-Chloro-1, 3-Diol-Diacedate
304.	OO-Diethyl S-Ethylsulphonylmethyl Phosphorothioate	355.	Propylene Oxide
305.	OO-Diethyl S-Ethylthiomethyl Phosphorothioate	356.	Propyleneimine
306.	OO-Diethyl S-Isotropylthiomethyl Phosphorothioate	357.	Pryazoxon
307.	OO-Diethyl S-Propylthiomethyl Phosphorodithioate	358.	Selenium Hexa fluoride
308.	Oxyamyl	359.	Semicarbazide Hydrochloride
309.	Oxydisulfoton	360.	Sodium Arsenite
310.	Oxygen (Liquid)	361.	Sodium Azide
311.	Oxygen Difluoride	362.	Sodium Chlorate
312.	Ozone	363.	Sodium Cyanide
313.	Paroxon (diethyl 4-Nitrophenyl Phosphate)	364.	Sodium Picramate
314.	Paraquat		
315.	Parathion		
316.	Parathion Methyl		
317.	Paris green (Bis Aceto Hexametersenitetra Copper)		

[Contd.....]

## PART II LIST OF HAZARDOUS AND TOXIC CHEMICALS (Continued)

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

[ SCHEDULE 2

[ See rule 2 (c), 4 (1) (b), 5, 6 (1) (c) and (d) ]

(a) The threshold quantities set out below relate to each installation or group of installation 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 metres.

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

(i) in that part of any pipeline under the control of the Occupier having control of the site, which is within 500 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 the vehicle, vessel, aircraft or hovercraft used for transporting it.

Sl. No.	Chemicals	Threshold Quantities (tonnes)	
		For application of Rules 4, 5, 7 & 8	For application of Rules 10 to 15
1	2	3	4
1.	Acrylonitrile	350.000	5,000.000
2.	Ammonia	60.000	600.000
3.	Ammonium nitrate (a)	350.000	2,500.000
4.	Ammonium Nitrate fertilizers (b)	1,250.000	10,000.000
5.	Chlorine	10.000	25.000
6.	Flammable gases as defined in Schedule 1, Paragraph (b) (i)	50.000	3,000.000
7.	Highly flammable liquids as defined in Schedule 1, Paragraph (b) (ii) Liquid oxygen	10,000.000	10,000.000
8.	Sodium Chlorate	200.000	2,000.000
9.	Sulphur dioxide	25.000	250.000
10.	Sulphur trioxide	20.000	500.000
11.	Carbonyl chloride	15.000	100.000
12.	Hydrogen Sulphide	0.750	0.750
13.	Hydrogen fluoride	5.000	50.000
14.	Hydrogen cyanide	5.000	50.000
15.	Carbon disulphide	5.000	20.000
16.	Bromine	20.000	200.000
17.	Ethylene oxide	50.000	500.000
18.	Propylene oxide	5.000	501.000
19.	2-Propenal (Acrolein)	5.000	50.000
20.	Bromomethane	20.000	200.000
21.	(Methylbromide)	20.000	200.000
22.	Methyl isocyanate	0.150	0.150

[ Contd...

Note : 1. Substituted : With effect from 13-12-2001, SCHEDULE 2 is substituted by a new "SCHEDULE 2", as shown in detail at new "SCHEDULE 2" by the Control of Industrial Major Accident Hazards (Karnataka) (Amendment) Rules, 2001 ; Notification No. KAI 19 KABANI 98, dated, 29-11-2001, published in the Karnataka Gazette (Part IV-A), dated, 13-12-2001.

## SCHEDULE II (Continued)

1	2	3	4
23.	Tetraethyl lead or Tetramethyl lead	5.000	50.000
24.	1, 2 Dibromoethane (Ethylene dibromide)	25.000	50.000
25.	Hydrogen Chloride (Liquified Gas)	25.000	250.000
26.	Diphenyl methane di-isocyanate (MDI)	10.000	200.000
27.	Toluene di-isocyanate (TDI)	10.000	100.000

## 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 20% by weight and to aqueous solutions of ammonium nitrate where the concentration of ammonium nitrate is greater than 90% 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% by weight (a compound fertilizer contains ammonium nitrate together with phosphate and/or potash).

