

PUNJAB HAZARDOUS SUBSTANCES RULES, 2018
ENVIRONMENT PROTECTION DEPARTMENT, PUNJAB

NOTIFICATION

(Lahore, the _____, May, 2018)

NO. ()/20____,- In exercise of the powers conferred by Section 31 of the Punjab Environmental Protection Act, 1997 (**Amended 2012**), the **Punjab** Government is pleased to **make** the following Rules, namely:-

1. SHORT TITLE AND COMMENCEMENT. (1) These rules may be called the Punjab Hazardous Substances Rules, 2018.

(2) They shall come into force on the date of their publication in the Official Gazette.

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

(a) "**Act**" means the Punjab Environmental Protection Act, 1997 (XXXIV of 1997, Amended 2012) ;

(b) "**Hazardous Chemical/Substances**" means –

- i. any chemical/substance which satisfies any of the criteria laid down in Part I of Schedule 1 or listed in Part II of this Schedule ;
- ii. any chemical listed in Column 2 of Schedule 2;
- iii. any chemical listed in Column 2 of Schedule 3

(c) "**Agency**" means Punjab Environmental Protection Agency (EPA);

(d) "**Concerned Authority**" means an authorities mentioned in Column 2 of Schedule 5;

e) "**Director General**" means the Director General of the Provincial Agency;

f) "**Divisional Directors**" means the Divisional Directors appointed under the Delegation of power rules;

g) "**Division**" means a Division constituted under the; Punjab Land Revenue Act, 1967 (XVI of 1967);

h) "**Notified officer**" means an officer of the Agency notified for a district under the rules;

i) "**Secretary**" means Secretary to the Government, Environment Protection Department;

j) "**Occupier**" means party that takes possession of a dwelling, piece of land, or premises as owner, tenant, or trespasser or someone who is using it i.e. proponent, head of educational institute, Chief executive of company, industry, factory, who involves in collection, generation, handling, consignment, transport, treat, dispose of, manufacturing and storage of hazardous substances;

k) "**Section**" means a section of the Act ibid;

l) "**Schedule**" means Schedule to these rules;

- m) “**worker**” shall have the same meaning as defined in clause (h) of section 2 of the Factories Act, 1934 (XXV of 1934)
- n) “**import**” with its grammatical variations and cognate expression, means bringing into Pakistan from a place outside Pakistan
- o) “**importer**” means an occupier or any person who imports hazardous chemicals;
- p) “**export**” with its grammatical variations and cognate expression, means taking out of Pakistan to a place outside Pakistan;
- q) “**exporter**” means any person under the jurisdiction of the exporting country and includes the exporting country, who exports hazardous chemical;
- r) “**industrial activity**” means-
 - i. an operation or process carried out in an industrial installation referred to in Schedule 4 involving or likely to involve one or more hazardous chemicals and includes on-site storage or on-site transport which is associated with that operation or process, as the case may be; or
 - ii. isolated storage; or
 - iii. pipeline ;
- s) “**isolated storage**” means storage of a hazardous chemical, other than storage associated with an installation on the same site specified in Schedule 4 where that storage involves at-least the quantities of that chemical set out in Schedule 2;
- t) “**major accident**” means -an incident involving loss of life inside or outside the installation, or ten or more injuries inside and/or one or more injuries outside or release of toxic chemicals or explosion or fire or spillage of hazardous chemicals resulting in on-site or off-site emergencies or damage to equipment leading to stoppage of process or adverse effects to the environment; storage and industrial activity at a site handling (including transport through carrier or pipeline) of hazardous chemicals equal to or, in excess of the threshold quantities specified in, Column 3 of schedule 2 and 3 respectively;
- u) “**site**” means any location where hazardous chemicals are manufactured or processed, stored, handled, used, disposed of and includes the whole of an area under the control of an occupier and includes pier, jetty or similar structure whether floating or not;
- v) “**Rescue 1122**” means emergency service that serves Punjab Province in Pakistan. The service is accessed by calling 1122 from any phone.
- w) “**Hazardous Substance Report**” includes information/documents as per Scheduled 15;
- x) “**Threshold quantity**” means, -
 - (i) in the case of a hazardous chemical specified in Column 2 of Schedule 2, the quantity of that chemical specified in the corresponding entry in Columns 3 and 4 ;
 - (ii) in the case of a hazardous chemical specified in Column 2 of

- Part I of Schedule 3, the quantity of that chemical specified in the corresponding entry in Columns 3 & 4 of that part;
- (iii) in the case of substances of a class specified in Column 2 of Part II of Schedule 3, the total quantity of all substances of that class specified in the corresponding entry in Columns 3 and 4 of that part.

3. DUTIES OF AUTHORITIES –

The concerned authority shall, -

- a) inspect the industrial activity at least once in a calendar year;
- b) annually report on the compliance of the rules by the occupiers to the Environmental Protection Agency, Punjab through appropriate channel
- c) subject to the other provisions of these rules, perform the duties specified in column 3 of Schedule 5.

4. GENERAL RESPONSIBILITY OF THE OCCUPIER DURING INDUSTRIAL ACTIVITY – (1) these rules shall apply to, -

- (a) an industrial activity in which a hazardous chemical, which satisfies any of the criteria laid down in Part I of Schedule 1 [or listed] in Column 2 of Part II of this Schedule is, or may be, involved; and
 - [(b) isolated storage of a hazardous chemical listed in Schedule 2 in a quantity equal to or more than the threshold quantity specified in Column 3, thereof.
- (2) An occupier who has control of an industrial activity in terms of sub-rule (1) shall provide evidence to show that he has, -
- (a) identified the major accident hazards; and
 - (b) taken adequate steps to -
 - (i) prevent such major accidents and to limit their consequences to persons and the environment;
 - (ii) provide to the persons working on the site with the information, training and equipment including antidotes necessary to ensure their safety.

5. NOTIFICATION OF MAJOR ACCIDENT -

(1) Where a major accident occurs within the premises or outside the premises of a licensee during manufacturing, loading or unloading, supply, storage, marketing, transportation, the occupier shall [within 48 hours notify] the concerned authority as identified in Schedule 5 of that accident, and furnish thereafter to the concerned authority a report relating to the accidents in installments, if necessary, in Schedule 6.

(2) On receipt of the report, the notified officer shall require the licensee to carry out a detailed environmental audit of the major accident and initiate appropriate action in accordance with the approved safety plan or otherwise, to control the major accident, mitigate its adverse environmental effect and prevent from recurring and sent the requisite information within 90 days to the Environmental Protection Agency (EPA) through appropriate channel.

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

(4) The concerned Authority shall in writing inform the occupier, of any lacunae which in its opinion needs to be rectified to avoid major accidents.

(5) In case of loss of life or property or injury or loss of livestock or fauna & flora, the licensee will be responsible and case will be registered against him in the concerned police station for such loss under the law and rules & regulations.

6. INDUSTRIAL ACTIVITY TO WHICH RULES 7 TO 15 APPLY – (1) Rules 7 to 15 shall apply to, -

- (a) an industrial activity in which there is involved a quantity of hazardous chemical listed in Column 2 of Schedule 3 which is equal to or more than the quantity specified in the entry for that chemical in Column 3 & 4 (Rules 10-12 only for Column 4); and
 - (b) isolated storage in which there is involved a quantity of a hazardous chemical listed in Column 2 of Schedule 2 which is equal to or more than the quantity specified in the entry for that chemical in Column³[3 & 4 (rules 10-12 only for column 4).]
- (2) For the purpose of rules 7 to 15,
- (a) "new industrial activity" means an industrial activity which, –
 - (i) commences after the date of coming into operation of these rules; or
 - (ii) if commenced before that date, is an industrial activity in which a modification has been made which is likely to cover major accident hazards, and that activity shall be deemed to have commenced on the date on which the modification was made;
 - (b) an "existing industrial activity" means an industrial activity which is not a new industrial activity.
- (3) These rules shall also be applicable to handling, storage, disposal of chemicals in universities during thesis and project/research work.

7. [APPROVAL AND] NOTIFICATION OF SITES -

(1) An occupier shall not undertake any industrial activity unless he has been granted an approval for undertaking such an activity and has submitted a written report (Hazardous Substance Report) to the concerned authority containing the particulars specified in Schedule 7, Part I and III at least 3 months before commencing that activity or before such shorter time as the concerned authority may agree and for the purpose of this paragraph, an activity in which subsequently there is or is liable to be a threshold quantity or more of an additional hazardous chemical shall be deemed to be a different activity and shall be notified accordingly.

(2) An application for grant of license under Section 14 shall be filed as per Schedule 7, 8, 9, 10 and 11 to the EPA along with receipt of payment of prescribed fee at the rate specified in Schedule 7, part V:

(3) The notified officer shall review the Reports submitted by occupier within 10 working days. The notified officer may consult an expert or a committee of experts as may be specified or constituted for the purpose by the Agency. The EPA, if necessary, may inspect the site of the proposed project.

(4) For purpose of approval of license regarding hazardous substances, for each division, there shall be a Committee comprising of:

- a) Divisional Director (Chairperson)
- b) Notified officer of concerned District (Convener)
- c) An expert relevant to the hazardous substances
appointed by secretary from a panel recommended
by the concerned Divisional Director

(5) Where the Committee approves an application for grant of license, the concerned AD(EPA) or DD(EPA) Field shall issue a license on Form-B of Schedule-7, Part IV.

(6) The concerned Authority within 45 days from the date of receipt of the report shall approve the report submitted and on consideration of the report if it is of

the opinion that contravention of the provisions of the Act or the rules made thereunder has taken place, it shall issue notice under rule 19.

(7) License will not be applicable for sale of acids/chemicals on small scale i.e., in the shops of local markets.

(8) License will be applicable for collection, generation, handling, consignment, transport, treat, dispose of, manufacturing and storage of hazardous substances.

(9) Manufacturing, storage, treatment and disposal of hazardous substances will not be allowed in residential area and agricultural area.

(10) A license granted under Section 14 shall also be subject to certain conditions as per Form-B of Schedule-7, Part IV, addition to following:-

- a) The licensee may obtain undertaking in form as Schedule 13, from the person to whom the hazardous substances are sold or delivered that he has necessary information regarding the use, storage and handling of the hazardous substances, and safety precautions relating thereto;
- b) The licensee shall obtain approval/consent from Rescue 1122 before commencement of the project.
- c) The licensee shall provide such information as may be required by the authorized officer for effective monitoring of compliance of conditions of the license by the licensee.
- d) In case of non-provision of access for inspection to the authorized staff of the Agency, the notified officer will seek the search warrants from the court of concerned Magistrate as provided under section 7 (g, h, i & j) of PEPA-1997.

(11) The Committee may, require that the licensee maintain adequate insurance cover for any aspect of his operation.

