

Draft Chemicals (Management and Safety) Rules, 20xx

In exercise of the powers conferred by Sections 3, 6 and 25 of the Environment (Protection) Act, 1986 (29 of 1986), and in supersession of the Manufacture, Storage and Import of Hazardous Chemical Rules, 1989 and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996, except things done or omitted to be done before such supersession, the Central Government hereby makes the following Rules relating to the management and safety of chemicals, namely:

1. Short Title and Commencement

- (1) These Rules may be called the Chemicals (Management and Safety) Rules, 20xx.
- (2) These Rules shall come into force on the date of their publication in the Official Gazette.

Chapter I Definitions, Objectives and Scope

2. Definitions

- (1) In these Rules, unless the context otherwise requires
 - (a) **“Act”** means the Environment (Protection) Act, 1986 (29 of 1986) as amended from time to time;
 - (b) **“Article”** means any object whose function is determined by its shape, surface or design to a greater degree than its chemical composition;
 - (c) **“Authorised Representative”** means a natural or juristic person in India who is authorised by a foreign Manufacturer under Rule 6(2);
 - (d) **“Chemical Accident”** means an accident involving a sudden or unintended occurrence while handling any Hazardous Chemical, resulting in exposure (continuous, intermittent or repeated) to the Hazardous Chemical causing death or injury to any person or damage to any property, but does not include an accident by reason only of war or radioactivity;
 - (e) **“Competent Person”** means a person recognized by the Chief Controller to be a competent person, or a person who holds a certificate of competency for the job in respect of which competency is required from an institution recognized by the Chief Controller in this behalf;
 - (f) **“Concerned Authority”** means an authority specified in column 2 of Schedule III;
 - (g) **“Division”** means the Chemical Regulatory Division of the Petroleum and Explosives Safety Organisation, whose functions are set out under Rule 5;
 - (h) **“Downstream User”** means any natural or juristic person in India, other than a Manufacturer or an Importer, who Uses a Substance in the course of his industrial or professional activities;
- Explanatory Note:* Downstream User does not include end-use consumer.
- (i) **“Existing Industrial Activity”** means an Industrial Activity which is not a New Industrial Activity;

- (j) **“Existing Substance”** means a Substance or an Intermediate which is already being Manufactured, Imported, supplied or Used in India or has already been Placed in Indian Territory prior to the expiry of the Initial Notification Period;
- (k) **“Exposure Scenario”** means the set of conditions, including operational conditions and risk management measures, that describe how a Substance is Manufactured or Used during its life-cycle, and how the Manufacturer or Importer controls, or recommends Downstream Users to control, exposures to humans and the environment. These exposure scenarios may cover one specific process or Use or several processes or Uses as appropriate;
- (l) **“Hazardous Chemicals”** means
- i. Any Substance which satisfies any of the criteria laid down in Part I of Schedule X or any Substance listed in Part II of Schedule X;
 - ii. Any Substance listed in column 2 of Schedule XI;
 - iii. Any Substance listed in column 2 of Schedule XII;
- (m) **“Intermediate”** means a Substance that is Manufactured for, consumed in, or Used for, chemical processing in order to be transformed into another Substance;
- (n) **“Import”** with its grammatical variations and cognate expressions, means bringing a Substance into India from a place outside India;
- (o) **“Importer”** means any natural or juristic person who Imports a Substance;
- (p) **“Industrial Activity”** means:
- i. an operation or process carried out in an industrial installation referred to in Schedule XIII involving or likely to involve one or more Hazardous Chemical and includes on-site storage or on-site transport, which is associated with that operation or process, as the case may be; or
 - ii. isolated storage; or
 - iii. pipeline;
- (q) **“Industrial Pocket”** means an industrial zone notified either by a State Government or the ‘Industrial Development Corporation’ of a State Government;
- (r) **“Initial Notification Period”** means the period prescribed under Rule 8(1);
- (s) **“Isolated Storage”** means storage of a Hazardous Chemical, other than storage associated with an installation on the same site specified in Schedule XIII where that storage, including storage in a warehouse, involves at least the quantities of that chemical set out in either column 3 or column 4 of the Schedule XI;
- (t) **“Major Chemical Accident”** means a Chemical Accident involving loss of life inside or outside an installation, ten or more injuries inside and/or one or more injuries outside, release of toxic chemicals, explosion, fire spillage of Hazardous Chemicals resulting in on-site or off-site emergencies or damage to equipment leading to stoppage of process or adverse effects on the environment;
- (u) **“Major Accident Hazard Installations”** means sites where an Industrial Activity (including handling and Isolated Storage, and transport through carrier or pipeline) involving Hazardous Chemicals in quantities equal to, or in excess of, the threshold specified in column 3 of Schedules XI and XII respectively is carried out;
- (v) **“Manufacture”** means production or extraction of a Substance;

- (w) **“Manufacturer”** means any natural or juristic person who Manufactures a Substance;
- (x) **“Mixture”** means a solution composed of two or more Substances;
- (y) **“New Industrial Activity”** means an Industrial Activity which commences after the date of coming into force of these Rules;
- (z) **“New Substance”** means all Substances and Intermediates that are Placed in Indian Territory after the expiry of the Initial Notification Period, and are therefore not Existing Substances;
- (aa) **“Notification”** with its grammatical variations and cognate expressions, means a notification made under Rule 8;
- (bb) **“Notifier”** means any person who has an obligation to notify under Rule 8;
- (cc) **“Off-site Emergency”** means an emergency that takes place in a Major Accident Hazard installation where the impact of such emergency extends beyond the premises of such installation;
- (dd) **“On-site Emergency”** means an emergency that takes place in a Major Accident Hazard installation where the effects are confined to the premises involving only the people working inside the installation, and to deal with such eventualities is the responsibility of the occupier and is mandatory;
- (ee) **“Packaging”** means one or more receptacles and any other components or materials necessary for the receptacles to perform containment and other safety functions with respect to Substances;
- (ff) **“Pipeline”** means a pipe (together with any apparatus and works associated therewith) or system of pipes (together with any apparatus and work 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 XII at a pressure of less than 8 bars absolute, where pipeline also includes inter-state pipelines;
- (gg) **“Placing in Indian Territory”** with its grammatical variations and cognate expressions, means supplying or making available a Substance or an Intermediate, whether in return for payment or free of charge, to a third party in the territory of India, and includes Manufacturing, packing, selling, offering for sale, or otherwise distributing, Substances or Intermediates. Import shall be deemed to be Placing in Indian Territory;
- (hh) **“Priority Substance”** means
- i. any Substance which falls under any of the following Hazard Classifications of the eighth revision of the United Nations Globally Harmonized System of Classification and Labelling of Chemicals (GHS Rev. 8):
 - a. Carcinogenicity and/or Germ Cell Mutagenicity and/or Reproductive Toxicity and categorised as Category 1 or 2, or
 - b. Specific Target Organ Toxicity (Repeated Exposure or Single Exposure) Category 1 or 2; or
 - ii. any Substance which fulfils the criteria of Persistent, Bio-accumulative and Toxic or very Persistent or very Bio-accumulative, as set out in Schedule I of these Rules; or

- iii. any Substance listed in Schedule II;
- (ii) **“Registrant”** means a Notifier with an obligation to Register a Substance;
- (jj) **“Registration”** with its grammatical variations and cognate expressions, means a registration made under Rule 10;
- (kk) **“Restriction”** means a prohibition on, or conditions relating to, the Manufacture, Use or Placing in Indian Territory of a Substance;
- (ll) **“Risk Assessment Committee”** means the committee constituted under Rule 4(4);
- (mm) **“Schedule”** means a Schedule appended to these Rules;
- (nn) **“Scientific Research and Development”** means any scientific experimentation, analysis or chemical research on, involving or Using a Substance, carried out under controlled conditions, provided that the volume of the Substance used is less than one tonne per annum;
- (oo) **“Scientific Committee”** means the committee constituted under Rule 4(3);
- (pp) **“Site”** means any location where Hazardous Chemicals are Manufactured, processed, stored, handled, Used or disposed of and includes the whole of an area under the control of an Occupier and includes a pier, jetty or similar structure whether floating or not;
- (qq) **“Steering Committee”** means the committee constituted under Rule 4(1) and with such composition as set out in Rule 4(2);
- (rr) **“Substance”** means a chemical element and its compounds in their natural state or obtained by any Manufacturing process, including any additive necessary to preserve its stability and any impurity deriving from the process used, but excluding any solvent which may be separated without affecting the stability of the Substance or changing its composition. Substance shall include Substances in Articles and Mixtures;
- (ss) **“Technical Dossier”** means a document providing such information as detailed in Schedule VII and to be submitted under Rule 10(1);
- (tt) **“Use”** means any processing, formulation, consumption, storage, keeping, treatment, filling into containers, transfer from one container to another, mixing, production of Substance, Intermediate, Mixture and Article, or any other utilisation.
- (2) Anything not hereby defined shall have such meaning as assigned to it under the Act.

3. Objectives and scope

- (1) These Rules provide for Notification, Registration and Restrictions, or prohibitions on Use of Substances, Substances in Mixtures, and Substances in Articles and Intermediates Placed in Indian Territory.
- (2) These Rules also provide for procedures for the Manufacture, handling and Import of Hazardous Chemicals and preparedness and management of Chemical Accidents related to Hazardous Chemicals, as identified under these Rules. The objective of

these Rules is to ensure a high level of protection to human health and the environment.

- (3) These Rules apply to all Substances, Substances in Mixtures and Intermediates that are Manufactured, Imported, Placed or intended to be Placed in Indian Territory.
- (4) These Rules do not apply to Substances in Articles except when-
- (a) the Substance is present in the Articles in quantities greater than [●] tonnes per annum; and
 - (b) the Substance may be released from the articles under normal or reasonably foreseeable conditions of Use.
- (5) The following shall be exempt from the scope of these Rules:
- (a) Radioactive Substances;
 - (b) Substances under customs supervision, not being placed in Indian Territory;
 - (c) Substances stored in customs free zones with aim of re-exporting;
 - (d) Wastes, as defined in Hazardous Waste Management Rules 2016;
 - (e) Substances used for the purposes of defence;
 - (f) Substances used as food or feeding stuff for human beings or animals, including human or animal nutrition;
 - (g) Substances set out in Schedule IV.

Explanatory Note: Where a Substance Used for a specific purpose is exempted under Rule 3(5), only such quantities of the Substances as are being Used for the said purpose, are exempted from the application of these Rules. Any Manufacturer, Importer or Downstream User Using any quantities of the same Substance for any other purpose will not be exempt from the application of these Rules.

Chapter II

Committees and Chemical Regulatory Division

4. Steering Committee, Scientific Committee and Risk Assessment Committee

- (1) The Steering Committee shall oversee technical and administrative matters arising out of these Rules, and carry out functions that may be assigned to it under these Rules including:
- (a) Oversee the activities of the Division;
 - (b) Approve an annual budget for the functioning of the Division, prepare internal procedure for its day to day operations, and oversee the day to day operations of the Division; and
 - (c) Prepare and publish an annual report regarding the activities of the Division.
- (2) ~~The Steering Committee shall meet at least once every 90 days,~~ and shall consist of the following members:

(a)	Secretary, Department of Chemicals and Petro-Chemicals	Ex officio Chairperson
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(b)	Head, Chemicals Regulatory Division	Ex officio Member Secretary
(c)	Joint Secretary (Chemicals), Department of Chemicals and Petro-Chemicals	Ex officio Member
(d)	Joint Secretary (Explosives), Department for Promotion of Industry and Internal Trade	Ex officio Member
(e)	Joint Secretary (HSM Division), Ministry of Environment, Forest and Climate Change	Ex officio Member
(f)	Joint Secretary (Plant Protection), Department of Agriculture, Cooperation and Farmers Welfare	Ex officio Member
(g)	Joint Secretary (FSSAI Division), Ministry of Health and Family Welfare	Ex officio Member
(h)	Joint Secretary (Trade Policy Division), Department of Commerce	Ex officio Member
(i)	Joint Secretary, Department of Pharmaceuticals	Ex officio Member
(j)	Joint Secretary, National Authority for Chemical Weapons Convention	Ex officio Member
(k)	Drugs Controller General of India	Ex officio Member
(l)	Chairperson, Central Pollution Control Board	Ex officio Member
(m)	Chairman, Registration Committee under Central Insecticide Act, 1968	Ex officio Member
(n)	CEO, Food Safety and Standards Authority of India	Ex officio Member
(o)	Principal secretary/ Secretary of Industries, from each State of India.	Ex officio Members
(p)	Persons having technical expertise in chemical management, co-opted as and when the special need arises	

(3) The Scientific Committee shall be composed of the following members and shall carry out functions as set out in these Rules:

- (a) A Chairperson, being the Joint Chief Controller of Chemicals (Chemistry Unit);
- (b) One expert in chemistry or chemical regulations, from an NABL lab or institute;
- (c) One toxicology expert, from a GLP lab or institute;
- (d) One packaging and labelling expert, from the Indian Institute of Packaging, Ministry of Commerce and Industry;
- (e) One environmental expert from the Ministry of Environment, Forest and Climate Change, or the Central Pollution Control Board;
- (f) Four experts in socio-economic analysis, including for instance experts with background in Ecological Economics, Economic Sciences, Social Sciences, etc.;

- (g) Any senior staff member of the Chemistry Unit nominated by the Head as the Member Secretary; and
 - (h) Up-to five co-opted members, as required.
- (4) A Risk Assessment Committee shall be composed of the following members and shall carry out the functions set out in these Rules:
- (a) A Chairperson, being the Joint Chief Controller of Chemicals (Toxicology Unit);
 - (b) One expert in chemistry or chemical regulations, from an NABL lab or institute;
 - (c) One medical toxicology expert, from a GLP lab or institute;
 - (d) One veterinary toxicology expert, from a GLP lab or institute;
 - (e) One phyto-toxicology expert, from a GLP lab or institute;
 - (f) One marine toxicology expert, from a GLP lab or institute;
 - (g) One environmental expert, from the Ministry of Environment, Forest and Climate Change, or Central Pollution Control Board;
 - (h) Any senior staff member of the Toxicology unit nominated by the Head as the Member Secretary; and
 - (i) Up to four co-opted members, as required.

