

# THE TAMIL NADU CONTROL OF INDUSTRIAL MAJOR ACCIDENT HAZARDS RULES, 1994

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# THE TAMIL NADU CONTROL OF INDUSTRIAL MAJOR ACCIDENT HAZARDS RULES, 1994

\* [G.O. Ms. No. 222, Labour and Employment, dated the 21<sup>st</sup> November, 1995.]

**1. Short title and commencement.** – (1) These rules may be called the Tamil Nadu Control of Industrial Major Accident Hazards Rules, 1994.

(2) They shall come into force at once.

(3) These rules supplement the rules already notified under Chapter IV-A of the Factories Act, 1948 (Central Act 63 of 1948).

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

(a) “hazardous chemical” means, -

(i) any chemical which satisfies any of the criteria laid down in Part I of <sup>1</sup>[Schedule 1 or] listed in column (2) in Part II of the said Schedule ; or

(i) any chemical listed in column (2) in the Table in Schedule 2 ; or

(iii) any chemical listed in column (2) in the Table in Schedule 3.

(b) “industrial activity” means, -

(i) an operation or process carried out in <sup>2</sup>[a factory] specified 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>3</sup>[(ii) isolated storage ; or

(iii) pipeline ]

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<sup>1</sup> Subs. by G.O. Ms. No. 61, Labour and Employment (M-2), dated the 24<sup>th</sup> May, 2018 for “Schedule 1 and is”.

<sup>2</sup>Subs. by G.O. Ms. No. 17, Labour and Employment (M-2), dated the 21<sup>st</sup> February, 2008 (deemed to have come into force on 16<sup>th</sup> July, 2008), for “an industrial installation.”

<sup>3</sup> Ins. by G.O. Ms. No. 61, Labour and Employment (M-2), dated the 24<sup>th</sup> May, 2018.

\* vide the Tamil Nadu Government Gazete, Pt.III,Sec.1(a), Issue No. 37, dated, the 25th September, 1996 at P.132

(c) “ isolated storage “ means storage where no other manufacturing process other than pumping of hazardous chemical is carried out and that storage involves atleast a quantity of that chemical set out in Schedule 2, but does not include storage associated with an installation specified in Schedule 4 on the same site ;

<sup>1</sup>[(d) “ major accident “ means an incident involving loss of life inside or outside the site or injury to 10 or more persons inside the site or injury to one or more persons outside the site or release of toxic chemical or explosion or fire or spillage or (Sic.) Hazardous chemical resulting in ‘on-site’ or ‘off-site’ emergencies or damage to equipments leading to stoppage of process or adverse effects to the environment ;]

<sup>2</sup>[(da) “major accident hazards (MAH) installations" means isolated storage and industrial activity at a site handling (including transport through carrier or pipeline) of hazardous chemicals equal to or, in excess of the threshold quantities specified in column 3 of Schedule 2 and 3 respectively]

(e) “ pipeline “ means a pipe (together with any apparatus and works associated therewith), or system of pipe (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) in Part II of Schedule 3 at a pressure of less than 8 bars absolute ;

(f) “ Schedule “ means a Schedule appended to these rules ;

<sup>3</sup>[(g) "threshold quantity" means, -

- (i) in the case of a hazardous chemical specified in column (2) of Schedule 2, the quantity of that chemical specified in the corresponding entry in columns (3) and (4);
- (ii) in the case of a hazardous chemical specified in column (2) of Part I of Schedule 3, the quantity of that chemical specified in the corresponding entries in columns (3) and (4) of that part;
- (iii) in the case of substances of a class specified in column (2) of Part II of schedule 3, the total quantity of that chemical specified in the corresponding entries in columns (3) and (4) of that part. ]

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<sup>1</sup> Subs. by G.O. Ms. No. 17, Labour and Employment (M-2), dated the 21<sup>st</sup> February, 2008 (deemed to have come into force on 16<sup>th</sup> July, 2008).

<sup>2</sup> Ins. by G.O. Ms. No. 61, Labour and Employment (M-2), dated the 24<sup>th</sup> May, 2018.

<sup>3</sup> Ins. by G.O. Ms. No. 61, Labour and Employment (M-2), dated the 24<sup>th</sup> May, 2018.

(h) Words and expression not defined in these rules but defined or used in the Factories Act, 1948 (Central Act 63 of 1948), and the rules made thereunder have the same meaning as assigned therein.

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

<sup>3</sup>[(2) An occupier of an industrial activity or isolated storage in terms of sub-rule (1) shall arrange to obtain or develop information in the form of Safety Data Sheet as specified in Schedule 5. The information shall be made accessible to workers upon request for reference.]

(3) The Occupier while obtaining or developing a <sup>4</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>4</sup>[safety data sheet as specified in Schedule 5] as soon as practicable:

(4) Every container of a hazardous chemical shall be clearly 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 case where it is impracticable 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.

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<sup>1</sup> Subs. by G.O. Ms. No. 17, Labour and Employment (M-2), dated the 21<sup>st</sup> February, 2008 (deemed to have come into force on 16<sup>th</sup> July, 2008), for “ industrial activity “.

<sup>2</sup> Subs. by G.O. Ms. No. 17, Labour and Employment (M-2), dated the 21<sup>st</sup> February, 2008 (deemed to have come into force on 16<sup>th</sup> July, 2008), for “ Part I of Schedule I and “.

<sup>3</sup> Subs. by G.O. Ms. No. 17, Labour and Employment (M-2), dated the 21<sup>st</sup> February, 2008 (deemed to have come into force on 16<sup>th</sup> July, 2008).

<sup>4</sup> Subs. by G.O. Ms. No. 17, Labour and Employment (M-2), dated the 21<sup>st</sup> February, 2008 (deemed to have come into force on 16<sup>th</sup> July, 2008), for “ material safety data sheet “.

**<sup>3</sup>[3-A. Duties of Inspector. – The Inspector shall –**

- (a) inspect the industrial activity or isolated storage atleast once in a calendar Year ;
- (b) send a status report annually on the compliance with these Rules by the 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 direction and procedures in respect of industrial activities or isolated storage covered under the Act, and in respect of pipelines upto the distance of 500 metres from the outside of the perimeter of the factory, regarding ----
  - (i) notification of the major accidents as per sub – rules (1) and (2) of rules 5 ;
  - (ii) notification of sites as per rules 7 and safety reports and (Sic.) 8 ;
  - (iii) 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 as per rules 13 in consultation with District Collector or District Emergency Authority. ]

**4. General responsibility of the occupier.----- (1) This rule shall apply to, -----**

- <sup>1</sup>[(a) an industrial activity, in which a hazardous chemical, which satisfies any of the criteria laid down in part I of Schedule 1 <sup>2</sup>[or listed] in Column 2 in Part II of the said Schedule is or may be involved. ]
- <sup>3</sup>[ (b) isolated storage of a hazardous chemical listed in Schedule 2 in a quantity equal to or more than the threshold quantity specified in column (3), thereof.]

<sup>1</sup> Subs. by G.O. Ms. No. 17, Labour and Employment (M-2), dated the 21<sup>st</sup> February, 2008 (deemed to have come into force on 16<sup>th</sup> July, 2008).

<sup>2</sup> Subs. by G.O. Ms. No. 61, Labour and Employment (M-2), dated the 24<sup>th</sup> May, 2018.

<sup>3</sup> Subs. by G.O. Ms. No. 61, Labour and Employment (M-2), dated the 24<sup>th</sup> May, 2018.

(2) <sup>1</sup>[ An Occupier in terms of sub- rule (1) above shall provide information on demand to show that he has] -----

- (a) identified the major accident hazards; and
- (b) taken adequate steps to -----

- (i) prevent such major accidents and to limit their 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 <sup>2</sup>[ safety and health].

**5. Notification of major accidents.**----- (1) Where a major accident occurs on a <sup>3</sup>[ site or in a pipeline], <sup>4</sup>[ the occupier shall within 48 hours] notify the Inspector and the Chief Inspector of that Accident, and furnish thereafter to the <sup>5</sup>[ Inspector and Chief Inspector a report] relating to the accident in installments, if necessary, in Schedule 6.

<sup>6</sup>[(2) The Inspector and Chief Inspector shall, on receipt of the report in accordance with in sub –rule (1) undertake a full analysis of the major accident and send the requisite information to the Ministry of Environment and Forests through the Directorate General Factory Advice and Service and Labour Institutes and Ministry of Labour, Government of India.]

<sup>7</sup>[(3) An occupier shall notify to the Inspector about the steps taken to avoid any repetition of such occurrence in the factory.

(4) The Inspector and 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 and Service and Labour Institutes and Ministry of Labour, Government of India.

(5) The Inspector and Chief Inspector shall inform the occupier in writing of any lacuna which in their opinion needs to be rectified to avoid major accidents. ]

<sup>1</sup> Subs. by G.O. Ms. No. 17, Labour and Employment (M-2), dated the 21<sup>st</sup> February, 2008 (deemed to have come into force on 16<sup>th</sup> July, 2008), for the expression commencing with the words “ An occupier ” and ending with the words “ to show that he has “.

<sup>2</sup> Subs. by G.O. Ms. No. 17, Labour and Employment (M-2), dated the 21<sup>st</sup> February, 2008 (deemed to have come into force on 16<sup>th</sup> July, 2008), for “ safety ” .

<sup>3</sup> Subs. by G.O. Ms. No. 17, Labour and Employment (M-2), dated the 21<sup>st</sup> February, 2008 (deemed to have come into force on 16<sup>th</sup> July, 2008), for “ site ” .