## [ SCHEDULE 3

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

(a) The quantities set out below relate to each installation or group of installations belonging to the same occupier where the distance between the installation is not sufficient to avoid in foreseeable circumstances, any aggravations 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 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 off 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 in 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, vessel, aircraft or hovercraft used for transporting it.

## Part I NAMED CHEMICALS

Sl. No.	Chemical	Threshold Quantity		CAS Number
		For application of Rules 5, 7, 8, 13 and 15		For application of Rules 10 to 12
(Column 1)	(Column 2)	(Column 3)	(Column 4)	( Column 5)
<b>Group 1 - Toxic Chemicals</b>				
1.	Aldicarb	100 kg		116 - 6 - 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) acids and Salts	500 kg		

[ Contd...

Note : 1. Substituted : With effect from 13-12-2001, SCHEDULE 3 is substituted by a new "SCHEDULE 3", as shown in detail at new "SCHEDULE 3" by the Control of Industrial Major Accident Hazards (Karnataka) (Amendment) Rules, 2001; Notification No. KAI 19 KABANI 98, dated, 29-11-2001, published in the Karnataka Gazette (Part IV-A), dated, 13-12-2001.



SCHEDULE 3 Part I NAMED CHEMICALS (Continued).

(Column 1)	(Column 2)	(Column 3)	(Column 4)	(Column 5)
6.	Arsenic trioxide, Arsenious (111) acids and salts	100 kg		7784-42-1
7.	Arsine (Arsenichydride)	10 kg		2642-71-9
8.	Azinopas-ethyl	100 kg		86-50-0
9.	Azinopas-methyl	100 kg		92-87-5
10.	Benzidine	1 kg		
11.	Benzidine Salts	1 kg		
12.	Berillium (powders, components)	10 kg		505-60-2
13.	Bis (2-chloroethyl) sulphide	1 kg		542-88-1
14.	Bis (chloromethyl)	1 kg		1563-66-2
15.	ether	100 kg		786-19-6
16.	Carbofuran	100 kg		470-90-6
17.	Carbophenothion	100 kg		
18.	Chlorofenvinphos			15159 - 40 - 7
	4 -( chloroformyl) morpholine - 1	1 kg		107-30-2
19.	Chloromethyl methyl ether	1 kg		
20.	Cobalt metal, oxides, carbonates, sulphides, as powders	1 t		535-89-7
21.	Crimidine	100 kg		3734 - 95 - 0
22.	Cyanthoate	100 kg		66-81-9
23.	Cyclohexamide	100 kg		8065-48-3
24.	Demeton	100 kg		10311-84-9
25.	Dailifos	100 kg		
26.	oo-Diethyl S-ethylsulphinyl methyl phosphorothioate	100 kg		2588-05-8
27.	oo-Diethyl S-ethylsulphonyl methyl phosphorothoate	100 kg		2588-06-9
28.	oo- Diethyl S-ethylthiomethyl phosphorodithioate	100 kg		2600-69-3
29.	oo-Diethyl S-isopropylthio-methyl phosphorodithioate	100 kg		78-52-4
30.	oo- Diethyl S-isopropylthio-methyl phosphorothioate Dimefox	100 kg		3309-68-0
31.	Dimethylcarbamoyl	100 kg		115-26-4
32.	Chloride Dimethylnitrosamine	1 kg		79-44-7
33.	Dimethyl	1 kg		62-75-9
34.	phosphoramidocyanidic acid	1 Ton		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		

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## SCHEDULE 3 Part I NAMED CHEMICALS (Continued).