(12) The licensee shall provide copy of approval from importing country under the international convention and protocol.

(13) The license issued shall be valid for a period of five (05) years from the date of issue, unless it is cancelled under rule 22. Provided that if an application for renewal is made under Rule 23, the license shall continue to remain valid till the application for renewal is decided.

8. UPDATING OF THE SITE NOTIFICATION FOLLOWING CHANGES IN THE THRESHOLD QUANTITY - Where an activity has been reported in accordance with rule 7(1) and the occupier makes a change in it (including an increase or decrease in the maximum threshold quantity of a hazardous chemical to which this rule applies which is or is liable to be at the site or in the pipeline or at the cessation of the activity) which affects the particulars specified in that report or any subsequent report made under this rule, the occupier shall forthwith furnish a further report to the concerned authority.

9. TRANSITIONAL PROVISIONS-Where. –

- (a) at the date of coming into operation of these rules, an occupier is in control of an existing industrial activity which is required to be reported under rule 7(1); or
- (b) within 6 months after that date, an occupier commence any such new industrial activity;

it shall be a sufficient compliance with that rule if he reports to the concerned authority as per the particulars in Schedule 7, Part I and III within 3 months after the date of coming into operation of these rules or within such longer time as the concerned authority may agree in writing.

10. SAFETY REPORTS AND SAFETY AUDIT REPORTS-

(1) Subjects to the following paragraphs of this rule, an occupier shall not undertake any industrial activity to which this rule applies, unless he has prepared a safety report on that industrial activity containing the information specified in Schedule 8 and has sent a copy of that report to the concerned authority at least ninety days before commencing that activity.

(2) In the case of a new industrial activity which an occupier commences, or by virtue of sub-rule (2) (a) (ii) of rule 6 is deemed to commence, within 6 months after coming into operation of these rules, it shall be a sufficient compliance with sub-rule (1) of this rule if the occupier sends to the concerned authority a copy of the report required in accordance with that sub-rule within ninety days after the date of coming into operation of these rules.

(3) In case of an existing industrial activity, the occupier shall prepare a safety report in consultation with the concerned authority and submit the same within one year from the date of commencement of the Punjab Hazardous Substances Rules, 2018

(4) After the commencement of the Punjab Hazardous Substances Rules, 2018, the occupier of both the new and the existing industrial activities shall carry out an independent safety audit of the respective industrial activities with the help of an expert, not associated with such industrial activities.

(5) The occupier shall forward a copy of the auditor's report along with his comments to the concerned Authority within 30 days after the completion of such Audit.

(6) The occupier shall update the safety audit report once a year by conducting a fresh safety audit and forward a copy of it with his comments thereon within 30 days to the concerned Authority.

(7) The concerned Authority may if it deems fit, issue improvement notice under rule 21 within 45 days of the submission of the said report.

11. UPDATING OF REPORTS UNDER RULE 10-

(1) Where an occupier has made a safety report in accordance with sub-rule (1) of rule 10 he shall not make any modification to the industrial activity to which that safety report relates which could materially affect the particulars in that report, unless he has made a further report to take account of those modifications and has sent a copy of that report to the concerned authority at least 90 days before making those modifications.

(2) Where an occupier has made a report in accordance with rule 10 and sub-rule (1) of this rule and that industrial activity is continuing the occupier shall within Five years of the date of the last such report, make a further report which shall have regard in particular to new technical knowledge which has affected the particulars in the previous report relating to safety and hazard assessment and shall within 30 days send a copy of the report to the concerned authority.

12. REQUIREMENT FOR FURTHER INFORMATION TO BE SENT TO

THE AUTHORITY - Where, in accordance with rule 10, an occupier has sent a safety report and the safety audit report relating to an industrial activity to the concerned Authority, the concerned Authority may, by a notice served on the occupier, require him to provide such additional information as may be specified in the notice and the occupier shall send that information to the concerned Authority within 90 days.

13. PREPARATION OF ON-SITE EMERGENCY PLAN BY THE OCCUPIER

- (1) An occupier shall prepare and keep up-to-date an on-site emergency plan containing details specified in Schedule 11 and detailing how major accidents will be dealt with on the site on which the industrial activity is carried on and that plan shall include the name of the person who is responsible for safety on the site and the names of those who are authorized to take action in accordance with the plan in case of an emergency.

(2) The occupier shall ensure that the emergency plan prepared in accordance with sub-rule (1) takes into account any modification made in the industrial activity and that every person on the site who is affected by the plan is informed of its relevant provisions.

(3) The occupier shall prepare the emergency plan required under sub-rule (1),-

(a) in the case of a new industrial activity, before that activity is commenced;

(b) in the case of an existing industrial activity within 90 days of commencing into operation of these rules.

(4) The occupier shall ensure that a mock drill of the on-site emergency plan is conducted every six months;

(5) A detailed report of the mock drill conducted under sub-rule (4) shall be made immediately available to the concerned Authority.

14. PREPARATION OF OFF-SITE EMERGENCY PLAN BY THE RESCUE 1122 OF THE DISTRICT –

(1) It shall be the duty of the Rescue 1122 as identified in Column 2 of Schedule 5 to prepare and keep up-to-date an adequate off-site emergency plan containing particulars specified in Schedule 12 and detailing how emergencies relating to a possible major accident on that site will be dealt with and in preparing that plan the Rescue 1122 shall consult the occupier, and such other persons as it may deem necessary.

(2) For the purpose of enabling the Rescue 1122 to prepare the emergency plan required under sub-rule (1), the occupier shall provide the Rescue 1122 with such information relating to the industrial activity under his control as the concerned authority may require, including the nature, extent and likely effects off-site of possible major accidents and the authority shall provide the occupier with any information from the off-site emergency plan which relates to his duties under rule 13.

(3) The Rescue 1122 shall prepare its emergency plan required under sub-rule (1),-

(a) In the case of a new industrial activity, before that activity is commenced;

(b) In the case of an existing industrial activity, within six months of coming into operation to these rules.

(4) The Rescue 1122 shall ensure that a rehearsal of the off-site emergency plan is conducted at least once in a calendar year.

15. INFORMATION TO BE GIVEN TO PERSONS LIABLE TO BE AFFECTED BY A MAJOR ACCIDENT -

(1) The occupier shall take appropriate steps to inform persons outside the site either directly or through Rescue 1122 who are likely to be in an area which may be affected by a major accident about, -

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

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

(2) The occupier shall take steps required under sub-rule (1) to inform persons about an industrial activity, before that 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 operation of these rule.

16. DISCLOSURES OF INFORMATION -

Where for the purpose of evaluating information notified under rule 5 or 7 to 15, the concerned authority discloses that information to some other person, that other person shall not use that information for any purpose except for the purpose of the concerned authority disclosing it, and before disclosing the information the concerned authority shall inform that other person of his obligations under this paragraph.

17. COLLECTION, DEVELOPMENT AND DISSEMINATION OF INFORMATION -

(1) This rule shall apply to an industrial activity in which a hazardous chemical which satisfies any of the criteria laid down in part I of Schedule 1 or listed in Column 2 of Part II of this Schedule is or may be involved.

(2) An occupier, who has control of an industrial activity in term of sub-rule 1 of this rule, shall arrange to obtain or develop information in the form of safety data sheet as specified in Schedule 9. The information shall be accessible upon request for reference.

(3) The occupier while obtaining or developing a safety data sheet as specified in Schedule 9 in respect of a hazardous chemical handled by him shall ensure that the information is recorded accurately and reflects the scientific evidence used in making the hazard determination. In case, any significant information regarding hazard of a chemical is available, it shall be added to the material safety data sheet as specified in Schedule 9 as soon as practicable.

(4) Every container of a hazardous chemical shall be clearly labeled or marked to identify -

- (a) the contents of the container ;
- (b) the name and address of manufacturer or importer of the hazardous chemical ;
- (c) the physical, chemical and toxicological data as per the criteria given at Part I of Schedule 1.

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

18. INFORMATION REGARDING HANDLING OF HAZARDOUS SUBSTANCES

a) Packing and Labeling: (1) A container of a hazardous substance shall be of such size, material and design as to ensure that –

- a) It can be stored, transported and used without leakage, and safely;
- b) The hazardous substance there in does not deteriorate in a manner as to render it more likely to cause, directly or in combination with other substances, an adverse environmental effect.

(2) The following information shall be printed conspicuously, legibly and indelibly on every container of a hazardous substance –

- (a) Name of the hazardous substance;
- (b) Name, address and license number of the licensee;
- (c) Net contents (volume or weight);
- (d) Date of manufacture and date of expiry, if any;
- (e) A warning statement comprising –

- i. The word “DANGER!” in red on a contrasting background;
 - ii. A picture of a skull and cross-bones;
 - iii. Pertinent instructions for use, storage and handling and safety precautions relating thereto.
- (f) Instructions regarding return or disposal of the empty container:
 - i. Provided that if the hazardous substance has an inner container as well as an outer container, the information shall be printed on both containers.
 - ii. Provided further that if it is impracticable to print the aforesaid information on the container itself due to its size, material or design, the same shall be printed on a label or tag which shall be conspicuously affixed or attached to the container in such manner as to render it difficult to remove. The empty chemical containers / drums may not be used for other purposes.
- (g) Basic instructions mentioning immediate steps to be taken in case of any accident or emergency, preferably in local language.

b) Conditions for Premises: The premises in which a hazardous substance is generated, collected, consigned, treated, disposed of, stored or handled shall –

- (a) The premises shall not be located –
 - i. in a congested, residential, commercial or office area;
 - ii. in small lanes or bye-lanes;
 - iii. close to drinking water sources; or
 - iv. in an area liable to flooding.
- (b) The building should –
 - i. Be soundly constructed with good ventilation and protection against direct sunlight;
 - ii. Have well-maintained electrical installations;
 - iii. Have walls protected by non-flammable or slow burning material;
 - iv. Have fire-resistant doors fitted with self-closing system;
 - v. Have smooth, crack free floors impermeable to liquids;
 - vi. Have drains, if absolutely necessary, which do not connect directly with the sewerage system;
 - vii. Have signs indicating location of emergency exits, escape routes, and fire-fighting equipment, prohibition of smoking, and safety precautions; and
 - viii. Have proper washing facilities with adequate supply of water.
- (c) be fitted with a notice on the outer door or gate bearing the following information –
 - i. The words “DANGER! HAZARDOUS SUBSTANCES!” in red, on a contrasting background; and
 - ii. A prominent picture of skull and cross-bones.

c) General Safety Precautions: (1) A licensee shall ensure that the following safety precautions are conveyed to persons who deal with generation, collection, consignment, transportation, treatment, disposal, storage and handling of Hazardous Substances–

- a) Carefully read, and follow the instructions and safety precautions printed on the container; (Urdu or local language translation of the same may be preferably given to the local buyers).
- b) When opening the container, wear protective clothing and equipment including helmet or cloth cap, safety spectacles or goggles, respirator or mask, rubber or plastic gloves, and work boots, as may be required;
- c) Avoid contact of the hazardous substance with exposed skin or eyes, and if such contact occurs, wash the exposed area immediately and consult a doctor;
- d) Avoid contaminating clothing, gloves and footwear with the hazardous substance, and if such contamination occurs, remove the clothing, gloves and footwear immediately and wash the same with water thoroughly before reuse;
- e) Do not eat, drink or smoke in the vicinity of hazardous substances.”