[CTIL Comment: Designations and institutes of Members of Scientific Committee and Risk Assessment Committee to be provided by DCPC]

- (5) Members of the Scientific Committee or the Risk Assessment Committee shall, unless their seats become vacant earlier by resignation, death or otherwise, hold office for 3 years from the date of their appointment, and shall be eligible for re-appointment to either committee only once.
- (6) No Person may serve as a member of the Scientific Committee and the Risk Assessment Committee simultaneously.
- (7) All members shall be paid sitting fees of Rupees Ten Thousand per day.

5. Chemical Regulatory Division

- (1) The Chief Controller of Explosives, being the Head of the Chemical Regulatory Division of the Petroleum and Explosives Safety Organisation (“Division”) shall:
 - (a) Manage and coordinate the day to day functioning of the Division, including administrative tasks;
 - (b) Coordinate between the Scientific Committee, the Risk Assessment Committee and the Units of the Division; and
 - (c) Prepare a statement of revenue and expenditure, as well as implement the annual budget.
- (2) A Joint Chief Controller of the Division shall head each of the following Units of the Division:
 - (a) Chemistry Unit;
 - (b) Toxicology Unit;
 - (c) Chemical Accidents Unit;
 - (d) Packaging and Labelling Unit;

- (e) Techno-legal Unit;
 - (f) Priority Substance Unit;
 - (g) Information Technology Unit; and
 - (h) Socio-Economic Unit.
- (3) A Deputy Joint Chief Controller shall head the Administrative Unit of the Division.
- (4) The Division shall, *inter alia*:
- (a) Provide technical, scientific and administrative support to the Scientific Committee and Risk Assessment Committee;
 - (b) Administer procedures relating to Notification and Registration;
 - (c) Prepare and maintain a database of information;
 - (d) Disseminate information to the public;
 - (e) Ensure the enforcement of these Rules;
 - (f) Evaluate Notifications and Registrations, and make recommendations, in concurrence with the Scientific Committee and the Risk Assessment Committee, on the accuracy of the data submitted, and to identify Substances which require Registration, authorization under Restricted Use and prohibition from Use; and
 - (g) Ensure decisions taken on Substances are shared with the Notifier or Registrant.

Chapter III

Notification, Registration and Restrictions on Use

6. Placing in Indian Territory

- (1) No person shall Place in Indian Territory any Substance, Mixture or Article unless they comply with these Rules.
- (2) A Foreign Manufacturer who wishes to Place a Substance, Mixture or Article in Indian Territory may appoint an Authorised Representative, who shall be an Indian national or an entity registered in India. Such Authorised Representative shall be responsible to act on behalf of the foreign Manufacturer to ensure compliance with these Rules and shall be liable for the discharge of all obligations under these Rules.

7. Duty of Downstream Users

- (1) A Downstream User shall not procure Substances, Mixtures, Intermediates or Articles in which Substances or Intermediates have not been Notified or Registered, as applicable, in accordance with these Rules.
- (2) Every Downstream User whose Use of a Notified Substance is not included in its Notification, shall notify the Division of such Use and submit a Safety Data Sheet in relation to such Use in accordance with Rule 12.

8. Notification (Now more elaborate)

- (1) The Initial Notification Period shall commence on the date that is one year from the date of coming into force of these Rules. The Initial Notification Period shall terminate on the date which is 180 days from the date of the commencement of the Initial Notification Period.

- (2) A Manufacturer or Importer (or Authorised Representative acting on behalf of a foreign Manufacturer) shall Notify the Division of all Existing Substances that they have Placed in Indian Territory in quantities greater than 1 tonne per annum in accordance with Rule 9, within the Initial Notification Period.
- (3) A Manufacturer or Importer (or Authorised Representative in the case of a Foreign Manufacturer) shall Notify the Division of any New Substance that they intend to Place in Indian Territory, after the expiry of the Initial Notification Period.
- (4) All New Substances have to be Notified at least 90 days prior to the date on which they are Placed in Indian Territory.
- (5) The fees for Notification shall be [●].
- (6) All Manufacturers and Importers who have registered a Substance under any other Indian Act, Rule or Regulation currently in force, may submit proof of such registration in lieu of the information required to be submitted under Rule 9. The Division may require that such Manufacturer or Importer share additional information depending on the extent of data already provided at the time of registration made under another law for the time being in force.
- (7) All Manufacturers and Importers who have Notified a Substance under this Rule shall update the information submitted annually, no later than 30 days after the end of each calendar year. Such update shall mandatorily include information regarding the actual quantities of Substances Placed in Indian Territory in the previous calendar year. Additionally, any changes or additions to the information submitted at the time of Notification must be updated.
- (8) Upon receipt of a Notification, the Chemistry Unit of the Division shall conduct a preliminary check to ensure that the Notification is complete, and the prescribed fees has been paid. If the Notification is incomplete, the Division may require the Notifier to submit additional information. The Notifier must comply with such request within a maximum period of 30 days.
- (9) In case the Notifier is unable to furnish such information within 30 days, he may apply to the Division for an extension of a maximum of 30 days. The Division may, if it deems fit, grant such an extension.
- (10) If the Notification passes such preliminary check, the Techno-Legal Unit shall take a decision on an application for confidentiality, if any.
- (11) Once all required information regarding a Notification has been submitted to the satisfaction of the Chemistry Unit, the Notification shall be deemed accepted and the Substance shall be entered into the Register of Notified Substances, and a notification number shall be assigned to the Notifier for such Substance.
- (12) Upon Notification of a Substance, the Chemistry Unit of the Division shall check for availability of data regarding a Substance and shall conduct an evaluation of such data and the risks posed by such Substance. Based on such evaluation, and based on the availability of data, the Chemistry Unit may identify a list of Substances that are to be Registered, in addition to the Substances set out in Schedule VI.
- (13) The identification of Substances for Registration shall be based on any of the following criteria:

- (a) If the Division in consultation with the Scientific Committee determines that sufficient data on the chemical structure, hazard properties, risks, exposures to chemicals etc is not available with the Division;
 - (b) If on the basis of the evaluation of the Substance Notifications, the Division in consultation with the Scientific Committee determines that additional data is required for specific uses, properties or risks of Substances; or
 - (c) Any other criteria deemed necessary by the Division in consultation with the Scientific Committee.
- (14) Such list of Substances that are to be Registered shall be submitted to the Scientific Committee for its approval. Upon carrying out changes, if any, suggested by the Scientific Committee, such list shall be recommended to the Steering Committee to be added to Schedule VI.

9. Information for Notification

- (1) A Notification by a Manufacturer or Importer or Authorised Representative shall include information relating to the Notifier, identity of the Substance, its Uses, the quantity of the Substance that will be Placed in Indian Territory, current classification and such other information as set out in Schedule V.
- (2) All Notifiers are also required to submit a Safety Data Sheet as required under Rule 12.

10. Registration

- (1) All Manufacturers, Importers and Authorised Representatives (in the case of Foreign Manufacturers) that have Placed or are intending to Place in Indian Territory Substances listed in Schedule VI in quantities greater than 1 tonne per annum must Register such Substances.
- (2) A requirement for Registration of Substances that are placed in Indian Territory in quantities lower than 1 tonne per annum, may also be published in Schedule VI, based on the recommendations of the Scientific Committee and the Division.
- (3) Substances in specific Articles for which, the manufacturers or importers of such Articles for which Registration is required may also be published based on the recommendations of the Scientific Committee and the Division, provided that Substance in the Article is likely to be released under normal or foreseeable conditions of use.
- (4) Registration shall be done by submitting a Technical Dossier, as set out in Schedule VII.
- (5) Upon the receipt of a Registration, the Chemistry Unit shall conduct a preliminary check to ensure that the Registration is complete, and that the prescribed fees has been paid. If the Registration is incomplete, the Division may require the Registrant to submit additional information in accordance with Rule 15.
- (6) The Techno-legal Unit shall take a decision on any applications regarding confidentiality.

- (7) Upon the receipt of all required information, the Chemistry Unit shall evaluate the data submitted as part of the Registration. Based upon such evaluation, the Division may request additional tests and data to be submitted in accordance with Rule 15.
- (8) Once all required information regarding a Registration has been submitted to the satisfaction of the Chemistry Unit, the Registration shall be deemed accepted and the Substance shall be assigned a Registration Number to the Registrant of such Substance.
- (9) All Manufacturers, Importers or Authorised Representatives who have Registered a Substance shall update the Technical Dossier and other data submitted with the Registration (if any) to reflect any change or revision in the information submitted, not later than 30 days after the Manufacturer, Importer or Authorised Representatives has become aware of such change or revision.
- (10) The fees for Registration shall be [●].
- (11) Any Manufacturer, Importer or Authorised Representative who has a duty to Register a Substance, may come to an arrangement with other Manufacturers, Importers or Authorised Representatives of the same Substance and jointly Register such Substance:

Provided however that such joint Registration shall be in compliance with all such obligations applicable to an individual Registration under these Rules.

11. Intermediates

- (1) Manufacturers, Importers or Authorised Representatives that transport or store or will transport or store Intermediates within the territory of India shall comply with Notification and Registration requirements as set out in this Rule.
- (2) All Intermediates, which are also Substances included in Schedule VI, and are stored in a facility (either for consumption *in-situ* or otherwise) shall be Registered in accordance with Rule 10 of these Rules.
- (3) Transported Intermediates that are Substances included in Schedule VI, shall be Registered as under:
 - (a) registration of Intermediates transported or to be transported in quantities up to 1000 tonne per annum shall only contain details regarding the physical and chemical properties in the Technical Dossier, and
 - (b) registration of Intermediates transported or to be transported in quantities greater than 1000 tonne per annum shall contain all information as required in the Technical Dossier and the Chemical Safety Report.
- (4) Intermediates not included in Schedule VI, are required to be Notified, but are exempted from Registration requirements under these Rules.

12. Safety Data Sheet

- (1) All Notifiers of a Substance or an Intermediate are required to maintain an up-to-date Safety Data Sheet in the format set out in Schedule IX and share such Safety Data Sheet with the Downstream User of the Substance.

- (2) Any Registrant who is required under Rule 13 to carry out a Chemical Safety Assessment for a Substance included in Schedule VI shall ensure that the information in the Safety Data Sheet is consistent with the information in the Chemical Safety Report.
- (3) All Downstream Users of a Substance shall recommend additions to the Safety Data Sheet, if any, on the basis of their Use of the Substance.
- (4) All Notifiers and Downstream Users shall update the Safety Data Sheet when new information on hazards or which may affect risk management becomes available.

13. Chemical Safety Assessment

- (1) Manufacturers or Importers (or Authorised Representatives in the case of foreign Manufacturers) that Place Substances included in Schedule II in Indian Territory in quantities greater than 10 tonnes per annum shall perform a Chemical Safety Assessment and submit a Chemical Safety Report in the format prescribed in Schedule VIII at the time of Registration.
- (2) Manufacturers or Importers (or Authorised Representatives in the case of foreign Manufacturers) that Place Substances included in Schedule II in Indian Territory in quantities less than or equal to 10 tonnes per annum shall submit an Exposure Scenario at the time of Registration.

14. Information Dissemination

- (1) The interactive digital platform set up by the Division for the operation of these Rules shall include an information portal to disseminate the following information to the general public:
 - (a) information relating to Notified and Registered Substances, their Uses and classification, along with details of the Notifier(s)/Registrant(s);
 - (b) Information relating to deadlines and fees for Registration and Notification;
 - (c) Standard operating procedures and technical guidance on Notification, Registration, Chemical Safety Assessment, and Evaluation; and
 - (d) Templates for providing information for Notification and Registration.
- (2) The Portal shall also:
 - (a) contain Notices and other communication from the Division to Notifiers and Registrants, subject to the confidentiality obligations in Rule 17; and
 - (b) have provisions for e-filing of appeals.

15. Dossier Evaluation

- (1) The Division shall evaluate the Technical Dossier within 60 days of its submission.
- (2) If the Division finds that the Technical Dossier has incomplete information, it shall require the Registrant to furnish the same within 90 days of being informed of such omission.
- (3) In case the Registrant is unable to furnish such information within the prescribed period, he may apply to the Scientific Committee for an extension of a maximum of 90 days. The Scientific Committee may, if it deems fit, grant such extension.

- (4) If the Registrant is unable to supply the required information within the deadline directed by the Division, the Registration of the Substance shall be suspended. If the Registration of the Substance remains suspended, the Registrant shall not Place the Substance in Indian Territory.
- (5) Upon submission of the pending information to the satisfaction of Division, the suspension under sub-rule (4) shall be withdrawn.

