BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI
M.A. No. 94/2025
In
Original Application No. 261/2023

In the matter of:
Sonu Kumar — Applicant

Versus

State of Haryana & Ors. — Respondents

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Srinivas Vishven

(Filed by Adv. Srinivas Vishven)
On behalf of Central Pollution Control Board

Place: Delhi
Dated: 14.10.2025

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI
M.A. No. 94/2025
In
Original Application No. 261/2023

In the matter of:

Sonu Kumar — Applicant

Versus

State of Haryana & Ors. — Respondents

REPLY ON BEHALF OF RESPONDENT NO. 2 (CENTRAL POLLUTION CONTROL BOARD)

PRELIMINARY SUBMISSIONS:

1. That, Central Pollution Control Board (herein after referred as **CPCB**) is constituted under Section 3 of The Water (Prevention and control of Pollution) Act, 1974. It performs the functions under The Water (Prevention and control of Pollution) Act 1974 (herein after Water Act), The Air (Prevention and control of Pollution) Act, 1981 (herein after Air Act) and The Environment (Protection) Act, 1986.

2. That, it is humbly submitted that the State Pollution Control Boards/ Pollution Control Committees (herein after referred as SPCBs/ PCCs) have been constituted in States/ Union Territories under Water Act, 1974 and Air Act, 1981 to perform the functions and implement the provisions of these Acts in respect of their territorial Jurisdiction.

3. That, in the matter of OA No. 261 of 2023; Haryana State Pollution Control Board (**HSPCB**) was directed by Hon'ble National Green Tribunal vide Order dated 20/09/2023 to re-examine compliance of above

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two units (M/s. Shree Cement Ltd. and M/s Nexa Chemicals Pvt Ltd) and submit a report before the Registrar General.

4. That, MA No. 40 of 2024 in OA No. 261 of 2023, was registered on the basis of the report submitted in compliance of the order of the Tribunal dated 20.09.2023 passed in OA No. 261/2023.

5. That, the following observations with regard to the Unit **M/s Nexa Chemicals Pvt. Ltd**, were made by Hon'ble NGT while considering the re-examination report of Joint Committee on 09/04/2024:

"5. So far as M/s. Nexa Chemicals Private Ltd. is concerned, it is stated that the unit is engaged in the process of formulation and therefore it falls under „Orange Category".
6. Learned Counsel appearing for Haryana State Pollution Control Board (HSPCB) has submitted that as per CPCB categorization (February, 2016) following units are covered under the Red Category: - "37. Pesticides (technical) (excluding formulation) are covered under "Red Category" and formulation is covered under the "Orange Category"

6. That, the following directions were given by Hon'ble National Green Tribunal vide order dated 09/04/2024:

Para 8; "The above process reflects that the unit is involved in formulation and also emulsification. Hence, the process undertaken by the unit is required to be examined by the ***Joint Committee to ensure that the unit is placed in the proper category to ascertain any discharge of waste water, arising out of process and dust and gases emissions from process.*** *Let this exercised be completed and fresh report be submitted before the Registrar General of the Tribunal within three months and if found necessary, the matter will be listed before the Bench".*

7. That, in compliance to the directions of Hon'ble NGT dated 09/04/2024, the Joint Committee comprising of CPCB and HSPCB submitted the report dated 21/11/2024,**(Annexure-1)** concluding that *Pesticides (technical) (excluding formulation) are covered under "Red Category" and Pesticide formulation is covered under the "Orange Category", as per*

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Categorization issued by Central Pollution Control Board. The formulation Units are not covered under red category and are placed under Orange Category. In view of the above, the M/s Nexa Chemicals Pvt. Ltd falls under Orange Category.

8. That, the Joint Committee in its action taken report dated 21/11/2024, reported the following violations by the Unit:

i. The Unit has not obtained authorization from HSPCB for the storage and reuse of empty drums containing technical insecticides and similar raw materials/ingredients. According to the HSPCB Member, a show cause notice under the HOWM Rules, 2016 has been issued, and the Unit has applied for authorization to store and reuse empty drums as of 22.07.2024 and the same has been granted to the unit.

ii. The Unit has not provided effluent treatment plant (ETP) for treating the effluent generated from the wet scrubber. Further, the residue recovered from this treatment must be disposed of in accordance with the HWM Rules, 2016. Furthermore, the Consent to Operate (CTO) and the Authorization issued by HSPCB do not mention anything about the generation, treatment, or disposal of effluent and hazardous residue from the wet scrubber. The CTO mentions the quantity of trade effluent as NIL.

9. That, the Hon'ble NGT registered MA No.94 of 2024 in the matter of OA No. 261 of 2023; Sonu Kumar Versus State of Haryana & Ors. on the basis of the above referred action taken report dated 21.11.2024 filed

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by the joint Committee in compliance of the order of the Tribunal dated 09.04.2024 passed in MA No. 40/2024 in the matter of OA No. 261 of 2023; Sonu Kumar Versus State of Haryana & Ors.

10. That, the Hon'ble NGT noted certain anomalies in the report of the Joint Committee in its order dated in M.A. No. 94/2025 dated 10/07/2025 (**Annexure-2**), which are as under:

i. No CTO has been placed on record to ascertain conditions specified with the compliance.

ii. There is no mention of quantity of scrubbed liquid which is to be treated in ETP and its recirculation or for its proper management.

iii. Authorisation granted doesn't specify proper manifest for authorised facility for disposal of residue emerging out of ETP.

iv. There is no disclosure about performance of scrubbers, exhaust emissions if any and specific mention on operation of unit in question on ZLD mode.

v. The requirement of on-site crisis management plan as per necessity under MSIHC rules needs to be ascertained.

11. That, the Hon'ble NGT vide order dated 10/07/2025 has issued notice and sought the reply from three respondents- HSPCB, CPCB and M/s Nexa Chemicals Pvt. Ltd.

REPLY ON MERIT BY CENTRAL POLLUTION CONTROL BOARD (CPCB), AS RESPONDENT NO. 2:

The Central Pollution Control Board (hereinafter CPCB) as Respondent No. 2 submits point-wise reply on the observations/anomalies noted by Hon'ble NGT in the report of the Joint Committee, as under:

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1. That, Pesticides (technical; excluding formulation) were covered under "Red Category" and pesticide formulations were covered under the "Orange Category", as per Classification of Industrial Sectors issued by Central Pollution Control Board in 2016. Therefore, as per Categorization of Industrial Sectors, 2016, the Unit Namely M/s Nexa Chemicals Pvt Ltd was categorized under "Orange Category', being a pesticide formulation Unit.

2. That, CPCB has issued revised Classification of Industrial Sectors into Red, Orange, Green, White and Blue Categories in January, 2025, whereby Pesticide formulation industries (having both liquid and dry formulation or dry formulation only) without having boiler / thermopack have been placed under Red Category as S.No. 118. 5. ***Therefore, M/s Nexa Chemicals Pvt Ltd, which was earlier in Orange Category as Classification of Industrial Sectors, 2016, now comes under red category as per latest Classification issued by CPCB in 2025.***

3. That, CPCB issued Directions under section 18(1)(b) of the Water (Prevention & Control of Pollution) Act, 1974 and the Air (Prevention & Control of Pollution) Act, 1981 regarding harmonization of classification of industrial sectors under Red, Orange, Green, White and Blue categories, to all the SPCBs and PCCs vide No. CP-18/1/2023-IPC-VI-HO-CPCB-HO dated 12/02/2025 (**Annexure-3**) for compliance, as under:

   i. That SPCBs and PCCs shall immediately adopt the revised methodology for classification of sectors and list of 419 sectors/sub-sectors classified under Red, Orange, Green, White, and Blue categories as detailed in the attached report- "Classification of Sectors into Red, Orange, Green, White and

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Blue Categories (A tool for progressive environmental management)".

ii. That all pending application for consideration of consent (CTE/CTO) and future such application shall be processed as per the revised classification. In case CTE granted before the revised classification, applicability of CTO will be as per revised classification.

iii. That the revised sectors/subsectors classified under Red, Orange, Green, White, and Blue category of sectors as given in the attached document shall be used by the SPCBs and PCCs for consent management, inventorization of units under different categories, siting criteria, deciding environmental surveillance frequency, calculation of environmental compensation, etc., as per the guidelines issued from time to time.

iv. That SPCBs and PCCs shall prepare the inventory of Red, Orange, Green, White and Blue categories of units operating in their jurisdictions, based on the revised classification. SPCBs and PCCs shall upload the category and sector-wise list of such units on their website. SPCBs and PCCs shall also forward such list to CPCB, latest by 30.06.2025 and thereafter updated list by 30th June every year.

v. That the classification of sectors shall not be linked to sanction of loans/finance of bank proceedings.

vi. That any further addition of any new or left-out sector and their classification which is not listed in the revised list of Red, Orange, Green, and White categories, shall be done at the level of concerned SPCB /PCC by constituting a Committee and following revised criteria & guidelines as detailed in the

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attached report and no concurrence of CPCB shall normally be required. Intimation of same from time to time will suffice. However, addition in Blue Category Sectors-Essential Environmental Services for domestic waste management, will be done at the level of CPCB only. SPCBs/PCCs may forward their proposal, if any, to CPCB in this regard.

vii. That SPCBs and PCCs are required to prepare and submit list of additional sectors classified under white category to CPCB on annual basis, by 30th of June every year, in the prescribed format, as given in the attached report, for further notification for exemption from consent as per the provisions of the Jan Vishwas (Amendment of Provisions) Act, 2023, the Water Act, and the Air Act as amended from time to time by MoEF&CC.

viii. That SPCBs and PCCs shall constitute a committee as prescribed in the report to evaluate the applications of the units for incentives due to adopting measures resulting in better environmental performance and reduction in PI score. The SPCB/PCC shall place the separate list of such units on their website and also submit list of such units to CPCB on Annual Basis by 30th June every year.