(Column 1)	(Column 2)	(Column 3)	(Column 4)	(Column 5)
48	4-Fluorobutyric acid, amides	1 kg		
49	4-Fluorocrotonic acid,	1 kg		
50	Acid 4-glucononic acid, salts	1 kg		37759-72-1
51	4-Fluorocrotonic acid, esters	1 kg		
52	4-Fluorocrotonic acid, amides, amides 4-	1 kg		
53	Fluorocrotonic acid, amides	1 kg		
54	4-Fluoro-2-hydroxy butyric acid	1 kg		
55	4-Fluoro-2-hydroxy butyric acid, salts	1 kg		
56	4-Fluoro-2-hydroxy butyric acid, esters	1 kg		
57	4-Fluoro-2-hydroxy butyric acid, amides, Glycolonitrile (hydroxyacetonitrile)	100 kg		107-16-4
58	1, 2, 3, 4, 7, 8, 9-Hexachlorodibenzodioxin	100 kg		19408-74-3
59	Hexamethylphosphoramide	1 kg		680-31-9
60	Hydrogen selenide	10 kg		7783-07-5
61	Isobenzan	100 kg		297-78-9
62	Isodrin	100 kg		465-73-6
63	Juglone (5-Hydroxynaphthalene-1, 4-dione	100 kg		481-39-0
64	4, 4'-Methylenebis (2-chloroaniline)	10 kg		101-14-4
65	Methyl isocyanate	150 kg		624-83-9
66	Mevinphos	100 kg	150 kg	7786-34-7
67	2-Naphthylamine	1 kg		
68	Nickel metal, oxides, carbonates, sulphide, as powers	1 t		
69	Nickel tetracarbonyl	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-triazenethio carboxamide 1, 3-Propanesultone	100 kg		5836-73-7
82	1-Propen-2-chloro-1, 3-diol diacetate	1 kg		1120-71-4
83	Pyrazoxon	10 kg		10118-72-6
84	Selenium hexafluoride	100 kg		108-34-9
85	Sodium selenite	10 kg		7783-79-1
86	Stibine (Antimony hydride)	100 kg		10102-18-8
87	Sulfotop	100 kg		7803-52-3
88	Sulphur dichloride	100 kg		3689-24-5
89	Tellurium hexafluoride	1 t		10545-99-0
90		100 kg		7783-80-4

[Contd....]

**SCHEDULE 3 Part I NAMED CHEMICALS (Continued).**

(Column 1)	(Column 2)	(Column 3)	(Column 4)	(Column 5)
91.	TEPP	100 kg		107-49-3
92.	2, 3, 7, 8- Tetrachlorodibenzo-p-dioxin (TCDD)	1 kg		1746-01-6 80-12-6
93.	Tetramethylenedisulphotetramine	1 kg		297-97-2
94.	Thionazin	100 kg		26419-73-8
95.	Tirpate (2,4 - Dimethyl-1, 3-dithiolane-2-carboxaldehyde-O-methylcarbomoyloxime)	100 kg		594-42-3
96.	Trichloromethane-sulphenyl chloride	100 kg		41083-11-8
97.	1-Tri (cyclohexyl) stannyl-1H-1,2, 4 - triazole	100 kg		51-18-3
98.	Triethylenemelamine	10 kg		81-81-2
99.	Warfarin	100 kg		
<b>Group 2-Toxic Chemicals (Quantity &gt; 1 tonne)</b>				
100.	Acetone cyanohydrin (2-Cyanopropan-2-ol)	200 t		75-86-5 107-02-8
101.	Acrolein (2-Propenal)	20 t	200 t	107-13-1
102.	Acrylonitrile	20 t		107-18-6
103.	Allyl alcohol (2-Propen-1-ol)	200 t		107-11-9
104.	Allylamine	200 t		7664-41-7
105.	Ammonia	50 t	500 t	7726-95-6
106.	Bromine	40 t		75-15-0
107.	Carbon disulphide	20 t	200 t	7782-50-5
108.	Chlorine	10 t	25 t	101-68-8
109.	Diphenyl methane di-isocyanate (MDI)	20 t		
110.	Ethylene dibromide (1, 2 Dibromomethane)	5 t		106-93-4 151-56-4
111.	Ethyleneimine	50 t		50-00-0
112.	Formaldehyde (concentration > = 90 %)	5 t		
113.	Hydrogen chloride (liquified gas)	25 t	250 t	7647-01-0
114.	Hydrogen cyanide	5 t	20 t	74-90-8
115.	Hydrogen fluoride	5 t	50 t	7664-39-3
116.	Hydrogen sulphide	5 t	50 t	7783-06-4
117.	Methyl bromide (Bromomethane)	20 t		74-83-9
118.	Nitrogen oxides	50 t		11104-93-1
119.	Propyleneimine	50 t		75-55-8
120.	Sulphur dioxide	20 t	250 t	7446-09-5
121.	Sulphur trioxide	15 t	75 t	7446-11-9
122.	Tetraethyl lead	5 t		78-00-2
123.	Tetramethyl lead	5 t		75-74-1
124.	Toluene di-isocyanate (TDI)	10 t		584-84-9
<b>Group 3-Highly reactive Chemicals</b>				
125.	Acetylene (ethane)	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)	1,250 t		