16. Evaluation and Restriction

- (1) The Priority Substance Unit shall evaluate all Substances, in concurrence with the Scientific Committee and the Risk Assessment Committee, and identify Substances that fall within the definition of Priority Substance. Such list shall be recommended to the Steering Committee for inclusion in Schedule II.
- (2) The Priority Substance Unit of the Division shall evaluate the available data to assess if Priority Substances in Schedule II pose an unacceptable risk to human safety or the environment.
- (3) If the Priority Substance Unit is of the opinion that the risk posed by the use of a Priority Substance is substantial, it may propose to Restrict the use of such Substance or Prohibit such Substance. Such proposal shall be submitted to the Risk Assessment Committee for its approval. The Priority Substance Unit may also recommend to the Risk Assessment Committee that a Substance be added to Schedules X, XI or XII.
- (4) Upon carrying out changes, if any, suggested by the Risk Assessment Committee, a Substance may be recommended for Restrictions or Prohibition to the Steering Committee.
- (5) Once a Restriction on a Priority Substance has been notified, a request for authorization for use of a Restricted Substance may be submitted by a Manufacturer, Importer or Authorized Representative to the Division. Such request shall be analysed by the Priority Substance Unit, to determine if such Restricted Substance is essential for the operation of an industrial process or for Scientific Research and Development and a recommendation on such authorization shall be submitted to the Risk Assessment Committee for approval. Upon the receipt of an approval from the Risk Assessment Committee, such authorization shall be granted.
- (6) The Division may grant permission for authorised Use of Substances restricted under sub-rule (4) for an initial period of no more than 4 years. The Division may further extend such permission for a maximum additional period of 4 years on re-application by the Registrant.
- (7) These Rules are without prejudice to any restrictions, prohibitions or regulations on the use of any Substances provided under any other enactment, for the time being in force.

17. Confidentiality

- (1) A Notifier or Registrant may request that trade secrets, proprietary business information and other intellectual property related data and information shared by the Notifier or the Registrant be kept confidential and not be disseminated publicly.

- (2) Foreign Manufacturers of any Substance, Intermediate, Mixture or Article may submit a request for confidentiality through their Authorised Representatives.
- (3) A request for confidentiality should be accompanied by a statement of reasons clearly identifying:
 - (a) what information is to be kept confidential; and
 - (b) the reasons why such information should be kept confidential.
- (4) The request for confidentiality will be submitted to the Division and it shall make the final determination of whether such request for confidentiality may be granted. The Division may require the Notifier or the Registrant to furnish documents or information to determine the validity of the request for confidentiality if it deems appropriate.
- (5) The information or data with respect to which the request for confidentiality has been filed will be kept confidential and not disseminated publicly until such time as the Techno-legal Unit makes a final decision on the validity of such request.
- (6) If a request for confidentiality has been granted with respect to certain information, then the Members of the Division, Scientific Committee, Risk Assessment Committee and the Steering Committee who have access to such information shall keep such information confidential even after the expiry of their term.
- (7) A request for confidentiality may not be submitted for the classification of Substances and 'endpoint' summaries submitted during Notification or Registration.
- (8) Where for the purpose of evaluating Notifications and Registrations, the Division discloses that information to some other person, such person shall not use or disclose such information.

18. Methods of Testing

When tests are required to be carried out by Registrants for the purpose of Registration, the Registrants shall comply with the testing methodology laid down in the eighth revision of the United Nations Global Harmonised System of Classification.

19. Appeals

- (1) Any person aggrieved by a decision of the Division may prefer an appeal to the Steering Committee.
- (2) An appeal may only be filed in writing within 90 days of being notified of the decision of the Division. The appeal must set out the grounds.
- (3) The Steering Committee must decide the appeal within 60 days from the date on which the appeal is filed.
- (4) The fees for filing an appeal is [●].

Chapter IV

Safety and Accident Preparedness

20. Duties of Authorities

The Concerned Authority shall, subject to other provisions of these rules, perform the duties specified in column 3 of Schedule III of these Rules.

21. Transport of Hazardous Chemicals

When an Occupier wishes to transport a Hazardous Chemical, he shall ensure that the vehicle used for transport is properly labelled, and that technology enabled tracking and communication systems are used.

22. Submission of Information relating to Industrial Activity and Site Safety Report

- (1) An Occupier who has control of an Industrial Activity in which a Hazardous Chemical is handled and such Industrial Activity is not covered by sub-rule (2) below, shall provide evidence to show that he has
 - (a) identified the Chemical Accident hazards; and
 - (b) taken adequate steps to (i) prevent Chemical Accidents and to limit their consequences in terms of impact on persons and the environment; and (ii) provide persons working on the site information, training and equipment including antidotes necessary to ensure their safety.
- (2) The following Industrial Activities will have to be notified by the Occupier and approved in accordance with this rule
 - (a) an Industrial Activity in which there is involved a quantity of Hazardous Chemical as listed in column 2 of Schedule XII which is equal to or more than the threshold quantity specified in the entry for that Hazardous Chemical in column 3 of Schedule XI; and
 - (b) isolated storage in which there is involved a quantity of a Hazardous Chemical listed in column 2 of Schedule XI which is equal to or more than the threshold quantity specified in the entry for that Hazardous Chemical in column 3 of Schedule XI.
- (3) An Occupier shall not undertake any New Industrial Activity unless he has been granted an approval from the Concerned Authority for undertaking such activity and has submitted a report for notification in the format set out in Part I and Site Safety Report in the format set out in Part II of Schedule XIV, at least 90 days before commencing that activity or before such shorter time as the Concerned Authority may agree.
- (4) The Concerned Authority shall,
 - (a) within 90 days from the date of receipt of the report, approve the report submitted or on consideration of the report if Concerned Authority is of the

- opinion that there is or has been a contravention of the provisions of the Act or the Rules, issue an improvement notice to the Occupier; and
- (b) forward copies of all such reports and approvals, as well as any improvement notices to the Division, immediately.
- (5) The Chemical Accidents Unit of the Division shall, from time to time, coordinate and ensure that all reports, approvals and improvement notices submitted to the Concerned Authorities under these Rules are shared with the Division.
- (6) The Division may provide recommendations to the Concerned Authority in relation to any report, approval or improvement notice after reviewing the report forwarded to it.

23. Transitional Provisions

Where-

- (a) at the date of coming into force of these Rules, an Occupier is in control of an Existing Industrial Activity which is required to be notified under Rule 22(1); or
- (b) within 90 days after the date of coming into force of these Rules, an Occupier commences any New Industrial Activity,

he may continue or commence such Industrial Activity:

Provided that he submits to the Concerned Authority, a report for notification as per Part I and a Site Safety Report as per Part II of Schedule XIV, within 90 days of the date of coming into force of these Rules.

24. Safety Audit Reports

- (1) The Occupier of a Major Accident Hazard Installation involving quantities of Hazardous Chemicals exceeding the threshold quantity of column 4 of Schedules XI or XII shall carry out an independent safety audit of the Industrial Activity by an accredited expert agency empaneled by the Steering Committee, at least once every 2 years. The Occupier shall submit at least one Safety Audit Report within 180 days from the date of coming into force of these Rules.
- (2) The Occupier shall send a copy of the auditor's report along with his comments to the Concerned Authority within 30 days after the completion of such audit. The Concerned Authority will forward a copy of such auditor's report to the Division.
- (3) If an Occupier is conducting a safety audit during the period mentioned above for a Site under any other law for the time being in force, the requirement to conduct a safety audit shall be deemed to be fulfilled and the Occupier shall submit the Safety Audit Report of such audit to the Concerned Authority.
- (4) The Concerned Authority may, if he deems fit, issue an improvement notice within 45 days of the submission of the Safety Audit Report submitted under this Rule.
- (5) Steering Committee may direct safety audit of any industry, at random, or on receipt of any specific complaint.

25. Revision and updation of Reports submitted under Rules 22 and 24.

- (1) When an Occupier makes any modification to an Industrial Activity which could materially affect the particulars in the reports submitted as per Part I of Schedule IV,

or the Site Safety Report or the Safety Audit Report, he shall make a fresh report taking into account these modifications and submit such revised report to the Concerned Authority, no later than 30 days from the making of these modifications.

- (2) Where the Occupier has made a Site Safety Report as provided in Part II of Schedule XIV in accordance with Rule 22 and sub-rule (1) of this Rule and such Industrial Activity is continuing, the Occupier shall within three years of the date of the last such report, make a further report which shall have regard in particular to new technical knowledge which has affected the particulars in the previous report relating to safety and hazard assessment and shall submit the updated Site Safety Report to the Concerned Authority.
- (3) Where an Occupier has sent a Site Safety Report and the Safety Audit Report relating to an industrial activity to the Concerned Authority, such Authority may require the Occupier to provide additional information and the Occupier shall send such additional information within 90 days.

26. Forwarding of Safety Audit Report to the Division

A relevant Concerned Authority shall send a copy of every Safety Audit Report, submitted by an Occupier under Rule 24, to the Division promptly.

27. Import of Priority Substances or Hazardous Chemicals

- (1) Upon completion of the relevant Registration and Notification Requirements, an Importer of Priority Substances or Hazardous Chemicals in India shall submit to the Concerned Authority, at least 30 days before Importation of Priority Substance or Hazardous Chemicals, information pertaining to-
 - (a) the name and address of the person receiving the consignment in India;
 - (b) the port of entry in India;
 - (c) mode of transport from the exporting country to India;
 - (d) name and the quantity of Priority Substances or Hazardous Chemicals being imported;and
 - (e) all relevant product safety information, including Safety Data Sheet.
- (2) If the Concerned Authority is of an apprehension that the Substance being Imported is likely to cause a Major Chemical Accident, it may direct the Importer to take such safety measures as it may, deem appropriate.
- (3) If the Concerned Authority, is of the opinion that the Substance should not be Imported on safety or on environmental considerations, the Concerned Authority may stop such Imports and provide relevant information relating to such stopped Imports to the Division.
- (4) The Concerned Authority shall take appropriate steps regarding safe handling of Priority Substances or Hazardous Chemicals while off-loading the consignment within the port premises.
- (5) All persons Importing Priority Substances or Hazardous Chemicals shall maintain records of the Priority Substances or Hazardous Chemicals Imported. The records so maintained shall be open for inspection by the Division or any Competent Person. The Importer of the Priority Substances or Hazardous Chemicals of a person working on his

behalf shall ensure that transport from port of entry to the ultimate destination is in accordance with the Central Motor Vehicles Rules, 1989 framed under the Motor Vehicles Act, 1988.

28. Duties of Chemical Accidents Unit

- (1) The Chemical Accidents Unit shall:
 - (a) Set up a functional control room at such place as it deems fit to coordinate information sharing and communication in response to Chemical Accidents;
 - (b) Set up an information networking system with state and district control rooms;
 - (c) Publish a list of Major Accident Hazards Installations;
 - (d) Publish a list of Major Chemical Accidents;
 - (e) Take measures to create awareness amongst the public with a view to prevent Chemical Accidents;
 - (f) Provide information on methods and techniques for containment, mitigation and clean-up of Hazardous Chemicals;
 - (g) Provide assistance for field monitoring of spills and any release in the environment, and providing guidance at the field level with emergency response mobile vans, protective equipment, trained personnel to deal with accidents involving Hazardous Chemical;
 - (h) Assist in predicting dispersion pattern of chemicals involved and creating awareness among public likely to be affected; and
 - (i) Compile and publish information on Chemical Accidents.
- (2) The Chemical Accidents Unit shall coordinate with and provide technical support to:
 - (a) the National Executive Committee constituted under the Disaster Management Act, 2005 in dealing with all matters related to chemical disasters and in the management of Major Chemical Accidents;
 - (b) the State Executive Committee constituted under the Disaster Management Act, 2005 in the management of Chemical Accidents at the State or Union Territory level; and
 - (c) the District Disaster Management Authority constituted under the Disaster Management Act, 2005, in the management of Chemical Accidents at the district level.

29. Preparation of On-site Emergency Plan by the Occupier

- (1) An Occupier shall prepare and submit an up-to-date On-site Emergency Plan to the Concerned Authority detailing as per Part III of Schedule XIV how Major Chemical Accidents will be dealt with on the Site of the Industrial Activity. Such On-site Emergency Plan shall include the name of the person who is responsible for safety on-site and the names of those who are authorised to take action in case of an emergency. The Occupier shall ensure that every person on the site who is affected by the plan is informed of relevant provisions of the On-site Emergency Plan.

- (2) The Occupier shall ensure that the On-site Emergency Plan is updated in case of any modification of the Industrial Activity. The persons concerned and mentioned in sub-rule (1) shall be informed regarding the updated On-site Emergency Plan.
- (3) The Occupier shall prepare and submit the On-site Emergency Plan required under sub-rule (1),
 - (a) in case of an Existing Industrial Activity, within 90 days of coming into force of these Rules; and
 - (b) in the case of a New Industrial Activity, within 30 days of commencement of the activity.
- (4) The Occupier shall ensure that a mock drill of the On-site Emergency Plan is conducted at least once in every 180 days and submit a detailed report on such mock drill to the Concerned Authority within 7 days of such drill.

30. Preparation of Off-site Emergency Plan

- (1) For each Major Accident Hazard Installation, the Concerned Authorities shall prepare and keep up-to-date an adequate Off-site Emergency Plan, containing particulars specified in Schedule XV and detailing how emergencies relating to a possible Major Chemical Accident on that site will be dealt with. In preparing the Off-site Emergency Plan, the Concerned Authorities shall consult an Occupier, the District Collector and such other persons as it may deem necessary, and get it approved by the District Disaster Management Authority.
- (2) For the purpose of enabling the Concerned authority to prepare the Off-site Emergency Plan, the Occupier shall provide the Concerned Authority with such information relating to the industrial activity under his control as the Concerned Authority may require, including the nature, extent and likely off-site effects of possible Major Chemical Accidents.
- (3) The Concerned authority shall prepare an Off-site Emergency plan
 - (a) in the case of an Existing Industrial Activity, within 90 days of coming into force of these Rules; and
 - (b) in the case of a New Industrial Activity, within 90 days of commencement of the industrial activity.
- (4) The Concerned Authority shall ensure that a mock drill of the Off-site Emergency Plan is conducted at least once in a calendar year.