(2) The general safety precautions mentioned in sub-rule (1) shall be in addition to such other specific precautions or measures that may be required to be conveyed by the licensee for a particular hazardous substance. The license holder will be bounded to inform EPA about the details of his subsequent consignments, as the license will be issued for a period of 03 years under section 14 of PEP Act, 1997.

d) Safety Precautions for Workers: The licensee shall ensure that the following safety precautions are taken in respect of workers employed by him for handling hazardous substances-

- (a) No worker below 18 years or over 60 years shall be employed for any job involving physical handling of hazardous substances.
- (b) All workers shall be thoroughly trained in safety precautions for handling hazardous substances and shall be supervised by qualified supervisors.
- (c) Protective clothing and equipment comprising helmet or cloth cap, safety spectacles or goggles, respirators or masks, rubber or plastic gloves and work boots shall be available for all workers who may be exposed to any hazardous substance, and no worker shall be permitted on job unless and until he is wearing such protective clothing and equipment.
- (d) Adequate supply of water shall be made available to the workers for personal washing as well as for washing their protective clothing and equipment.
- (e) Protective clothing and equipment of the workers shall be washed and cleaned as often as may be required to ensure their efficacy.
- (f) No worker shall be permitted to eat, drink or smoke till he has removed his protective clothing and equipment, washed his hands and face, and left the place of work.
- (g) All fire-fighting, emergency and safety equipment shall be frequently checked/ drilled and properly maintained.
- (h) First aid medical facility equipped with required antidotes shall be available in the premises, supervised by trained staff.
- (i) Medical check-up of all workers shall be carried out at the time of employment and at least once a year thereafter.
- (j) A record of every worker shall be maintained containing, amongst other details, his name and address, his medical check-up history, and the hazardous substances handled by him.
- (k) Labor Department must be involved in the planning of workers safety via annual audit.

- e) Safety Plan:** (1) The safety plan to be submitted by an applicant shall include –
- i. An analysis of major accidental hazards relating to the hazardous substance involved;
 - ii. An assessment of the nature and scope of the adverse environmental effects likely to be caused by major accidents;
 - iii. A description of the safety equipment and systems installed and safety precautions taken; and
 - iv. A description of the emergency measures proposed to be taken at the premises of the applicant to control a major accident, and to mitigate its adverse environmental effect.
 - v. Details about inspection and monitoring procedures, packaging, labeling, premises, release detection system

(2) Before issuance of the license, the EPA shall, in consultation with relevant Government Agency and the licensee, review the safety plan to ensure that it covers all anticipated contingencies and all emergencies likely to result from a major accident involving the hazardous substance involved, and that the concerned Government Agency officer and the licensee are aware of their specific responsibilities there under.

(3) After obtaining of the license, the licensee shall ensure that all persons liable to be affected by the approved safety plan are informed of the relevant provisions thereof.

f) Waste Management Plan. (1) The waste management plan, if required to be submitted by an applicant shall –

- i. Provide for the generation, collection, transport and disposal of the hazardous waste in accordance with the principles of environmental technology to protect against adverse environmental effects.
- ii. Ensure that the hazardous waste is not mixed with non-hazardous waste, unless the applicant can prove that such mixing will better protect against an adverse environmental effect.

(2) The waste management plan shall be reviewed every year by the licensee to incorporate by taking into consideration the development of new technologies and management practices which can better protect against an adverse environmental effect, and if required revised waste management plan and fresh Hazardous Substances Report shall be submitted with the application for renewal of license.

19. TRANSPORT OF HAZARDOUS SUBSTANCES. (1) An application shall, for grant of license for transport of a hazardous substance under Section 14 of the Act *ibid* shall, in addition to the information contained in **Form A of Schedule 7, part III**, also provide the following details –

- i. Name and address of the person from whom the hazardous substance is to be collected;
- ii. Name and address of the person to whom the hazardous substance is to be delivered;
- iii. Quantity of hazardous substance to be transported;
- iv. Mode of transport, including full particulars and specifications of the motor vehicles or other conveyance;
- v. Least traffic congested/least populated & safe route to be adopted between the origin and destination; and

- vi. Date and time of proposed transportation.
- vii. The manufacturer shall be responsible for safe transportation of hazardous substances and shall ensure all precautionary measures during transportation.
- viii. The manufacturer shall take immediate emergent measures in case of any accident and shall ensure all safety measures along with vehicle transporting hazardous substances.
- ix. The license shall provide all precautionary details of transportation with the application.

(2) If the license applied for is granted, the Agency shall ensure that other Government Departments or concerned Agencies like Rescue 1122 are informed of the relevant particulars of the proposed transportation activity, for taking necessary safety precautions and other measures.

20. IMPORT OF HAZARDOUS CHEMICALS -

(1) This rule shall apply to a chemical which satisfies any of the criteria laid down in Part I of Schedule 1 or listed in Column 2 of Part II of this Schedule.

(2) Any person responsible for importing hazardous chemicals in Pakistan shall provide before 30 days or as reasonably possible but not later than the date of import to the concerned authority as identified in Column 2 of Schedule 5 the information pertaining to, -

- (i) the name and address of the person receiving the consignment in Punjab;
 - (ii) the port of entry in Pakistan;
 - (iii) mode of transport from the exporting country to Pakistan;
 - (iv) the quantity of chemical (s) being imported; and
 - (v) complete product safety information.
- (3) If the Concerned Authority of the State is satisfied that the chemical being imported is likely to cause major accidents, it may direct the importer to take such safety measures as the concerned Authority of the state may deem appropriate.
- (4) In case the concerned Authority of the State is of the opinion that the chemical should not be imported on safety or on environmental considerations, such Authority may direct stoppage of such import.
- (5) The concerned Authority at the State shall simultaneously inform the concerned Port Authority to take appropriate steps regarding safe handling and storage of hazardous chemicals while off-loading the consignment within the port premises.
- (6) Any person importing hazardous chemicals shall maintain the records of the hazardous chemicals imported as specified in Schedule 10 and the records so maintained shall be open for inspection by the concerned authority or any officer appointed by them in this behalf.
- (7) The importer of the hazardous chemical or a person working on his behalf shall ensure that transport of hazardous chemicals from port of entry to the ultimate destination is in accordance with the Punjab Hazardous Substances, 2018.
- (8) In case of import of hazardous substances, the importer shall seek approval from climate change division (International Convention Wing) Government of Pakistan.

21. IMPROVEMENT NOTICES -

- (1) if the concerned authority is of the opinion that a person has contravened

the provisions of these rules, the concerned authority shall serve on him a notice (in this para referred to as "an improvement notice") requiring that person to remedy the contravention or, as the case may be, the matters occasioning it within 45 days.

(2) A notice served under sub-rule (1) shall clearly specify the measures to be taken by the occupier in remedying said contraventions.

22. CANCELLATION OF LICENSE/APPROVAL: (1) Notwithstanding anything contained in these rules, If at any time on the basis of information or report received or inspection carried out, the EPA is of the opinion that the conditions of an approval/license have not been complied with, or that the information supplied by a licensee in the approved *Hazardous Substances Report* (HSR) was incorrect, the EPA shall issue a show cause notice to the licensee requiring him to explain as to why the license/approval may not be nulled.

(2) The licensee shall, within fifteen days of the receipt of show case notice, submit the reply but if no reply received within the stipulated time or the reply received is found unsatisfactory, the EPA, after giving the licensee an opportunity of hearing, may:

- a) Require the licensee to take such measures and to comply with such conditions within such period as it may be specified,
- b) failing which the license shall stand cancelled

(3) On cancellation of the license under sub rule (2), the licensee shall cease use of these chemicals and substances in the process of the unit and the premises where chemicals and other substances are stored, will be sealed.

(4) Any action taken under this rule shall be without prejudice to any other action that may be taken against the licensee in accordance with law.

(5) After cancellation of the license, if the defaulting person do not stop the operational activities of the project as per sub-rule (3), the Agency will implement its order with the assistance of police and in case of further continuation of the offence, case will be registered with the concerned police station and a complaint in this regard will be filed to Environmental Magistrate for action against the licensee under Section 17 of the Punjab Environmental Protection Act, 1997 (Amended – 2012).

23. RENEWAL OF LICENCE: (1) An application for the renewal of license, under Section 14 shall be filed as per Schedule 7, 8, 9, 10 and 11 to the EPA along with receipt of payment of prescribed fee at the rate specified in Schedule 7, part V.

(2) The licensee shall inform the Agency on the expiry of every 12 months about –

- (a) The quantity and characteristics of hazardous waste generated in the previous year; and
- (b) Progress regarding implementation of the waste management plan.

(3) After obtaining Compliance Status Report (CSR) of the conditions of the original license from the applicant and by verification of CSR, the new license shall be granted.

(4) In case the licensee fails to comply with the above procedure, the Agency will cancel the license after adopting the procedure provided in rule 22.

(5) If an application for renewal is made under Rule 17, the license shall continue to remain valid till the application for renewal is decided.

(6) If a license is defaced, damaged or lost, duplicate thereof shall be issued

on payment of such fee as prescribed in Schedule 7, part V and after obtaining Compliance Status Report (CSR) of the conditions of the original license from the applicant and by verification of CSR.

23. REGISTER: The notified officer shall, in the Form in Schedule-14, maintain a register of projects in respect of which Hazardous Substances Reports (HSR) are received.

24. POWER OF THE ENVIRONMENTAL PROTECTION AGENCY PUNJAB TO MODIFY THE SCHEDULES - The Environmental Protection Agency Punjab may, at any time, by notification in the Official Gazette, make suitable changes in the Schedules.

25. POWERS OF THE AGENCY TO GRANT LICENSES:

(1) Notwithstanding anything contained in the rules, the agency may grant license in respect of a unit and, after recording reasons and affording opportunity of hearing to the licensee:

- a) Impose conditions in addition to the condition of approval/license.
- b) Annual monitoring of the approval granted under the rules.

(2) The agency may monitor the units/projects approved/licensed by it.

(3) The Secretary and Agency may, from time to time, call for and inspect the record pertaining to the grant of approvals.

26. DECISION: All decisions made under the rules shall forthwith be communicated in writing to the occupier, concerned authorities, the Divisional Directors and the Director General of the Agency.