4. That, Regional Directorate, CPCB, RD, Chandigarh inspected the Unit, M/s Nexa Chemicals Pvt. Ltd., VPO, Sutana, Tehsil Madlauda, Panipat, on 07/10/2025. The relevant documents sought from the Unit during inspection were provided on 08/10/2025. On receipt of the relevant documents, the Unit was visited again on 09/10/2025 to verify the points/anomalies observed by Hon'ble NGT in the repot of the Joint Committee. The point-wise findings of CPCB made during inspection, are as follows:

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i) The Unit was found non-operational at the time of inspection. As informed by the owner of the Unit, the plant was last operated on 25th August, 2025 and has remained non-operational thereafter due to low market demand for the product. ***However, the Unit has not informed HSPCB about the temporary shut of the plant, as required under the conditions of the CTO.***

ii) The Consent to Operate issued to M/s Nexa Chemicals Pvt. Ltd vide No. HSPCB/Consent/32029251/PITCTO4347962 dated 16/10/2027 under Water Act, 1974 and Air Act, 1981 is valid upto 31/03/2027. The Copy of the Consent to Operate (CTO) issued by HSPCB is attached as **Annexure-4**.

iii) M/s Nexa Chemicals Pvt. Ltd has been given CTO for formulation of pesticides under "Orange Category". ***HSPCB is yet to place the Unit under "Red Category"*** as per Classification of Sectors into Red, Orange, Green, White and Blue Categories issued by CPCB in January, 2025 and in compliance to the Directions issued by CPCB vide No. CP-18/1/2023-IPC-VI-HO-CPCB-HO dated 12/02/2025.

iv) ***The Unit has installed an Effluent Treatment Plant for treatment of effluent of Wet Scrubber***, comprising of Oil and Grease Trap, Collection Tank, Flash Mixing Tank, Tube Settler, Sludge Drying Bed, Intermediate Storage Tank, Sand Filter and Activated Carbon Filter. ***As per the piping arrangement observed at the site, the Unit has installed a system to recirculate the treated effluent back to the water recirculation tank of the wet scrubber, to operate on ZLD basis***. The flow chart of ETP installed by the Unit is attached as **Annexure-5.**

v) The Unit has installed mechanical water flow meter at the bore-well but ***record of ground water abstracted from bore-well is not being maintained. Flow meter has not been installed at the***

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ETP/recycling point to record the quality of effluent generated and recycled, **making it difficult to verify the claim of operating as a ZLD Unit.**

vi) ***The Unit has not taken permission for abstraction of ground water from Haryana Water Regulatory Authority, as per HWRA Notification dated September 10, 2021.***

vii) As observed by the Joint Committee in its report dated 21/11/2024, ***the quantity of trade effluent is mentioned as NIL, in the CTO granted by HSPCB.***

viii) The analysis reports of treated trade effluent samples and stack emissions, tested on 13/08/2025, by the Unit from an external laboratory recognized by CPCB under ENVIRONMENT (PROTECTION) ACT, 1986 ***indicate that the Unit complies with the standards prescribed in the CTO***. (**Annexure-6**).

ix) The Unit has obtained Authorization under HWM Rules, 2016 from HSPCB Vide No. HWM/PIT/2024/67815656 dated 03/09/2024 which is valid upto 31/03/2028 (**Annexure-7**). The authorization granted to the Unit is for generation, collection, storage, transportation, reception of i) Empty barrels/containers/liners contaminated with hazardous chemicals/wastes; ii) Process wastes/residues and iii) Chemical sludge from waste water treatment.

x) The manifests submitted by the Unit for hazardous waste disposal indicate that Used Plastic Containers were disposed of through an authorized recycler (**Annexure-8**). Further, as per the manifest provided for ETP sludge disposal, the Unit disposed of 0.250 MT of ETP sludge on 04/08/2024 (**Annexure-9**).

xi) As per conditions of the Authorization granted to the Unit under HWM Rules, 2016, "The Unit will submit annual return on Form IV before 30th June of every year." ***However, the copies of the annual***

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returns submitted by the Unit were not made available during inspection.

xii) The Unit is required to implement Emergency Response Procedure (ERP) for all site specific possible scenarios such as spillages, leakages, fire etc. and their possible impacts and also carry out mock drill in this regard at regular interval of time, ***as required under the Authorization issued by HSPCB.***

xiii) The Unit provided a copy of the Emergency Management Plan (EMP) signed by the Director of the Company (**Annexure-10**). Examination ***revealed that the EMP provided by the Unit actually belongs to another Unit, M/s Aventus Cropsciences***, which is not located within the premises of M/s Nexa Chemicals Pvt. Ltd. ***This indicates that the Unit has not prepared its own Emergency Response Plan (ERP) as required under the Authorization issued by HSPCB.***

xiv) The photographs taken during inspection of 07/10/2025 and 09/10/2025 are given in **Annexure-11**.

5. That, the answering respondent craves leave of the Hon'ble Tribunal to file additional reply, if required, in future.

6. That, in the light of the above submissions, it is respectfully submitted that this Answering Respondent No 2 CPCB, shall abide by any order(s) or direction(s) passed by this Hon'bIe National Green Tribunal in the instant MA.

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Nazimuddin
Scientist 'F'
Central Pollution Control Board
14.10.2025

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI
M.A. No. 94/2025
In
Original Application No. 261/2023

In the matter of:

Sonu Kumar — Applicant

Versus

State of Haryana & Ors. — Respondents

AFFIDAVIT

I, **Nazimuddin** working as Scientist 'F' in Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, Delhi, the Respondent No. 2 in the above matter, do hereby solemnly affirm, declare on oath and state as under: -

1. That I, the deponent herein is well conversant with the facts and circumstances of the present case on the basis of the information derived from the official records, and hence, I am competent to verify, sign and swear this affidavit on behalf of the Respondent CPCB.

2. That the accompanying reply may be read part and parcel of the present affidavit.

3. That the accompanying reply has been drafted and filed under my instructions and authority the contents thereof are true and correct on the basis of the record maintained during ordinary course of business of CPCB and available records and documents and the contents of the same are read over and explained to me and are not repeated herein for the sake of brevity.

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DEPONENT

नाज़िमउद्दीन / Nazimuddin
वैज्ञानिक 'एफ' / Scientist 'F'
केंद्रीय प्रदूषण नियंत्रण बोर्ड
Central Pollution Control Board
(पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार)
(M/o Environment, Forest And Climate Change, Govt. of India)
परिवेश भवन, पूर्वी अर्जुन नगर, दिल्ली–110032
Parivesh Bhawan, East Arjun Nagar, Delhi-110032

VERIFICATION:

14 OCT 2025

Verified at New Delhi on this day of _____ 2025 that the contents of the above reply are correct and true on the basis of the records of the case as mentioned in the day-to-day affairs of the CPCB. Nothing has been concealed therefrom or mis-stated.

DEPONENT

नाज़िमउद्दीन / Nazimuddin
वैज्ञानिक 'एफ' / Scientist 'F'
केंद्रीय प्रदूषण नियंत्रण बोर्ड
Central Pollution Control Board
(पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार)
(M/o Environment, Forest And Climate Change, Govt. of India)
परिवेश भवन, पूर्वी अर्जुन नगर, दिल्ली–110032
Parivesh Bhawan, East Arjun Nagar, Delhi-110032

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ATTESTED
NOTARY PUBLIC, DELHI
GOVT. OF INDIA

14 OCT 2025

Annexure-1

Item No. 20 Court No. 1

BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI

M.A. No. 94/2025
In
Original Application No. 261/2023

Sonu Kumar Applicant

Versus

State of Haryana & Ors. Respondent(s)

Date of hearing: 10.07.2025

CORAM: HON'BLE MR. JUSTICE PRAKASH SHRIVASTAVA, CHAIRPERSON
HON'BLE MR. JUSTICE SUDHIR AGARWAL, JUDICIAL MEMBER
HON'BLE DR. A. SENTHIL VEL, EXPERT MEMBER

Respondent: Mr. Rahul Khurana, Adv. for HSPCB (Through VC)

ORDER

1. This MA has been registered on the basis of the action taken report dated 21.11.2024 filed by the joint Committee in compliance of the order of the Tribunal dated 09.04.2024 passed in MA No. 40/2024.