<sup>4</sup> Subs. by G.O. Ms. No. 17, Labour and Employment (M-2), dated the 21<sup>st</sup> February, 2008 (deemed to have come into force on 16<sup>th</sup> July, 2008), for the words “ the occupier shall forthwith ”.

<sup>5</sup> Subs. by G.O. Ms. No. 17, Labour and Employment (M-2), dated the 21<sup>st</sup> February, 2008 (deemed to have come into force on 16<sup>th</sup> July, 2008) for the words “Chief Inspector a report”.

<sup>6</sup> Subs. by G.O. Ms. No. 17, Labour and Employment (M-2), dated the 21<sup>st</sup> February, 2008 (deemed to have come into force on 16<sup>th</sup> July, 2008).

<sup>7</sup> Sub – Rules (3) to (5), added by G.O. Ms. No. 17, Labour and Employment (M-2), dated the 21<sup>st</sup> February, 2008 (deemed to have come into force on 16<sup>th</sup> July, 2008).

**6. <sup>1</sup>[Industrial activities or isolated storage to which rules 7 to 15 apply. ]-----**

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

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

(c) <sup>4</sup>[ Rules 7 and 8] shall apply to an isolated storage, in which there is involved a <sup>3</sup>[threshold quantity] of a hazardous chemical listed in column (2) in the Table in Schedule 2 which is equal to or more than the <sup>3</sup>[ threshold quantity] specified in column (3) of that Schedule in respect of that chemical ; and

(d) <sup>5</sup>[ Rules 10 to 13 and 15] shall apply to an isolated storage, in which there is involved a <sup>3</sup>[ threshold quantity] of a hazardous chemical listed in column (2) in the Table in Schedule 2 which is equal to or more than the <sup>3</sup>[ threshold quantity] specified in column (4) of that Schedule in respect of that chemical.

<sup>6</sup>[ (2) \*\*\*\*]

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<sup>1</sup> Subs. by G.O. Ms. No. 17, Labour and Employment (M-2), dated the 21<sup>st</sup> February, 2008 (deemed to have come into force on 16<sup>th</sup> July, 2008), for the heading “ Industrial activities to which rules 7 to 15 apply ” .

<sup>2</sup> Subs. by G.O. Ms. No. 17, Labour and Employment (M-2), dated the 21<sup>st</sup> February, 2008 (deemed to have come into force on 16<sup>th</sup> July, 2008), for “ Rules 7 to 9 and 13 to 15 ” .

<sup>3</sup> Subs. by G.O. No. 17, Labour and Employment (M-2), dated the 21<sup>st</sup> February, 2008 (deemed to have come into force on 16<sup>th</sup> July, 2008), for the expression “ quantity ” .

<sup>4</sup> Subs. by G.O. Ms. No. 17, Labour and Employment (M-2), dated the 21<sup>st</sup> February, 2008 (deemed to have come into force on 16<sup>th</sup> July, 2008), for the expression “ Rules 7 to 9” .

<sup>5</sup> Subs. for “Rule 10 to 15 “ by G.O. Ms. No. 17, Labour and Employment (M-2), dated the 21<sup>st</sup> February, 2008 (deemed to have come into force on 16<sup>th</sup> July, 2008).

<sup>6</sup> Sub –Rule (2), omitted by G.O. Ms. No. 17, Labour and Employment (M-2), dated the 21<sup>st</sup> February, 2008 (deemed to have come into force on 16<sup>th</sup> July, 2008).

**7. <sup>1</sup>[ Approval and Notification of sites. ]** ----- (1) An occupier shall not undertake any <sup>2</sup>[industrial activity or isolated storage] unless he has submitted a written report to the Chief Inspector containing the particulars specified in Schedule 7, at least <sup>3</sup>[90 days] before commencing that activity or before such shorter time as the Chief Inspector may specify and for the purposes of this sub –rule, an activity in which subsequently there is or is liable to be a <sup>4</sup>[threshold quantity] specified in column (3) in the Table in Schedule 2 and 3 or more of an additional hazardous chemical shall be deemed to be a different activity and shall be notified accordingly.

<sup>5</sup>[(2) The Chief Inspector, within 60 days from the date of receipt of the report in accordance with sub- rule (1) of this rule shall examine and on examination of the report if he is of the opinion that contravention of the provision of the Act or the Rules has taken place, he may issue notice for obtaining compliance.]

**8. <sup>6</sup>[Updating of the Site Notification ]** ----- 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 is liable to be, at the site or in the <sup>7</sup>[ pipeline or at the cessation ] of the activity) which affects the particulars specified in that report or any subsequent report made under this Rule, the Occupier shall forthwith furnish a further report to the <sup>8</sup>[Inspector and the Chief Inspector].

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<sup>1</sup> Subs. by G.O. Ms. No. 61, Labour and Employment (M-2), dated the 24<sup>th</sup> May, 2018 for the expression “Notification of Sites”.

<sup>2</sup> Subs. for “Industrial activities” by G.O. Ms. No. 17, Labour and Employment (M-2), dated the 21<sup>st</sup> February, 2008 (deemed to have come into force on 16<sup>th</sup> July, 2008).

<sup>3</sup> Subs. For “3 Months”, by G.O. Ms. No. 17, Labour and Employment (M-2), dated the 21<sup>st</sup> February, 2008 (deemed to have come into force on 16<sup>th</sup> July, 2008).

<sup>4</sup> Subs. for “quantity” by G.O. Ms. No. 17, Labour and Employment (M-2), dated the 21<sup>st</sup> February, 2008 (deemed to have come into force on 16<sup>th</sup> July, 2008).

<sup>5</sup> Sub –Rule (2), submitted by G.O. Ms. No. 17, Labour and Employment (M-2), dated the 21<sup>st</sup> February, 2008 (deemed to have come into force on 16<sup>th</sup> July, 2008).

<sup>6</sup> Subs. for the heading “Updating notification under rule 7” by G.O. Ms. No. 17, Labour and Employment (M-2), dated the 21<sup>st</sup> February, 2008 (deemed to have come into force on 16<sup>th</sup> July, 2008).

<sup>7</sup> Subs. for “pipeline or the cessation” by G.O. Ms. No. 17, Labour and Employment (M-2), dated the 21<sup>st</sup> February, 2008 (deemed to have come into force on 16<sup>th</sup> July, 2008).

<sup>8</sup> Subs. for “Chief Inspector ” by G.O. Ms. No. 17, Labour and Employment (M-2), dated the 21<sup>st</sup> February, 2008 (deemed to have come into force on 16<sup>th</sup> July, 2008).

**<sup>1</sup>[ 9. Transitional Provision. ----- \*\*\*\* ]**

**10. <sup>2</sup>[ Safety Reports and Safety Audit Reports]. -----** (1) Subject to sub-rules (2) and (3), an Occupier shall not <sup>3</sup>[undertake any industrial activity or isolated storage] to which this rule applies, unless he has prepared a safety report on that industrial activity containing the information specified in Schedule 8 and has sent a copy of that report to the Chief Inspector atleast <sup>4</sup>[ninety days] before commencing that activity.

<sup>5</sup>[(2) The occupiers of both the new and the existing industrial activity or isolated storages shall arrange to carry out safety audit by a competent agency to be accredited by an Accreditation Board of Safety Auditors or recognizes for the purposes as competent in the opinion of the Chief Inspector and such safety auditing shall be carried out as follows : -----

- (a) Internally, once in a year by a team of suitable plant personnel :  
 Provided that the year in which an external audit is carried out, internal audit need not be carried out for that year.
- (b) Externally, once in two years by a competent agency accredited in this behalf.

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

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<sup>1</sup> Rule 9 omitted by G.O. Ms. No. 17, Labour and Employment (M-2), dated the 21<sup>st</sup> February, 2008 (deemed to have come into force on 16<sup>th</sup> July, 2008).

<sup>2</sup> Subs. for the heading "Safety Reports " by G.O. Ms. No. 17, Labour and Employment (M-2), dated the 21<sup>st</sup> February, 2008 (deemed to have come into force on 16<sup>th</sup> July, 2008).

<sup>3</sup> Subs. for the words "under take any industrial activity " by G.O. Ms. No. 17, Labour and Employment (M-2), dated the 21<sup>st</sup> February, 2008 (deemed to have come into force on 16<sup>th</sup> July, 2008).

<sup>4</sup> Subs. for "3 months" by G.O. Ms. No. 17, Labour and Employment (M-2), dated the 21<sup>st</sup> February, 2008 (deemed to have come into force on 16<sup>th</sup> July, 2008).

<sup>5</sup>Sub- Rules (2) and (3), substituted by G.O. Ms. No. 17, Labour and Employment (M-2), dated the 21<sup>st</sup> February, 2008 (deemed to have come into force on 16<sup>th</sup> July, 2008).

**11. <sup>1</sup>[Updating of 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 <sup>2</sup>[industrial activity or isolated storage] to which that safety report relates which could materially affect the particulars in that report, unless he has made a further report to take account of these modifications and has sent a copy of that report to the <sup>3</sup>[Inspector and the Chief Inspector atleast 90 days] before making those modifications.

(2) Where an occupier has made a report in accordance with rule 10 and sub-rule (1) above and that <sup>2</sup>[industrial activity or the isolated storage] is continuing the occupier shall within three years from the date of the last such report, make a further report which shall have regard in particular to new technical knowledge which has affected particulars in the previous report relating to safety and hazard assessment, and shall within <sup>4</sup>[30 days] or such longer time as the <sup>5</sup>[Inspector and the Chief Inspector ] may specify in writing, send a copy of the report to the <sup>5</sup>[Inspector and the Chief Inspector].