31. Notification of Chemical Accidents

- (1) Where a Chemical Accident (including a Major Chemical Accident for the purpose of this Rule) occurs on-site or off-site, the Occupier shall notify and submit a Chemical Accident report of the accident to the Concerned Authority, as applicable in the format set out in Schedule XVI. The Occupier shall also notify the Chemical Accidents Unit of the Division.
- (2) This notification requirement is to be complied with within 24 hours of the occurrence of the Chemical Accident and the Chemical Accident report is to be submitted within 72 hours of the accident.

- (3) The Concerned Authority that receives a Chemical Accident report shall undertake a full analysis of the Chemical Accident and submit an Analysis Report within 30 days of the receipt of notice of the Chemical Accident to the Division. The Concerned Authority shall make entry of the Chemical Accident in the chemical accident information reporting system (CAIRS) developed by the Central Government in the Ministry of Environment, Forest and Climate Change, within 24 hours of the receipt of the report from the occupier.
- (4) The Occupier shall submit to the Concerned Authority a report of all steps taken or to be taken to prevent a repetition of the accident within 180 days from the date of the Chemical Accident.
- (5) The Chemical Accidents Unit shall in writing inform the occupier, of any lacunae which in its opinion needs to be rectified to avoid major accidents. The Chemical Accidents Unit of the Division shall compile information regarding all Chemical Accidents that take place in a calendar year and submit a copy of the information to the Steering Committee.
- (6) The Occupier at every Major Accident Hazards Installations in the industrial pockets in a district shall aid, assist and facilitate functioning of the Concerned Authority and the Chemical Accidents Unit of the Division.

32. Information to be given to persons liable to be affected by a Major Chemical Accident

- (1) The Occupier shall take appropriate steps to inform persons outside the site either directly or through Concerned authority who are likely to be in an area which may be affected by a Major Chemical Accident about-
 - (a) the nature of the Major Chemical Accident hazard; and
 - (b) the safety measures and the Dos and Don'ts which should be adopted in the event of a Major Chemical Accident.
- (2) The Occupier shall take the steps required under sub-rule (1) to inform persons about an Industrial Activity, before such activity is commenced, except in the case of an Existing Industrial Activity, in which case the Occupier shall comply with the requirements of sub-rule (1) within 90 days of coming into force of these Rules.

Chapter V

Labelling and Packaging

33. Labelling Requirements

- (1) A Manufacturer, Importer or Downstream User shall ensure that all Priority Substance that they Place in Indian Territory bear labels as per Schedule XVII read with this Rule and are packaged in accordance with Rule 34, before being Placed in the Indian Territory.
- (2) A Manufacturer, Importer or Downstream User shall ensure that all product identifiers, hazard statements and pictograms, signal words, and precautionary statements used in the labels of Priority Substances that they Place in Indian Territory

shall be in accordance with the eighth revision of the United Nations Global Harmonised System of Classification.

- (3) Manufacturers, Importers or Downstream Users shall ensure that statements that are inconsistent with the classification of that Priority Substance do not appear on the label or packaging of that substance.
- (4) The Manufacturers, Importers and Downstream Users shall affix the labels firmly to one or more surfaces of the packaging containing the Priority Substance which shall be readable horizontally when the package is set down normally.
- (5) The label elements in the Schedule XVII shall be clearly and indelibly marked. They shall stand out clearly from the background and be of such size and spacing as to be easily read.
- (6) A label shall not be required when the label elements in the Schedule XVII are shown clearly on the packaging itself.
- (7) The label shall be in English and Hindi.

34. Packaging Requirements

A Manufacturer, Importer or Downstream User shall ensure that packaging containing a Priority Substance satisfies the following requirements:

- (a) the packaging shall be designed and constructed so that its contents cannot escape, except in cases where more specific safety devices may be prescribed;
- (b) the materials constituting the packaging and fastenings shall not be susceptible to damage by the contents, or liable to form hazardous compounds with the contents;
- (c) the packaging and fastenings shall be strong and solid throughout to ensure that they will not loosen and will safely meet the normal stresses and strains of handling;
- (d) packaging fitted with replaceable fastening devices shall be designed so that it can be refastened repeatedly without the contents escaping; and
- (e) packaging containing a Priority Substance supplied to the general public shall not have either a shape or design likely to mislead consumers.

Chapter VI Miscellaneous

35. Penalties

- (1) Any contravention of these Rules, including specifically:
 - (a) Failure to Notify or Register a Substance or Intermediate within the stipulated time periods;
 - (b) Furnishing of false information at the time of Notification or Registration;
 - (c) Procuring Substances, Mixtures, Intermediates or Articles by Downstream Users which have not been Notified or Registered; or
 - (d) Labelling or packaging the Priority Substances in contravention to these Rules.

shall be subject to penalties in accordance with the Act.

- (2) If the Concerned Authority is of the opinion that a person has contravened the provisions of Chapter IV of these Rules, then it shall serve on such Person an “improvement notice” requiring that person to remedy the contravention or, as the case may be, the matters occasioning it within such period as may be the matters occasioning it within 45 days.
- (3) An improvement notice served under sub-rule (2) shall clearly specify the measures to be taken by the Occupier in remedying the said contraventions.

36. Enforcement

The Concerned Authority shall appoint Competent Persons to carry out inspections from time to time on the activities of Manufacturers, Importers, Authorised Representatives and Downstream Users in order to ensure compliance with Chapter III and V of these Rules.

37. Savings

These Rules shall be without prejudice to any other law or any other Registration or Notification requirement issued by the Central Government for the time being in force.

Schedule I – PBT and vPvB Assessment Criteria

Criteria for the Identification of Persistent, Bio-accumulative and Toxic (PBT) and very Persistent and very Bio-accumulative (vPvB) Substances

1.1. PBT Substances

A substance that fulfils the persistence, bioaccumulation and toxicity criteria of Sections 1.1.1, 1.1.2 and 1.1.3 shall be considered a PBT substance

1.1.1. Persistence

A substance fulfils the persistence criterion in any of the following situations:

- (a) the degradation half-life in marine water is higher than 60 days; or
- (b) the degradation half-life in fresh or estuarine water is higher than 40 days; or
- (c) the degradation half-life in marine sediment is higher than 180 days; or
- (d) the degradation half-life in fresh or estuarine water sediment is higher than 120 days;
or
- (e) the degradation half-life in soil is higher than 120 days.

1.1.2. Bioaccumulation

A substance fulfils the bioaccumulation criterion when the bioconcentration factor in aquatic species is higher than 2000.

1.1.3. Toxicity

A substance fulfils the toxicity criterion in any of the following situations:

- (a) the long-term no-observed effect concentration (NOEC) or EC10 for marine or freshwater organisms is less than 0.01 mg/l; or
- (b) the substance meets the criteria for classification as carcinogenic (category 1A or 1B), germ cell mutagenic (category 1A or 1B), or toxic for reproduction (category 1A, 1B, or 2); or
- (c) there is other evidence of chronic toxicity, as identified by the substance meeting the criteria for classification: specific target organ toxicity after repeated exposure (STOT RE category 1 or 2).

1.2. vPvB Substances

A substance that fulfils the persistence and bio-accumulation criteria of Sections 1.2.1 and 1.2.2 shall be considered a vPvB Substance

1.2.1. Persistence

A substance fulfils the ‘very persistent’ criterion in any of the following situations:

- (a) the degradation half-life in marine, fresh or estuarine water is higher than 60 days; or
- (b) the degradation half-life in marine, fresh or estuarine water sediment is higher than 180 days; or
- (c) the degradation half-life in soil is higher than 180 days.

1.2.2. Bioaccumulation

A substance fulfils the ‘very bio-accumulative’ criterion when the bioconcentration factor in aquatic species is higher than 5000.

Schedule II – List of Priority Substances

Sr. No.	Substance name	CAS No.	Hazard Category
1.	Diarsenic trioxide	1327-53-3	Carcinogenic
2.	Diarsenic pentaoxide	1303-28-2	Carcinogenic
3.	Lead chromate	7758-97-6	Carcinogenic
4.	Lead sulfochromate yellow	1344-37-2	Carcinogenic
5.	Lead chromate molybdate sulfate red	12656-85-8	Carcinogenic
6.	Chromic acid	7738-94-5	Carcinogenic
7.	Dichromic acid	13530-68-2	Carcinogenic
8.	Sodium dichromate	10588-01-9	Carcinogenic
9.	Potassium dichromate	7778-50-9	Carcinogenic
10.	Ammonium dichromate	7789-09-5	Carcinogenic
11.	Potassium chromate	7789-00-6	Carcinogenic
12.	Sodium chromate	7775-11-3	Carcinogenic
13.	Formaldehyde, oligomeric reaction products with aniline	25214-70-4	Carcinogenic
14.	1,2-dichloroethane (EDC)	107-06-2	Carcinogenic
15.	Dichromium tris (chromate)	24613-89-6	Carcinogenic
16.	Strontium chromate	7789-06-2	Carcinogenic

17.	Potassium hydroxyoctaoxodizincatedichromate	11103-86-9	Carcinogenic
18.	Pentazinc chromate octahydroxide	49663-84-5	Carcinogenic
19.	1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich	71888-89-6	Toxic for reproduction
20.	1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters	68515-42-4	Toxic for reproduction
21.	1,2-Benzenedicarboxylic acid, dipentyl ester, branched and linear	84777-06-0	Toxic for reproduction
22.	Anthracene oil	90640-80-5	Carcinogenic
23.	Pitch, coal tar, high-temp.	65996-93-2	Carcinogenic
24.	20-(4-nonylphenoxy)-3,6,9,12,15,18-hexaoxaicosan-1-ol	27942-27-4	Endocrine disrupting properties
25.	4-Nonylphenol, branched, ethoxylated	127087-87-0	Endocrine disrupting properties
26.	26-(nonylphenoxy)-3,6,9,12,15,18,21,24-octaoxahexacosan-1-ol	26571-11-9	Endocrine disrupting properties

Schedule III – Concerned Authorities

S. No.	Authorities with legal backing	Duties and corresponding Rule
(1)	(2)	(3)
1.	<p>(a) Chief Inspector of Factories appointed under the Factories Act, 1948.</p> <p>(b) Chief Inspector of Dock Safety appointed under the Dock Workers (Safety, Health and Welfare) Act, 1986.</p> <p>(c) Chief Inspector of Mines appointed under the Mines Act, 1952.</p> <p>(d) Atomic Energy Regulatory Board appointed under the Atomic Energy Act, 1972.</p>	<p>Enforcement of direction and procedures in respect of industrial installations covered under their respective statutes, and dealing with Hazardous Chemical and pipelines including inter-state pipelines within their jurisdictions –</p> <ul style="list-style-type: none"> (i) Notification of Chemical Accidents as per Rule 31; (ii) Approval and notification of Industrial Activities and Site Safety Report as per Rules 22 and 23; (iii) Safety Audit Report as per Rules 24 to 26; (iv) Issuance of Improvement Notice under Rule 35; (v) Acceptance of On-site Emergency plans as per Rule 29; (vi) Preparation of off-site emergency plans in consultation with District Collector or District Emergency Authority in accordance with Rule 30; (vii) Analysis of a major accident under Rule 32.
2.	Chief Inspector of Dock Safety appointed under the Dock Workers (Safety, Health and Welfare) Act, 1986.	All functions under Rule 27.
3.	Chief Inspector of Factories appointed under the Factories Act, 1948.	Carry out functions relating to dissemination of information as set out under Rule 32.
3.	Chief Controller of Explosives appointment under the Explosive Act, 184	Enforcement of directions and procedures in respect of Industrial installation and isolated storages dealing with Hazardous Chemicals which are outside the jurisdiction of the

		<p>Concerned Authorities set out in Serial No. 1 of this Schedule and pipelines including inter-state pipelines regarding:</p> <ul style="list-style-type: none"> (i) Notification of Chemical Accidents as per Rule 31; (ii) Approval and notification of Industrial Activities and Site Safety Report as per Rules 22 and 23; (iii) Safety Audit Report as per Rules 24 to 26; (iv) Acceptance of On-site Emergency plans as per Rule 29; (v) Preparation of off-site emergency plans in consultation with District Collector or District Emergency Authority in accordance with Rule 30; (vi) Analysis of a major accident under Rule 32.
4.	Petroleum and Explosives Safety Organisation	Enforcement of Chapter III and Chapter V, as specified in Rule 36.