2. The OA No. 261/2023 was registered on the basis of the letter petition with the allegation by a resident of Village Sutana, Tehsil Madloda, District Panipat that 21 industrial units were operating in the district engaged in the manufacture and business of textiles, chemicals, agriculture medicines, automobiles, etc.

3. The Tribunal by order dated 20.09.2023 had disposed of the OA after taking note of the activity of M/s. Nexa Chemicals Pvt. Ltd. and observing as under:

> *"xxx ……xxx……xxx*
> *7. On the perusal of the report, it is noticed that the unit at serial no.4 i.e. M/s Nexa Chemicals PM Ltd, VPO Sutana Tensil Madlauda*

Panipat is stated to be a unit engaged in manufacturing of pesticides but it has been placed under the orange category whereas as per the information disclosed, the said unit should be placed in the red category. The said issue needs consideration in the light of the fact that the unit is manufacturing pesticides, etc., and the activity of the unit is stated to be mixing of chemicals and unit has also obtained authorization under Hazardous Waste Management Rules, 2016. Similarly, the unit at serial no. 21 i.e. M/s Shree Cement Ltd. (Jay Pee Cement Granding Unit), Village Khukhrana, Post Office Assan Kalan, Madlauda, Panipat which is a cement manufacturing unit has been categorized on the basis of reprocessing of waste cotton and which according to the activity may be placed in red category.

8. The State Pollution Control Board will re-examine compliance of above two units and submit a report before the Registrar General of the Tribunal within 08 weeks and if found necessary, the Registrar General may place the matter before the Bench for consideration."

4. In compliance of the aforesaid direction, a report was submitted by the joint Committee before the Tribunal which was registered as MA No. 40/2024.

5. The Tribunal had considered the said report in the order 09.04.2024 and had observed/directed as under:

"xxx ……xxx……xxx

6. Learned Counsel appearing for Haryana State Pollution Control Board (HSPCB) has submitted that as per CPCB categorization (February, 2016) following units are covered under the Red Category:-

"37. Pesticides (technical) (excluding formulation) are covered under 'Red Category' and formulation is covered under the 'Orange Category'."

7. The process undertaken by the unit is disclosed in the report as under:-

"I. M/s Nexa Chemicals Pvt Ltd., VPO Sutana Tehsil Madlauda, Panipat

The unit is engaged in the process of formulation and final product is prepared by mixing of the various ingredients (which includes technical pesticides also), the process involved the Grinding, Mixing (wet and dry) and Packaging. The unit falls under the 'Orange' category. Unit is having no source of trade effluent except scrubbed water and the same is recycled. The Wet scrubber attached with 30 m high Stack meantto the suction hoods of grinding section in order to control dust emissions, if any.

The process flow chart is reproduced as under:-

For, Wettable Powder(WP) -Raw Material » Mixing with China Clay powder » Grinding in Air Classifier Mill » Emulsifier For Stabilizing » Mixing » Packing

For Granuals Formulation -Raw Material » Mixing with River Sand or Bantonate Granuals in Granual Mixer Machine or Manualy » Emulsifier For Stabilizing » Mixing » Packing » Dispatch

For Emulsifiable Concentrate (EC)/Suspension Concentrate (SC)-Raw Materia1 » Mixing with Aromex Oil or Water in Stainless Tank » Emulsifier for Stabilizing » Mixing » Packing.

The copy of certificate of registration under section 9(4) of the inspection Act/ 1968 of unit is attached as ***Annexure R-1****. Copy of process flow chart is attached as* ***Annexure-R-2*** *and photographs of the unit is attached as* ***Annexure R-3."***

8. The above process reflects that the unit is involved in formulation and also emulsification. Hence, the process undertaken by the unit is required to be re-examined by the Joint Committee to ensure that the unit is placed in the proper category to ascertain any discharge of waste water, arising out of process and dust and gases emissions from processes. Let this exercise be completed and fresh report be submitted before the Registrar General of the Tribunal within three months and if found necessary, the matter will be listed before the Bench."

6. In compliance of the aforesaid directions, now this fresh report dated 21.11.2024 has been filed by the joint Committee. In that report also the unit in question has been treated in 'orange' category. The report states that no chemical reaction is involved in the process by observing as under:

"xxx ……xxx……xxx
9. There is no chemical reaction involved in the process followed by M/s Nexa Chemicals Pvt. as observed during site inspection. Process involves only mixing of concentrated technical insecticides/active ingredients with other additives to prepare an insecticide formulation with final concentration of active insecticide ingredient as specified in the permission granted by Department of Agriculture and Farmers Welfare (DAFW), Haryana (Annexure8). The list of insecticide formulations registered under Pesticides Act, 1968 is attached as Annexure-9."

7. The report recommends that the HSPCB should mention in the CTO that the CTO does not permit manufacture of technical insecticides, even as intermediate product and also seeks a direction to the unit that it will not manufacture technical pesticide even as intermediate product.

8. On the perusal of the report, certain anomalies have been noted which are as under:

1) No CTO has been placed on record to ascertain conditions specified with the compliance.
2) There is no mention of quantity of scrubbed liquid which is to be treated in ETP and its recirculation or for its proper management.
3) Authorisation granted doesn't specify proper manifest for authorised facility for disposal of residue emerging out of ETP.
4) There is no disclosure about performance of scrubbers, exhaust emissions if any and specific mention on operation of unit in question on ZLD mode.
5) The requirement of on-site crisis management plan as per necessity under MSIHC rules needs to be ascertained.

9. In view of the above, we deem it proper to issue notice in this MA to the following:

(1). Haryana State Pollution Control Board, through the Member Secretary, C-11, Sector-6, Panchkula, Haryana - 134109, Haryana.

(2). Central Pollution Control Board, through the Member Secretary, Parivesh Bhawan, East Arjun Nagar, Delhi-110032.

(3). M/s. Nexa Chemicals Pvt. Ltd., VPO Sutana, Tehsil Madlauda, Panipat, Haryana.

10. The Registry is directed to prepare Memo of Parties and take appropriate steps to serve the notice upon the above respondents.

11. List on 15.10.2025.

Prakash Shrivastava, CP

Sudhir Agarwal, JM

Dr. A. Senthil Vel, EM

July 10, 2025
M.A. No.94/2025
In Original Application No. 261/2023
dv

Annexure-2

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL

PRINCIPAL BENCH, NEW DELHI

MA No.40/2024 In OA No.261/2023

IN THE MATTER OF:

Sonu Kumar — Applicant

Versus

State of Haryana — Respondent(s)

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4.	Copy of process flow chart for Liquid Formulation is attached as **Annexure-3.**	44
5.	Copy of process flow chart for Powder Formulation is attached as **Annexure-4.**	45
6.	Copy of process flow chart for Granular Formulation is attached as **Annexure-5.**	46
7.	Application for Authorization under HWM Rules submitted by the unit **Annexure-6**	47-49
8.	Copy of HWM authorization is attached as **Annexure-7.**	50-51
9.	Copy of License obtained from Department of Agriculture and Farmers Welfare (DAFW), Haryana is attached as **Annexure-8.**	52-64
10.	Copy of list of insecticide formulations registered under Pesticides Act, 1968 is attached as **Annexure-9.**	65-92
11.	Copy of show cause notice dated 16/08/2024 is attached as **Annexure-10.**	93
12.	Copy of Environmental Compensation order dated 24/10/2024 attached as **Annexure-11.**	94-96
13.	Copy of proof of deposition of Environment Compensation amount is attached as **Annexure-12.**	97-98

14.	Copy of direction dated 16/08/2024 issued to the unit not to manufacture technical pesticide even as intermediate products is attached as **Annexure-13.**	99

Dated: 21.11.2024
Place: Panipat

Regional Officer, HSPCB
Panipat Region

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL PRINCIPAL BENCH, NEW DELHI

MA No.40/2024 IN OA No.261/2023

IN THE MATTER OF:

Sonu Kumar — Applicant

Versus

State of Haryana — Respondent(s)

Report of the Joint Committee in compliance to the Orders of Hon'ble National Green Tribunal dated April 9, 2024

A. Background and Orders of Hon'ble NGT:

This MA No. 40 of 2024 in OA No. 261 of 2023, was registered on the basis of the report submitted in compliance of the order of the Tribunal dated 20.09.2023 passed in OA No. 261/2023.

In the matter of OA No. 261 of 2023; Haryana State Pollution Control Board (HSPCB) was directed by Hon'ble National Green Tribunal vide Order dated 20/09/2023 to re-examine compliance of above two units (M/s. Shree Cement Ltd. and M/s Nexa Chemicals Pvt Ltd) and submit a report before the Registrar General.