**<sup>6</sup>[12.Requirement for further information to be sent to the Inspector or 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 or the Chief Inspector, the Inspector or 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 sent that information to the Inspector or Chief Inspector within 90 days.]

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<sup>1</sup> Subs. for the heading "Updating of reports under rule 10" by G.O. Ms. No. 17, Labour and Employment (M-2), dated the 21<sup>st</sup> February, 2008 (deemed to have come into force on 16<sup>th</sup> July, 2008).

<sup>2</sup> Subs. for the words "industrial activity " by G.O. Ms. No. 17, Labour and Employment (M-2), dated the 21<sup>st</sup> February, 2008 (deemed to have come into force on 16<sup>th</sup> July, 2008).

<sup>3</sup> Subs. for "Chief Inspector atleast 3 months" by G.O. Ms. No. 17, Labour and Employment (M-2), dated the 21<sup>st</sup> February, 2008 (deemed to have come into force on 16<sup>th</sup> July, 2008).

<sup>4</sup> Subs. for "one month ", by G.O. Ms. No. 17, Labour and Employment (M-2), dated the 21<sup>st</sup> February, 2008 (deemed to have come into force on 16<sup>th</sup> July, 2008).

<sup>5</sup> Subs. for the words "Chief Inspector" by G.O. Ms. No. 17, Labour and Employment (M-2), dated the 21<sup>st</sup> February, 2008 (deemed to have come into force on 16<sup>th</sup> July, 2008).

<sup>6</sup> Rule 12 substituted by G.O. Ms. No. 17, Labour and Employment (M-2), dated the 21<sup>st</sup> February, 2008 (deemed to have come into force on 16<sup>th</sup> July, 2008).

**13. Preparation of on-site emergency plans by the occupier** ----- <sup>1</sup>[(1) The occupier shall prepare, keep up-to-date and furnish to the Inspector or Chief Inspector an on-site emergency plan containing details specified in Schedule 9 and detailing how major accidents will be dealt with on the site on which the industrial activity or isolated storage is carried on and that plan shall include the name of the person who is responsible for safety on the site and the names of those who are authorized 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) takes into account any modification made in the <sup>2</sup>[industrial activity or isolated storage] and that every person on the site who is <sup>3</sup>[concerned with] the plan is formed of the relevant provisions.

(3) The occupier shall prepare emergency plan required under sub-rule (1) -----  
<sup>4</sup>[(a) before the commencement of industrial activity or isolated storage:  
 (b) within 90 days of coming into operation of these Rules in case of an  
 existing industrial activity or isolated storage.]

<sup>5</sup>[(4) The occupier shall ensure that a mock drill of the on-site emergency is conducted atleast once in every six months.

(5) A detailed report of a mock drill conducted under sub-rule (4) shall be made immediately available to the Inspector or the Chief Inspector.]

**<sup>6</sup>[14. Preparation of off-site emergency plans. -----\*\*\*\* ]**

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<sup>1</sup> Sub-Rule (1) substituted by G.O. Ms. No. 17, Labour and Employment (M-2), dated the 21<sup>st</sup> February, 2008 (deemed to have come into force on 16<sup>th</sup> July, 2008).

<sup>2</sup> Subs. for the words "industrial activity " by G.O. Ms. No. 17, Labour and Employment (M-2), dated the 21<sup>st</sup> February, 2008 (deemed to have come into force on 16<sup>th</sup> July, 2008).

<sup>3</sup> Subs. for the words "affected by " by G.O. Ms. No. 17, Labour and Employment (M-2), dated the 21<sup>st</sup> February, 2008 (deemed to have come into force on 16<sup>th</sup> July, 2008).

<sup>4</sup> Clauses (a) and (b), substituted by G.O. Ms. No. 17, Labour and Employment (M-2), dated the 21<sup>st</sup> February, 2008 (deemed to have come into force on 16<sup>th</sup> July, 2008).

<sup>5</sup> Sub-Rules (4) and (5) added by G.O. Ms. No. 17, Labour and Employment (M-2), dated the 21<sup>st</sup> February, 2008 (deemed to have come into force on 16<sup>th</sup> July, 2008).

<sup>6</sup> Rule 14 omitted by G.O. Ms. No. 17, Labour and Employment (M-2), dated the 21<sup>st</sup> February, 2008 (deemed to have come into force on 16<sup>th</sup> July, 2008).

**<sup>1</sup>[15. Information to be given to persons liable to be affected by a major accident.----- (1)**

The occupier shall take appropriate steps to inform persons outside the site who are likely to be in an area which may be affected by a major accident about -----

- (a) the nature of the major accident hazard ; and
- (b) the safety measures and the 'Do's ' and 'Don'ts ' which should be adopted in the event of a major accident.

(2) The occupier shall take the steps required under sub-rule (1) to inform persons about and 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 90 days of coming into operation of these Rules.]

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

**<sup>3</sup>[17. Improvement notice.----- \*\*\*]**

**18. Power to amend Schedules.-----** The State government may, at any time, by notification amend the Schedules.

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<sup>1</sup> Rule 15, substituted by G.O. Ms. No. 17, Labour and Employment (M-2), dated the 21<sup>st</sup> February, 2008 (deemed to have come into force on 16<sup>th</sup> July, 2008).

<sup>2</sup> Rule 16, substituted by G.O. Ms. No. 17, Labour and Employment (M-2), dated the 21<sup>st</sup> February, 2008 (deemed to have come into force on 16<sup>th</sup> July, 2008).

<sup>3</sup> Rule 17 omitted by G.O. Ms. No. 17, Labour and Employment (M-2), dated the 21<sup>st</sup> February, 2008 (deemed to have come into force on 16<sup>th</sup> July, 2008).

<sup>1</sup>[SCHEDULE 1

[See rule 2(a) (i), 3 (1), 4(1) (a) and 4 (2)]

**[Part -I]**

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

S.No. (1)	Toxicity (2)	Oral toxicity LD 50(mg/kg) (3)	Dermal toxicity LD 50 (mg/kg) (4)	Inhalation toxicity LC 50(mg/liter) (5)
1.	Extremely toxic	>5	<40	<0.5
2.	Highly toxic	>5-50	>40-200	<0.5-2.0
3.	Toxic	>50-200	>200-1000	>2-10

(b) **Flammable Chemicals:**

(1) flammable gases: Gases which at 20°C and at standard pressure of 101.3KPa are :-

- (i) ignitable when in a mixture of 13 percent or less by volume with air ;or
- (ii) have a flammable range with air of at least 12 percentage points regardless of the lower flammable limits.

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

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

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

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<sup>1</sup> Subs. by G.O. Ms. No. 61, Labour and Employment (M-2), dated the 24<sup>th</sup> May, 2018.

- (4) **Highly inflammable liquids:** chemicals which have a flash point lower than or equal to 60°C but higher than 23°C.
- (5) **Flammable liquids:** chemicals which have a flash point higher than 60°C but lower than 90°C.
- (C) **Explosives:** Explosives means a solid or liquid or pyrotechnic substance (or a mixture of substances) or an article -
- (i) which is in itself capable by chemical reaction of producing gas at such a temperature and pressure and at such a speed as to cause damage to the surroundings ;
  - (ii) which is designed to produce an effect by heat, light, sound, gas or smoke or a combination of these as the result of non-detonative, self-sustaining exothermic reaction. ]

**<sup>1</sup>[Part – II****Sl. No. List of Hazardous Chemicals****(1)****(2)**

1. Acetaldehyde
2. Acetic acid
3. Acetic anhydride
4. Acetone
5. Acetone cyanohydrin
6. Acetone thiosemicarbazide
7. Acetonitrile
8. Acetylene
9. Acetylene tetra chloride
10. Acrolein
11. Acrylamide
12. Acrylonitrile
13. Adiponitrile
14. Aldicarb
15. Aldrin
16. Allyl Alcohol
17. Allyl amine
18. Allyl chloride
19. Aluminium (powder)
20. Aluminium azide
21. Aluminium borohydride
22. Aluminium chloride
23. Aluminium fluoride
24. Aluminium phosphide
25. Amino diphenyl
26. Amino pyridine
27. Aminophenol-2
28. Aminopterin
29. Amiton
30. Amiton dialate
31. Ammonia
32. Ammonium Chloro platinate
33. Ammonium nitrate
34. Ammonium nitrite

35. Ammonium picrate
36. Anabasine
37. Aniline
38. Aniline 2,4,6-trimethyl
39. Anthraquinone
40. Antimony pentafluoride
41. Antimycin A
42. ANTU
43. Arsenic pentoxide
44. Arsenic trioxide
45. Arsenic trichloride
46. Arsine
47. Asphalt
48. Azinphos-ethyl
49. Azinphos-methyl
50. Bacitracin
51. Barium azide
52. Barium nitrate
53. Barium nitride
54. Benzal chloride
55. Benzenamine, 3-trifluoromethyl
56. Benzene
57. Benzene sulfonyl chloride
58. Benzene, 1-(chloromethyl) -4 Nitro
59. Benzene arsenic acid
60. Benzidine
61. Benzidine Salts
62. Benzimidazole, 4,5-Dichloro-2 (Trifluoromethyl)
63. Benzoquinone-P
64. Benzotrichloride
65. Benzoyl chloride
66. Benzoyl peroxide
67. Benzyl chloride
68. Beryllium (powder)
69. Bicyclo (2,2,1) Heptane-2-carbonitrile
70. Biphenyl
71. Bis (2-Chloroethyl) sulphide
72. Bis (Chloromethyl) ketone
73. Bis (Tert-butylperoxy) cyclo hexane