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## SCHEDULE 3 Part I NAMED CHEMICALS (Continued).

(Column 1)	(Column 2)	(Column 3)	(Column 4)	(Column 5)
127.	2,2-Bis (tert-butylperoxy) cyclohexane (concentration > 70%)	5 t		2167-23-9
128.	1,1-Bis (tert-butyl-peroxy) cyclohexane (concentration > 80%)	5 t		3006-86-8
129.	Tert-Buthyl Peroxyacetate (concentration > 70%)	5 t		107-71-1
130.	Tert - Butyl Peroxyisobutyrate (concentration > = 80%)	5 t		109-13-7
131.	Tert-butyl peroxyisopropyl Carbonate (concentration > = 77%)	5 t		2372-21-6
132.	Tert-butyl peroxy maleate (concentration > = 80%)	5 t		1931-62-0
133.	Tert-butyl peroxy pivalate (concentration > = 77%)	5 t		927-07-1
134.	Dibenzyl Peroxydicarbonate (concentration > = 90%)	50 t		2144-45-8
135.	D-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		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	50 t	22397-33-7
143.	Hydrogen	2 t	50 t	1333-74-0
144.	Liquid oxygen	200 t		7782-44-7
145.	Methyl ethyl ketone Peroxide (concentration > = 60%)	5 t	50 t	1338-23-4
146.	Methyl isobutyl ketoneperoxide (concentration > = 60%)	50 t		37206-20-5
147.	Peracetic acid (concentration > = 60%)	50 t	5 t	79-21-0
148.	Propylene oxide	5 t		75-56-9
149.	Sodium chlorate	25 t		7775-09-9
<b>Group 4 - Explosive Chemicals</b>				
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

(Contd...)

**SCHEDULE 3 Part I NAMED CHEMICALS (Continued).**

(Column 1)	(Column 2)	(Column 3)	(Column 4)	(Column 5)
155.	Cyclotrimethylenetri Nitroamine	50 t		121-82-4 7008-81-3
156.	Diazodinitrophenol	10 t		693-21-0
157.	Diethylene glycol Dinitrate	10 t		
158.	Dinitrophenol, salts	50 t		628-96-6
159.	Ethylene glycol Dinitrate	10 t		109-27-3
160.	1-Guanyl-4-nitrosamineoguanyl- 1 tetrazene	10 t		20062-22-0
161.	2,2', 4,4', 6,6', - Hexanitrostilbene	50 t		13464-97-6
162.	Hydrazine nitrate	50 t		13424-46-9
163.	Lead azide	50 t		15245-44-0
164.	Lead styphnate (lead 2,4,6-trinitro resorecinoxide)	50 t		628-86-4
165.	Mercury fulminate	10 t	10 t	479-45-8
166.	N-Methyl-N, 2,4,6 Tetranitroaniline	50 t		55-63-0
167.	Nitroglycerine	10 t		78-11-5
168.	Pentaerythritol Tetranitrate	50 t		88-89-1
169.	Picric acid (2,4,6,Trinitrophenol)	50 t		831-52-7
170.	Sodium picra Omate	50 t		82-71-3
171.	Styphnic acid (2,4, 6-Trinitroresorcinol)	50 t		3058-38-6
172.	1,3,5,-2,4,6-trinitrobenzene	50 t		26952-42-1
173.	Trinitroaniline	50 t		606-35-9
174.	2,4,6-Trinitroanisole	50 t		25377-32-6
175.	Trinitrobenzene	50 t		35860-50-5
176.	Trinitrobenzoic acid	50 t		28905-71-1
177.	Trinitroresol	50 t		4732-14-3
178.	2,4,6,-Trinitrophenetole	50 t	50 t	118-96-7
179.	2,4,6,- Trinitrotoluene	50 t		