The following observations with regard to the Unit M/s Nexa Chemicals Pvt, were made by Hon'ble NGT while considering the re-examination report of Joint Committee on 09/04/2024:

> *"5. So far as M/s. Nexa Chemicals Private Ltd. is concerned, it is stated that the unit is engaged in the process of formulation and therefore it falls under „Orange Category".*
> *6. Learned Counsel appearing for Haryana State Pollution Control Board (HSPCB) has submitted that as per CPCB categorization (February, 2016) following units are covered under the Red Category:-*
> *"37. Pesticides (technical) (excluding formulation) are covered under "Red Category" and formulation is covered under the "Orange Category"."*

The following directions were given by Hon'ble National Green Tribunal vide order dated 09/04/2024 (**Annexure-1**).

> ***Para 8**; "The above process reflects that the unit is involved in formulation and also emulsification. Hence, the process undertaken by the unit is required to be examined by the Joint Committee to ensure that the unit is placed in the proper category to ascertain any discharge of waste water, arising out of process and dust and gases emissions from process. Let this exercised be completed and fresh report be submitted before the Registrar General of the Tribunal with in three months and if found necessary, the matter will be listed before the Bench."*

B. Compliance of the Orders by the Joint Committee:

Suneel Dave, Scientist 'F' RD, Chandigarh, who was earlier representing CPCB in the Joint Committee superannuated on 30/06/2024 and hence Dr. Narender Sharma, Scientist 'F', RD, Chandigarh was nominated by CPCB to represent CPCB in the Joint Committee.

A Joint team comprising of CPCB and HSPCB members conducted an inspection of M/s Nexa Chemicals Pvt. Ltd, VPO Sutana, Tehsil Madlauda, Panipat on 03/07/2024, for detailed examination of the process followed by the unit for insecticide formulations.

The following are the key observations made by the Joint Team during inspection of the Unit:

1. **Products**: M/s Nexa Chemicals Pvt. Ltd, is engaged in the production of Powder, Granule and Liquid Insecticide (A class of pesticides) Formulations for agriculture applications. Here, Insecticide formulation means a mixture of active and inert ingredients. M/s Nexa Chemicals Pvt. Ltd, is not manufacturing concentrated technical insecticides as per records shared by the Unit. Various technical insecticides are being procured from the Suppliers /Traders /Manufacturers. Unit M/s Nexa Chemicals Pvt. Ltd. is having valid license to stock these insecticides (**Annexure-2**). The Unit is manufacturing two types of liquid formulations i.e i) Water based formulations and ii) Solvent based formulations, which are further sub-classified into three types, as follows:

    i. Emulsifiable Concentrate (EC) Formulation: Prepared with Oil Soluble active ingredient.
    ii. Suspension Concentrate (SC) Formulation: Prepared with Micronized active ingredients in water.
    iii. Soluble Concentrate (SL) Formulation: May contains 10-50% active ingredients in water or water-soluble organic solvents

2. **Raw Material/Ingredients**: The insecticide formulations manufactured by Unit M/s Nexa Chemicals Pvt. Ltd may contain the following ingredients depending on the type of formulation (Powder, Granules, Water based or Solvent based) produced : i) Insecticide active ingredient (Technical Insecticide) that controls the target pest; ii) The carrier, such as an organic solvent or mineral clay; iii) Emulsifiers, for imparting specific functions involving the mixing and application of insecticides such as dispersing, emulsifying, spreading, sticking, and wetting; iv) Other ingredients such as stabilizer to help prevent particles from settling, colours/dyes and v) Preservatives such as formaldehyde (in some water based formulations).

3. **Process (Liquid Formulations)**: The process to manufacture Water and solvent based formulation by M/s Nexa Chemicals Pvt. Ltd. (**Annexure-3**) consists of following steps (in sequence) :

    - Addition of raw Material (Technical Insecticide) in Stainless Steel Tank with mechanical mixing arrangement;
    - Addition of Solvent or Water depending on the type of insecticide formulation produced;

- Mixing;
- Addition of Emulsifier;
- Mixing;
- Liquid Grinding alongwith Cooling to prevent rise in temperature of liquid (Only for Suspension Concentrate products)
- Cooling;
- Manual Packaging

4. **Process (Powder Formulations)**: The process to manufacture powder insecticide formulation by M/s Nexa Chemicals Pvt. Ltd. (**Annexure-4**) consists of following steps (in sequence) :

    - Addition of raw material (Technical Insecticide) in Stainless Steel Tank with mechanical mixing arrangement;
    - Grinding, if required;
    - Addition of China Clay;
    - Mixing;
    - Manual Packaging

5. **Process (Granular Formulations)**: The process to manufacture Granular insecticide formulation by M/s Nexa Chemicals Pvt. Ltd. (**Annexure-5**) consists of following steps (in sequence) :

    - Addition of river sand in Electrical Mixing machine.
    - Addition of technical insecticide, while mixing is on;
    - Addition of dye and Emulsifier, while mixing is on;
    - Manual Packaging

6. **Air Pollution Control System:**

    The unit has provided hoods to contain dust and vapours which are further attached to wet scrubber on the mixing section to control fumes and has provided bag filter to control air emissions from the powder mixing section. The unit use gas as fuel for heating purpose.

7. **Water Use and Waste Water Treatment:**

    The unit uses water in its cooling section attached to chiller. No waste water is generated by the unit from cooling section. The unit also uses water in wet scrubber and same is recycled in the scrubber but once this is saturated, it is required to be treated in the effluent treatment plant. However, it was observed that Unit has not provided effluent treatment plant for the treatment of saturated waste water from the wet scrubber. The residue recovered from the treatment of effluent from Wet Scrubber is also required to be disposed of as per provisions of HWM Rules, 2016. The consent to operate (CTO) granted by HSPCB to the Unit also doesn't mention anything about the generation and treatment of effluent from Wet Scrubber.

8. Hazardous Waste Generation and Disposal:

During the inspection it was observed by the team that the technical insecticides used by the unit as raw material are procured in plastic barrels and same barrels are reused by them for the packing of their formulated products. The unit has obtained authorization under hazardous waste rules for process waste/ residues for the period 26.10.2018 to 30.09.2023. Further, unit is also required to obtain authorization from HSPCB for the storage & reuse of these empty drums. Therefore, a show cause notice under HOWM Rules, 2016 has been issued to the unit by HSPCB. The unit has applied for authorization for storage and reuse of empty drums on 22.07.2024 (**Annexure-6**) and the authorization under HWM rules has been granted to the unit for storage of empty barrels, process waste residue and chemical sludge. Copy of the HWM authorization is attached as **Annexure-7.**

9. There is no chemical reaction involved in the process followed by M/s Nexa Chemicals Pvt. as observed during site inspection. Process involves only mixing of concentrated technical insecticides/active ingredients with other additives to prepare an insecticide formulation with final concentration of active insecticide ingredient as specified in the permission granted by Department of Agriculture and Farmers Welfare (DAFW), Haryana **(Annexure-8)**. The list of insecticide formulations registered under Pesticides Act, 1968 is attached as **Annexure-9.**

10. The unit is using various types of emulsifiers for manufacturing insecticide formulations. Emulsification is a physical phenomenon/process, which involves process of mixing two or more liquids, which are otherwise immiscible, to form an emulsion with the aid of an additive called as emulsifier. Different types of emulsifiers are used by unit M/s Nexa Chemicals Pvt. Ltd. for different formulations depending on the compatibility with the active ingredient.

11. In view of the fact that concentrated active ingredients (Technical Insecticides) are difficult to handle for applications at consumer end, manufacturers add inert substances and other additives, such as clays and solvents, to improve application effectiveness, safety, handling, and storage. Since the structure of the active ingredients in the final products must remain the same, no chemical reaction is involved. Unit M/s Nexa Chemicals is also doing the same.

C. Conclusion:

i) Categorization of the M/s Nexa Chemicals Pvt. Ltd as "Orange" or "Red" Category Industry:

- *Pesticides (technical) (excluding formulation) are covered under "Red Category" and formulation is covered under the "Orange Category", as per Categorization issued by Central Pollution Control Board. The formulation Units are not covered under red category and are therefore placed under Orange Category.*

- *The Unit is not involved in the manufacturing of Technical Insecticides. The examination of the documents shared by the Unit indicates that Technical*

insecticides are being procured from various Suppliers/Traders/Manufactures and Unit has obtained license to stock these technical insecticides.