74. Bis(Tert-butyl peroxy)butane
75. Bis(2,4,6-Trinitrophenylamine)
76. Bis (Chloromethyl)Ether
77. Bismuth and compounds
78. Bisphenol-A
79. Bitoscanate
80. Boron Powder
81. Boron trichloride
82. Boron trifluoride
83. Boron trifluoride comp. With methylether, 1:1
84. Bromine
85. Bromine pentafluoride
86. Bromo chloro methane
87. Bromodialone
88. Butadiene
89. Butane
90. Butanone-2
91. Butyl amine tert
92. Butyl glycidal ether
93. Butyl isovalerate
94. Butyl peroxy maleate tert
95. Butyl vinyl ether
96. Butyl-n-mercaptan
97. C.I. Basic green
98. Cadmium oxide
99. Cadmium stearate
100. Calcium arsenate
101. Calcium carbide
102. Calcium cyanide
103. Camphechlor (Toxaphene)
104. Cantharidin
105. Captan
106. Carbachol chloride
107. Carbaryl
108. Carbofuran (Furadan)
109. Carbon tetrachloride
110. Carbon disulphide
111. Carbon monoxide
112. Carbophenothion

113. Carvone
114. Cellulose nitrate
115. Chloroacetic acid
116. Chlordane
117. Chlorofenvinphos
118. Chlorinated benzene
119. Chlorine
120. Chlorine oxide
121. Chlorine trifluoride
122. Chlormephos
123. Chlormequat chloride
124. Chloroacetal chloride
125. Chloroacetaldehyde
126. Chloroaniline -2
127. Chloroaniline -4
128. Chlorobenzene
129. Chloroethyl chloroformate
130. Chloroform
131. Chloroformyl morpholine
132. Chloromethane
133. Chloromethyl methyl ether
134. Chloronitrobenzene
135. Chlorophacinone
136. Chlorosulphonic acid
137. Chlorothiophos
138. Chloroxuron
139. Chromic acid
140. Chromic chloride
141. Chromium powder
142. Cobalt carbonyl
143. Cobalt Nitrilmethylidyne compound
144. Cobalt ( powder)
145. Colchicine
146. Copper and compounds
147. Copper oxychloride
148. Coumafuryl
149. Coumaphos
150. Coumatetrayl
151. Crimidine

152. Crotenaldehyde
153. Crotonaldehyde
154. Cumene
155. Cyanogen bromide
156. Cyanogen iodide
157. Cyanophos
158. Cyanothoate
159. Cyanuric fluoride
160. Cyclo hexylamine
161. Cyclohexane
162. Cyclohexanone
163. Cycloheximide
164. cyclopentadiene
165. Cyclopentane
166. Cyclotetramethylenetetranitramine
167. Cyclotrimethylenetrinitramine
168. Cypermethrin
169. DDT
170. Decaborane (1:4)
171. Demeton
172. Demeton S-Methyl
173. Di-n-propyl peroxydicarbonate ( Conc=80%)
174. Dialifos
175. Diazodinitrophenol
176. Dibenzyl peroxydicarbonate ( Conc > =90%)
177. Diborane
178. Dichloroacetylene
179. Dichlorobenzalkonium chloride
180. Dichloroethyl ether
181. Dichloromethyl phenylsilane
182. Dichlorophenol-2,6
183. Dichlorophenol-2,4
184. Dichlorophenoxy acetic acid
185. Dichloropropane-2,2
186. Dichlorosalicylic acid-3,5
187. Dichlorovos (DDVP)
188. Dicrotophos
189. Dieldrin
190. Diepoxy butane

191. Diethyl carbamazine citrate
192. Diethyl chlorophosphate
193. Diethyl ethanolamine
194. Diethyl peroxydicarbonate (Conc=30%)
195. Diethyl phenylene diamine
196. Diethylamine
197. Diethylene glycol
198. Diethylene glycol dinitrate
199. Diethylene triamine
200. Diethyleneglycol butyl ether
201. Diglycidyl ether
202. Digitoxin
203. Dihydroperoxypropane (Conc>= 30%)
204. Diisobutyl peroxide
205. Dimefox
206. Dimethoate
207. Dimethyl dichlorosilane
208. Dimethyl hydrazine
209. Dimethyl nitrosoamine
210. Dimethyl phenylene diamine
211. Dimethyl phosphoramidicyanidic acid (TABUM)
212. Dimethyl phosphorochloridothioate
213. Dimethyl sulfolane (DMS)
214. Dimethyl sulphide
215. Dimethylamine
216. Dimethylaniline
217. Dimethyl carbonyl chloride
218. Dimetilan
219. Dinitro-o-cresol
220. Dinitrophenol
221. Dinitrotoluene
222. Dinoseb
223. Dinoterb
224. Dioxane-P
225. Dioxathion
226. Dioxine N
227. Diphacinone
228. Diphosphoramidate octamethyl
229. Diphenyl methane di-isocyanate (MDI)

230. Dipropylene Glycol Butyl ether
231. Dipropylene glycolmethylether
232. Disec-butyl peroxydicarbonite (Conc>80%)
233. Disulfoton
234. Dithiazamine iodide
235. Dithiobiurate
236. Endosulfan
237. Endothion
238. Endrin
239. Epichlorohydrine
240. EPN
241. Ergocalciferol
242. Ergotamine tartarate
243. Ethanesulfenyl chloride, 2 chloro
244. Ethanol 1-2 dichloracetate
245. Ethion
246. Ethoprophos
247. Ethyl acetate
248. Ethyl alcohol
249. Ethyl benzene
250. Ethyl bis amine
251. Ethyl bromide
252. Ethyl carbamate
253. Ethyl ether
254. Ethyl hexanol-2
255. Ethyl mercaptan
256. Ethyl mercuric phosphate
257. Ethyl methacrylate
258. Ethyl nitrate
259. Ethyl thiocyanate
260. Ethylamine
261. Ethylene
262. Ethylene chlorohydrine
263. Ethylene dibromide
264. Ethylene diamine
265. Ethylene diamine hydrochloride
266. Ethylene flourohydrine
267. Ethylene glycol
268. Ethylene glycol dinitrate

269. Ethylene oxide
270. Ethylenimine
271. Ethylene dichloride
272. Femamiphos
273. Femitrothion
274. Fensulphothion
275. Fluemetil
276. Fluorine
277. Fluoro 2-hydroxy butyric acid, amid salt ester
278. Fluoroacetamide
279. Fluoroacetic acid amide salts esters
280. Fluoroacetyl chloride
281. Fluorobutyric acid amide salt esters
282. Fluorocrotonic acid amides salts esters
283. Fluorouracil
284. Fonofos
285. Formaldehyde
286. Formetanate hydrochloride
287. Formic acid
288. Formoparanate
289. Formothion
290. Fosthiotan
291. Fuberidazole
292. Furan
293. Gallium Trichloride
294. Glyconitrile (Hydroxyacetonitrile)
295. Guanyl-4-nitrosaminoguyanyl-1-tetrazene
296. Heptachlor
297. Hexamethyl - tetra -oxyacyclononate (Conc 75%)
298. Hexachlorobenzene
299. Hexachlorocyclohexane (Lindane)
300. Hexachlorocyclopentadiene
301. Hexachlorodibenzo-p-dioxin
302. Hexachloronapthalene
303. Hexafluoropropanone sesquihydrate
304. Hexamethyl phosphoramidate
305. Hexamethylene diamine NN dibutyl
306. Hexane

307. Hexanitrostilbene 2 2 4 4 6 6
308. Hexene
309. Hydrogen selenide
310. Hydrogen sulphide
311. Hydrazine
312. Hydrazine nitrate
313. Hydrochloric acid(Gas)
314. Hydrogen
315. Hydrogen bromide
316. Hydrogen cyanide
317. Hydrogen fluoride
318. Hydrogen peroxide
319. Hydroquinone
320. Indene
321. Indium powder
322. Indomethacin
323. Iodine
324. Iridium tetrachloride
325. Ironpentacarbonyl
326. Iso benzan
327. Isoamyl alcohol
328. Isobutyl alcohol
329. Isobutyro nitrile
330. Isocyanic acid 3,4-dichlorophenyl ester
331. Isodrin
332. Isofluorophosphate
333. Isophorone diisocyanate
334. Isopropyl alcohol
335. Isopropyl chlorocarbonate
336. Isopropyl formate
337. Isopropyl methyl pyrazolyl dimethyl carbamate
338. Juglone (5-Hydroxy Napthalene – 1, 4 dione)
339. Ketene
340. Lactonitrile
341. Lead arsenite
342. Lead at high temp (molten)
343. Lead azide
344. Lead styphanate
345. Leptophos

- 346. Lenisite
- 347. Liquefied petroleum gas (LPG)
- 348. Lithium hydride
- 349. N – Dinitrobenzene
- 350. Magnesium powder or ribbon
- 351. Malathion
- 352. Maleic anhydride
- 353. Malononitrile
- 354. Manganese Tricarbonyl cyclopentadiene
- 355. Mechlor ethamine
- 356. Mephospholan
- 357. Mercuric chloride
- 358. Mercuric oxide
- 359. Mercury acetate
- 360. Mercury fulminate
- 361. Mercury methyl chloride
- 362. Mesitylene
- 363. Methacrolein diacetate
- 364. Methacrylic anhydride
- 365. Methacrylonitrile
- 366. Methacryloyl oxyethyl isocyanate
- 367. Methanidophos
- 368. Methane
- 369. Methanesulphonyl fluoride
- 370. Methidathion
- 371. Methiocarb
- 372. Methonyl
- 373. Methoxy ethanol (2-Methyl cellosolve)
- 374. Methoxyethyl mercuric acetate
- 375. Methacryloyl chloride
- 376. Methyl 2-chloroacrylate
- 377. Methyl alcohol
- 378. Methyl amine
- 379. Methyl bromide (Bromomethane)
- 380. Methyl chloride
- 381. Methyl chloroform
- 382. Methyl chloroformate
- 383. Methyl cyclohexene
- 384. Methyl disulphide