27. APPEAL: Any person aggrieved by an order or direction of the EPA under rules 5 – 12 and 16 - 22 or of the Agency under rule 25 may prefer an appeal before the Environmental Magistrate within thirty days of the date of receipt of the impugned order or direction.

(SAIF ANJUM)
SECRETARY
GOVERNMENT OF THE PUNJAB
ENVIRONMENT PROTECTION DEPARTMENT

[SCHEDULE 1]

[See rule 2b (i), 4 (1)(a), 4(2), 17 and 20]

[Part -I]

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

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

(b) **Flammable Chemicals :**

- (i) flammable gases: Gases which at 20°C and at standard pressure of 101.3KPa are :-
- ignitable when in a mixture of 13 percent or less by volume with air, or ;
 - have a flammable range with air of at least 12 percentage points regardless of the lower flammable limits.
- Note :** The flammability shall be determined by tests or by calculation in accordance with methods adopted by International Standards Organization ISO Number 10156 of 1990
- (ii) **extremely flammable liquids** : chemicals which have flash point lower than or equal to 23°C and boiling point less than 35°C.
- (iii) **very highly flammable liquids** : chemicals which have a flash point
- (iv) **highly flammable liquids** : chemicals which have a flash point lower than or equal to 60°C but higher than 23°C.
- (v) **flammable liquids** : chemicals which have a flash point higher than 60°C but lower than 90°C.
- (vi) **Explosives** : explosives mean a solid or liquid or pyrotechnic substance (or a mixture of substances) or an article.
- which is in itself capable by chemical reaction of producing gas at such a temperature and pressure and at such a speed as to cause damage to the surroundings ;
 - 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 AND TOXIC CHEMICALS

S. No.	NAME OF HAZARDOUS CHEMICALS	S. No.	NAME OF HAZARDOUS CHEMICALS
1.	Acetaldehyde	41.	Antimycin A
2.	Acetic acid	42.	ANTU
3.	Acetic anhydride	43.	Arsenic pentoxide
4.	Acetone	44.	Arsenic trioxide
5.	Acetone cyanohydrin	45.	Arsenous trichloride
6.	Acetone thiosemicarbazide	46.	Arsine
7.	Acetonitrile	47.	Asphalt
8.	Acetylene	48.	Azinpho-ethyl
9.	Acetylene tetra chloride	49.	Azinphos methyl
10.	Acrolein	50.	Bacitracin
11.	Acrylamide	51.	Barium azide
12.	Acrylonitrile	52.	Barium nitrate
13.	Adiponitrile	53.	Barium nitride
14.	Aldicarb	54.	Benzal chloride
15.	Aldrin	55.	Benzenamine,3-Trifluoromethyl
16.	Allyl alcohol	56.	Benzene
17.	Allyl amine	57.	Benzene sulfonyl chloride
18.	Allyl chloride	58.	Benzene. 1- (chloromethyl)-4 Nitro
19.	Aluminium (powder)	59.	Benzene arsenic acid
20.	Aluminium azide	60.	Benzidine
21.	Aluminium borohydride	61.	Benzidine salts
22.	Aluminium chloride	62.	Benzimidazole. 4, 5-Dichloro-2 (Trifluoromethyl)
23.	Aluminium fluoride	63.	Benzoquinone-P
24.	Aluminium phosphide	64.	Benzotrichloride
25.	Amino diphenyl	65.	Benzoyl chloride
26.	Amino pyridine	66.	Benzoyl peroxide
27.	Aminophenol-2	67.	Benzyl chloride
28.	Aminopterin	68.	Beryllium (Powder)
29.	Amiton	69.	Bicyclo (2, 2, 1) Heptane -2-carbonitrile
30.	Amiton dialate	70.	Biphenyl
31.	Ammonia	71.	Bis (2-Chloroethyl) sulphide
32.	Ammonium chloro platinate	72.	Bis (Chloromethyl) Ketone
33.	Ammonium nitrate	73.	Bis (Tert-butyl peroxy) cyclohexane
34.	Ammonium nitrite	74.	Bis (Terbutylperoxy) butane
35.	Ammonium picrate	75.	Bis(2,4, 6-Trinitrophenylamine)
36.	Anabasine	76.	Bis (Chloromethyl) Ether
37.	Aniline	77.	Bismuth and compounds
38.	Aniline 2,4, 6-Trimethyl	78.	Bisphenol-A
39.	Anthraquinone	79.	Bitoscanate
40.	Antimony pentafluoride		

80.	Boron Powder	124.	Chloroacetal chloride
81.	Boron trichloride	125.	Chloroacetaldehyde
82.	Boron trifluoride	126.	Chloroaniline -2
83.	Boron trifluoride comp. With methylether, 1:1	127.	Chloroaniline -4
84.	Bromine	128.	Chlorobenzene
85.	Bromine pentafluoride	129.	Chloroethyl chloroformate
86.	Bromo chloro methane	130.	Chloroform
87.	Bromodialone	131.	Chloroformyl morpholine
88.	Butadiene	132.	Chloromethane
89.	Butane	133.	Chloromethyl methyl ether
90.	Butanone-2	134.	Chloronitrobenzene
91.	Butyl amine tert	135.	Chlorophacinone
92.	Butyl glycidal ether	136.	Chlorosulphonic acid
93.	Butyl isovalarate	137.	Chlorothiophos
94.	Butyl peroxy maleate tert	138.	Chloroxuron
95.	Butyl vinyl ether	139.	Chromic acid
96.	Butyl-n-mercaptan	140.	Chromic chloride
97.	C.I.Basic green	141.	Chromium powder
98.	Cadmium oxide	142.	Cobalt carbonyl
99.	Cadmium stearate	143.	Cobalt Nitrimethylidyne compound
100.	Calcium arsenate	144.	Cobalt (Powder)
101.	Calcium carbide	145.	Colchicine
102.	Calcium cyanide	146.	Copper and Compounds
103.	Camphchlor (Toxaphene)	147.	Copperoxychloride
104.	Cantharidin	148.	Coumafuryl
105.	Captan	149.	Coumaphos
106.	Carbachol chloride	150.	Coumatetralyl
107.	Carbaryl	151.	Crimidine
108.	Carbofuran (Furadan)	152.	Crotenaldehyde
109.	Carbon tetrachloride	153.	Crotonaldehyde
110.	Carbon disulphide	154.	Cumene
111.	Carbon monoxide	155.	Cyanogen bromide
112.	Carbonphenothion	156.	Cyanongen iodide
113.	Carvone	157.	Cyanophos
114.	Cellulose nitrate	158.	Cyanothoate
115.	Chloroacetic acid	159.	Cyanuric fluoride
116.	Chlordane	160.	Cyclo hexylamine
117.	Chlorofenvinphos	161.	Cyclohexane
118.	Chlorinated benzene	162.	Cyclohexanone
119.	Chlorine	163.	Cycloheximide
120.	Chlorine oxide	164.	Cyclopentadiene
121.	Chlorine trifluoride	165.	Cyclopentane
122.	Chlormephos	166.	Cyclotetramethyl enetetranitramine
123.	Chlormequat chloride	167.	Cyclotrimethylen etrinnitranine

168.	Cypermethrin	209.	Dimethyl nitrosoamine
169.	DDT	210.	Dimethyl P phenylene diamine
170.	Decaborane (1 :4)	211.	Dimethyl phosphoramidi cyanidic acid (TABUM)
171.	Demeton	212.	Dimethyl phosphorochloridothioate
172.	Demeton S-Methyl	213.	Dimethyl sufolane (DMS)
173.	Di-n-propyl peroxydicarbonate (Conc = 80%)	214.	Dimethyl sulphide
174.	Dialifos	215.	Dimethylamine
175.	Diazodinitrophenol	216.	Dimethylaniline
176.	Dibenzyl peroxydicarbonate (Conc>= 90%)	217.	Dimethylcarbonyl chloride
177.	Diborane	218.	Dimetilan
178.	Dichloroacetylene	219.	Dinitro O-cresol
179.	Dichlorobenzalkonium chloride	220.	Dinitrophenol
180.	Dichloroethyl ether	221.	Dinitrotoluene
181.	Dichloromethyl phenylsilane	222.	Dinoseb
182.	Dichlorophenol – 2, 6	223.	Diniterb
183.	Dichlorophenol – 2, 4	224.	Dioxane-p
184.	Dichlorophenoxy acetic acid	225.	Dioxathion
185.	Dichloropropane – 2, 2	226.	Dioxine N
186.	Dichlorosalicylic acid-3, 5	227.	Diphacinone
187.	Dichlorvos (DDVP)	228.	Diphosphoramide octamethyl
188.	Dicrotophos	229.	Diphenyl methane di-isocynate (MDI)
189.	Dieldrin	230.	Dipropylene Glycol Butyl ether
190.	Diepoxy butane	231.	Dipropylene glycolmethyl ether
191.	Diethyl carbamazine citrate	232.	Disec-butyl peroxydicarbonate (Conc.>80%)
192.	Diethyl chlorophosphate	233.	Disufoton
193.	Diethyl ethtanolamine	234.	Dithiazamine iodide
194.	Diethyl peroxydicarbonate (Conc=30%)	235.	Dithiobiurate
195.	Diethyl phenylene diamine	236.	Endosulfan
196.	Diethylamine	237.	Endothion
197.	Diethylene glycol	238.	Endrin
198.	Diethylene glycol dinitrate	239.	Epichlorohydrine
199.	Diethylene triamine	240.	EPN
200.	Diethleneglycol butyl ether	241.	Ergocalciferol
201.	Diglycidyl ether	242.	Ergotamine tartarate
202.	Digitoxin	243.	Ethanesulfenyl chloride, 2 chloro
203.	Dihydroperoxypropane (Conc >=30%)	244.	Ethanol 1-2 dichloracetate
204.	Diisobutyl peroxide	245.	Ethion
205.	Dimefox	246.	Ethoprophos
206.	Dimethoate	247.	Ethyl acetate
207.	Dimethyl dichlorosilane	248.	Ethyl alcohol
208.	Dimethyl hydrazine	249.	Ethyl benzene
		250.	Ethyl bis amine