- *Emulsification followed by the Unit for manufacturing insecticides formulation is a physical phenomenon used for mixing two immiscible ingredients, to form an emulsion. There is no chemical reaction involved in emulsification and no pollutants are liberated from emulsification. This is further indicated from the fact that the structure of active ingredients if not changed and remains the same in the final formulation.*

- *The Unit has permission to manufacture only insecticide formulations DAFW, Haryana only for insecticide formulation registered under Pesticides Act, 1968.*

In view of the above facts, it may be concluded that the Unit namely M/s Nexa Chemicals Pvt. Ltd falls under Orange Category. However, an examination of the permission obtained by the unit from the Department of Agriculture and Farmers Welfare (DAFW), Haryana, reveals that the license issued by DAFW, Haryana is for the manufacture of insecticides. It does not prohibit the production of technical insecticides, even though the list of insecticides registered under the Pesticides Act, 1968 consists of insecticide formulations.

Therefore, it is recommended that Consent to Operate (CTO) granted to the Unit by HSPCB clearly mentions that "this CTO does not permit the manufacture of technical insecticides, even as intermediate products."

ii) Compliance of various Environmental Norms/Conditions of CTO:

It is submitted that the classification of a unit or process under the orange category does not exempt it from adhering to environmental norms. Therefore, the compliance of various environmental norms was also verified by the Joint Committee during inspection of the Unit. The Unit was found to be non-compliant with the following environmental norms:

i. The Unit has not obtained authorization from HSPCB for the storage and reuse of empty drums containing technical insecticides and similar raw materials/ingredients. According to the HSPCB Member, a show cause notice under the HOWM Rules, 2016 has been issued, and the Unit has applied for authorization to store and reuse empty drums as of 22.07.2024 and the same has been granted to the unit.

ii. The Unit has not provided an effluent treatment plant (ETP) for treating the effluent generated from the wet scrubber. Further, the residue recovered from this treatment must be disposed of in accordance with the HWM Rules, 2016. Furthermore, the Consent to Operate (CTO) and the Authorization issued by HSPCB do not mention anything about the generation, treatment, or disposal of effluent and hazardous residue from the wet scrubber. The CTO mentions the quantity of trade effluent as NIL.

(The following actions have been taken by HSPCB on the observations made by the Joint Committee:)

I. A Show Cause Notice was issued to the unit for making compliance for scientific disposal of Wet Scrubber water generated approx. 50-60 Ltr/day (**Annexure-10**). In compliance of observations raised by the joint committee; unit has provided ETP plant for the treatment of wet scrubbed water and same is reused in wet scrubber after treatment.

II. Haryana State Pollution Control Boards has imposed Environment Compensation of Amount of Rs.2,10,800/- (Rs. Two Lacs Ten Thousand Eight Hundred Rupees) vide orders No.I/259817/2024 dated 24/10/2024 and unit has deposited the said amount in the Board account. Copy of Environment Compensation orders and copy of proof of deposition of Environment Compensation are attached as **Annexure-11 & 12.**

III. Unit has obtained the authorization under HWM rule for storage of empty barrels, process waste residue and chemical sludge from the Board.

IV. As per suggestion of the Joint Committee necessary direction has been issued to the unit that: *"Unit will not manufacture technical pesticides even as intermediate products."* **(Annexure-13)**

The above factual report of the Joint Committee is being submitted for consideration of Hon'ble National Green Tribunal. The Joint committee will abide by the any further direction issued by this Hon'ble Tribunal.

21/11/2024

Kuldeep Singh
Asstt. Environment Engineer,
HSPCB, Panipat

Bhupinder Singh,
Regional Officer,
HSPCB, Panipat

Dr. Narender Sharma,
Scientist 'F',
CPCB RD, Chandigarh

Annexure-1

Item No.13 Court No. 1

BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI

M.A. No.40/2024
in
Original Application No. 261/2023

Sonu Kumar Applicant

Versus

State of Haryana Respondent

Date of hearing: 09.04.2024

CORAM: HON'BLE MR. JUSTICE PRAKASH SHRIVASTAVA, CHAIRPERSON
HON'BLE MR. JUSTICE SUDHIR AGARWAL, JUDICIAL MEMBER
HON'BLE DR. A. SENTHIL VEL, EXPERT MEMBER

Respondent: Mr. Rahul Khurana, Adv. with Mr. Bhupender (Through VC), RO, HSPCB

ORDER

1. This MA has been registered on the basis of the report submitted in compliance of the order of the Tribunal dated 20.09.2023 passed in OA No. 261/2023.

2. In the OA, allegation was made that 21 industrial units operating in district Panipat were engaged in manufacture and business of textiles, chemicals, agriculture medicines, automobiles etc and were operating in violation of requisite environmental norms.

3. Tribunal had constituted a Joint Committee which had submitted the report on 18.09.2023 which was duly considered by the Tribunal and OA was disposed of by order dated 20.09.2023 making observations about categorization of 02 such units namely M/s. Nexa Chemicals Private Ltd. and M/s. Shree Cement Ltd.(Jay Pee Cement Granding Unit) as under:-

> *"7. On the perusal of the report, it is noticed that the unit at serial no.4 i.e. M/s Nexa Chemicals PM Ltd, VPO Sutana Tensil Madlauda Panipat is stated to be a unit engaged in manufacturing of pesticides*

but it has been placed under the orange category whereas as per the information disclosed, the said unit should be placed in the red category. The said issue needs consideration in the light of the fact that the unit is manufacturing pesticides, etc., and the activity of the unit is stated to be mixing of chemicals and unit has also obtained authorization under Hazardous Waste Management Rules, 2016.Similarly, the unit at serial no. 21 i.e. M/s Shree Cement Ltd. (Jay Pee Cement Granding Unit), Village Khukhrana, Post Office Assan Kalan, Madlauda, Panipat which is a cement manufacturing unit has been categorized on the basis of reprocessing of waste cotton and which according to the activity may be placed in red category.

8. The State Pollution Control Board will re-examine compliance of above two units and submit a report before the Registrar General of the Tribunal within 08 weeks and if found necessary, the Registrar General may place the matter before the Bench for consideration."

4. In terms of the above direction, Joint Committee has re-examined the compliance by the above units and in the report, so far as M/s. Shree Cement Ltd. is concerned, it is disclosed that since the unit is engaged in the manufacture of cement, therefore, it is covered under 'Red Category'.

5. So far as M/s. Nexa Chemicals Private Ltd. is concerned, it is stated that the unit is engaged in the process of formulation and therefore it falls under 'Orange Category'.

6. Learned Counsel appearing for Haryana State Pollution Control Board (HSPCB) has submitted that as per CPCB categorization (February, 2016) following units are covered under the Red Category:-

"37. Pesticides (technical) (excluding formulation) are covered under 'Red Category' and formulation is covered under the 'Orange Category'."

7. The process undertaken by the unit is disclosed in the report as under:-

"I. M/s Nexa Chemicals Pvt Ltd., VPO Sutana Tehsil Madlauda Panipat

The unit is engaged in the process of formulation and final product is prepared by mixing of the various ingredients (which includes technical pesticides also), the process involved the Grinding, Mixing (wet and dry) and Packaging. The unit falls under the 'Orange' category. Unit is having no source of trade effluent except scrubbed water and the same is recycled. The Wet scrubber attached with 30 m high Stack meantto the suction hoods of grinding section in order to control dust emissions, if any.

The process flow chart is reproduced as under:-

For, Wettable Powder(WP) -Raw Material » Mixing with China Clay powder » Grinding in Air Classifier Mill » Emulsifier For Stabilizing » Mixing » Packing

For Granuals Formulation -Raw Material » Mixing with River Sand or Bantonate Granuals in Granual Mixer Machine or Manualy » Emulsifier For Stabilizing » Mixing » Packing » Dispatch

For Emulsifiable Concentrate (EC)/Suspension Concentrate (SC)-Raw Materia1 » Mixing with Aromex Oil or Water in Stainless Tank » Emulsifier for Stabilizing » Mixing » Packing.

The copy of certificate of registration under section 9(4) of the inspection Act/ 1968 of unit is attached as ***Annexure R-1****. Copy of process flow chart is attached as* ***Annexure-R-2*** *and photographs of the unit is attached as* ***Annexure R-3."***

8. The above process reflects that the unit is involved in formulation and also emulsification. Hence, the process undertaken by the unit is required to be re-examined by the Joint Committee to ensure that the unit is placed in the proper category to ascertain any discharge of waste water, arising out of process and dust and gases emissions from processes. Let this exercise be completed and fresh report be submitted before the Registrar General of the Tribunal within three months and if found necessary, the matter will be listed before the Bench.

9. MA is accordingly disposed of.

Prakash Shrivastava, CP

Sudhir Agarwal, JM

Dr. A. Senthil Vel, EM

April 09, 2024
M.A. No.40/2024
JG.

Government of India
Ministry of Agriculture & Farmers Welfare
(Department of Agriculture, Co-operation & Farmers Welfare)
DIRECTORATE OF PLANT PROTECTION, QUARANTINE & STORAGE
Central Insecticides Board and Registration Committee
N.H.IV, FARIDABAD (Haryana) - 121001

CERTIFICATE OF REGISTRATION UNDER SECTION 9(4) OF THE INSECTICIDES ACT.,1968.