- 385. Methyl ethyl ketone peroxide (conc. 60 %)
- 386. Methyl formate
- 387. Methyl hydrazine
- 388. Methyl isobutyl ketone
- 389. Methyl isocyanate
- 390. Methyl isothiocyanate
- 391. Methyl mercuric dicyanamide
- 392. Methyl mercaptan
- 393. Methyl methacrylate
- 394. Methyl phencapton
- 395. Methyl phosphonic dichloride
- 396. Methyl thiocyanate
- 397. Methyl trichlorosilane
- 398. Methyl vinyl ketone
- 399. Methylene bis (2-chloroaniline)
- 400. Methylene chloride
- 401. Methylenebis-4, 4 (2 - chloroaniline)
- 402. Metolcarb
- 403. Mevinphos
- 404. Mezacarbate
- 405. Mitomycin C
- 406. Molybdenum powder
- 407. Monocrotophos
- 408. Morpholine
- 409. Muscinol
- 410. Mustard gas
- 411. N- Butyl acetate
- 412. N-Butyl alcohol
- 413. N- Hexane
- 414. N-Methyl-N,2, 4, 6-Tetranitroaniline
- 415. Naphtha
- 416. Naphtha solvent
- 417. Naphthalene
- 418. Naphthyl amine
- 419. Nickel carbonyl /Nickel tetracarbonyl
- 420. Nickel powder
- 421. Nicotine
- 422. Nicotine sulphate
- 423. Nitric acid

- 424. Nitric oxide
- 425. Nitrobenzene
- 426. Nitrocellulose (dry)
- 427. Nitrochlorobenzene
- 428. Nitrocyclohexane
- 429. Nitrogen
- 430. Nitrogen dioxide
- 431. Nitrogen oxide
- 432. Nitrogen trifluoride
- 433. Nitroglycerine
- 434. Nitropropane-1
- 435. Nitropropane-2
- 436. Nitroso dimethyl amine
- 437. Nonane
- 438. Norbormide
- 439. o-Cresol
- 440. o-Nitro Toluene
- 441. o-Toludine
- 442. o-Xylene
- 443. o/p- Nitroaniline
- 444. Oleum
- 445. OO Diethyl S ethyl sulph methyl phos
- 446. OO-Diethyl-S-propythio methyl phosdithioate
- 447. OO-Diethyl-S-ethylsulphinylmethyl  
phosphorothioate
- 448. OO-Diethyl-S-ethylsulphonylmethyl  
phosphorothioate
- 449. OO-Diethyl S-ethylthiomethyl phosphorothioate
- 450. Organo rhodium complex
- 451. Orotic acid
- 452. Osmium tetroxide
- 453. Oxabain
- 454. Oxamyl
- 455. Oxetane 3,3-bis(chloromethyl)
- 456. Oxidiphenoxarsine
- 457. Oxydisulfoton
- 458. Oxygen (liquid)
- 459. Oxygen difluoride
- 460. Ozone

461. p-Nitrophenol
462. Paraffin
463. Paraoxon (Diethyl 4 Nitrophenyl phosphate)
464. Paraquat
465. Paraquat methosulphate
466. Parathion
467. Parathion methyl
468. Paris green
469. Penta borane
470. Penta chloro ethane
471. Penta chlorophenol
472. Pentabromophenol
473. Pentachloro naphthalene
474. Pentadecylamine
475. Pentaerythritol tetranitrate
476. Pentane
477. Pentanone
478. Perchloric acid
479. Perchloroethylene
480. Peroxyacetic acid
481. Phenol
482. Phenol, 2,2-thiobis (4, 6 - dichloro )
483. Phenol, 2,2-thiobis (4-chloro 6-methyl phenol)
484. Phenol, 3- (1-methyl ethyl)-methylcarbamate
485. Phenyl hydrazine hydrochloride
486. Phenyl mercury acetate
487. Phenyl silatrane
488. Phenyl thiourea
489. Phenylene p-diamine
490. Phorate
491. Phosazetin
492. Phosfolan
493. Phosgene
494. Phosmet
495. Phosphamidon
496. Phosphine
497. Phosphoric acid
498. Phosphoric acid dimethyl (4- methyl thio) phenyl
499. Phosphorothioic acid dimethyl S ( 2 – Bis) ester

- 500. Phosphorothioic acid methyl (ester)
- 501. Phosphorothioic acid, OO-dimethyl S-(2-methyl)
- 502. Phosphorothioic, methyl-ethyl ester
- 503. Phosphorous
- 504. Phosphorous oxychloride
- 505. Phosphorous pentoxide
- 506. Phosphorous trichloride
- 507. Phosphorous pentachloride
- 508. Phthalic anhydride
- 509. Phylloquinone
- 510. Physostigmine
- 511. Physostigmine Salicylate (1:1)
- 512. Picric acid (2, 4, 6 –trinitrophenol)
- 513. Picrotoxin
- 514. Piperdine
- 515. Piprotal
- 516. Pirinifos-ethyl
- 517. Platinous chloride
- 518. Platinum tetrachloride
- 519. Potassium arsenite
- 520. Potassium chlorate
- 521. Potassium cyanide
- 522. Potassium hydroxide
- 523. Potassium nitride
- 524. Potassium nitrite
- 525. Potassium peroxide
- 526. Potassium silver cyanide
- 527. Powdered metals and mixtures
- 528. Promecarb
- 529. Promurit
- 530. Propanesultone
- 531. Propargyl alcohol
- 532. Propargyl bromide
- 533. Propen -2-chloro-1, 3-dion diacetate
- 534. Propiolactone beta
- 535. Propionitrile
- 536. Propionitrile, 3-chloro
- 537. Propiophenone, 4-amino
- 538. Propyl chloroformate

- 539. Propylene dichloride
- 540. Propylene glycol, allylether
- 541. Propylene imine
- 542. Propylene oxide
- 543. Prothoate
- 544. Pseudocumene
- 545. Pyrazoxon
- 546. Pyrene
- 547. Pyridine
- 548. Pyridine, 2-methyl-3-vinyl
- 549. Pyridine ,4-nitro-1-oxide
- 550. Pyriminil
- 551. Quinalphos
- 552. Quinone
- 553. Rhodium trichloride
- 554. Salcomine
- 555. Sarin
- 556. Selenious acid
- 557. Selenium hexafluoride
- 558. Selenium oxychloride
- 559. Semicarbazide hydrochloride
- 560. Silane ( 4-amino butyl) diethoxy-methyl
- 561. Sodium
- 562. Sodium anthra-quinone-1-sulphonate
- 563. Sodium arsenate
- 564. Sodium arsenite
- 565. Sodium azide
- 566. Sodium cacodylate
- 567. Sodium chlorate
- 568. Sodium cyanide
- 569. Sodium fluoro-acetate
- 570. Sodium hydroxide
- 571. Sodium pentachloro-phenate
- 572. Sodium picramate
- 573. Sodium selenate
- 574. Sodium selenite
- 575. Sodium sulphide
- 576. Sodium tellorite
- 577. Stannane acetoxy triphenyl

578. Stibine (Antimony hydride)
579. Strychnine
580. Strychnine sulphate
581. Styphnic acid (2,4,6-trinitroresorcinol)
582. Styrene
583. Sulphotec
584. Sulphoxide, 3-chloropropyl octyl
585. Sulphur dichloride
586. Sulphur dioxide
587. Sulphur monochloride
588. Sulphur tetrafluoride
589. Sulphur trioxide
590. Sulphuric acid
591. Tellurium (Powder)
592. Tellurium hexafluoride
593. Tetraethyl pyrophosphate (TEPP)
594. Terbufos
595. Tert – Butyl alcohol
596. Tert-Butyl peroxy carbonate
597. Tert-Butyl peroxy isopropyl
598. Tert-Butyl peroxyacetate (Con> =70%)
599. Tert-Butyl peroxy pivalate (Con> =77%)
600. Tert Butyloxyiso-butylate
601. Tetra hydrofuran
602. Tetramethyl lead
603. Tetranitromethane
604. Tetra-chlorodibenzo-p dioxin,1, 2, 3, 7, 8, (TCDD)
605. Tetraethyl lead
606. Tetrafluoroethylene
607. Tetramethylene disulphotetramine
608. Thallic oxide
609. Thallium carbonate
610. Thallium sulphate
611. Thallous chloride
612. Thallous malonate
613. Thallous sulphate
614. Thiocarbamide
615. Thiocyanic acid, 2 – (Benzothiazolyethio) methyl
616. Thiofamox