Schedule IV - Substances Exempt from these Rules

S. No.	Name	CAS Number
1.	Water, distilled, conductivity or of similar purity – H ₂ O	7732-18-5
2.	Starch High-polymeric carbohydrate material usually derived from cereal grains such as corn, wheat and sorghum, and from roots and tubers such as potatoes and tapioca. Includes starch which has been pregelatinised by heating in the presence of water	9005-25-8
3.	Fatty acids, coco, Me esters	61788-59-8
4.	Cellulose pulp	65996-61-4
5.	Syrups, corn, dehydrated	68131-37-3
6.	Substances which result from a chemical reaction that occurs incidental to exposure of another substance or article to environmental factors such as air, moisture, microbial organisms or sunlight	
7.	Substances which result from a chemical reaction that occurs incidental to storage of another substance, mixture or article	
8.	Substances which result from a chemical reaction occurring upon end use of other substances, mixtures or articles, and which are not themselves manufactured, imported, or placed on the market.	
9.	The following substances which occur in nature, if they are not chemically modified: Minerals, ores, ore concentrates, raw and processed natural gas, crude oil, coal	
10.	Compost and biogas	
11.	Oxygen (atmospheric)	

Schedule V - Information to be Provided for Notification (Classification is not included)

1. Name of Notifier:
 - a. Details of the Legal Entity
 - b. Name of the Submitter
 - c. Legal Representative of the Notifier, if any
 - d. Contact details – address, phone, email
2. Chemical identifiers
 - a. Chemical Name: IUPAC Name or Common Name
 - b. Chemical Numbers: CAS Number and IN Number
 - c. Purity
 - d. Impurity details (all up to 1%)
3. Chemical Structural Details
 - a. Molecular wt.
 - b. Simplified Molecular Input Line Entry System (SMILES)
4. Chemical uses
5. Name of known Downstream Users
6. Tonnage band within which the chemical is placed in Indian Territory (1 – 10; 10 – 100; 100 – 1000; > 1000 TPA)
7. Maximum Storage Capacity/Maximum quantity stored

Schedule VI – Substances to be Registered

Sr. No.	Chemical Name	CAS No.	Hazard Category
1	5-tert-butyl-2,4,6-trinitro-m-xylene (Musk xylene)	81-15-2	vPvB
2	4,4' - Diaminodiphenylmethane (MDA)	101-77-9	Carcinogenic
4	1,2,5,6,9,10-hexabromocyclododecane	3194-55-6	PBT
5	Hexabromocyclododecane	25637-99-4	PBT
6	Alpha-hexabromocyclododecane	134237-50-6	PBT
7	Beta-hexabromocyclododecane	134237-51-7	PBT
8	Gamma-hexabromocyclododecane	134237-52-8	PBT
9	Bis(2-ethylhexyl) phthalate (DEHP)	117-81-7	Toxic for reproduction
10	Benzyl butyl phthalate (BBP)	85-68-7	Toxic for reproduction
11	Dibutyl phthalate (DBP)	84-74-2	Toxic for reproduction
12	Diisobutyl phthalate (DIBP)	84-69-5	Toxic for reproduction
13	Tris(2-chloroethyl) phosphate	115-96-8	Toxic for reproduction
14	2,4-dinitrotoluene (2,4-DNT)	121-14-2	Carcinogenic
15	Trichloroethylene	79-01-6	Carcinogenic
16	Chromium trioxide	1333-82-0	Carcinogenic
17	Arsenic acid	7778-39-4	Carcinogenic
18	Bis(2-methoxyethyl) ether	111-96-6	Toxic for reproduction
19	2,2'-dichloro-4,4'-methylenedianiline (MOCA)	101-14-4	Carcinogenic
20	1-bromopropane (n-propyl bromide)	106-94-5	Toxic for reproduction

Sr. No.	Chemical Name	CAS No.	Hazard Category
21	Diisopentyl phthalate	605-50-5	Toxic for reproduction
22	Bis(2-methoxyethyl) phthalate	117-82-8	Toxic for reproduction
23	Dipentyl phthalate	131-18-0	Toxic for reproduction
24	20-[4-(1,1,3,3-tetramethylbutyl)phenoxy]-3,6,9,12,15,18-hexaoxaicosan-1-ol	2497-59-8	Endocrine disrupting properties
25	4-tert-Octylphenol monoethoxylate	2315-67-5	Endocrine disrupting properties
26	2-{2-[4-(2,4,4-trimethylpentan-2-yl)phenoxy]ethoxy}ethanol	2315-61-9	Endocrine disrupting properties
27	2-[4-(2,4,4-trimethylpentan-2-yl)phenoxy]ethanol	9002-93-1	Endocrine disrupting properties
28	2-[2-[2-[2-(4-nonylphenoxy)ethoxy]ethoxy]ethoxy]ethanol	7311-27-5	Endocrine disrupting properties
29	26-(4-nonylphenoxy)-3,6,9,12,15,18,21,24-Octaoxaheacosan-1-ol	14409-72-4	Endocrine disrupting properties
30	2-[2-(4-nonylphenoxy)ethoxy]ethanol	20427-84-3	Endocrine disrupting properties
31	Nonylphenol, branched, ethoxylated	68412-54-4	Endocrine disrupting properties
32	4-Nonylphenol, ethoxylated	26027-38-3	Endocrine disrupting properties
33	Nonylphenol, ethoxylated	9016-45-9	Endocrine disrupting properties
34	2-{2-[4-(3,6-dimethylheptan-3-yl)phenoxy]ethoxy}ethanol	1119449-38-5	Endocrine disrupting properties
35	2-[4-(3,6-dimethylheptan-3-yl)phenoxy]ethanol	1119449-37-4	Endocrine disrupting properties
36	Poly(oxy-1,2-ethanediyl), a-(nonylphenyl)-w-hydroxy	9016-45-9	Endocrine disrupting properties
37	Isononylphenol, ethoxylated	37205-87-1	Endocrine disrupting properties

Schedule VII - Contents of Technical Dossier

1. Registrant Details:

- a) Name of Legal Entity
- b) Name of Submitter
- c) Legal Representative of the Registrant
- d) Contact details – address; phone; email
- e) Location of site of production or use
- f) Company Registration Number, if applicable
- g) GST Number, if applicable
- h) Plant site code, if applicable

2. Chemical identifiers

- a) Chemical Name: IUPAC Name or Common/Trade Name or CAS Name
- b) Chemical Numbers: CAS Number and IN Number
- c) Purity
- d) Impurity details (all up to 1%)
- e) Nature of impurities, including isomers and by-products
- f) Nature and order of magnitude (... ppm, ... %) of any additives (e.g. stabilising agents or inhibitors)

3. Chemical Structural Details

- a) Molecular wt.
- b) SMILES
- c) Molecular and structural formula
- d) Information on optical activity and typical ratio of (stereo) isomers (if applicable and appropriate)
- e) Spectral data:
 - i) High Performance Liquid Chromatography or Gas Chromatography or Gas Chromatography Mass Spectrometry or Liquid Chromatography Mass Spectrometry
 - ii) Infra Red spectra
 - iii) Ultra Violet-Vis Spectrophotometer – spectra
 - iv) Nuclear Magnetic Resonance
 - v) Mass spectrum
- f) Type of substance – mono, multi, ‘Unknown or Variable Composition, Complex Products or of Biological Methods’.
- g) Description of the analytical methods or the appropriate bibliographical references for the identification of the substance and, where appropriate, for the identification of impurities and additives. This information shall be sufficient to allow the methods to be reproduced.

4. Identified Chemical uses

- a) The calendar year of the registration

- b) An indication of the tonnage used for his own use(s)
- c) Form (substance, preparation or article) and/or physical state under which the substance is made available to downstream users.
- d) Concentration or concentration range of the substance in preparations made available to downstream users and quantities of the substance in articles made available to downstream users.
- e) Brief general description of the identified use(s)
- f) Information on waste quantities and composition of waste resulting from manufacture of the substance, the use in articles and identified uses
- g) description of the manufacturing process and
- h) all identified uses that the Registrant wants to cover in accordance with standardised use descriptors. (These uses shall be included in the Exposure Scenario (1 – 10 TPA) and Chemical Safety Report as the case may be.)

5. Classification and labelling information

- a) The hazard classification of the substance(s),
- b) The resulting hazard label for the substance(s)
- c) Specific concentration limits, where applicable

6. Robust study summaries

7. Main use category:

- a) industrial use and/or
- b) professional use and/or
- c) consumer use

8. Specification for industrial and professional use:

- a) used in closed system and/or
- b) use resulting in inclusion into or onto matrix and/or
- c) non-dispersive use and/or
- d) dispersive use

9. Significant route(s) of exposure:

Human exposure:

- a) oral and/or
- b) dermal and/or
- c) inhalatory

10. Environmental exposure

- a) water and/or
- b) air and/or
- c) solid waste and/or
- d) soil

11. Pattern of exposure:

- a) accidental/infrequent and/or
- b) occasional and/or
- c) continuous/frequent

Schedule VIII - Format for Chemical Safety Report

Part I

1. Summary of risk management measures
2. Declaration that risk management measures are implemented
3. Declaration that risk management measures are communicated

Part II

1. Identity of the substance and physical and chemical properties
 2. Manufacture and uses
 - 2.1. Manufacture
 - 2.2. Identified uses
 - 2.3. Uses advised against
3. Classification and labelling
4. Environmental fate properties
 - 4.1. Degradation
 - 4.2. Environmental distribution
 - 4.3. Bioaccumulation
 - 4.4. Secondary Poisoning
5. Human health hazard assessment
 - 5.1. Toxicokinetics (absorption, metabolism, distribution and elimination)
 - 5.2. Acute toxicity
 - 5.3. Irritation
 - 5.3.1. Skin
 - 5.3.2. Eye
 - 5.3.3. Respiratory Tract
 - 5.4. Corrosivity
 - 5.5. Sensitisation
 - 5.5.1. Skin
 - 5.5.2. Respiratory system
 - 5.6. Repeated dose toxicity
 - 5.7. Mutagenicity
 - 5.8. Carcinogenicity
 - 5.9. Toxicity for reproduction
 - 5.9.1. Effects on fertility
 - 5.9.2. Developmental Toxicity
 - 5.10. Other effects
 - 5.11. Derivation of Derived No-Effect Level(s) (DNELs)
6. Human health hazard assessment of physicochemical properties
 - 6.1. Explosivity
 - 6.2. Flammability
 - 6.3. Oxidising potential
7. Environmental hazard assessment

- 7.1. Aquatic Compartment (including sediment)
- 7.2. Terrestrial Compartment
- 7.3. Atmospheric Compartment
- 7.4. Microbiological Activity in Sewage Treatment Systems
- 7.5. Derivation of Predicted No-Effect Concentration (PNEC)
- 8. Persistent, Bioaccumulative and Toxic (PBT) and very Persistent very Bioaccumulative (vPvB) assessment
- 9. Exposure assessment
 - 9.1. [Title of Exposure Scenario 1]
 - 9.1.1. Exposure Scenario
 - 9.1.2. Exposure Estimation
 - 9.2. [Title of Exposure Scenario 2]
 - 9.2.1. Exposure Scenario
 - 9.2.2. Exposure Estimation [etc.]
- 10. Risk characterisation
 - 10.1. [Title of Exposure Scenario 1]
 - 10.1.1. Human Health
 - 10.1.1.1. Workers
 - 10.1.1.2. Consumers
 - 10.1.1.3. Indirect exposure to humans via the environment
 - 10.1.2. Environment
 - 10.1.2.1. Aquatic Compartment (incl. Sediment)
 - 10.1.2.2. Terrestrial Compartment
 - 10.1.2.3. Atmospheric Compartment
 - 10.1.2.4. Microbiological Activity in Sewage Treatment Systems
 - 10.2. [Title of Exposure Scenario 2]
 - 10.2.1. Human Health
 - 10.2.1.1. Workers
 - 10.2.1.2. Consumers
 - 10.2.1.3. Indirect exposure to humans via the environment
 - 10.2.2. Environment
 - 10.2.2.1. Aquatic Compartment (incl. Sediment)
 - 10.2.2.2. Terrestrial Compartment
 - 10.2.2.3. Atmospheric Compartment
 - 10.2.2.4. Microbiological Activity in Sewage Treatment Systems

Schedule IX – Safety Data Sheet

The safety data sheet shall include the following 16 headings in the given sequence and in addition the subheadings are also listed; pictograms, hazard statements, warning and other relevant information are based upon the UN-GHS classification criteria.

Section 1: Identification of the substance/mixture and of the company/undertaking

- 1.1. Product identifier
- 1.2. Relevant identified uses of the substance or mixture and uses advised against
- 1.3. Details of the supplier of the safety data sheet
- 1.4. Emergency telephone number

Section 2: Hazards identification

- 2.1. Classification of the substance or mixture
- 2.2. Label elements
- 2.3. Other hazards

Section 3: Composition/information on ingredients

- 3.1. Substances
- 3.2. Mixtures

Section 4: First aid measures

- 4.1. Description of first aid measures
- 4.2. Most important symptoms and effects, both acute and delayed
- 4.3. Indication of any immediate medical attention and special treatment needed

Section 5: Fire fighting measures

- 5.1. Extinguishing media
- 5.2. Special hazards arising from the substance or mixture
- 5.3. Advice for fire fighters

Section 6: Accidental release measures

- 6.1. Personal precautions, protective equipment and emergency procedures
- 6.2. Environmental precautions
- 6.3. Methods and material for containment and cleaning up
- 6.4. Reference to other sections

Section 7: Handling

- 7.1. Precautions for safe handling
- 7.2. Conditions for safe storage, including any incompatibilities
- 7.3. Specific end use(s)

Section 8: Exposure controls/personal protection

- 8.1. Control parameters
- 8.2. Exposure controls

Section 9: Physical and chemical properties

- 9.1. Information on basic physical and chemical properties
- 9.2. Other information

Section 10: Stability and reactivity

- 10.1. Reactivity
- 10.2. Chemical stability
- 10.3. Possibility of hazardous reactions

- 10.4. Conditions to avoid
- 10.5. Incompatible materials
- 10.6. Hazardous decomposition products

Section 11: Toxicological information

- 11.1. Information on toxicological effects

Section 12: Ecological information

- 12.1. Toxicity
- 12.2. Persistence and degradability
- 12.3. Bioaccumulative potential
- 12.4. Mobility in soil
- 12.5. Results of PBT and vPvB assessment
- 12.6. Other adverse effects
- 12.7 Other Information

Section 13: Disposal considerations

- 13.1. Waste treatment methods

Section 14: Transport information

- 14.1. UN number
- 14.2. UN proper shipping name
- 14.3. Transport hazard class(es)
- 14.4. Packing group
- 14.5. Environmental hazards
- 14.6. Special precautions for user
- 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Section 15: Regulatory information

- 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
- 15.2. Chemical safety assessment

Section 16: Other information

Including information on preparation and revision of Safety Data Sheet, sources of information.