Certified that the insecticide Hexaconazole 5% SC has been registered in the name of the Person/Undertaking whose particulars are specified below:

1.	Name of the person/Undertaking :	M/s NEXA CHEMICALS PRIVATE LIMITED VILLAGE SUTANA, TEHSIL MADLAUDA, PANIPAT, Panipat, Haryana
2.	Address of the manufacturing premises :	VILLAGE SUTANA, TEHSIL MADLAUDA, DISTRICT PANIPAT, HARYANA
3.	Registration No.	CIR-142070/2017-Hexaconazole (SC) (377)-743 F.No. 64286-F/9(4)/2017
4.	Name of the Insecticide :	Hexaconazole 5% SC

5. Conditions :

i) The insecticide shall be manufactured indegenously.

ii) The insecticide shall have the composition (kind, name and percentage of the ingredients) as given below :-

Hexaconazole technical	(Min. purity 92%)	5.43 % W/w
Propylene glycol		5.00 % W/w
Emulsifiers A	(Blend of polyoxyethylene polyoxypropylene ethers and calcium salt of aklyl benzene sulfonate)	3.00 % W/w
Emulsifiers B	(Amine salt of polyalkyl aryl ether phosphate)	3.00 % W/w
Emulsifiers C		2.50 % W/w
Potassium phosphite		10.00 % W/w
Polysaccharide		0.20 % W/w
Defoamer		0.25 % W/w
Distilled/D.M.Water		68.12 % W/w
Wetting and dispersingh Agent	(Sodium salt of Fatty alcohol)	2.50 % W/w

Total : 100.00 % W/W

Contd. Page 2

iii) **The shelf-life of the insecticide shall be two year(s).**

iv) **(a) The insecticide shall confirm to the specifications as approved by the Registration Committee till standards are published by the Bureau of Indian Standards.**

(b) The Product shall confirm to the standards specified by IS vide No. I.S:14550-1998 and amendment thereof.

v) **A sample quantity of the insecticide alongwith a small quantity of reference analytical standard shall be provided from time to time to the Director, Central Insecticides Laboratory, Directorate of Plant Protection, Quarantine & Storage, N.H. IV, Faridabad, as and when required, for verifcation.**

vi) **The insecticide shall be packed in the containers of such sizes as approved by the Registration Committee.**

vii) **The registration certificate is further subject to such conditions as may be varied and specified from time to time by the Registration Committee under section 9(3c).**

viii) **The Registration Committee is not responsible for the use of trade name. The use of the trade name shall be regulated as per the existing laws on the subject.**

ix) **A copy each of the approved label and leaflet is attached. These shall be affixed or attached to the packages containing the insecticide and shall be printed in English, Hindi and in regional languages in use in the area where the said package are likely to be stocked, sold or distributed. There shall be no alteration, obliteration and defacement in inscription or mark made or recorded on the container without prior approval of the Registration Committee.**

x) **The registration is subject to the strict compliance of various provisions of the Insecticides Act, 1968 and Insecticides Rules, 1971 framed thereunder and amendments, bylaws and Notifications, issued from time to time. Any violations of the conditions of the Registration Certificate read with lebels and leaflets and the provisions of the aforesaid Act, bylaws and Notifications will attract various penal provisions under the Insecticides Act, 1968, apart from suspension, revocation and cancellation of the registration.**

xi) **The registrant shall have to commence actual production of the pesticide within three years from the date of issue of registration certificate and is required to produce a certificate from the concerned State/UT Governments as a proof of production, failing which the certificate of registration shall automatically lapse.**

xii) **No export should take place in contravention to the provisions of the Rotterdam Convention on prior informed consent procedure for certain hazardous chemicals and pesticides in international trade.**

xiii) **If a pesticide is banned or severely restricted in India, before exporting such pesticide, permission from Designated National Authority for Pesticide of the Country under Rotterdam Convention may be obtained.**

xiv) **In case of export, the packaging shall be as per the requirement of the importing country and conforming to IMDG guidelines.**

xv) **The product is registered for domestic use as well as for Export.**

Specific Conditions :

(a) The product shall be packed in HDPE container with leakproof and pilferproof closure systems as per the requirements of relevent IS. The capacity of HDPE container shall be 100 ml., 250 ml., 500 ml., 1 litre, 5 litre and 20 litres only. HDPE container upto 5 litres capaicty shall be further packed in CFB boxes as per relevant IS and their subsequent ammendments. No other packaging system shall be used without the approval of the R.C. (b) The fungicide is approved for use against powdery mildew on Mango, sheath blight on Rice and powdery mildew on Grapes only. (c) Health records of industrial workers may be maintained in form XXII as prescribed in Insecticides Rules-1971. In case any untoward/adverse effect is noticed, then the same may be reported to the Registration Secretariat by the Licensing Officer.

Contd. Page 3

Faridabad
Dated : 11/11/2017

(D D K Sharma)
Secretary
Central Insecticides Board
and Registration Committee

Copy To: The Director of Agriculture Haryana

Along with the approved labels and leaflets

The licence should be granted subject to the conditions that the licensee shall comply with the provisions of the Act and the Rules made thereunder and the conditions of registration for the time being in force.

No licence to manufacture an insecticide shall be granted unless the licensing officer is satisfied that necessary plant and machinery, safety devices, first-aid facilities, quality control measures, the requirement laid down under Chapter VIII of the Rules, etc. exist in the premises where the insecticide is proposed to be manufactured.

Inspection of the manufacturing unit should be undertaken to collect in-process samples of the insecticides. The samples should be analysed to verify the claims made by the licensee relating to chemical parameters, and the report thereof should be submitted to the Registration Secretariat within a period of six months.

AUTHENTICATED

(Karan Singh)
Section Officer

(D D K Sharma)
Secretary
Central Insecticides Board
and Registration Committee

"Note: The Labels and leaflets have been generated through newly created databank. Notwithstanding deligence exercised in creation of the databank, the possibility of errors creeping into labels and leaflets cannot be ruled out. The same is subjected to necessary correction."

Chemical Composition :

Hexaconazole technical	(Min. purity 92%)	5.43 % W/w
Propylene glycol		5.00 % W/w
Emulsifiers A	(Blend of polyoxyethylene polyoxypropylene ethers and calcium salt of aklyl benzene sulfonate)	3.00 % W/w
Emulsifiers B	(Amine salt of polyalkyl aryl ether phosphate)	3.00 % W/w
Emulsifiers C		2.50 % W/w
Potassium phosphite		10.00 % W/w
Polysaccharide		0.20 % W/w
Defoamer		0.25 % W/w
Distilled/D.M.Water		68.12 % W/w
Wetting and dispersingh Agent	(Sodium salt of Fatty alcohol)	2.50 % W/w
	Total :	**100.000 % W/W**

Direction Of Use

Please read enclosed leaflets before use.

Precautions

1. Keep away from foodstuffs, empty foodstuff containers and animals food.
2. Avoid contact with mouth, eyes and skin.
3. Avoid inhalation the spray mist. Spray in the direction of wind. 4 . Wash thoroughly the contaminated clothes and parts of the body after spraying.
5. Do not smoke, drink, eat and chew anything while spraying.
6. Wear full protective clothing while mixing and spraying.

Antidote

No specific antidote is known. Treat symptomatically.

First Aid

Hexaconazole 5 % SC

Systemic Fungicide

Keep out of reach of children.

Keep in cool, dry place away from heat and open flame.

Regn. No. _____

Mfg. Lic. No. _____

Batch No. _____

Mfg Date _____

Exp. Date _____

Net Content / Volume _____

Max. Retail Price _____

Caution:"Not to Be Used on Crops Other Than Specified on This Label/Leaflet".

1. If swallowed, induce vomiting by tickling the back of throat. Repeat it until the vomitus is clear. Do not induce vomiting if the patient is unconscious.
2. If clothing and skin are contaminated, remove the clothes and wash the contaminated skin with copious amount of soap and water.
3. If eyes are contaiminated, flush with plenty of saline/clean water for about 10 to 15 minutes.
4. If inhaled, remove the patient to fresh air.

Symptoms

Nervousness, Anxiety, tremors, convulsions, allergic manifestations may occur

Recommendations

Hexaconazole 5% SC is a systemic fungicide used for the control of powdery mildew of Mango & Grapes and sheath blight of Rice.

Manufactured by:

NEXA CHEMICALS PRIVATE LIMITED
VILLAGE SUTANA, TEHSIL MADLAUDA,
PANIPAT, Panipat, Haryana

Manufacturer Premises:

VILLAGE SUTANA, TEHSIL MADLAUDA, DISTRICT PANIPAT, HARYANA

Caution:"Not to Be Used on Crops Other Than Specified on This Label/Leaflet".

Caution:"Not to Be Used on Crops Other Than Specified on This Label/Leaflet".

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Caution:“Not to Be Used on Crops Other Than Specified on This Label/Leaflet”.

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Caution:“Not to Be Used on Crops Other Than Specified on This Label/Leaflet”.