251.	Ethyl bromide	292.	Furan
252.	Ethyl carbamate	293.	Gallium Trichloride
253.	Ethyl ether	294.	Glyconitrile (Hydroxyacetonitrile)
254.	Ethyl hexanol -2	295.	Guanyl-4-nitrosaminoguanynyl-1-tetrazene
255.	Ethyl mercaptan	296.	Heptachlor
256.	Ethyl mercuric phosphate	297.	Hexamethyl terta-oxyacyclononate (Conc 75%)
257.	Ethyl methacrylate	298.	Hexachlorobenzene
258.	Ethyl nitrate	299.	Hexachlorocyclohexan (Lindane)
259.	Ethyl thiocyanate	300.	Hexachlorocyclopentadiene
260.	Ethylamine	301.	Hexachlorodibenzo-p-dioxin
261.	Ethylene	302.	Hexachloronaphthalene
262.	Ethylene chlorohydrine	303.	Hexafluoropropanone sesquihydrate
263.	Ethylene dibromide	304.	Hexamethyl phosphoramide
264.	Ethylene diamine	305.	Hexamethylene diamine N N dibutyl
265.	Ethylene diamine hydrochloride	306.	Hexane
266.	Ethylene flourohydrine	307.	Hexanitrostilbene 2, 2, 4, 4, 6, 6
267.	Ethylene glycol	308.	Hexene
268.	Ethylene glycol dinitrate	309.	Hydrogen selenide
269.	Ethylene oxide	310.	Hydrogen sulphide
270.	Ethylenimine	311.	Hydrazine
271.	Ethylene di chloride	312.	Hydrazine nitrate
272.	Femamiphos	313.	Hydrochloric acid (Gas)
273.	Femitrothion	314.	Hydrogen
274.	Fensulphothion	315.	Hydrogen bromide
275.	Fluemetil	316.	Hydrogen cyanide
276.	Fluorine	317.	Hydrogen fluoride
277.	Fluoro2-hyrdoxy butyric acid amid salt ester	318.	Hydrogen peroxide
278.	Fluoroacetamide	319.	Hydroquinone
279.	Fluoroacetic acid amide salts and esters	320.	Indene
280.	Fluoroacetylchloride	321.	Indium powder
281.	Fluorobutyric acid amide salt esters	322.	Indomethacin
282.	Fluorocrotonic acid amides salts esters	323.	Iodine
283.	Fluorouracil	324.	Iridium tetrachloride
284.	Fonofos	325.	Ironpentacarbonyl
285.	Formaldehyde	326.	Iso benzan
286.	Formetanate hydrochloride	327.	Isoamyl alcohol
287.	Formic acid	328.	Isobutyl alcohol
288.	Formoparanate	329.	Isobutyro nitrile
289.	Formothion	330.	Isocyanic acid 3, 4-dichlorophenyl ester
290.	Fosthiotan	331.	Isodrin
291.	Fuberidazole		

332.	Isofluorophosphate	373.	Methoxy ethanol (2-methyl cellosolve)
333.	Isophorone diisocyanate	374.	Methoxyethyl mercuric acetate
334.	Isopropyl alcohol	375.	Methacryloyl chloride
335.	Isopropyl chlorocarbonate	376.	Methyl 2-chloroacrylate
336.	Isopropyl formate	377.	Methyl alcohol
337.	Isopropyl methyl pyrazolyl dimethyl carbamate	378.	Methyl amine
338.	Juglone (5-Hydroxy Naphthalene-1,4 dione)	379.	Methyl bromide (Bromomethane)
339.	Ketene	380.	Methyl chloride
340.	Lactonitrile	381.	Methyl chloroform
341.	Lead arsenite	382.	Methyl chloroformate
342.	Lead at high temp (molten)	383.	Methyl cyclohexene
343.	Lead azide	384.	Methyl disulphide
344.	Lead styphanate	385.	Methyl ethyl ketone peroxide (Conc.60%)
345.	Leptophos	386.	Methyl formate
346.	Lenisite	387.	Methyl hydrazine
347.	Liquified petroleum gas	388.	Methyl isobutyl ketone
348.	Lithium hydride	389.	Methyl isocyanate
349.	N-Dinitrobenzene	390.	Methyl isothiocyanate
350.	Magnesium powder or ribbon	391.	Methyl mercuric dicyanamide
351.	Malathion	392.	Methyl Mercaptan
352.	Maleic anhydride	393.	Methyl Methacrylate
353.	Malononitrile	394.	Methyl phencapton
354.	Manganese Tricarbonyl cyclopentadiene	395.	Methyl phosphonic dichloride
355.	Mechlor ethamine	396.	Methyl thiocyanate
356.	Mephospholan	397.	Methyl trichlorosilane
357.	Mercuric chloride	398.	Methyl vinyl ketone
358.	Mercuric oxide	399.	Methylene bis (2-chloroaniline)
359.	Mercury acetate	400.	Methylene chloride
360.	Mercury fulminate	401.	Methylenebis-4,4(2-chloroaniline)
361.	Mercury methyl chloride	402.	Metolcarb
362.	Mesitylene	403.	Mevinphos
363.	Methacrolein diacetate	404.	Mezacarbate
364.	Methacrylic anhydride	405.	Mitomycin C
365.	Methacrylonitrile	406.	Molybdenum powder
366.	Methacryloyl oxyethyl isocyanate	407.	Monocrotophos
367.	Methanidophos	408.	Morpholine
368.	Methane	409.	Muscinol
369.	Methanesulphonyl fluoride	410.	Mustard gas
370.	Methidathion	411.	N-Butyl acetate
371.	Methiocarb	412.	N.-Butyl alcohol
372.	Methonyl	413.	N-Hexane
		414.	N- Methyl-N, 2, 4, 6-Tetranitroaniline

415.	Naphtha	454.	Oxamyl
416.	Nephtha solvent	455.	Oxetane, 3, 3-bis(chloromethyl)
417.	Naphthalene	456.	Oxidiphenoxarsine
418.	Naphthyl amine	457.	Oxy disulfoton
419.	Nickel carbonyl/nickel tetracarbonyl	458.	Oxygen (liquid)
420.	Nickel powder	459.	Oxygen difluoride
421.	Nicotine	460.	Ozone
422.	Nicotine sulphate	461.	P-nitrophenol
423.	Nitric acid	462.	Paraffin
424.	Nitric oxide	463.	Paraoxon (Diethyl 4 Nitrophenyl phosphate)
425.	Nitrobenzene	464.	Paraquat
426.	Nitrocellulose (dry)	465.	Paraquat methosulphate
427.	Nitrochlorobenzene	466.	Parathion
428.	Nitrocyclohexane	467.	Parathion methyl
429.	Nitrogen	468.	Paris green
430.	Nitrogen dioxide	469.	Penta borane
431.	Nitrogen oxide	470.	Penta chloro ethane
432.	Nitrogen trifluouide	471.	Penta chlorophenol
433.	Nitroglycerine	472.	Pentabromophenol
434.	Nitropropane-1	473.	Pentachloro naphthalene
435.	Nitropropane-2	474.	Pentadecyl-amine
436.	Nitroso dimethyl amine	475.	Pentaerythaiotol tetranitrate
437.	Nonane	476.	Pentane
438.	Norbormide	477.	Pentanone
439.	O-Cresol	478.	Perchloric acid
440.	O-Nitro Toluene	479.	Perchloroethylene
441.	O-Toludine	480.	Peroxyacetic acid
442.	O-Xylene	481.	Phenol
443.	O/P Nitroaniline	482.	Phenol, 2, 2-thiobis (4, 6-Dichloro)
444.	Oleum	483.	Phenol, 2, 2-thiobis (4 chloro 6-methyl phenol)
445.	OO Diethyl S ethyl suph. methyl phos	484.	Phenol, 3-(1-methyl ethyl) methylcarbamate
446.	OO Diethyl S propythio methyl phosdithioate	485.	Phenyl hydrazine hydrochloride
447.	OO Diethyl s ethtysulphinyl methylphosphorothioate	486.	Phenyl mercury acetate
448.	OO Diethyl s ethylsulphonyl methylphosphorothioate	487.	Phenyl silatrane
449.	OO Diethyls ethylthiomethylphospho-rothioate	488.	Phenyl thiourea
450.	Organo rhodium complex	489.	Phenylene P-diamine
451.	Orotic acid	490.	Phorate
452.	Osmium tetroxide	491.	Phosazetin
453.	Oxabain	492.	Phosfolan
		493.	Phosgene
		494.	Phosmet
		495.	Phosphamidon

496.	Phosphine	535.	Propionitrile
497.	Phosphoric acid	536.	Propionitrile, 3-chloro
498.	Phosphoric acid dimethyl (4-methyl thio)phenyl	537.	Propiophenone, 4-amino
499.	Phosphorothioic acid dimethyl S(2-Bis) Ester	538.	Propyl chloroformate
500.	Phosphorothioic acid methyl (ester)	539.	Propylene dichloride
501.	Phosphorothioic acid, OO Dimethyl S-(2-methyl)	540.	Propylene glycol, allylether
502.	Phosphorothioic, methyl-ethyl ester	541.	Propylene imine
503.	Phosphorous	542.	Propylene oxide
504.	Phosphorous oxychloride	543.	Prothoate
505.	Phosphorous pentaoxide	544.	Pseudosumene
506.	Phosphorous trichloride	545.	Pyrazoxon
507.	Phosphorous penta chloride	546.	Pyrene
508.	Phthalic anhydride	547.	Pyridine
509.	Phylloquinone	548.	Pyridine, 2-methyl-3-vinyl
510.	Physostigmine	549.	Pyridine, 4-nitro-1-oxide
511.	Physostigmine salicylate (1:1)	550.	Pyridine, 4-nitro-1-oxide
512.	Picric acid (2, 4, 6- trinitrophenol)	551.	Pyriminil
513.	Picrotoxin	552.	Quinaliphos
514.	Piperdine	553.	Quinone
515.	Piprotal	554.	Rhodium trichloride
516.	Pirinifos-ethyl	555.	Salcomine
517.	Platinous chloride	556.	Sarin
518.	Platinum tetrachloride	557.	Selenious acid
519.	Potassium arsenite	558.	Selenium Hexafluoride
520.	Potassium chlorate	559.	Selenium oxychloride
521.	Potassium cyanide	560.	Semicarbazide hydrochloride
522.	Potassium hydroxide	561.	Silane (4-amino butyl) diethoxy-meth
523.	Potassium nitride	562.	Sodium
524.	Potassium nitrite	563.	Sodium anthra-quinone-1-sulphonate
525.	Potassium peroxide	564.	Sodium arsenate
526.	Potassium silver cyanide	565.	Sodium arsenite
527.	Powdered metals and mixtures	566.	Sodium azide
528.	Promecarb	567.	Sodium cacodylate
529.	Promurit	568.	Sodium chlorate
530.	Propanesultone	569.	Sodium cyanide
531.	Propargyl alcohol	570.	Sodium fluoro-acetate
532.	Propargyl bromide	571.	Sodium hydroxide
533.	Propen-2-chloro-1 ,3-diou diacetate	572.	Sodium pentachloro-phenate
534.	Propiolactone beta	573.	Sodium picramate
		574.	Sodium selenate
		575.	Sodium selenite
		576.	Sodium sulphide
		577.	Sodium tellorite