Schedule X – Hazardous Chemicals

Part I

Major Accident Hazard Criteria

- (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.	Toxicity	Oral toxicity LD ₅₀ (mg/kg)	Dermal toxicity LD ₅₀ (mg/kg)	Inhalation toxicity LC ₅₀ (mg/m ³)
1.	Extremely toxic	Less than 5	Less than 40	Less than 0.5
2.	Highly toxic	5-50	40-200	0.5-2.0
3.	Toxic	50-200	200-1000	2-10

- (b) **Flammable Chemicals:**

- (i) **Flammable Gases:** Gases which at 20°C and at standard atmospheric pressure of 101.3KPa are :-

Either

- (a) ignitable when in a mixture of 13 percent or less by volume with air;
or
(b) have a flammable range with mixture of 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.

- (ii) **Extremely Flammable Liquids:** liquids which have flash point lower than or equal to 23°C and boiling point less than 35°C.
- (iii) **Very Highly Flammable Liquids:** liquids which have a flash point lower than or equal to 23°C and initial boiling point higher than 35°C.
- (iv) **Highly Flammable Liquids:** liquids which have a flash point lower than or equal to 60°C but higher than 23°C.
- (v) **Flammable Liquids:** liquids which have a flash point higher than 60°C but lower than 90°C.

(c) **Explosives:** explosives mean a solid or liquid or pyrotechnic substance (or a mixture of substances) or an article;

Either

(a) 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 surroundings;

or

(b) which is designed to produce an effect by heat, light, sound, gas or smoke or a combination of these as the result of non-detonative self-sustaining exothermic chemical reaction

Part II

List Of Hazardous Chemicals

S.N.	NAME OF HAZARDOUS CHEMICALS	S.N.	NAME OF HAZARDOUS CHEMICALS
1.	Acetaldehyde	25.	Amino diphenyl
2.	Acetic acid	26.	Amino pyridine
3.	Acetic anhydride	27.	Aminophenol-2
4.	Acetone	28.	Aminopterin
5.	Acetone cyanohydrin	29.	Amiton
6.	Acetone thiosemicarbazide	30.	Amiton dialate
7.	Acetonitrile	31.	Ammonia
8.	Acetylene	32.	Ammonium chloro platinate
9.	Acetylene tetra chloride	33.	Ammonium nitrate
10.	Acrolein	34.	Ammonium nitrite
11.	Acrylamide	35.	Ammonium picrate
12.	Acrylonitrile	36.	Anabasine
13.	Adiponitrile	37.	Aniline
14.	Aldicarb	38.	Aniline 2,4, 6-Trimethyl
15.	Aldrin	39.	Anthraquinone
16.	Allyl alcohol	40.	Antimony pentafluoride
17.	Allyl amine	41.	Antimycin A
18.	Allyl chloride	42.	ANTU (<u>Alpha-Naphthylthiourea</u>)
19.	Aluminium (powder)	43.	Arsenic pentoxide
20.	Aluminium azide	44.	Arsenic trioxide
21.	Aluminium borohydride	45.	Arsenous trichloride
22.	Aluminium chloride	46.	Arsine
23.	Aluminium fluoride	47.	Asphalt
24.	Aluminium phosphide		

48. Azinpho-ethyl
49. Azinphos methyl
50. Bacitracin
51. Barium azide
52. Barium nitrate
53. Barium nitride
54. Benzal chloride
55. Benzenamine,3-Trifluoromethyl
56. Benzene
57. Benzene sulfonyl chloride
58. Benzene. 1-(chloromethyl)-4 Nitro
59. Benzene arsenic acid
60. Benzidine
61. Benzidine salts
62. Benzimidazole. 4, 5-Dichloro-2 (Trifluoromethyl)
63. 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-butyl peroxy) cyclohexane
74. Bis (Terbutylperoxy) butane
75. Bis(2,4, 6-Trinitrophenylamine)
76. Bis (Chloromethyl) Ether
77. Bismuth and compounds
78. Bisphenol-A
79. Bitoscanate
80. Boron Powder
81. Boron trichloride
82. Boron trifluoride
83. Boron trifluoride comp. With methylether, 1:1
84. Bromine
85. Bromine pentafluoride
86. Bromo chloro methane
87. Bromodialone
88. Butadiene
89. Butane
90. Butanone-2
91. Butyl amine tert
92. Butyl glycidyl ether
93. Butyl isovalerate
94. Butyl peroxymaleate 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. Carbonphenothion
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 Nitrimethylidyne compound
144. Cobalt (Powder)
145. Colchicine
146. Copper and Compounds
147. Copperoxychloride
148. Coumafuryl
149. Coumaphos
150. Coumatetralyl
151. Crimidine
152. Crotenaldehyde
153. Crotonaldehyde
154. Cumene
155. Cyanogen bromide
156. Cyanongen iodide
157. Cyanophos
158. Cyanothoate
159. Cyanuric fluoride
160. Cyclo hexylamine
161. Cyclohexane
162. Cyclohexanone
163. Cycloheximide
164. Cyclopentadiene
165. Cyclopentane
166. Cyclotetramethylenetetranitr amine
167. Cyclotrimethylenetrinnitra mine
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. Dichlorvos (DDVP)
188. Dicrotophos
189. Dieldrin
190. Diepoxy butane
191. Diethyl carbamazine citrate
192. Diethyl chlorophosphate
193. Diethyl ethtanolamine
194. Diethyl peroxydicarbonate (Conc=30%)
195. Diethyl phenylene diamine
196. Diethylamine
197. Diethylene glycol

198. Diethylene glycol dinitrate
199. Diethylene triamine
200. Diethleneglycol butyl ether
201. Diglycidyl ether
202. Digitoxin
203. Dihydroperoxypropane (Conc $\geq 30\%$)
204. Diisobutyl peroxide
205. Dimefox
206. Dimethoate
207. Dimethyl dichlorosilane
208. Dimethyl hydrazine
209. Dimethyl nitrosoamine
210. Dimethyl P phenylene diamine
211. Dimethyl phosphoramidic acid (TABUM)
212. Dimethylphosphorochloridohioate
213. Dimethyl sulfolane (DMS)
214. Dimethyl sulphide
215. Dimethylamine
216. Dimethylaniline
217. Dimethylcarbonyl 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. Diphosphoramidic octamethyl
229. Diphenyl methane diisocyanate (MDI)
230. Dipropylene Glycol Butyl ether
231. Dipropylene glycolmethyl ether
232. Disec-butyl peroxydicarbonate (Conc. $>80\%$)
233. Dithiobiurate
234. Endosulfan
235. Endothion
236. Endrin
237. Epichlorohydrine
238. EPN
239. Ergocalciferol
240. Ergotamine tartarate
241. Ethanesulfonyl chloride, 2 chloro
242. Ethanol 1-2 dichloroacetate
243. Ethion
244. Ethoprophos
245. Ethyl acetate
246. Ethyl alcohol
247. Ethyl benzene
248. Ethyl bis amine
249. Ethyl bromide
250. Ethyl carbamate
251. Ethyl ether
252. Ethyl hexanol -2
253. Ethyl mercaptan
254. Ethyl mercuric phosphate
255. Ethyl methacrylate
256. Ethyl nitrate
257. Ethyl thiocyanate
258. Ethylamine
259. Ethylene
260. Ethylene chlorohydrine
261. Ethylene dibromide
262. Ethylene diamine
263. Ethylene diamine hydrochloride
264. Ethylene flourohydrine
265. Ethylene glycol
266. Ethylene glycol dinitrate
267. Ethylene oxide
268. Ethylenimine
269. Ethylene di chloride
270. Femitrothion
271. Fensulphothion

272. Fluorine
273. Fluoro2-hydroxy butyric acid amid salt ester
274. Fluoroacetamide
275. Fluoroacetic acid amide salts and esters
276. Fluoroacetylchloride
277. Fluorobutyric acid amide salt esters
278. Fluorocrotonic acid amides salts esters
279. Fluorouracil
280. Fonofos
281. Formaldehyde
282. Formetanate hydrochloride
283. Formic acid
284. Formoparanate
285. Formothion
286. Fuberidazole
287. Furan
288. Gallium Trichloride
289. Glyconitrile (Hydroxyacetoneitrile)
290. Guanyl-4-nitrosaminoguanyl-1-tetrazene
291. Heptachlor
292. Hexamethyl tertiaryoxyacyclononate (Conc 75%)
293. Hexachlorobenzene
294. Hexachlorocyclohexan (Lindane)
295. Hexachlorocyclopentadiene
296. Hexachlorodibenzo-p-dioxin
297. Hexachloronaphthalene
298. Hexafluoropropanone sesquihydrate
299. Hexamethyl phosphoramide
300. Hexamethylene diamine N N dibutyl
301. Hexane
302. Hexanitrostilbene 2, 2, 4, 4, 6, 6
303. Hexene
304. Hydrogen selenide
305. Hydrogen sulphide
306. Hydrazine
307. Hydrazine nitrate
308. Hydrochloric acid
309. Hydrogen
310. Hydrogen bromide
311. Hydrogen cyanide
312. Hydrogen fluoride
313. Hydrogen peroxide
314. Hydroquinone
315. Indene
316. Indium powder
317. Indomethacin
318. Iodine
319. Iridium tetrachloride
320. Ironpentacarbonyl
321. Iso benzene
322. Isoamyl alcohol
323. Isobutyl alcohol
324. Isobutyro nitrile
325. Isocyanic acid 3, 4 dichlorophenyl ester
326. Isodrin
327. Isofluorophosphate
328. Isophorone diisocyanate
329. Isopropyl alcohol
330. Isopropyl chlorocarbonate
331. Isopropyl formate
332. Isopropyl methyl pyrazolyl dimethyl carbamate
333. Juglone (5-Hydroxy Naphthalene-1,4 dione)
334. Ketene
335. Lactonitrile
336. Lead arsenite

337. Lead at high temp
(molten)
338. Lead azide
339. Lead styphanate
340. Leptophos
341. Liquified petroleum gas
342. Lithium hydride
343. N-Dinitrobenzene
344. Magnesium powder or
ribbon
345. Malathion
346. Maleic anhydride
347. Malononitrile
348. Manganese Tricarbonyl
cyclopentadiene
349. Mechlor ethamine
350. Mephospholan
351. Mercuric chloride
352. Mercuric oxide
353. Mercury acetate
354. Mercury fulminate
355. Mercury methyl chloride
356. Mesitylene
357. Methacrolein diacetate
358. Methacrylic anhydride
359. Methacrylonitrile
360. Methacryloyl oxyethyl
isocyanate
361. Methane
362. Methanesulphonyl
fluoride
363. Methidathion
364. Methiocarb
365. Methonyl
366. Methoxy ethanol (2-
methyl cellosolve)
367. Methoxyethyl mercuric
acetate
368. Methacryloyl chloride
369. Methyl 2-chloroacrylate
370. Methyl alcohol
371. Methyl amine
372. Methyl bromide
(Bromomethane)
373. Methyl chloride
374. Methyl chloroform
375. Methyl chloroformate
376. Methyl cyclohexene
377. Methyl disulphide
378. Methyl ethyl ketone
peroxide (Conc.60%)
379. Methyl formate
380. Methyl hydrazine
381. Methyl isobutyl ketone
382. Methyl isocyanate
383. Methyl isothiocyanate
384. Methyl mercuric
dicyanamide
385. Methyl Mercaptan
386. Methyl Methacrylate
387. Methyl phencapton
388. Methyl phosphonic
dichloride
389. Methyl thiocyanate
390. Methyl trichlorosilane
391. Methyl vinyl ketone
392. Methylene bis (2-
chloroaniline)
393. Methylene chloride
394. Methylenebis-
4,4(2chloroaniline)
395. Metolcarb
396. Mevinphos
397. Mezacarbate
398. Mitomycin C
399. Molybdenum powder
400. Monocrotophos
401. Morpholine
402. Mustard gas
403. N-Butyl acetate
404. N.-Butyl alcohol
405. N-Hexane
406. N- Methyl-N, 2, 4, 6-
Tetranitroaniline
407. Naphtha
408. Nephtha solvent
409. Naphthalene
410. Naphthyl amine

411. Nickel carbonyl/nickel tetracarbonyl
412. Nickel powder
413. Nicotine
414. Nicotine sulphate
415. Nitric acid
416. Nitric oxide
417. Nitrobenzene
418. Nitrocellulose (dry)
419. Nitrochlorobenzene
420. Nitrocyclohexane
421. Nitrogen
422. Nitrogen dioxide
423. Nitrogen oxide
424. Nitrogen trifluoride
425. Nitroglycerine
426. Nitropropane-1
427. Nitropropane-2
428. Nitroso dimethyl amine
429. Nonane
430. Norbormide
431. O-Cresol
432. O-Nitro Toluene
433. O-Toludine
434. O-Xylene
435. O/P Nitroaniline
436. Oleum
437. OO Diethyl S ethyl suph. methyl phos
438. OO Diethyl S propythio methyl phosdithioate
439. OO Diethyl s ethylsulphiny methylphosphorothioate
440. OO Diethyl s ethylsulphony methylphosphorothioate
441. OO Diethyls ethylthiomethylphosphorothioate
442. Organo rhodium complex
443. Orotic acid
444. Osmium tetroxide
445. Oxamyl
446. Oxetane, 3, 3-bis(chloromethyl)
447. Oxidiphenoxarsine
448. Oxy disulfoton
449. Oxygen (liquid)
450. Oxygen difluoride
451. Ozone
452. P-nitrophenol
453. Paraffin
454. Paraoxon (Diethyl 4 Nitrophenyl phosphate)
455. Paraquat
456. Paraquat methosulphate
457. Parathion
458. Parathion methyl
459. Paris green
460. Penta borane
461. Penta chloro ethane
462. Penta chlorophenol
463. Pentabromophenol
464. Pentachloro naphthalene
465. Pentadecyl-amine
466. Pentaerythritol tetranitrate
467. Pentane
468. Pentanone
469. Perchloric acid
470. Perchloroethylene
471. Peroxyacetic acid
472. Phenol
473. Phenol, 2, 2-thiobis (4, 6-Dichloro)
474. Phenol, 2, 2-thiobis (4 chloro 6-methyl phenol)
475. Phenol, 3-(1-methyl ethyl) methylcarbamate
476. Phenyl hydrazine hydrochloride
477. Phenyl mercury acetate
478. Phenyl silatrane
479. Phenyl thiourea
480. Phenylene P-diamine
481. Phorate
482. Phosfolan