CIR-142070/2017-Hexaconazole (SC) (377)-743

Hexaconazole 5% SC

(Systemic Fungicide)

Hexaconazole 5% Sc is a systemetic fungicide used for the control of powdery mildew of mango & Grapes and Sheath blight of Rice.

Recommendation

Crop(s)	Common Name of Pest	Dosage/HA		Dilution in Water Ltrs.	Waiting Period between last spray to harvest (days)
		AI gm/%	Formulation ml(%)		
Grapes	Powdery mildew	25-50	500-1000	500	14
Mango	Powdery Mildew	0.01% or 10 g/100 lit Water	0.2% or 200 ml/100 lit. water.	As required	27
Rice	Sheath blight	0.01% or 10 g/100 lit Water	0.2% or 200 ml/100 lit. water	As required	40

Direction of Use

(a) Preparation of spray Mixture: Take the required quantity of Hexaconazole 5% SC dulute with a little water as per spray plume required and mixed well again by string. (b) Plant Protection Equipment :- The most commonly used sprayer are Bucket pump sprayer, Stirrup pump sprayer, Rocking sprayer, Foot sprayer, Wheel barrow sprayer, Compression knapsack sprayer, Compression knapsack battery sprayer and ASPEE HTP power sprayer. COMPATIBILITY: Hexaconazole5% SC is compatible with the commonly used insecticide and fungicides.

Precaution

1. Keep away from foodstuffs, empty foodstuff containers and animals food. 2. Avoid contact with mouth, eyes and skin. 3. Avoid inhalation the spray mist. Spray in the direction of wind. 4 . Wash thoroughly the contaminated clothes and parts of the body after spraying. 5. Do not smoke, drink, eat and chew anything while spraying. 6. Wear full protective clothing while mixing and spraying. LIMITATIONS AND CAUTIONS FOR USE :- Do not use in those situation if there is possibility of harmingbees and fish, Live stock, game, wild bird and animals.

Symptoms Of Poisoning

Nervousness, Anxiety, tremors, convulsions, allergic manifestations may occur.

First Aid

1. If swallowed, induce vomiting by tickling the back of throat. Repeat it until the vomitus is clear. Do not induce vomiting if the patient is unconscious. 2. If clothing and skin are contaminated, remove the clothes and wash the contaminated skin with copious amount of soap and water. 3. If eyes are contaiminated, flush with plenty of saline/clean water for about 10 to 15 minutes. 4. If inhaled, remove the patient to fresh air.

Phytotoxicity

Hexaconazole 5% SC is not phytotoxic when used as per recommendations.

Antidote

No specific antodote is known. Treat symptomatically.

Disposal Of Used Container

Caution:"Not to Be Used on Crops Other Than Specified on This Label/Leaflet".

1. Used packages or surplus materials and washings of the fungicides and containers shall be disposed off in a safe manner so as to prevent environmental or water pollution. 2. The used packages shall not be left outside to prevent their re-use. 3. Packages shall be brokenand buried away from habitation.

Storage Conditions

1. The packages containing the fungicide shall be stored in separate rooms or premises away from the rooms or premises used for storing other articles particularly food articles or shall be kept in seperate almirahs under lock and key depending upon the quantity and the nature of the fungicide. 2. The store rooms should be well lit, well built, ventilated and of sufficient dimensions. The conditions of the store should be dry and cool.

Chemical Composition:

Hexaconazole technical	(Min. purity 92%)	5.43 % W/w
Propylene glycol		5.00 % W/w
Emulsifiers A	(Blend of polyoxyethylene polyoxypropylene ethers and calcium salt of aklyl benzene sulfonate)	3.00 % W/w
Emulsifiers B	(Amine salt of polyalkyl aryl ether phosphate)	3.00 % W/w
Emulsifiers C		2.50 % W/w
Potassium phosphite		10.00 % W/w
Polysaccharide		0.20 % W/w
Defoamer		0.25 % W/w
Distilled/D.M.Water		68.12 % W/w
Wetting and dispersingh Agent	(Sodium salt of Fatty alcohol)	2.50 % W/w
	Total:	

Manufactured By:

NEXA CHEMICALS PRIVATE LIMITED
VILLAGE SUTANA, TEHSIL MADLAUDA,

PANIPAT, Panipat, Haryana

Manufacturer Premises :

VILLAGE SUTANA, TEHSIL MADLAUDA, DISTRICT PANIPAT,
HARYANA

Caution:"Not to Be Used on Crops Other Than Specified on This Label/Leaflet".

Government of India
Ministry of Agriculture & Farmers Welfare
(Department of Agriculture, Co-operation & Farmers Welfare)
DIRECTORATE OF PLANT PROTECTION, QUARANTINE & STORAGE
Central Insecticides Board and Registration Committee
N.H.IV, FARIDABAD (Haryana) - 121001

CERTIFICATE OF REGISTRATION UNDER SECTION 9(4) OF THE INSECTICIDES ACT.,1968.

Certified that the insecticide Thiamethoxam 25% WG has been registered in the name of the Person/Undertaking whose particulars are specified below:

1.	**Name of the person/Undertaking :**	**M/s NEXA CHEMICALS PRIVATE LIMITED VILLAGE SUTANA, TEHSIL MADLAUDA, PANIPAT, Panipat, Haryana**
2.	**Address of the manufacturing premises :**	**VILLAGE SUTANA, TEHSIL MADLAUDA, DISTRICT PANIPAT, HARYANA**
3.	**Registration No.**	**CIR-135593/2016-Thiamethoxam (WG) (369)-546** **F.No. 57794-F/9(4)/2016**
4.	**Name of the Insecticide :**	**Thiamethoxam 25% WG**

5. Conditions :

i) The insecticide shall be manufactured indegenously.

ii) The insecticide shall have the composition (kind, name and percentage of the ingredients) as given below :-

Thiamethoxam a.i.	**25.00 % w/w**
Dispersing Agent -sodium Lignosulphate	**5.00 % w/w**
Weting Agent Sodium Lauryl Sulphate	**3.75 % w/w**
Plasticiser- Butylated polyvinyl pyrrolidoine	**1.25 % w/w**
Carrier Diatomaceous earth	**5.00 % w/w**
Binder corn starch	**QS % w/w**
	Total : 100.00 % W/W

iii) The shelf-life of the insecticide shall be two year(s).

iv) (a) The insecticide shall confirm to the specifications as approved by the Registration Committee till standards are published by the Bureau of Indian Standards.

(b) The Product shall confirm to the standards specified by IS vide No. and amendment thereof.

v) A sample quantity of the insecticide alongwith a small quantity of reference analytical standard shall be provided from time to time to the Director, Central Insecticides Laboratory, Directorate of Plant Protection, Quarantine & Storage, N.H. IV, Faridabad, as and when required, for verifcation.

Contd. Page 2

vi) **The insecticide shall be packed in the containers of such sizes as approved by the Registration Committee.**

vii) **The registration certificate is further subject to such conditions as may be varied and specified from time to time by the Registration Committee under section 9(3c).**

viii) **The Registration Committee is not responsible for the use of trade name. The use of the trade name shall be regulated as per the existing laws on the subject.**

ix) **A copy each of the approved label and leaflet is attached. These shall be affixed or attached to the packages containing the insecticide and shall be printed in English, Hindi and in regional languages in use in the area where the said package are likely to be stocked, sold or distributed. There shall be no alteration, obliteration and defacement in inscription or mark made or recorded on the container without prior approval of the Registration Committee.**

x) **The registration is subject to the strict compliance of various provisions of the Insecticides Act, 1968 and Insecticides Rules, 1971 framed thereunder and amendments, bylaws and Notifications, issued from time to time. Any violations of the conditions of the Registration Certificate read with lebels and leaflets and the provisions of the aforesaid Act, bylaws and Notifications will attract various penal provisions under the Insecticides Act, 1968, apart from suspension, revocation and cancellation of the registration.**

xi) **The registrant shall have to commence actual production of the pesticide within three years from the date of issue of registration certificate and is required to produce a certificate from the concerned State/UT Governments as a proof of production, failing which the certificate of registration shall automatically lapse.**

xii) **No export should take place in contravention to the provisions of the Rotterdam Convention on prior informed consent procedure for certain hazardous chemicals and pesticides in international trade.**

xiii) **If a pesticide is banned or severely restricted in India, before exporting such pesticide, permission from Designated National Authority for Pesticide of the Country under Rotterdam Convention may be obtained.**

xiv) **In case of export, the packaging shall be as per the requirement of the importing country and conforming to IMDG guidelines.**

xv) **The product is registered for domestic use as well as for Export.**

Specific Conditions :

(a) Manner of Packing - (I) BULK PACKING: The product shall be packed in LDPE/HDPE liner Fiber Board Drums conforming to IS 7601-1983 & IS 11357 -1985 or LDPE/HDPEliner MS open top container, as per IS 2552-1989. The capacity of the container shall be 25 kg & 50 kg. (II) RETAIL PACKING: HDPE container conforming to IS 7408 or trilaminated pouch made from polyster (12u) Aluminium (9u) LDEPE (100u). The capacities of the HDPEcontainer and the trilaminated pouches shall be 100g., 250g,. 500g., 1.00kg and 5.00 kg. This shall be further packed in CFB boxes as per relevent IS. The maxium capacity of the the transport packing shall be 20 kg. No other packaging system shall be used with the approval of the Registration Committee. (b) The product is approved for use as foliar spray for controlling stem borer, BPH,WBPH,GLH, Leaf-folder, thrips and gall midge in rice; jassids, aphids and whiteflies in cotton; hoppers in mango; aphids in Wheat; aphids, Jassids and Whiteflies in Okra; aphids in Mustard; Whiteflies in Tomato; Whiteflies, Jassids in Brinjal; mosquito bug in Tea & aphids in Potato. (c) Health records of industrial worker may be maintained in form XXII a prescribed in the Insecticides Rules 1971. In case any untoward/ adverse effects notice then the same may be reported to the Registartion Secreetariat by the Licensing Officer.