- 617. Thiometon
- 618. Thionazin
- 619. Thionyl chloride
- 620. Thiophenol
- 621. Thiosemicarbazide
- 622. Thiourea (2- chloro -phenyl)
- 623. Thiourea (2- methyl phenyl)
- 624. Tirpate (2,4 –dimethyl-1, 3–di-thiolane)
- 625. Titanium powder
- 626. Titanium tetra-chloride
- 627. Toluene
- 628. Toluene 2,4-diisocyanate
- 629. Toluene 2,6-diisocyanate
- 630. Trans-1, 4-dichloro – butene
- 631. Tri nitro anisole
- 632. Tri (Cyclohexyl) methylstannyl 1,2,4 triazole
- 633. Tri (Cyclohexyl) stannyl-1H-1, 2, 3-triazole
- 634. Triaminotrinitrobenzene
- 635. Triamphos
- 636. Triazophos
- 637. Tribromophenol 2, 4, 6
- 638. Trichloro naphthalene
- 639. Trichloro chloromethyl silane
- 640. Trichloroacetyl chloride
- 641. Trichlorodichlorophenylsilane
- 642. Trichloroethyl silane
- 643. Trichloroethylene
- 644. Trichloromethane sulphenyl chloride
- 645. Trichloronate
- 646. Trichlorophenol 2, 3, 6
- 647. Trichlorophenol 2, 4, 5
- 648. Trichlorophenyl silane
- 649. Trichlorophon
- 650. Triethoxy silane
- 651. Triethylamine
- 652. Triethylene melamine
- 653. Trimethyl chlorosilane
- 654. Trimethyl propane phosphite
- 655. Trimethyl tin chloride

656.	Trinitro aniline
657.	Trinitro benzene
658.	Trinitro benzoic acid
659.	Trinitrophenetole
660.	Trinitro-m-cresol
661.	Trinitro toluene
662.	Triorthocresyl phosphate
663.	Triphenyl tin chloride
664.	Tris (2-chloroethyl)amine
665.	Turpentine
666.	Uranium and its compounds
667.	Valinomycin
668.	Vanadium pentoxide
669.	Vinyl acetate monomer
670.	Vinyl bromide
671.	Vinyl chloride
672.	Vinyl cyclohexane dioxide
673.	Vinyl fluoride
674.	Vinyl norbornene
675.	Vinyl toluene
676.	Vinylidene chloride
677.	Warfarin
678.	Warfarin sodium
679.	Xylene dichloride
680.	Xylidine
681.	Zinc dichloropentanitrile
682.	Zinc phosphide
683.	Zirconium and compounds ]

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<sup>1</sup> Subs. by G.O. Ms. No. 61, Labour and Employment (M-2), dated the 24<sup>th</sup> May, 2018.

## SCHEDULE 2

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

### ISOLATED STORAGE OF 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 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 hazardous chemical at an isolated storage, account shall also be taken of any hazardous chemical, which is, -

- (i) in that part of any pipeline under the control of the occupier having control of the site, which is within 500 metres of that site and connected to it;
- (ii) at any other site under the control of the same occupier any part of the boundary of which is within 500 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 metres of it. But no account shall be taken of any hazardous chemical which is in a vehicle, vessel, aircraft or a hovercraft used for transporting it.

S.No	Chemicals	Threshold Quantities (tonnes)	
		<sup>1</sup> [For application of rules 4,5,7,8,13 and 15]	<sup>2</sup> [ For application of rules 10,11 and 12]
1	2	3	4
1.	Acrylonitrile	350	5,000
2.	Ammonia	60	600
3.	Ammonium nitrate (a)	350	2,500
4.	Ammonium nitrate fertilizers (b)	1,250	10,000
5.	Chlorine	10	25
6.	Flammable gases as defined in Schedule 1, paragraph (b) (i)	50	3000
<sup>3</sup> [7.	Extremely flammable liquids as defined in Schedule 1, paragraph (b) (2)	5,000	5,000]
8.	Liquid oxygen	200	2000
9.	Sodium chlorate	25	250
10.	Sulphur dioxide	20	500
11.	Sulphur trioxide	15	100
12.	Carbonyl chloride	0.750	0.750

<sup>1</sup> Subs. by G.O. Ms. No. 61, Labour and Employment (M-2), dated the 24<sup>th</sup> May, 2018 for “ For application of rules 4,5,7 and 8”.

<sup>2</sup> Subs. by G.O. Ms. No. 61, Labour and Employment (M-2), dated the 24<sup>th</sup> May, 2018 for “ For application of rules 10 to 15”.

<sup>3</sup> Subs. by G.O. Ms. No. 61, Labour and Employment (M-2), dated the 24<sup>th</sup> May, 2018.

S.No	Chemicals	Threshold Quantities (tonnes)	
		<sup>1</sup> [For application of rules 4,5,7,8,13 and 15]	<sup>2</sup> [ For application of rules 10,11 and 12]
1	2	3	4
13.	Hydrogen Sulphide	5	50
14.	Hydrogen Fluoride	5	50
15.	Hydrogen Cyanide	5	20
16.	Carbon disulphide	20	200
17.	Bromine	50	500
18.	Ethylene oxide	5	501
19.	Propylene oxide	5	50
20.	2-Propenal (Acrolein)	20	200
21.	Bromomethane (Methyl bromide)	20	200
22.	Methyl isocyanate	0.150	0.150
23.	Tetraethyl lead or tetramethyl lead	5	50
24.	1,2 Dibromoethane .(Ethylene dibromide)	5	50
25.	Hydrogen chloride (liquiefied gas)	25	250
26.	Diphenyl methane di-isocyanate (MDI)	20	200
27.	Toluene di-isocyanate (TDI)	10	100
<sup>3</sup> [28.	Very highly flammable liquids as defined in Schedule 1, paragraph (b) (3)	7,000	7,000
29.	Highly flammable liquids as defined in Schedule 1, paragraph (b) (4)	10,000	10,000
30.	Flammable liquids as defined in Schedule -1, paragraph (b) (5)	15,000	1,00,000]

<sup>3</sup> Subs. by G.O. Ms. No. 61, Labour and Employment (M-2), dated the 24<sup>th</sup> May, 2018.

Explanations :

- (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 fertilizer and to compound fertilizers, where the nitrogen content derived from the ammonium nitrate is greater than 28 per cent by weight (a compound fertilizer contains ammonium nitrate together with phosphate and/or potash).

### SCHEDULE 3

[See Rule 2(a)(iii), 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 installations belonging to the same occupier where the distance between the installations is not sufficient to avoid, in foreseeable circumstances, any aggravation of major-accident hazards. These quantities apply in any case to each group of installations belonging to the same occupier where the distance between the installations is less than 500 metres.
- (b) For the purpose of determining the threshold quantity of a hazardous chemical in an industrial installation, account shall also be taken of any hazardous 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 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 metres of the said site ; and
  - (iii) in any vehicle, vessel, aircraft or hovercraft under the control of the same occupier which is used for storage purpose either at the site or within 500 metres of it. But no account shall be taken of any hazardous chemical which is in a vehicle, vessel, aircraft or hovercraft used for transporting it.

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

S. No.	Chemicals	Threshold Quantity for application of Rules 5,7,8,13 and 15	for application of Rules 10 to 12	CAS Number *
(1)	(2)	(3)	(4)	(5)
<b>GROUP 1-TOXIC CHEMICALS</b>				
1.	Aldicarb	100kg		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.	Arseinc pentoxide, Arsenic (V) acid & salts	500 kg		
6.	Arsenic trioxide, Arsenic (III) acid & salts	100 kg		
7.	Arsine (Arsenic hydride)	10kg		7784-42-1
8.	Azinphos-ethyl	100kg		2642-71-9
9.	Azinphos-methyl	100 kg		86-50-0
10.	Benzidine	1 kg		92-87-5
11.	Bezidine 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.	Chlorfenvinphos	100 kg		470-90-6

S. No.	Chemicals	Threshold Quantity for application of Rules 5,7,8,13 and 15	for application of Rules 10 to 12	CAS Number *
(1)	(2)	(3)	(4)	(5)
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 tonne		
21.	Crimidine	100 kg		535-89-7
22.	Cynthoate	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-ethylsulphonylmethyl phosphorothioate	100 kg		2588-05-8
27.	OO-Diethyl S-ethylsulphonylmethyl phosphorothioate	100 kg		2588-06-9
28.	OO-Diethyl S-ethylthiomethyl Phosphorodithioate	100 kg		2600-69-3
29.	OO-Diethyl S-isopropylthiomethyl phosphorodithioate	100 kg		78-52-4
30.	OO-Diethyl S-propylthiomethyl phosphorothioate	100 kg		3309-68-0
31.	Dimefox	100 kg		115-26-4
32.	Dimethylcarbamoyl chloride	1 kg		79-44-7
33.	Dimethylnitrosamine	1 kg		62-75-9
34.	Dimethyl phosphoromidocynidic acid	1 tonne		63917-41-9
35.	Diphacinone	100 kg		82-66-6

S. No.	Chemicals	Threshold Quantity for application of Rules 5,7,8,13 and 15	for application of Rules 10 to 12	CAS Number *
(1)	(2)	(3)	(4)	(5)
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.	Fluential	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 acid, esters	1 kg		
48.	4-Fluorobutyric acid, amides	1 kg		
49.	4-Fluorocrotonic acid	1 kg		37759-72-1
50.	4-Fluorocrotonic acid, salts	1 kg		
51.	4-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-hydroxybutyric acid, amides	1 kg		
57.	Glycolonitrile (Hydroxyacetonitrile )	100 kg		107-16-4
58.	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	100 kg		19408-74-3

S. No.	Chemicals	Threshold Quantity for application of Rules 5,7,8,13 and 15	for application of Rules 10 to 12	CAS Number *
(1)	(2)	(3)	(4)	(5)
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-chloroniline)	10 kg		101-14-4
65.	Mthyl isocynate	150 kg	150kg	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 tonne		
69.	Nickel tetracarbonyl	10 kg		13463-39-3
70.	Oxygendisulfoton	100 kg		2497-07-6
71.	Oxygen difluoride	10 kg		7783-41-7
72.	Paraxon (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	100 kg	298-02
77.	Phosacetim	100 kg		4104-14-8
78.	Phosgene (carbonyl chloride)	750 kg	750kg	75-44-5
79.	Phosphamidon	100 kg		13171-21-6