483. Phosgene
484. Phosmet
485. Phosphamidon
486. Phosphine
487. Phosphoric acid
488. Phosphoric acid dimethyl (4 methyl thio)phenyl
489. Phosphorothioic acid dimethyl S(2-Bis) Ester
490. Phosphorothioic acid methyl (ester)
491. Phosphorothioic acid, OO Dimethyl S-(2-methyl)
492. Phosphorothioic, methyl-ethyl ester
493. Phosphorous
494. Phosphorous oxychloride
495. Phosphorous pentaoxide
496. Phosphorous trichloride
497. Phosphorous penta chloride
498. Phthalic anhydride
499. Phylloquinone
500. Physostigmine
501. Physostigmine salicylate (1:1)
502. Picric acid (2, 4, 6-trinitrophenol)
503. Picrotoxin
504. Piperdine
505. Piprotal
506. Pirinifos-ethyl
507. Platinous chloride
508. Platinum tetrachloride
509. Potassium arsenite
510. Potassium chlorate
511. Potassium cyanide
512. Potassium hydroxide
513. Potassium nitride
514. Potassium nitrite
515. Potassium peroxide
516. Potassium silver cyanide
517. Powdered metals and mixtures
518. Promecarb
519. Promurit
520. Propanesultone
521. Propargyl alcohol
522. Propargyl bromide
523. Propen-2-chloro-1 ,3-diou diacetate
524. Propiolactone beta
525. Propionitrile
526. Propionitrile, 3-chloro
527. Propiophenone, 4-amino
528. Propyl chloroformate
529. Propylene dichloride
530. Propylene glycol, allylether
531. Propylene imine
532. Propylene oxide
533. Prothoate
534. Pyrazoxon
535. Pyrene
536. Pyridine
537. Pyridine, 2-methyl-3-vinyl
538. Pyridine, 4-nitro-1-oxide
539. Pyriminil
540. Quinone
541. Rhodium trichloride
542. Salcomine
543. Sarin
544. Selenious acid
545. Selenium Hexafluoride
546. Selenium oxychloride
547. Semicarbazide hydrochloride
548. Silane (4-amino butyl) diethoxy-meth
549. Sodium
550. Sodium anthra-quinone-1-sulphonate
551. Sodium arsenate
552. Sodium arsenite
553. Sodium azide
554. Sodium cacodylate
555. Sodium chlorate
556. Sodium cyanide

557. Sodium fluoro-acetate
558. Sodium hydroxide
559. Sodium pentachloro-phenate
560. Sodium picramate
561. Sodium selenate
562. Sodium selenite
563. Sodium sulphide
564. Sodium tellorite
565. Stannane acetoxyl triphenyl
566. Stilbine (Antimony hydride)
567. Strychnine
568. Strychnine sulphate
569. Styphinic acid (2, 4, 6-trinitroresorcinol)
570. Styrene
571. Sulphoxide, 3-chloropropyl octyl
572. Sulphur dichloride
573. Sulphur dioxide
574. Sulphur monochloride
575. Sulphur tetrafluoride
576. Sulphur trioxide
577. Sulphuric acid
578. Tellurim (powder)
579. Tellurium hexafluoride
580. TEPP (Tetraethyl pyrophosphate)
581. Terbufos
582. Tert-Butyl alcohol
583. Tert-Butyl peroxy carbonate
584. Tert-Butyl peroxy isopropyl
585. Tert-Butyl peroxyacetate (Conc $\geq 70\%$)
586. Tert-Butyl peroxy-pivalate (Conc $\geq 77\%$)
587. Tert-Butyl peroxyisobutyrate
588. Tetra hydrofuran
589. Terta methyl lead
590. Tetra nitromethane
591. Tetra-chlorodibenzo-p-dioxin, 1, 2, 3, 7, 8(TCDD)
592. Tetraethyl lead
593. Tetramethylene disulphotetramine
594. Thallic oxide
595. Thallium carbonate
596. Thallium sulphate
597. Thallous chloride
598. Thallous malonate
599. Thallous sulphate
600. Thiocarbazine
601. Thiocynamic acid, 2(Benzothiazolyethio) methyl
602. Thiofamox
603. Thiometon
604. Thionazin
605. Thionyl chloride
606. Thiophenol
607. Thiosemicarbazide
608. Thiourea (2 chloro-phenyl)
609. Thiourea (2-methyl phenyl)
610. Tirpate (2,4-dimethyl-1,3-di-thiolane)
611. Titanium powder
612. Titanium tetra-chloride
613. Toluene
614. Toluene -2,4-di-isocyanate
615. Toluene 2,6-di-isocyanate
616. Trans-1,4-di chloro-butene
617. Tri nitro anisole
618. Tri (Cyclohexyl) methylstannyl 1,2,4 triazole
619. Tri (Cyclohexyl) stannyl-1H-1, 2, 3-triazole
620. Triaminotrinitrobenzene
621. Triamphos
622. Triazophos

623. Tribromophenol 2, 4, 6
624. Trichloro napthalene
625. Trichloro chloromethyl silane
626. Trichloroacetyl chloride
627. Trichlorodichlorophenylsilane
628. Trichloroethyl silane
629. Trichloroethylene
630. Trichloromethane sulphenyl chloride
631. Trichloronate
632. Trichlorophenol 2, 3, 6
633. Trichlorophenol 2, 4, 5
634. Trichlorophenyl silane
635. Trichlorophon
636. Triethoxy silane
637. Triethylamine
638. Triethylene melamine
639. Trimethyl chlorosilane
640. Trimethyl propane phosphite
641. Trimethyl tin chloride
642. Trinitro aniline
643. Trinitro benzene
644. Trinitro benzoic acid
645. Trinitro phenetole
646. Trinitro-m-cresol
647. Trinitrotoluene
648. Tri-orthocresyl phosphate
649. Triphenyltin chloride
650. Tris(2-chloroethyl)amine
651. Turpentine
652. Uranium and its compounds
653. Valino mycin
654. Vanadium pentoxide
655. Vinyl acetate monomer
656. Vinyl bromide
657. Vinyl chloride
658. Vinyl cyclohexane dioxide
659. Vinyl fluoride
660. Vinyl norbornene
661. Vinyl toluene
662. Vinylethene chloride
663. Warfarin
664. Warfarin Sodium
665. Xylene dichloride
666. Xylidine
667. Zinc dichloropentanitrile
668. Zinc phosphide
669. Zr powder, Zr tetrachloride

**Schedule XI - Isolated Storage At Installations Other Than Those Covered By
Schedule XIII**

(a) The threshold quantities set out below relate to each installation or group of installations belonging to the same occupier where the distance between installation 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 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)	
		(3)	(4)
(1)	(2)		
1.	Acrylonitrile	350	5,000
2.	Ammonia atmospheric	60	600
	Pressurized	1000	5000
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 X, paragraph (b) (i)	50	300
7.	Extremely flammable liquids as defined in Schedule X, paragraph (b) (ii)	5000	50,000
8.	Liquid oxygen	200	2000
9.	Sodium chlorate	25	250
10.	Sulphur dioxide	20	500
11.	Sulphur trioxide	15	100

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S. No.	Chemicals	Threshold Quantities (tonnes)	
(1)	(2)	(3)	(4)
12.	Carbonyl chloride	0.750	0.750
13.	Hydrogen Sulphide	5	50
14.	Hydrogen Fluoride	5	50
15.	Hydrogen Cyanide	5	50
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 (liquefied gas)	25	250
26.	Diphenyl methane di-isocyanate (MDI)	20	200
27.	Toluene di-isocyanate (TDI)	10	100
28.	Very highly flammable liquids as defined in Schedule X, paragraph (b) (iii)	7,000	7,000
29.	Highly flammable liquids as defined in Schedule X, paragraph (b) (iv)	10,000	10,000
30.	Flammable liquids as defined in Schedule X, paragraph (b) (v)	15,000	1,00,000

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

Schedule XII – List of Hazardous Chemicals for Application of Chapter IV

- (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 have 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		CAS Number
(1)	(2)	(3)	(4)	(5)
Group 1-Toxic Substances				
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 and salts	500 kg		1303-28-2
6.	Arsenic trioxide, Arsenic (III) acid and salts	100 kg		1327-53-3
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.	Benzidine salts	1 kg		117-61-3
12.	Beryllium (powders, compounds)	10 kg		7440-41-7

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S. No.	Chemicals	Threshold Quantity		CAS Number
(1)	(2)	(3)	(4)	(5)
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.	Chlorethion	100 kg		470-90-6
18.	4-(Chloroformyl) morpholine	1 kg		15159-40-7
19.	Chloromethyl methyl ether	1 kg		107-30-2
20.	Cobalt (metal, oxide, carbonates, sulphides, as powders)	1 t		
21.	Crimidine	100 kg		535-89-7
22.	Cyanthoate	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-ethylsulphinylmethyl phosphorothioate	100 kg		2588-05-8
27.	OO-Diethyl S-ethylsulphonylmethyl phosphorothioate	100 kg		2588-06-9
28.	OO-Diethyl S-ethylthiomethyl Phosphorothioate	100 kg		2600-69-3
29.	OO-Diethyl S-isopropylthiomethyl phosphorodithioate	100 kg		78-52-4
30.	OO-Diethyl S-isopropylthiomethyl phosphorodithioate	100 kg		3309-68-0
31.	Dimefox	100 kg		115-26-4
32.	Dimethylcarbamoyl chloride	1 kg		79-44-7
33.	Dimethylnitrosamine	1 kg		62-75-9
34.	Dimethyl phosphoramidocynadic acid	1 t		77-81-6
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.	Fensulphothion	100 kg		115-90-2
40.	Fluometil	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		

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S. No.	Chemicals	Threshold Quantity		CAS Number
(1)	(2)	(3)	(4)	(5)
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-Fluorobutyric 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, amides	1 kg		
54.	4-Fluoro-2-hydroxybutyric acid, salts	1 kg		69780-81-0
55.	4-Fluoro-2-hydroxybutyric acid, esters	1 kg		
57.	Glycolonitrile (Hydroxyacetonitrile)	100 kg		107-16-4
58.	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	100 kg		194-8-74-3
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-chloroniline)	10 kg		101-14-4
65.	Methyl isocyanate	150 kg	150kg	624-83-9
66.	Mevinphos	100 kg		7786-34-7
67.	2-Naphthylamine	1 kg		91-59-8
68.	2-Nickel (metal, oxides, carbonates), sulphides, as powers)	1 t		
69.	Nickel tetracarbonyl	10 kg		13463-39-3
70.	Oxygendisulfoton	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	750kg	75-44-5
79.	Phosphamidon	100 kg		13171-21-6
80.	Phosphine (Hydrogen phosphide)	100 kg		7803-51-2

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S. No.	Chemicals	Threshold Quantity		CAS Number
(1)	(2)	(3)	(4)	(5)
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.	Sulfotep	100 kg		3689-24-5
89.	Sulphur dichloride	1 t		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.	Tetramethylene disulphotetramine	1 kg		80-12-6
94.	Thionazin	100 kg		297-97-2
95.	Tirpate (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-1,2,4-Triazole	100 kg		41083-11-8
98.	Triethylene melamine	10 kg		51-18-3
99.	Warfarin	100 kg		81-81-2
Group-2 Toxic Substances				
100	Acetone cyanohydrin (2-Cyanopropan-2-ol)	200 t		75-86-5
101	Acrolein (2-Propenal)	20 t	200t	107-02-8
102	Acrylonitrile	20 t	200t	107-13-1
103	Allyl alcohol (Propen-1-ol)	200 t		107-18-6
104	Allyl amine	200 t		107-11-9
105	Ammonia	50 t	500t	7664-41-7
106	Bromine	40 t	500t	7726-95-6
107	Carbon disulphide	20 t	200t	75-15-0
108	Chlorine	10 t	25t	7782-50-5
109	Diphenyl methane di-isocyanate (MDI)	20 t	200t	101-68-8
110	Ethylene dibromide (1,2-Dibromoethane)	5 t	50t	106-93-4

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S. No.	Chemicals	Threshold Quantity		CAS Number
(1)	(2)	(3)	(4)	(5)
111	Ethyleneimine	5 t		151-56-4
112	Formaldehyde (concentration <90%)	5 t	50t	50-00-0
113	Hydrogen chloride (liquified gas)	25 t	250t	7647-01-0
114	Hydrogen cyanide	5 t	20t	74-90-8
115	Hydrogen fluoride	5 t	50t	7664-39-3
116	Hydrogen sulphide	5 t	50t	7783-06-4
117	Methyl bromide (Bromomethane)	20 t	200 t	74-83-9
118	Nitrogen oxides	50 t		10024-97-2
119	Propyleneimine	50 t		75-55-8
120	Sulphur dioxide	20 t	250t	7446-09-5
121	Sulphur trioxide	15 t	75t	7446-11-9
122	Tetraethyl lead	5 t	200t	78-00-2
123	Tetra methyl lead	5 t	100t	75-74-1
124	Toluene di-isocynate (TDI)	10 t	100 t	584-84-9
Group-3 Highly Reactive Substances				
125	Acetylene (ethyne)	5 t		74-86-2
126	a. Ammonium nitrate (1) b. Ammonium nitrate in form of fertilizer (2)	350t 1250 t	2500t 10,000 t	6484-52-2
127	2,2 Bis (tert-butylperoxy) butane) (concentration >70%)	5 t		2167-23-9
128	1, 1-Bis(tert-butylperoxy) cyclohexane (concentration > 80%)	5 t		3006-86-8
129	tert-Butyle proxyacetate (concentration ≤70%)	5 t		107-71-1
130	tert-Butyle peroxy isobutyrate (concentration >80%)	5 t		109-13-7
131	Tert-Butyl peroxy isopropyl carbonate (concentration ≥80%)	5 t		2372-21-6
132	Tert-Butyl peroxyaleate (concentration ≥80%)	5 t		1931-62-0
133	Tert-Butyl peroxyvalate (concentration ≥77%)	50 t		927-07-1
134	Dibenzyl peroxydicarbonate (concentration ≥90%)	5 t		2144-45-8
135	Di-sec-butyl peroxydicarbonate (concentration ≥80%)	5 t		19910-65-7
136	Diethyl peroxydicarbonate	50 t		14666-78-5