578.	Stannane acetoxy triphenyl	618.	Thiometon
579.	Stibine (Antimony hydride)	619.	Thionazin
580.	Strychnine	620.	Thionyl chloride
581.	Strychnine sulphate	621.	Thiophenol
582.	Styphinic acid (2, 4,6-trinitroresorcinol)	622.	Thiosemicarbazide
583.	Styrene	623.	Thiourea (2 chloro-phenyl)
584.	Sulphotec	624.	Thiourea (2-methyl phenyl)
585.	Sulphoxide, 3-chloropropyl octyl	625.	Tirpate (2,4-dimethyl-1,3-dithiolane)
586.	Sulphur dichloride	626.	Titanium powder
587.	Sulphur dioxide	627.	Titanium tetra-chloride
588.	Sulphur monochloride	628.	Toluene
589.	Sulphur tetrafluoride	629.	Toluene -2,4-di-isocyanate
590.	Sulphur trioxide	630.	Toluene 2,6-di-isocyanate
591.	Sulphuric acid	631.	Trans-1,4-di chloro-butene
592.	Tellurim (powder)	632.	Tri nitro anisole
593.	Tellurium hexafluoride	633.	Tri (Cyclohexyl) methylstannyl 1,2,4 triazole
594.	TEPP (Tetraethyl pyrophosphate)	634.	Tri (Cyclohexyl) stannyl-1H-1, 2, 3-triazole
595.	Terbufos	635.	Triaminotrinitrobenzene
596.	Tert-Butyl alcohol	636.	Triamphos
597.	Tert-Butyl peroxy carbonate	637.	Triazophos
598.	Tert-Butyl peroxy isopropyl	638.	Tribromophenol 2, 4, 6
599.	Tert-Butyl peroxyacetate (Conc >=70%)	639.	Trichloro naphthalene
600.	Tert-Butyl peroxy pivalate (Conc >=77%)	640.	Trichloro chloromethyl silane
601.	Tert-Butyl peroxyiso-butyrate	641.	Trichloroacetyl chloride
602.	Tetra hydrofuran	642.	Trichlorodichlorophenylsilane
603.	Terta methyl lead	643.	Trichloroethyl silane
604.	Tetra nitromethane	644.	Trichloroethylene
605.	Tetra-chlorodibenzo-p-dioxin, 1, 2, 3, 7, 8(TCDD)	645.	Trichloromethane sulphenyl chloride
606.	Tetraethyl lead	646.	Trichloronate
607.	Tetrafluoroethylene	647.	Trichlorophenol 2, 3, 6
608.	Tetramethylene disulphotetramine	648.	Trichlorophenol 2, 4, 5
609.	Thallic oxide	649.	Trichlorophenyl silane
610.	Thallium carbonate	650.	Trichlorophon
611.	Thallium sulphate	651.	Triethoxy silane
612.	Thallos chloride	652.	Triethylamine
613.	Thallos malonate	653.	Triethylene melamine
614.	Thallos sulphate	654.	Trimethyl chlorosilane
615.	Thiocarbazide	655.	Trimethyl propane phosphite
616.	Thiocynamic acid, 2(Benzothiazolyethio) methyl	656.	Trimethyl tin chloride
617.	Thiofamox	657.	Trinitro aniline
		658.	Trinitro benzene

- | | | | |
|------|-----------------------------|------|---------------------------|
| 659. | Trinitro benzoic acid | 673. | Vinyl cyclohexane dioxide |
| 660. | Trinitro phenetole | 674. | Vinyl fluoride |
| 661. | Trinitro-m-cresol | 675. | Vinyl norbornene |
| 662. | Trinitrotoluene | 676. | Vinyl toluene |
| 663. | Tri-ortho creosyl phosphate | 677. | Vinylidene chloride |
| 664. | Triphenyl tin chloride | 678. | Warfarin |
| 665. | Tris(2-chloroethyl)amine | 679. | Warfarin Sodium |
| 666. | Turpentine | 680. | Xylene dichloride |
| 667. | Uranium and its compounds | 681. | Xylidine |
| 668. | Valino mycin | 682. | Zinc dichloropentanitrile |
| 669. | Vanadium pentaoxide | 683. | Zinc phosphide |
| 670. | Vinyl acetate monomer | 684. | Zirconium & compounds |
| 671. | Vinyl bromide | | |
| 672. | Vinyl chloride | | |

SCHEDULE 2

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

ISOLATED STORAGE AT INSTALLATIONS OTHER THAN THOSE COVERED BY SCHEDULE 4

(a) The threshold quantities set out below relate to each installation or group of installation 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)	
		For application of rules 4,5,7 to 9 and 13 to 15	For application of rule 10 to 12]
1	2	3	4
1.	Acrylonitrile	350	5,000
2.	Ammonia	60	600
3.	Ammonium nitrate (a)	350	2,500
4.	Ammonium nitrate fertilizers (b)	1,250	10,000
5.	Chlorine	10	25
6.	Flammable gases as defined in Schedule 1, paragraph (b) (i)	50	300
7.	Extremely flammable liquids as defined in Schedule 1, 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
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]
¹ [28.	Very highly flammable liquids as defined in Schedule 1, paragraph (b) (iii)	7,000	7,000]
29.	Highly flammable liquids as defined in Schedule 1, paragraph (b) (iv)	10,000	10,000
30.	Flammable liquids as defined in Schedule -1, paragraph (b) (v)	15,000	1,00,000]

(a) This applies to ammonium nitrate and mixtures of ammonium 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 3

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

LIST OF HAZARDOUS CHEMICALS FOR APPLICATION OF RULES 5 AND 7 TO 15

- (a) The quantities set-out-below relate to each installation or group of installations belonging to the same occupier where the distance between the installations is not sufficient to avoid, in foreseeable circumstances, any aggravation of major-accident hazards. These quantities apply in any case to each group of installations belonging to the same occupier where the distance between the installations is less than 500 metres.
- (b) For the purpose of determining the threshold quantity of a hazardous chemical in an industrial installation, account shall also be taken of any hazardous chemicals which is :-
 - (i) in that part of any pipeline under the control of the occupier 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
		for application of Rules 5, 7- 9 and 13-15	for application of Rules 10-12	
(1)	(2)	(3)	(4)	(5)
GROUP 1-TOXIC SUBSTANCES				
1.	Aldicarb	100kg		116-06-3
2.	4-Aminodiphenyl	1 kg		96-67-1
3.	Amiton	1 kg		78-53-5
4.	Anabasine	100 kg		494-52-0
5.	Arsenic pentoxide, Arsenic (V) acid & salts	500 kg		
6.	Arsenic trioxide, Arsenic (III) acid & salts	100 kg		
7.	Arsine (Arsenic hydride)	10kg		7784-42-1
8.	Azinphos-ethyl	100kg		2642-71-9
9.	Azinphos-methyl	100 kg		86-50-0
10.	Benzidine	1 kg		92-87-5
11.	Bezidine salts	1 kg		
12.	Beryllium (powders, compounds)	10 kg		
13.	Bis (2-chloroethyl) sulphide	1 kg		505-60-2
14.	Bis (chloromethyl) ether	1 kg		542-88-1
15.	Carbophuran	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.	Cyfluthrin	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 phosphorothiate	100 kg		2588-05-8
27.	OO-Diethyl S-ethylsulphonylmethyl phosphorothiate	100 kg		2588-06-9
28.	OO-Diethyl S-ethylthiomethyl Phosphorothioate	100 kg		2600-69-3

S. No.	Chemicals	Threshold	Quantity	CAS Number
		for application of Rules 5, 7-9 and 13-15	for application of Rules 10-12	
(1)	(2)	(3)	(4)	(5)
29.	OO-Diethyl S-isopropylthiomethyl phosphorothiate	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 phosphorimidocynidic acid	1 t		63917-41-9
35.	Diphacinone	100 kg		82-66-6
36.	Disulfoton	100 kg		298-04-4
37.	EPN	100 kg		2104-64-5
38.	Ethion	100 kg		563-12-2
39.	Fensulfothion	100 kg		115-90-2
40.	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		
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		
55.	4-Fluoro-2-hydroxybutyric acid, esters	1 kg		
56.	4-Fluoro-2-hydroxybutyric acid, amides	1 kg		
57.	Glycolonitrile (Hydroxyacetonitrile)	100 kg		107-16-4
58.	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	100 kg		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

S. No.	Chemicals	Threshold	Quantity	CAS Number
		for application of Rules 5, 7- 9 and 13-15	for application of Rules 10-12	
(1)	(2)	(3)	(4)	(5)
64.	4,4-Methylenebis (2-chloroniline)	10 kg		101-14-4
65.	Mthyl isocynate	150 kg	150kg	624-83-9
66.	Mevinphos	100 kg		7786-34-7
67.	2-Naphthylamine	1 kg		91-59-8
68.	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.	Paraxon (Diethyl 4-nitrophenyl phosphate)	100 kg		311-45-5
73.	Parathion	100 kg		56-38-2
74.	Parathion-methyl	100 kg		298-00-0
75.	Pentaborane	100 kg		19624-22-7
76.	Phorate	100 kg		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
81.	Promurit (1-(3,4 dichlorophenyl)-3- triazenthioiccarboxamide)	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.	Tetramethylenedisulphotetramine	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

S. No.	Chemicals	Threshold	Quantity	CAS Number
		for application of Rules 5, 7- 9 and 13-15	for application of Rules 10-12	
(1)	(2)	(3)	(4)	(5)
96.	Trichloromethanesulphonyl chloride	100 kg		594-42-3
97.	1-Tri (cyclohexyl) stannyl 1H-1,2,4-Triazole	100 kg		41083-11-8
98.	Triethylenemelamine	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	¹ [200t]	107-02-8
102	Acrylonitrile	20 t	200t	107-13-1
103	Allyl alcohol (Propen-1-ol)	200 t		107-18-6
104	Alylamine	200 t		107-11-9
105	Ammonia	50 t	500t	7664-41-7
106	Bromine	40 t	¹ [500t]	7726-95-6
107	Carbon disulphide	20 t	200t	75-15-0
108	Chlorine	10 t	25t	7782-50-5
109	Diphneyl ethane di-isocynate (MDI)	20 t	¹ [200t]	101-68-8
110	Ethylene dibromide (1,2-Dibromoethane)	5 t	¹ [50t]	106-93-4
111	Ethyleneimine	5 t		151-56-4
112	Formaldehyde (concentration <90%)	5 t	¹ [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	¹ [200 t]	74-83-9
118	Nitrogen oxides	50 t		11104-93-1
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	² [200t]	78-00-2
123	Tetra methyl lead	5 t	¹ [100t]	75-74-1
124	Toluene di-isocynate (TDI)	10 t		584-84-9