**SCHEDULE 3 (Continued).**

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

Sl. No.	Classess of Chemicals	Threshold Quantity	
		For application of Rules 5, 7, 8, 13 and 15	For application of Rules 10 to 12
Col. 1	Column 2	Column 3	Column 4
<b>Group 5 - Flammable Chemicals</b>			
1.	<b>Flammable gases :</b> Chemicals which in 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 :	15 T	200 t
2.	<b>Highly flammable liquids :</b> 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	50,000 t

[Contd...]

**SCHEDULE 3 (Continued).**  
**PART -II CLASSES OF CHEMICALS NOT SPECIFICALLY NAMED IN PART - I**  
**Group 5 – Flammable Chemicals (Continued)**

Col. 1	Column 2	Column 3	Column 4
3.	<b>Flammable liquids :</b> Chemicals which have a flash point lower than 65 degree C and which remain liquid under pressure. Where particular processing conditions such as high pressure and high temperature, may create major accident hazards.	25 t	200 t

**Foot notes :**

(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 chemicals by the Chemical Abstract Service.

**[SCHEDULE-4**

[See Rule 2 (b) (I) ]

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

- |                                                                                          |                               |
|------------------------------------------------------------------------------------------|-------------------------------|
| (a) alkylation ;                                                                         | (b) amination by amenolysis ; |
| (c) carbonylation ;                                                                      | (d) condensation ;            |
| (e) dehydrogenation ;                                                                    | (f) estefication ;            |
| (g) halogenation & manufacture of halogene ;                                             | (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 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 chemicals by incineration or chemical decomposition.
4. Factories involving in production, processing, or treatment of energy gases, for example, LPG, LNG, SNG.
5. Factories involving in dry distillation of coal or lignite.
6. Factories involving in production of metals or non-metals by a wet process or by means of electrical energy.

Note : 1. Substituted : With effect from 13-12-2001, SCHEDULE 4 is substituted by a new "SCHEDULE-4" as shown in detail at new "SCHEDULE 4" by the Control of Industrial Major Accident Hazard (Karnataka) (Amendment) Rules, 2001 ; Notification No. KAI 19 KABANI 98, dated, 29-11-2001, published in the Karnataka Gazette (Part IV-A), dated, 13-12-2001.

**SCHEDULE 5**  
 '[Format of a Material Safety Data Sheet  
 [See Rule 3 (2) and (3)]

**1. IDENTITY OF MATERIAL :**

Product Name		Chemical Designation	
Trade Name		Synonyms	
Formula	Label : Class	Category	CAS Number
Regulated Identification	Shipping Name Codes/Label		UN Number
	HAZCHEM Code :		
Hazardous Waste Identification Number			
Hazardous Ingredients		CAS Number	
1.			
2.			
3.			
4.			

**2. PHYSICAL AND CHEMICAL PROPERTIES :**

Physical State : (Gas-, Liquid-, Solid-)	Boiling Point in degree C	Vapour Pressure at 35 degree C ..... mm of 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 (corrosivity, etc.,)	Specific Gravity (water = 1)	pH

**3. FIRE AND EXPLOSIVE HAZARDS DATA :**

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

[Contd...