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S. No.	Chemicals	Threshold Quantity		CAS Number
(1)	(2)	(3)	(4)	(5)
	(concentration $\geq 30\%$)			
137	2,2-dihydroperoxypropane (concentration $\geq 30\%$)	5 t		2614-76-08
138	di-isobutyl peroxide (concentration $\geq 50\%$)	50 t		3437-84-1
139	Di-n-propyl peroxydicarbonate (concentration $\geq 80\%$)	5 t		16066-38-9
140	Ethylene oxide	5 t	50 t	75-21-8
141	Ethyl nitrate	50 t		625-58-1
142	3,3,6,6,9,9 Hexamethyl - 1,2,4 5-tert oxacyclohexane (concentration $\geq 75\%$)	50 t		22397-33-7
143	Hydrogen	2 t	50 t	1333-74-0
144	Liquid Oxygen	200 t	2000t	7782-44-7
145	Methyl ethyl ketone peroxide (concentration $\geq 60\%$)	5 t		1338-23-4
146	Methyl isobutyl ketone peroxide (concentration $\geq 60\%$)	50 t		37206-20-5
147	Peracetic acid (concentration $\geq 60\%$)	50 t		79-21-0
148	Propylene oxide	5 t	50t	75-56-9
149	Sodium chlorate	25 t	250 t	7775-09-9
Group 4-Explosive Substances				
150	Barium azide	¹ [100] kg		18810-58-7
151	Bis(2,4,6 -trinitrophenyl) amine	50 t		131-73-7
152	Chlorotrinitro benzene	50 t		28260-61-9
153	Cellulose nitrate (containing 12.6% Nitrogen)	50 t		9004-70-0
154	Cyclotetramethylene teranitramine	50 t		2691-41-0
155	Cyclotrimethylene trinitramine	50 t		121-82-4
156	Diazodinitrophenol	10 t		7008-81-3
157	Diethylene glycol dinitrate	10 t		693-21-0
158	Dinitrophenol, salts	50 t		25550-58-7
159	Enthylene glycol dinitrate	10 t		628-96-6
160	1-Gyanyl-4-nitrosaminoguanyl-1-tetrazene	100 kg		109-27-3
161	2, 2, 4, 4, 6, 6, -: Hexanitrostilbene	50 t		20062-22-0
162	Hydrazine nitrate	50 t		13464-97-6

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S. No.	Chemicals	Threshold Quantity		CAS Number
(1)	(2)	(3)	(4)	(5)
163	Lead azide	100 kg		13424-46-9
164	Lead Styphnate (Lead 2,4,6-trinitroresorcinoxide)	50 t		15245-44-0
165	Mercury fulminate	10 t		628-86-4
166	N-Methyl-N,2,4,6-tetranitroaniline	50 t		479-45-8
167	Nitroglycerine	10 t	10t	55-63-0
168	Pentaerythritol tetra nitrate	50 t		78-11-5
169	Picric acid, (2,3,6-Trinitrophenol)	50 t		88-89-1
170	Sodium picramate	50 t		831-52-7
171	Styphnic acid (2,4,6-Trinitroresorcinol)	50 t		82-71-3
172	1,3,5-Triamino-2,4,6-Trinitrobenzene	50 t		3058-38-6
173	Trinitroaniline-	50 t		26952-42-1
174	2,4,6-Trinitroanisole	50 t		606-35-9
175	Trinitrobenze	50 t		99-35-4
176	Trinitrobenzoic acid	50 t		35860-50-5 129-66-8
177	Trinitrocresol	50 t		28905-71-7
178	2,4,6-Trinitrophenetole	50 t		4732-14-3
179	2,4,6-Trinitrotoluene	50 t	50 t	118-96-7

Part II

**Classes Of Substances As Defined In Part – I, Schedule X and Not Specifically Named
In Part –I Of This Schedule**

S. No.	Chemicals	Threshold Quantity(tonnes)	
Group 5 - Flammable Substances			
(1)	(2)	(3)	(4)
1.	Flammable Gases	15t	200t
2.	Extremely flammable liquids	1000t	5000t
3.	Very highly flammable liquids	1500t	10000t
4.	Highly Flammable liquids which remains liquid under pressure	25t	200t
5.	Highly Flammable liquids	2500t	20000t
6.	Flammable liquids	5000t	50000t

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

Schedule XIII - Industrial Installations

1. Installation for the production, processing or treatment of organic or inorganic chemicals used for this purpose, among others:
 - (a) Alkylation
 - (b) Amination by ammonolysis
 - (c) Carbonylation
 - (d) Condensation
 - (e) Dehydrogenation
 - (f) Esterification
 - (g) Halogenation and manufacture of halogens
 - (h) Hydrogenation
 - (i) Hydrolysis
 - (j) Oxidation
 - (k) Polymerization
 - (l) Sulphonation
 - (m) 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. Installation for distillation, refining or other processing of petroleum or petroleum products.
4. Installations for the total or partial disposal of solid or liquid substances by incineration or chemical decomposition. Steps to be taken for remedial action
4. Installations for production, processing, use or treatment of energy gases, for example, Liquefied Petroleum Gas, Liquefied Natural Gas, Substitute Natural Gas.
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 of any other similar process.

Schedule XIV - Information To Be Furnished By The Occupier

1. The name, contact details and address of the Occupier

Part I

Subpart A

Report to be furnished for the Notification of the Industrial Activity

1. The full postal address of the site where the industrial activity will be carried on.
2. The area of the site covered by the notification and of any adjacent site which is required to be taken into account.
3. The date on which it is anticipated that the industrial activity will commence, or if it has already commenced a statement to that effect.
4. The name, physical state and maximum quantity of Hazardous Chemicals liable to be on the site.
5. Organisation structure namely organisation diagram set up for the proposed industrial activity and for ensuring safety.
6. Description of the industrial activity, namely-
 - a. construction design
 - b. protection zones
explosion protection,
separation distances
 - c. accessibility of plant

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- d. maximum number of persons working on the site and particularly of those persons exposed to be the hazard
 - e. flow diagram
- 7. 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
 - b. population distribution in the vicinity
 - c. a scale plan of the site showing the location and quantities of all significant inventories of the Hazardous Chemicals
 - d. a description of the process or storage involving the Hazardous Chemicals and an indication of the conditions under which they are normally held
 - e. the maximum number of persons likely to be present on site and particularly of those persons exposed to the hazard.

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8. The arrangement for training of workers and maintaining equipment necessary to ensure the safety of such workers.

Subpart B

Particulars to be included regarding pipeline

1. The full postal address of the place-
 - a. from which the pipeline activity is controlled,
 - b. where the pipeline starts,
 - c. where the pipeline finishes
2. A map showing the pipeline route drawn to a scale of not less than 1:4,00,000.
3. The date on which it is anticipated that the notifiable activity will commence, or if it is already commenced a statement to that effect.
4. The total length of the pipeline, its diameter and normal operating pressure and the name and maximum quantity liable to be in the pipeline of Hazardous Chemicals for which notification is being made.

Part II

Information To Be Furnished In A Safety Report

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1. The name and address of the person furnishing the information.
2. 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.
3. Description of the Hazardous Chemicals, namely -
 - (a) chemicals (quantities, substance data, safety-related data, toxicological data and threshold values),
 - (b) the form in which the chemical may occur on or into which they may be transformed in the event of abnormal conditions,
 - (c) the degree of purity of the Hazardous Chemical.
4. Information on the preliminary hazard analysis, namely-
 - (a) hazards,
 - (b) types of accident
 - (c) system elements or events that can lead to a major accident,

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- (d) safety-relevant components.
5. Description of safety - relevant units, among others:
- (a) special design criteria,
 - (b) controls and alarms,
 - (c) special relief systems,
 - (d) quick-acting valves,
 - (e) collecting tanks/dump tank,
 - (f) sprinkler system,
 - (g) firefighting etc.
6. Information on the hazard assessment, namely-
- (a) identification of hazards ,
 - (b) the cause of major accidents,
 - (c) assessment of hazards according to their occurrence frequency,
 - (d) assessment of accident consequences,
 - (e) safety systems,
 - (f) known accident history.
7. Description of information or organizational systems used to carry on the 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,

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- (d) implementation of safety procedure.
 - (e) List of workers with probability of hazardous exposure and likely health outcomes following hazard evaluation and assessment.
8. 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 chemical,
 - (c) assessment of the effects of the releases (size of the affected area, health effects, property damage)
 - (d) Exposure scenario constructed in the event of spill, fall out of pollutants and likely adverse health effects with a plan to follow up the exposed population.
9. 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

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- communication rules
guidelines for fighting
the emergency,
information about
Hazardous Chemicals,
examples of possible
accident sequences,
- (d) coordination with 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.

Part - III

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 organization and
responsibilities assigned to them in case
of an emergency
3. Outside organization if involved in
assisting during on-site emergency:
 - (a) Type of accidents
 - (b) Responsibility assigned
4. Details of liaison arrangement between
the organizations.
5. Information on the preliminary hazard
analysis:
 - (a) Type of accidents

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- (b) System elements or events that can lead to a major accident
 - (c) Hazards
 - (d) Safety relevant components
 - (e) Steps to be taken for remedial action
- 6. Details about the site:
 - (a) Location of dangerous substances
 - (b) Seat of key personnel
 - (c) Emergency control room
- 7. Description of Hazardous Chemicals at plant site:
 - (a) Chemicals (Quantities and toxicological data)
 - (b) Transformation if any, which could occur
 - (c) Purity of Hazardous Chemicals.
- 8. Likely dangers to the plant.
- 9. Enumerate effects of:
 - (i) Stress and strain caused during normal operation:
 - (ii) Fire and explosion inside the plant and effect if any, of fire and explosion outside.
- 10. Details regarding:
 - (i) Warning, alarm and safety and security systems.
 - (ii) Alarm and hazard control plans in line with disaster control and hazard control planning, ensuring the necessary technical and organizational precautions.

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- (iii) Reliable measuring instruments, control units and servicing of such equipment.
 - (iv) Precautions in designing of the foundation and load bearing parts of the building.
 - (v) Continuous surveillance of operations.
 - (vi) Maintenance and repair work according to the generally recognized rules of good engineering practices.
-
- 11. Details of communication facilities available during emergency and those required for an off-site emergency.
 - 12. Details of firefighting and other facilities available and those required for an off-site emergency.
 - 13. Details of first aid and hospital services available and its adequacy.

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Schedule XV - Details to be Furnished in the Off-site Emergency Plan

1. The types of accidents and release to be taken into account.
2. Organizations involved including key personnel and responsibilities and liaison arrangements between them.
3. Information about the site including likely locations of dangerous substances, personnel and emergency control rooms.
4. Technical information such as chemical and physical characteristics and dangers of the substances and plant.
5. Identify the facilities and transport routes.
6. Contact for further advice e.g. meteorological information, transport, temporary food and accommodation, first aid and hospital services, water and agricultural authorities.
7. Communication links including telephones, radios and standby methods.
8. Special equipment including firefighting materials, damage control and repair items.
9. Details of emergency response procedures.
10. Notify the public.
11. Evacuation arrangements.
12. Arrangements for dealing with the press and other media interests
13. Longer term clean up.

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Schedule XVI - Information to be furnished regarding Notification of a Chemical Accident

1. General data

- (a) Name of the site of Major Chemical Accident
- (b) Name, contact details and address of the Occupier
- (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

2. Type of major accident

- (a) Explosion
- (b) Fire
- (c) Emission of dangerous substance
- (d) Other

3. Substance(s) emitted

4. 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.
- (d) The circumstances of the accident and the dangerous substance involved

5. Causes of the major accident.

- (a) Known (to be specified)
- (b) Not Known
- (c) Information will be supplied as soon as possible

6. Sequence of event in chronological order including information given to authorities/public etc.

7. Nature and extent of damage

- (a) Within the establishment casualties
 - 1) Killed
 - 2) Injured
 - 3) Poisoned
 - 4) Persons exposed to the major accident
 - 5) material damaged

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- 6) danger is still present
- 7) danger no longer exists.

(b) Outside the establishment casualties.

- 1) Killed
- 2) Injured
- 3) Poisoned
- 4) Persons exposed to the major accident
- 5) Material damaged
- 6) Damage to environment
- 7) The danger is still present
- 8) The danger no longer exists

8. Data available for assessing the effects of the accident on persons and environment.

9. Emergency Measures taken and measures envisaged to be taken to alleviate short term effects of the accident.

10. 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 XVII - Information in Labelling

A Priority Substance in packaging shall bear a label including the following elements:

1. The name, address and telephone number of the manufacturer, importer or downstream user
2. The nominal quantity of the Priority Substance in the package made available to the general public, unless this quantity is specified elsewhere on the package
3. Product identifiers
4. Hazard pictograms where applicable,
5. Signal words, where applicable
6. Hazard statements, where applicable,
7. Appropriate precautionary statements, where applicable
8. A section, where applicable
9. IN Number as assigned by the Division