S. No.	Chemicals	Threshold	Quantity	CAS Number
		for application of Rules 5, 7-9 and 13-15	for application of Rules 10-12	
(1)	(2)	(3)	(4)	(5)
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	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 (concentration ≥30%)	50 t		14666-78-5
137	2,2-dihydroperoxypropane (concentration ≥30%)	5 t		2614-76-08
138	di-isobutyl peroxide (concentration ≥50%)	50 t		3437-84-1
139	Di-n-propyl peroxydicarbonate (concentration ≥80%)	5 t		16066-38-9
140	Ethylene oxide	5 t	50t	75-21-8
141	Ethyl nitrate	50 t		625-58-1
142	3,3,6,6,9,9 Hexamethyl - 1,2,4 5-tert oxacyclononane (concentration ≥75%)	50 t		22397-33-7
143	Hydrogen	2 t	50 t	1333-74-0

S. No.	Chemicals	Threshold	Quantity	CAS Number
		for application of Rules 5, 7-9 and 13-15	for application of Rules 10-12	
(1)	(2)	(3)	(4)	(5)
144	Liquid Oxygen	200 t	¹ [2000t]	7782-41-7
145	Methyl ethyl ketone peroxide (concentration ≥60%)	5 t		1338-23-4
146	Methyl isobutyl ketone peroxide (concentration ≥60%)	50 t		37206-20-5
147	Peracetic acid (concentration ≥60%)	50 t		79-21-0
148	Propylene oxide	5 t	¹ [50t]	75-56-9
149	Sodium chlorate	25 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		131-073-7
152	Chlorotrinitro benzene	50 t		28260-61-9
153	Cellulose nitrate (containing 12.6% Nitrogen)	50 t		9004-70-0
154	Cyclotetramethyleneteranitramine	50 t		2691-41-0
155	Cyclotrimethylenetiraniramine	50 t		121-82-1
156	Diazodinitrophenol	10 t		7008-81-3
157	Diethylene glycol dinitrate	10 t		693-21-0
158	Dinitrophenol, salts	50 t		
159	Enthylene glycol dinitrate	10 t		628-96-6
160	1-Gyanyl-4-nitrosaminoguanyl-1-tetrazene	¹ [100 kg]		109-27-3
161	2, 2, 4, 4, 6, 6, -Hexanitrositibene	50 t		20062-22-0
162	Hydrazine nitrate	50 t		13464-97-6
163	Lead azide	¹ [100 kg]		13424-46-9
164	Lead Styphnate (Lead 2,4,6-trinitroresorcinoxide)	50 t		15245-44-0
165	Mercury fulminate	10 t		20820-45-5 628-86-4
166	N-Methyl-N,2,4,6-tetranitroaniline	50 t		497-45-8
167	Nitroglycerine	10 t	10t	55-63-0
168	Pentacrythritol tetra nitrate	50 t		78-11-5

S. No.	Chemicals	Threshold	Quantity	CAS Number
		for application of Rules 5, 7-9 and 13-15	for application of Rules 10-12	
(1)	(2)	(3)	(4)	(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	Trinitrobenzene	50 t		25377-32-6
176	Trinitrobenzoic acid	50 t		35860-50-5 129-66-8
177	Trinitrocresol	50 t		28905-71-7
178	2,4,6-Trinitrophenitole	50 t		4732-4-3
179	2,4,6-Trinitrotoluene	50 t	50 t	118-96-7

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

1	2	3	4
GROUP 5 - Flammable substances			
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]

- (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 -4

(See Rule 2(s) (i))

1. Installation for the production, processing or treatment of organic or inorganic chemicals using for this purpose, among others;
 - (a) alkylation
 - (b) Amination by ammonolysis
 - (c) carbonylation
 - (d) condensation
 - (e) dehydrogenation
 - (f) 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.
3. Installations for the total or partial disposal of solid or liquid substances by incineration or chemical decomposition.
4. Installations for production, processing, ¹[use] or treatment of energy gases, for example, LPG, LNG, SNG.
5. Installation for the dry distillation of coal or lignite.
6. Installations for the production of metals or non-metals by a wet process or by means of electrical energy.

SCHEDULE -5

(See Rules, 2(d) and 3)

Sr. No.	Authorities with legal backing	Duties and correspondence Rules
1	2	3
1.	Punjab Environmental Protection Act 1997 (Amended 2012)	Notification of hazardous chemicals Rules, 2018 as per Rules 2(b)(i), 2(b)(ii) & 2(b)(iii)
2.	Joint Secretary Ministry of Climate Change	<ol style="list-style-type: none"> 1. Import of hazardous chemicals as per Rule 20 2. Import of hazardous Chemicals and enforcement of directions and procedures on import of hazardous chemicals as per Rule 20.
3.	Environmental Protection Agency Punjab	<p>(1) Enforcement of directions and procedures in respect of isolated storage of hazardous chemicals, regarding-</p> <ol style="list-style-type: none"> i. Duties of authorities as per Rule 3. ii. Notification of major accidents as per Rules 5(1) and 5(2) iii. Notification of sites as per Rules 7 to 9. iv. Safety reports and safety audits reports as per Rule 10 to 12. v. Preparation of on-site emergency plans as per Rule 13. vi. Information regarding handling of hazardous substance as per Rule 18 (c) and (e) vii. Transportation of hazardous Substances as per Rule 19. viii. Improvement notices as per Rule 21. ix. Cancellation of license/Approval as per Rule 22. x. Renewal of license as per Rule 23.
4.	Chamber of Commerce, Punjab Factories Act 1934	<p>Enforcement of directions and procedures in respect of industrial installations and isolated storages covered under the Factories Act, 1948, dealing with hazardous chemicals and pipelines including inter-state pipelines regarding –</p> <ol style="list-style-type: none"> i. Notification of major accidents as per Rule 5(1) and 5 (2). ii. Notification of sites as per Rules, 7 to 9 iii. Safety reports and safety audits reports as per Rule 10 to 12. iv. Preparation of on-site emergency plans as per Rule 13.
5.	Rescue 1122	<ol style="list-style-type: none"> 1. Preparation of off-site emergency plans as per Rule 14. 2. ensure that a rehearsal of the off-site emergency plan is conducted at least once in a calendar year 3. Information to be given to persons liable to be affected by a major accident as per rule 15 and 16.
6.	Labor Department	Information regarding handling of hazardous substance as per Rule 18 (d), safety precautions for workers.

SCHEDULE -6
[See Rule 5(1)]

INFORMATION TO BE FURNISHED REGARDING NOTIFICATION OF A MAJOR ACCIDENT

Report number
of the particular accident.

1. General data

- (a) Name of the site
- (b) Name and address of the manufacturer (Also state telephone/telex number)
- (c) (i) Registration number
- (ii) Licence number and date
- (d) (i) Nature of industrial activity (Mention what is actually manufactured, stored etc.)

2. Type of major accident

Explosion Fire Emission of dangerous substance

Substance(s) emitted

3. Description of the major accident

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

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

5. Causes of the major accident.

Known (to be specified)
6. Not Known
Information will be supplied as soon as possible

7. Nature and extent of damage

(a) Within the establishment - casualtiesKilled
.....Injured
.....Poisoned

Persons exposed to the major accident

Material damaged

damage to

environment the

danger is still present

danger no longer exists.

☐☐☐

(b) Outside the establishment
casualties.Killed

.....Injured

.....Poisoned

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

9. 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.

Licensee's Signatures

Date:_____

Time:_____

SCHEDULE -7
[See Rule 7(1), 9]

INFORMATION TO BE FURNISHED FOR THE NOTIFICATION OF SITES

PART -I

Particulars to be included in a notification of a site

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

PART -II

Particulars to be included regarding pipeline-

1. The names and address of the persons making the notification.
2. The full postal address of the place from which the pipeline activity is controlled, addresses of the places where the pipeline starts and finishes and a map showing the pipeline route drawn to a scale of not less than 1:400000.
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 each hazardous chemical for which notification is being made.

PART -III
FORM A
(See Rule 7, 9, 19)

Application for Grant/Renewal of License for Hazardous Substance

I/we [name(s)_____] of [address_____] hereby apply for grant / renewal of license to generate /collect / consign / transport / treat / dispose of / store / handle (delete words inapplicable) the following hazardous substance

at _____ my/our _____ premises _____ situated _____ at _____
[address_____].

I/we have read, and hereby undertake to comply with, all applicable provisions of Punjab Environmental Protection Act, 1997 (Amended 2012) and rules and regulations made thereunder, including and in particular the Hazardous Substances Rules, 2017.

I/we submit herewith the following documents:-

Sr.	Information/Document Required	Status		
		Provided	Lacking	Not Applicable
1	Legal Status of Industrial Activity			
2	<i>Hazardous Substances Report</i> (HSR) of the project/industrial activity involving the above mentioned hazardous substances.			
3	Safety Plan			
4	Waste Management Plan			
5	Approved Building Plan			
6	List of Machinery and Equipment Installed/Proposed to be Installed			
7	List of Qualified Personnel and Number of Workers Employed/Proposed to be Employed.			
Transport of hazardous substances				
8	Name and Address of the Person from Whom the Hazardous Substance is to be Collected			
9	Name and Address of the Person to Whom the Hazardous Substance is to be Delivered			
10	Quantity of Hazardous Substance to be Transported			
11	Mode of Transport, Including full Particulars and Specifications of the Motor Vehicles or other Conveyance			
12	Route to be Adopted between the Origin and Destination			
13	Date and Time of Proposed Transportation			

Note: For approval of import of Hazardous Substance, the application may be submitted to Ministry of Climate Change, Punjab.

Date:_____
Signatures

Applicant's

PART -IV

FORM-B

(See Rule 7 (5, 10))

License for Hazardous Substance

M/s [name _____] of [address _____] is hereby granted license to

Generate / collect / consign / transport / treat / dispose of / store / handle (**delete words Inapplicable**) the following hazardous substance –

at its premises situated at [address _____] subject to the conditions specified below –

- i. The licensee shall employ qualified technical personnel having necessary knowledge and experience regarding the use, storage, and handling of the hazardous substance, and safety precautions relating thereto;
- ii. The hazardous substance shall be packed and labeled in accordance with Rule 18 (a);
- iii. The premises of the licensee shall comply with the conditions laid down in 18 (b);
- iv. The licensee shall ensure compliance with the provisions of 18 (c and d) regarding safety precautions;
- v. The licensee shall provide necessary information, and where required training, to the persons to whom the hazardous substances are sold or delivered, regarding the use, storage and handling of the hazardous substances, and safety precautions relating thereto;
- vi. The licensee shall maintain a detailed record of the quantity, type, quality and origin of the hazardous substance and the names and addresses of the persons to whom the hazardous substances are sold or delivered; and
- vii. The licensee shall not extend his operation beyond the scope of the project or industrial activity in respect of which the Hazardous Substances Report has been submitted and approval granted.
- viii. it will be mandatory for the licensee to report any unusual event/accident immediately to the Provincial Agency

2) The following additional conditions if any –

This license shall be valid for a period of five years from the date given below.