S. No.	Chemicals	Threshold Quantity for application of Rules 5,7,8,13 and 15	for application of Rules 10 to 12	CAS Number *
(1)	(2)	(3)	(4)	(5)
80.	Phosphine (Hydrogen phosphide)	100 kg		7803-51-2
81.	Promurit [1-(3,4 dichlorophenyl)-3 triazenthio-carboxamide]	100 kg		5836-73-7
82.	1,3-Propanesultone	1 kg		1120-71-4
83.	1-Propen-2-chloro-1,3diol 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 (Antimony hydride)	100 kg		7803-52-3
88.	Sulfotop	100 kg		3689-24-5
89.	Sulphur dichloride	1 tonne		10545-99-0
90.	Tellurium hexafluoride	100 kg		7783-80-4
91.	TEPP	100 kg		107-49-3
92.	2,3,7,8,-Tetrachlorodibenzo-p-dioxin (TCDD)	1 kg		1746-01-6
93.	Tetramethylenedisulphotetramine	1 kg		80-12-6
94.	Thionazin	100 kg		297-97-2
95.	Tri-pate(2,4-Dimethyl-1,3-dithiolane-2-carboxaldehyde, O-methylcarbamoyloxime)	100 kg		26419-73-8
96.	Trichloromethanesulphonyl chloride	100 kg		594-42-3
97.	1-Tri (cyclohexyl) stannyl 1H	100 kg		41083-11-8
98.	Triethylenemelamine	10 kg		51-18-3
99.	Warfarin	100 kg		81-81-2

S. No.	Chemicals	Threshold Quantity for application of Rules 5,7,8,13 and 15	for application of Rules 10 to 12	CAS Number *
(1)	(2)	(3)	(4)	(5)
<b>GROUP -2 TOXIC SUBSTANCES</b>				
100	Acetone cyanohydrin (2-Cyanopropan-2-ol)	200 tonnes		75-86-5
101	Acrolein (2-Propenal)	20 tonnes	<sup>3</sup> [200 tonnes]	107-02-8
102	Acrylonitrile	20 tonnes	200 tonnes	107-13-1
103	Allyl alcohol (2-Propen-1-ol)	200 tonnes		107-18-6
104	Allylamine	200 tonnes		107-11-9
105	Ammonia	50 tonnes	500 tonnes	7664-41-7
106	Bromine	40 tonnes	<sup>1</sup> [200 tonnes]	7726-95-0
107	Carbon disulphide	20 tonnes	200 tonnes	75-15-0
108	Chlorine	10 tonnes	25 tonnes	7782-50-5
109	Diphenylmethane di-isocyanate (MDI)	20 tonnes	<sup>1</sup> [200tonnes]	101-68-8
110	Ethylene dibromide (1,2-Dibromoethane)	5 tonnes	<sup>1</sup> [50 tonnes]	106-93-4
111	Ethyleneimine	50 tonnes		151-56-4
112	Formaldehyde (concentration $\geq 90\%$ )	5 tonnes	<sup>1</sup> [50 tonnes]	50-00-0
113	Hydrogen chloride (liquified gas)	25 tonnes	250 tonnes	7647-01-0
114	Hydrogen cyanide	5 tonnes	20 tonnes	74-90-8
115	Hydrogen fluoride	5 tonnes	50 tonnes	7664-39-3
116	Hydrogen sulphide	5 tonnes	50 tonnes	7783-06-4
117	Methyl bromide (Bromomethane)	20 tonnes	<sup>1</sup> [200 tonnes]	74-83-9
118	Nitrogen oxides	50 tonnes		11104-93-1
119	Propyleneimine	50 tonnes		75-55-8
120	Sulphur dioxide	20 tonnes	250 tonnes	7446-09-5

S. No.	Chemicals	Threshold Quantity for application of Rules 5,7,8,13 and 15	for application of Rules 10 to 12	CAS Number *
(1)	(2)	(3)	(4)	(5)
121	Sulphur trioxide	15 tonnes	75 tonnes	7446-11-9
122	Tetraethyl lead	5 tonnes		78-00-2
123	Tetra methyl lead	5 tonnes	<sup>1</sup> [200 tonnes]	75-74-1
124	Toluene di-isocyanate (TDI)	10 tonnes	100 tonnes	584-84-9
<b>GROUP 3-HIGHLY REACTIVE CHEMICALS</b>				
125	Acetylene (ethyne)	5 tonnes		74-86-2
126	a. Ammonium nitrate (1)	350 tonnes	2500 tonnes	6484-52-2
	b. Ammonium nitrate in form of fertiliser (2)	1250 tonnes		
127	2,2 Bis (tert-butylperoxy) butane) (concentration ≥70%)	5 tonnes		2167-23-9
128	1, 1-Bis(tert-butylperoxy) cyclohexane (concentration ≥80%)	5 tonnes		3006-86-8
129	tert-Butyl proxyacetate(concentration≥70% )	5 tonnes		107-71-1
130	tert-Butyle peroxy isobutyrate (concentration≥ 80%)	5 tonnes		109-13-7
131	Tert-Butyl peroxy isopropyl carbonate (concentration ≥80%)	5 tonnes		2372-21-6
132	Tert-Butyl peroxyacetate (concentration ≥80%)	5 tonnes		1931-62-0
133	Tert-Butyl peroxyvalerate (concentration ≥77%)	50 tonnes		927-07-1
134	Dibenzyl peroxydicarbonate (concentration≥90%)	5 tonnes		2144-45-8

S. No.	Chemicals	Threshold Quantity for application of Rules 5,7,8,13 and 15	for application of Rules 10 to 12	CAS Number *
(1)	(2)	(3)	(4)	(5)
135	Di-sec-butyl peroxydicarbonate (concentration $\geq 80\%$ )	5 tonnes		19910-65-7
136	Diethyl peroxydicarbonate (concentration $\geq 30\%$ )	50 tonnes		14666-78-5
137	2,2-dihydroperoxypropane (concentration $\geq 30\%$ )	5 tonnes		2614-76-08
138	di-isobutyl peroxide (concentration $\geq 50\%$ )	50 tonnes		3437-84-1
139	Di-n-propyl peroxydicarbonate (concentration $\geq 80\%$ )	5 tonnes		16066-38-9
140	Ethylene oxide	5 tonnes	50 tonnes	75-21-8
141	Ethyl nitrate	50 tonnes		625-58-1
142	3,3,6,6,9,9 Hexamethyl - 1,2,4 5-tetroxacyclononane (concentration $\geq 75\%$ )	50 tonnes		22397-33-7
143	Hydrogen	2 tonnes	50 tonnes	1333-74-0
144	Liquid Oxygen	200 tonnes	2000 tonnes	7782-44-7
145	Methyl ethyl ketone peroxide (concentration $\geq 60\%$ )	5 tonnes	5 tonnes	1338-23-4
146	Methyl isobutyl ketone peroxide (concentration $\geq 60\%$ )	50 tonnes		37206-20-5
147	Peracetic acid (concentration $\geq 60\%$ )	50 tonnes		79-21-0
148	Propylene oxide	5 tonnes	5 tonnes	75-56-9
149	Sodium chlorate	25 tonnes		7775-09-9

S. No.	Chemicals	Threshold Quantity for application of Rules 5,7,8,13 and 15	for application of Rules 10 to 12	CAS Number *
(1)	(2)	(3)	(4)	(5)
<b>GROUP 4-EXPLOSIVE CHEMICALS</b>				
150	Barium azide	<sup>1</sup> [100 kg]		18810-58-7
151	Bis(2,4,6 -trinitrophenyl) amine	50 tonnes		131-073-7
152	Chlorotrinitro benzene	50 tonnes		28260-61-9
153	Cellulose nitrate (containing 12.6% Nitrogen)	50 tonnes		9004-70-0
154	Cyclotetramethyleneteranitramine	50 tonnes		2691-41-0
155	Cyclotrimethylenetiraniramine	50 tonnes		121-82-1
156	Diazodinitrophenol	10 tonnes		7008-81-3
157	Diethylene glycol dinitrate	10 tonnes		693-21-0
158	Dinitrophenol, salts	50 tonnes		
159	Enthylene glycol dinitrate	10 tonnes		628-96-6
160	1-Guanyl-4-nitrosaminoguyanyl-1-tetrazene	<sup>1</sup> [100 kg]		109-27-3
161	2, 2', 4, 4', 6, 6', -Hexanitrostilbene	50 tonnes		20062-22-0
162	Hydrazine nitrate	50 tonnes		13464-97-6
163	Lead azide	<sup>1</sup> [100 kg]		13424-46-9
164	Lead Styphnate (Lead 2,4,6-trinitroresorcin oxide)	<sup>1</sup> [100 kg]		15245-44-0
165	Mercury fulminate	<sup>1</sup> [100 kg]		628-86-4
166	N-Methyl-N,2,4,6-tetranitroaniline	50 tonnes		479-45-8
167	Nitroglycerine	10 tonnes	10 tonnes	55-63-0
168	Pentaerythritol tetra nitrate	50 tonnes		78-11-5
169	Picric acid, (2,4,6-Trinitrophenol)	50 tonnes		88-89-1

S. No.	Chemicals	Threshold Quantity for application of Rules 5,7,8,13 and 15	for application of Rules 10 to 12	CAS Number *
(1)	(2)	(3)	(4)	(5)
170	Sodium picramate	50 tonnes		831-52-7
171	Styphnic acid (2,4,6-Trinitroresorcinol)	50 tonnes		82-71-3
172	1,3,5-Triamino-2,4,6-Trinitrobenzene	50 tonnes		3058-38-6
173	Trinitroaniline	50 tonnes		26952-42-1
174	2,4,6-Trinitroanisole	50 tonnes		606-35-9
175	Trinitrobenzene	50 tonnes		25377-32-6
176	Trinitrobenzoic acid	50 tonnes		35860-50-5
177	Trinitrocresol	50 tonnes		28905-71-7
178	2,4,6-Trinitrophenetole	50 tonnes		4732-14-3
179	2,4,6-Trinitrotoluene	50 tonnes	50 tonnes	118-96-7

\* CAS Number (Chemical Abstract Service Number) means the number assigned to the chemical by the chemical abstracts service.