Note : 1. Please note that, this "FORMAT OF A MATERIAL SAFETY DATA SHEET" is nothing but the same copy of the "MATERIAL SAFETY DATA SHEET", which is prescribed under Rule 88F (1) (C) of the Karnataka Factories Rules, 1969.

## SCHEDULE 5 (Continued).

## 4. REACTIVE HAZARDS :

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

## 5. HEALTH HAZARD DATA :

Routes of Entry : (Inhalation, Skin, mucuous membranes and eye contact and ingestion)					
Effects of Exposure/Symptoms :					
LD 50 (in rat) (Orally or percutaneous absorption) (mg/kg. body weight)				LC 50 (in rat) (mg/l)/4 hour	
Permissible Exposure Limit (PEL)	ppm	mg/cu.m	Short term Exposure Limit (STEL)	ppm	mg/cu.m
Threshold Limit Value (TLV) of ACGIH	ppm	mg/cu.m	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)	

[Contd...]



**7. SAFE USAGE DATA :**

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

**8. EMERGENCY RESPONSE DATA :**

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

**9. ADDITIONAL INFORMATION :**

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**10. SOURCES USED :**

Reference to books, journals, etc

**11. MANUFACTURER/SUPPLIER DATA :**

Firm's Name	Standard packing
Mailing Address	
Telephone Number	
Telex Number	Other
Telegraphic Address	Other
Contact Person In Emergency	Emergency Tel In Transit Areas

[Contd...

Acronyms and Glossary of terms :

- CAS : Chemical Abstract Service Registration Number.
- UN Number : United Nations Number.
- HAZCHEM Code : Emergency Action Code (EAC), allocated by the Joint committee of Fire Brigade Operations, U.K.
- TDG Flammability : Transport of Dangerous Goods – Flammability Classification by United Nations.
- NFPA : National Fire Protection Association, U.S.A.
- LD 50 and LC 50 represent the dose in mg/kg of body weight and the concentration in mg/l for 4 hours having lethal effect on 50% of the animals (rats) treated. :
- PEL : Permissible Exposure Limit as laid down in the statutes.
- 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 certain information is not applicable or available, N/App. or N/AV. sign may be used.

**SCHEDULE 6**

(See Rule 5 (1) )

**Information to be furnished regarding Notification of a Major Accident**

Report number of the particular accident.....

1. General data.

- (a) Name of the site.
- (b) Name and address of the occupier.  
(Also state the telephone/telex number).
- (c) (i) Registration number.  
(ii) Licence number.  
(AS may have been allotted under any statute applicable to the site, e.g. the Factories Act).
- (d) (i) Nature of industrial activity (Mention what is actually manufactured, stored, etc.).  
(ii) National Industrial Classification, 1987 at the four digit level.

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2. Type of major accident.

Explosion  Fire  Emission of hazardous chemical

[ Contd...

SCHEDULE 6 (Continued)

3. Description of the major accident.

- (a) Date, shift and hour of the accident.
- (b) Department/Section and exact place where the accident took place.
- (c) The process/operation 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.

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

5. Causes of the major accident known. (to be specified).

Not known.

Information will be supplied as soon as possible.

6. Nature and extent of damage

(a) Within the establishment

- casualties
- persons exposed to the major accident.
- material damage.
- damage is still present.
- danger no longer exists.

Killed : \_\_\_\_\_

Injured : \_\_\_\_\_

Poisoned : \_\_\_\_\_

(b) Outside the establishment

- casualties.
- persons exposed to the major accident.
- material damage.
- damage to environment.

Killed : \_\_\_\_\_

Injured : \_\_\_\_\_

Poisoned : \_\_\_\_\_

[Contd.]

## SCHEDULE 6 (Continued)

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


<sup>1</sup>[ SCHEDULE 7

[ See Rule 7 (7) ]

**Information to be furnished for the Notification of Site****Particulars to be furnished for the notification of site :**

1. The name and address of the occupier making the notification.
2. The full postal address of the site where the notification industrial activity will be carried on.
3. The area of the site covered by the notification and of any adjacent site which is required to be taken into account by virtue of schedule 2 (b) and schedule 3 (b).
4. The date on which it is anticipated that the notifiable industrial activity will commence or if it has already commenced a statement in 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.