Date: _____

**Director-General,
Environmental Protection
Agency, Punjab**

PART -V

(See Rule 7(2,7))

License Fee

The applicant shall pay, a non-refundable fee amounting to Rupees in accordance with the following schedule in favor of the Director General, EPA, Punjab, Lahore in the form of Bank Draft / Pay Order.

Description	Fee in Rupees
License fee	50,000
Renewal fee	25,000
Duplicate fee	15,000

SCHEDULE -8
[See Rule 10(1)]

INFORMATION TO BE FURNISHED IN A SAFETY REPORT

1. The name and address of the person furnishing the information.
2. Description of the industrial activity, namely-
 - (a) site,
 - (b) construction design,
 - (c) protection zones explosion protection, separation distances,
 - (d) accessibility of plant,
 - (e) maximum number of persons working on the site and particularly of those persons exposed to be hazard.
3. Description of the processes, namely -
 - (a) technical purpose of the industrial activity,
 - (b) basic principles of the technological process,
 - (c) process and safety -related data for the individual process stages,
 - (d) process description,
 - (e) Safety-related types of utilities.
4. Description of the hazardous chemicals, namely -
 - (a) chemicals (quantities, substance data, 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.
5. Information on the preliminary hazard analysis, namely-
 - (a) types of accident
 - (b) system elements or events that can lead to a major accident,
 - (c) hazards,
 - (d) safety-relevant components.
6. Description of safety -relevant units, among others;
 - (a) special design criteria,
 - (b) controls and alarms,
 - (c) special relief systems,
 - (d) quick-acting valves,
 - (e) collecting tanks/dump tank,
 - (f) sprinkler system,
 - (g) fire fighting etc.
7. Information on the hazards 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.
8. Description of information or organizational systems used to carry on the industrial activity safety, namely-
- (a) maintenance and inspection schedules,
 - (b) guidelines for the training of personnel,
 - (c) allocation and delegation of responsibility for plant safety,
 - (d) implementation of safety procedure.
9. Information on assessment of the consequences of major accidents, namely-
- (a) assessment of the possible release of hazardous chemicals or of energy,
 - (b) possible dispersion of released chemical,
 - (c) assessment of the effects of the releases (size of the affected area, health effects, property damage)
10. Information on the mitigation of major accidents, namely -
- (a) fire brigade,
 - (b) alarm systems,
 - (c) emergency plan containing system of organization used to fight the emergency, the alarm
and the 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.

SCHEDULE -9

(See Rule 17)

SAFETY DATA SHEET

1. CHEMICAL IDENTITY

Chemical Name		Chemical Classification	
Synonyms		Trade Name	
Formula	C.A.S.No	U.N. No.:	
Regulated Identification	Shipping Name Codes/Lable	Hazchem No.:	
Hazardous Waste I.D. No.:			
Hazardous Ingredients	C.A.S. No.	Hazardous Ingredients	C.A.S No.:
1.		3.	
2.		4.	

2. PHYSICAL AND CHEMICAL DATA

Boiling Range/Point °C	Physical State	Appearance
Melting/Freezing Point °C	Vapour Pressure @ 35 °C mm/Hg	Odour
Vapour Density (Air=1)	Solubility in Water at 30°C Others	
Specific Gravity pH Water =1		

3. FIRE AND EXPLOSION HAZARD DATA

Flammability	Yes/No	LEL	%	Flash Point °C	Auto ignition Temperature °C
TDG Flammability		UEL	%	Flash Point °C	
Explosion Sensitivity to Impact			Explosion Sensitivity to Static Electricity		Hazardous Combustion Products
Hazardous Polymerisation Combustible Liquid		Explosive Material		Corrosive Material	
Flammable Material		Oxidiser		Others	
Pyrophoric Material		Organic Peroxide			

4. REACTIVITY DATA

Chemical Stability

Incompatibility With other Material

Reactivity

Hazardous Reaction
Products

5. HEALTH HAZARD DATA

Routes of Entry

Effects of Exposure/Symptoms

Emergency
Treatment

TLV(ACGIH)	ppm	mg/m ³	STEL	ppm	mg/m ³
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Permissible			
Exposure Limits	ppmmg/m ³	Odour threshold	ppmmg/m ³
LD50		LD50	

NEPA Hazard Health Flammability Stability Special Signals

6. PREVENTIVE MEASURES

Personnel
Protective
Equipment

Handling and
Storage
Precautions

7. EMERGENCY AND FIRST AID MEASURE

Fire
Extinguishing
Media
FIRE

Special Procedures

Unusual Hazards
EXPOSURE

First Aid Measures

Antidotes/Dosages
SPILLS

Steps to be taken

Waste Disposal Method

8. ADDITIONAL INFORMATION / REFERENCES

9. MANUFACTURER / SUPPLIER DATA

Name of Firm	Contact Person in Emergency
Mailing Address	Local Bodies Involved
Telephone/Telex Nos.	Standard Packing
Telegraphic Address	Tremcard Details/Ref Other.

10. DISCLAIMER

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

SCHEDULE -10

[See Rule 20(6)]

FORMAT FOR MAINTAINING RECORDS OF HAZARDOUS CHEMICALS IMPORTED

1. Name and address of the Importer:
2. Date and reference number of issuance of permission to import hazardous chemicals:
3. Description of hazardous chemicals:
 - (a) Physical form:
 - (b) Chemical form:
 - (c) Total volume and weight (in kilogram's/
Tones)
4. Description of purpose of Import:
5. Description of storage of hazardous chemicals:
 - (a) Date:
 - (b) Method of storage

[SCHEDULE –11]

[See Rule 13(1)]

DETAILS TO BE FURNISHED IN THE ON-SITE EMERGENCY PLAN

1. Name and address of the person furnishing the information.
2. Key personnel of the 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
 - (b) System elements or events that can lead to a major accident
 - (c) Hazards
 - (d) Safety relevant components
6. Details about the site:
 - (a) Location of dangerous substances
 - (b) Seat of key personnel
 - (c) Emergency control room
7. Description of hazardous chemicals at plant site:
 - (a) Chemicals (Quantities and toxicological data)
 - (b) Transformation if any, which could occur.
 - (c) Purity of hazardous chemicals.
8. Likely dangers to the plant.
9. Enumerate effects of:
 - (i) Stress and strain caused during normal operation:
 - (ii) Fire and explosion inside the plant and effect if any, of fire and explosion 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;
 - (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 fire fighting and other facilities available and those required for an off-site emergency.
13. Details of first aid and hospital services available and its adequacy.

[SCHEDULE 12
[See Rule 14(1)]

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 fire fighting 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.

SCHEDULE 13
[See Rule 7(10) (a)]

UNDERTAKING BY THE APPLICANT

I/we [name(s) _____] of [address _____] hereby apply for grant/ renewal of license to generate/ collect/ consign/ transport/ treat/ dispose of/ store/ handle (delete words inapplicable) the following hazardous substance/s –

at my/our premises situated at [address _____].

I/we have read, and hereby undertake to comply with, all applicable provisions of the Punjab Environmental Protection Act, 1997 (Amended, 2012) and rules and regulations made thereunder, including in particular the Safety Management of Hazardous Substances Rules, _____.

Date; -----

Signatures and Stamp of the Applicant

SCHEDULE 14

[See Rule 23]

Register

1. Tracking No.
2. Category Type (generation, collection, consignment, transport, treatment, disposal, storage or handling)
3. Name of Licensee
4. Name & Designation of contact person
5. Name of consultant
6. Description of project
7. Location of project
8. Project Capital Cost
9. Date of receipt of *Hazardous Substances Report* (HSR)
10. Date of confirmation of completeness
11. Approval granted (Yes / No)
12. Date of approval granted or refused
13. Conditions of Approval/reasons for refusal
14. Date of undertaking
15. Date of extension of approval validity
16. Period of extension
17. Dates of filing of monitoring reports
18. Date of cancellation, if applicable.

SCHEDULE 15
[See Rule 2(x)]

Hazardous Substances Report (HSR)

Hazardous Substances Report (HSR) including:

- i. Complete details of generation, collection, consignment, transport, treatment, disposal, storage, handling of a hazardous substance in respect of which the license is sought
- ii. Name, list and quantity of hazardous substances which are intended to be generated, collected, consigned, transported, treated, disposed of, stored and handled by the applicant;
- iii. Information regarding status of the project under Section 12 of the Act *ibid*,
- iv. Details of mitigation measures to control environmental pollution,
- v. A safety plan, must include following information:
 - a. An analysis of major accidental hazards relating to the hazardous substance involved;
 - b. An assessment of the nature and scope of the adverse environmental effects likely to be caused by major accidents;
 - c. A description of the safety equipment and systems installed and safety precautions taken; and
 - d. A description of the emergency measures proposed to be taken at the premises of the applicant to control a major accident, and to mitigate its adverse environmental effect.
 - e. Details about inspection and monitoring procedures, packaging, labeling, premises, release detection system
- vi. A waste management plan, if hazardous waste shall be generated by the project or industrial activity.

Other information required is as bellow:

- i. A copy of National Identity Card of the applicant/occupier;
- ii. General details of the unit where the intended business is to be carried out along with the date of commencement of commercial production if any;
- iii. Location maps and layout drawings of building where hazardous substance or is to be stored, handled or generated;
- iv. Chemical Material Safety Data Sheet (MSDS) of each chemical;
- v. Prior no-objection certificate, clearance and license from all other concerned departments and agencies before commencing with the actual generation, collection, consignment, transportation, treatment, disposal, storage, handling or import of any hazardous substance, especially from the Chief Inspector of Explosives, Civil Defense Department and Home Department;
- vi. A comprehensive contingency and emergency response plan to deal with any accident, spill or leak;
- vii. Record pertaining to any accident, spill or leak occurring at the unit in the past;
- viii. A solemn affidavit on a stamp paper of the value of Rs. 100 or more clearly mentioning that the applicant fully accepts responsibility for any clean-up operations in case of a spill or emergency and to provide adequate compensation for any damage occurring to a third party including in relation to loss of property, injury or death

- ix. Laboratory report from EPA certified Laboratory as evidence for compliance of Punjab Environmental Quality Standards (PEQS).
- x. Current status of the project whether it is under construction or operation.
- xi. Nature of area as per record of TMA and Master Plan of District Government.
- xii. Cost of the project?
- xiii. Distance of nearby residential area.
- xiv. Details of firefighting arrangements (number and location of installation) and emergency evacuation route may be highlighted on project map.
- xv. Details of Personal protective equipment's (PPEs) for the safety of workers