<sup>1</sup>[PART II

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

S.No.	Classes of Chemicals	For application of rules 4,5,7,8,13 and 15(Tonnes)	For application of rules 10,11 and 12(Tonnes)
1	2	3	4
<b>GROUP 5 - Flammable Chemicals</b>			
1.	Flammable Gases	15	200
2.	Extremely flammable liquids	1000	5000
3.	Very highly flammable liquids	1500	10000
4.	Highly Flammable liquids which remains liquid under pressure	25	200
5.	Highly Flammable liquids	2500	20000
6.	Flammable liquids	5000	50000 ]

**Explanations:**

- (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 or potash).

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<sup>1</sup>Subs. by G.O. Ms. No. 61, Labour and Employment (M-2), dated the 24<sup>th</sup> May, 2018.

**SCHEDULE -4****(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 ammonolysis
  - (c) carbonylation
  - (d) condensation
  - (e) dehydrogenation
  - (f) halogenation and manufacture of halogens
  - (g) esterification
  - (h) hydrogenation
  - (i) hydrolysis
  - (j) Oxidation
  - (k) Polymerization
  - (l) Sulphonation
  - (m) desulphurization, manufacture and transformation of sulphur containing compounds
  - (n) nitration and manufacture of nitrogen containing compounds
  - (o) manufacture of phosphorous-containing compounds
  - (p) formulation of pesticides and of pharmaceutical products
  - (q) distillation
  - (r) extraction
  - (s) solvation
  - (t) mixing
2. Installations for distillation, refining or 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 <sup>1</sup>[production, processing, use] or treatment of energy gases, for example, LPG, PNG, SNG.
5. Installation 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.

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<sup>1</sup> Subs. by G.O. Ms. No. 61, Labour and Employment (M-2), dated the 24<sup>th</sup> May, 2018 for "production, processing".

**SCHEDULE 5**  
**FORMAT MATERIAL SAFETY DATA SHEET**

(See rules 3 (2) and (3) )

**1. IDENTITY OF MATERIAL**

Product Name		Chemical Designation	
Trade Name		Synonyms	
Formula	Label: Category Class	CAS Number	UN Number
Regulated Identification	Shipping Name Codes / Label	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.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 %	Auto ignition Temperature degree C
	Flash Point (deg.) C	LEL %	TDG Flammability (Classification)

**4. REACTIVE HAZARDS**

Stability

Impact (hazardous Combustion products)

to Static Discharge (hazardous decomposition products)

Reactivity (Conditions to avoid)



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**8. EMERGENCY RESPONSE DATA**


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	<u>Fire Extinguishing Media</u>
Fire	<u>Special Procedures</u>
	Unusual Hazards

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Exposure	
(Inhalation, skin and eye contact, ingestion)	First Aid Measures

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Spills	<u>Steps to be taken</u>
	Waste Disposal Method

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**9. ADDITIONAL INFORMATION**


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**10. SOURCES USED**


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Reference to books, journals, etc.,

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**11. MANUFACTURE / SUPPLIER DATA**

Firm's Name	<u>Standard packing</u>
Mailing Address	-----
Telephone Number	<u>Other</u>
Telex Number	<u>Other</u>
Telegraphic Address	-----
Contact person in Emergency	<u>Emergency Telephone in Transit areas.</u>

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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.

NEPA: Nation Fire Protection Association USA.

LD50 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.

TVL: 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 applicable or available, N/App. or N/Av. sign should 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 telephone/telex number)
- c) i. Registration number  
ii. Licence number  
(as may have been allotted under any status 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 chemicals

3. Description of the major accident.

- (a) Date, shift and hour of the accident
- (b) Department/Section and exact place where the accident took place
- (c) The process/operation undertaken in the Department / Section where the accident took place.  
(attach a flow chart, if necessary)
- (d) The circumstances of the accident and the hazardous chemicals 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 establishment

- casualties

..... Killed

..... Injured

..... Poisoned

-Persons exposed to the major accident .....

-material damaged .....

-damage is still present .....

-danger no longer exists. ....

(b) Outside establishment

-casualties. .... Killed

..... Injured

..... Poisoned

Persons exposed to the major accident .....

-material damaged .....

-damage is still present .....

-danger no longer exists .....

-damage to environment .....

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.

**SCHEDULE -7**

[ See Rule 7(1)and 9(b)]

**<sup>1</sup>[INFORMATION TO BE FURNISHED FOR THE NOTIFICATION OF SITE]****Particulars to be included in a notification of site**

1. The name and address of the occupier making the notification.
2. The full postal address of the site where the notifiable industrial activity will be carried on.
3. The area of the site covered by the notification and of any adjacent site which is required to be taken into account by virtue of Schedule 2(b) and Schedule 3(b).
4. The date on which it is anticipated that the notifiable industrial activity will commence or if it has already commenced a statement to that effect.
5. The name and maximum quantity liable to be on the site of each hazardous chemical for which notification is being made.
6. Organisation 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 conditions or events which could be significant in bringing one about;
  - (c) brief description of the measures taken.
8. Information relating to the site namely:-
  - (a) a map of the site and its surrounding area to a scale large enough to show any features that may be significant in the assessment of the hazard or risk associated with the site;
    - (i) area likely to be affected by the major accident.
    - (ii) Population distribution in the vicinity.
  - (b) a scale plan of the site showing the location and quantity of all significant inventories of the hazardous chemicals;
  - (c) a description of the processes or storage involving the hazardous chemicals, the maximum amount of such a hazardous chemical in the given process or storage and an indication of the conditions under which it is normally held;
  - (d) the maximum number of persons likely to be present on site.
9. The arrangement for training of workers and equipment necessary to ensure safety of such workers.

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<sup>1</sup> Subs. by G.O. Ms. No. 17, Labour and Employment (M-2), dated the 21st February, 2008. (deemed to have come into force on 16th July, 2008), for the heading "Information to be furnished for the notification of activities sites".

**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 concentration),
  - (b) the form in which the chemicals may occur on 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) types 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 of 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 to carry on the industrial activity safety, namely : \_

- (a) maintenance and inspection schedules,
- (b) guidelines for the training of personnel,
- (c) allocation and delegation of responsibility for plant safety,
- (d) implementation of safety procedures.

9. Information on assessment of the consequences of major accidents, namely : \_

- (a) assessment of the possible release of hazardous chemicals or of energy,
- (b) possible dispersion of released chemicals,
- (c) assessment of the effects of the releases (size of the affected area, health effects, property damage).

10. Information on the mitigation of major accidents, namely : —

- (a) fire brigade,
- (b) alarm systems,
- (c) emergency plan containing system of organisation used to fight the emergency, the alarm and the communication routes, guidelines for fighting the emergency, examples of possible accident sequences,
- (d) co-ordination with the District Collector or the District Emergency authority and its off-site emergency plan,
- (e) notification of the nature and scope of the hazard in the event of an accident.
- (f) antidotes in the event of a release of a hazardous chemical.

<sup>1</sup>[SCHEDULE 9]

[See rule 13(1)]

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

1.	Name and address of the person furnishing the information:	
2.	Key personnel of the organisation and responsibilities assigned to them in case of an emergency:	
3.	Outside organisations if involved in assisting during on-site emergency —	
(a)	Type of accidents.	
(b)	Responsibility assigned.	
4.	Details of liaison arrangement between the organisations:	

## 5. Information on the preliminary hazard analysis —

(a)	Type of accidents.	
(b)	System elements or events that can lead to a major accident.	
(c)	Hazards.	
(d)	Safety relevant components.	

## 6. Details about the site —

(a)	Location of dangerous substances.	
(b)	Seat of key personnel.	
(c)	Emergency control room.	

## 7. Description of hazardous chemicals at plant site —

a)	Chemicals (quantities and toxicological data).	
(b)	Transformation if any which could occur	
(c)	Purity of hazardous chemicals.	
8. Likely dangers to the plant:		

<sup>1</sup> Schedule 9 added by GO. No. 17, Labour and Employment (M-2), dated the 21st February, 2008 (deemed to have come into force on 16th July, 2008).

9.	Enumerate effects of,--	
(a)	Stress and strain caused during normal operation;	
(b)	fire and explosion inside the plant and effect if any, of fire and explosion outside.	
10.	Details regarding,--	
(a)	warning alarm and safety and security systems ,	
(b)	alarm and hazard control plans in line with disaster control and hazard control planning, ensuring the necessary technical and organizational precautions ,	
(c)	reliable measuring instruments, control units and servicing of such equipments ;	
(d)	precautions in designing the foundation and load-bearing parts of the building ,	
(e)	continuous surveillance of operations ,	
(f)	maintenance and repair work according to generally rules of good engineering practices ,	
11.	Details of communication facilities available during emergency and those required for an off-site emergency	
12.	Details of fire-fighting and other facilities available and those required for an off-site emergency	
13.	Details of first aid and hospital services available and its adequacy:	