[Contd...

Note : 1. Substituted : With effect from 13-12-2001, SCHEDULE 7 is substituted by a new, SCHEDULE 7, as shown in detail at new SCHEDULE 7 by the Control of Industrial Major Accident Hazards (Karnataka) (Amendment) Rules, 2001 ; Notification No. KAI 19 KABANI 98, dated, 29-11-2001, published in the Karnataka Gazette (Part IV-A), dated, 13-12-2001.

- b) a scale plan of the site showing the location and quantity of all significant inventories of the hazardous chemicals .
  - c) a description of the processes or storages involving the hazardous chemicals, the maximum amount of such a hazardous 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 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 <sup>1</sup>[forseen] events that can lead to a major accident, :
  - (c) hazards, :
  - (d) safety – <sup>2</sup>[relevent] components. :

[Contd.]

Note : 1. The word, "forseen", printed in the Gazette, may be a printing mistake ; it may be read as "foreseen".

Note : 2. The printing as, "relevent", printed in the Gazette, may be a printing mistake ; it may be read as, "relevant".

6. <sup>1</sup>[Discription] of safety – <sup>2</sup>[relevent] units, among others :
- (a) <sup>3</sup>[spacial] 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 systems used to carry on industrial activity safely, namely —**
- (a) maintenance and inspection schedules, :
  - (b) guidelines for the training of personnel, :
  - (c) allocation and delegation of 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, guidelines for fighting the emergency, examples of possible accident sequences ; :
  - (d) coordination with the District Collector or the <sup>4</sup>[Districty] 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. :

Note : 1. The printing as, “Discription”, printed in the Gazette, may be a printing mistake ; it may be read “Description”.

Note : 2. The printing as, “relevent”, printed in the Gazette, may be a printing mistake ; it may be read as, “relevant”.

Note : 3. The printing as, “spacial”, printed in the Gazette, may be a printing mistake ; it may be read as, “special”.

Note : 4. The printing as, “Districty”, printed in the Gazette, may be a printing mistake ; it may be read as, “District”.

**[SCHEDULE 8A**  
**[ See Rule 13 (1) ]**

**Details to be furnished in the on site emergency plan :**

1. Name and address of the person furnishing the information. :
2. Key personnel of the organisation and responsibilities of assigned to them in case of an emergency. :
3. Out side 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 equipment. :
6. Details about the site :
  - (a) Location of dangerous substances ; :
  - (b) Seat of key personnel ; :
  - (c) Emergency control room. :
7. Description of hazardous chemical at the plant site :
  - (a) Chemicals (quantitative and toxicological data) ; :
  - (b) Transformation if any which could occur ; :
  - (c) Purity of hazardous chemical. :
8. Likely dangers to the plant. :
9. Enumerate effects of :
  - (i) stress and strain caused during normal operation ; :
  - (ii) fire and explosion inside the plant and effect if any of fire and explosion outside. :
10. Details regarding :
  - (i) warning , alarm and safety security systems ; :
  - (ii) alarm and hazard control plans in line with disaster control and hazard control planning, ensuring the necessary technical and organisational precautions ; :
  - (iii) reliable measuring instruments, control units and servicing of such equipment ; :
  - (iv) precautions in designing of foundation and load bearing part of the building ; :
  - (v) continuous surveillance of operations ; :
  - (vi) maintenance and repair works according to the generally recognised rules of good engineering practices. :
11. Details of communication facilities available for 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. :

Note : 1. Inserted : With effect from 13-12-2001, a new SCHEDULE 8A is inserted by the Control of Industrial Major Accident Hazards (Karnataka) (Amendment) Rules, 2001; Notificaton No.KAI 19 KABANI 98, dated, 29-11-2001, published in the Karnataka Gazette (Part IV-A), dated, 13-12-2001.