Faridabad
Dated : 19/10/2016

(D D K Sharma)
Secretary
Central Insecticides Board
and Registration Committee

Copy To: The Director of Agriculture Haryana

Contd. Page 3

Along with the approved labels and leaflets

The licence should be granted subject to the conditions that the licensee shall comply with the provisions of the Act and the Rules made thereunder and the conditions of registration for the time being in force.

No licence to manufacture an insecticide shall be granted unless the licensing officer is satisfied that necessary plant and machinery, safety devices, first-aid facilities, quality control measures, the requirement laid down under Chapter VIII of the Rules, etc. exist in the premises where the insecticide is proposed to be manufactured.

Inspection of the manufacturing unit should be undertaken to collect in-process samples of the insecticides. The samples should be analysed to verify the claims made by the licensee relating to chemical parameters, and the report thereof should be submitted to the Registration Secretariat within a period of six months.

AUTHENTICATED

(Prasenjit Bose)
Section Officer

(D D K Sharma)
Secretary
Central Insecticides Board
and Registration Committee

"Note: The Labels and leaflets have been generated through newly created databank. Notwithstanding deligence exercised in creation of the databank, the possibility of errors creeping into labels and leaflets cannot be ruled out. The same is subjected to necessary correction."

1885

Thiamethoxam 25% WG

Insecticide

Chemical Composition :

Thiamethoxam a.i.	25.00 % w/w
Dispersing Agent - sodium Lignosulphate	5.00 % w/w
Weting Agent Sodium Lauryl Sulphate	3.75 % w/w
Plasticiser- Butylated polyvinyl pyrrolidoine	1.25 % w/w
Carrier Diatomaceous earth	5.00 % w/w
Binder corn starch	QS % w/w
Total :	**100.00 % W/W**

Direction Of Use

Please read leaflet before use.

Precautions

1. Keep away from foodstuffs, empty foodstuff containers and animals food. 2. Avoid contact with mouth, eyes and skin. 3. Avoid inhalation the spray mist. Spray in the direction of wind. 4 . Wash thoroughly the contaminated clothes and parts of the body after spraying. 5. Do not smoke, drink, eat and chew anything while spraying. 6. Wear full protective clothing while mixing and spraying.

Antidote

No specific antidote is known. Treat symptomatically.

First Aid

1. If swallowed, induce vomiting by tickling the back of throat. Repeat it until the vomitus is clear. Do not induce vomiting if the patient is unconscious. 2. If clothing and skin are contaminated, remove the cloths and wash the contaminated skin with copious amount of soap and water. 3. If eyes are contaiminated, flush with plenty of saline/clean water for about 10 to 15 minutes. 4. If inhaled, remove the patient to fresh air.

Symptoms

Decrease spontaneous movement, tonic conulsion,ptosis may occur.

Recommendations

Keep out of reach of children.

Keep in cool, dry place away from heat and open flame.

Regn. No. _____

Mfg. Lic. No. _____

Batch No. _____

Mfg Date _____

Exp. Date _____

Net Content / Volume _____

Max. Retail Price _____

Caution:"Not to Be Used on Crops Other Than Specified on This Label/Leaflet".

Thiamethoxam 25 % WG is broad spectrum systemic insecticide having quick stomach and contact action and is recommanded for its use to control Stem Borer, Gall Midge, Leaf Folder, Brown plant hopper, (BPH), White Backed Plant Hopper (WBPH), Green Leaf Hopper (GLH), Thrips on Rice; jassids, aphids and whiteflies in cotton; hoppers in mango; aphids in Wheat; aphids in Mustard; Whiteflies in Tomato; Whiteflies, Jassids in Brinjal; mosquito bug in Tea & aphids in Potato, Psylla in citrus .

Manufactured by:

NEXA CHEMICALS PRIVATE LIMITED
VILLAGE SUTANA, TEHSIL MADLAUDA,
PANIPAT, Panipat, Haryana

Manufacturer Premises:

VILLAGE SUTANA, TEHSIL MADLAUDA, DISTRICT PANIPAT, HARYANA

Caution:"Not to Be Used on Crops Other Than Specified on This Label/Leaflet".

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Caution:"Not to Be Used on Crops Other Than Specified on This Label/Leaflet".

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Caution:“Not to Be Used on Crops Other Than Specified on This Label/Leaflet”.

CIR-135593/2016-Thiamethoxam (WG) (369)-546

Thiamethoxam 25% WG

(Insecticide)

Thiamethoxam 25 % WG is broad spectrum systemic insecticide having quick stomach and contact action and is recommanded for its use to control Stem Borer, Gall Midge, Leaf Folder, Brown Plant Hopper (BHP), while Backed Plant Hopper (WBPH) Green Leaf Hopper (GLH) , Thrips, in rice; jassids, aphids and whiteflies in cotton; hoppers in mango; aphids in Wheat; aphids in Mustard; Whiteflies in Tomato; Whiteflies, Jassids in Brinjal; mosquito bug in Tea, aphids in Potato, Psylla in citrus . It contains 250g Thiamethoxam as an active ingredient in a kg of the product (w/w).

Recommendation

Crop(s)	Common Name of Pest	Dosage/HA		Dilution in Water (Ltr)	Waiting Period between last spray to harvest (days)
		AI (gm)	Formulation (gm)		
Mango	Hoppers	25	100	1000	30
Potato	Aphids, (Myzus persicae)	25 (foliar spray) 50 (Soil drench)	100 (foliar spray) 200 (Soil drench)	500	77
Cotton	Jassids, Aphids	25	100	500-750	21
	White flies	50	200	500-750	21
Wheat	Aphids	12.5	50	500	21
Tea	Mosquito bug (Helopeltis theivora)	25	100	400-500	7
Tomato	Whiteflies	50	200	500	5
Tomato (soil drenching)	White flies	100	400	500	5
Rice	Stem borer, Gall Midge, Leaf Folder, Brown Plant Hopper (BPH),White backed Plant Hopper (WBPH),Green leafhopper, Thrips	25	100	500-750	14
Citrus	Psylla (Diaphornia citri)	25	100	1000	20
Brinjal	Whiteflies, Jassids	50	200	500	3
Okra	Jassid, Aphid, Thrips White flies	25	100	500-1000	5
Mustard	Aphid	12.5-25.0	50-100	500-1000	21

Direction of Use

Measure out requred quantity of the product and mix it well with a small quantity of water. Add the remaining quantity of water as specified with thorough agitation for total coverage of crop with suitable sprayer. P.P. Equipment:- Knapsack sprayer, foot sprayer, compression knapsack sprayer, Compression knapsack battery sprayer, Battery operated kpower sprayer and ASPEE-HTP power sprayer..

Time of Application

Caution:"Not to Be Used on Crops Other Than Specified on This Label/Leaflet".

1. Mango: Hoppers (Apply first spray during initial pest appearance and repeat one or two sprays at 15 days interval depending on the level of pest intensity)
2. Potato: Foliar-application- Apply first spray during initial pest appearance and repeat 2-3 sprays at 10-15 days interval depending on the level of pest intensity.
Soil drench- Apply root zone before appearance of pest as soil drench, once during the crop season.
3. Cotton: Apply first spray at 25-30 DAS or at the time of first pest appearance and repeat 2-3 sprays at 15 days interval depending on the pest intensity.
4. Wheat: Apply first spray during initial pest appearance and repeat one or two sprays at 15 days interval depending on the level of pest intensity.
5. Tea: Apply first spray during initial pest appearance and repeat 2-3 sprays at 15-21 days interval depending on the level of pest intensity.
6. Tomato: Apply first spray during initial pest appearance and repeat 2-3 sprays at 10-15 days interval depending on the level of pest intensity.
Soil drench: Apply root zone before appearance of pest as soil drench, once during the crop season.
7. Rice: One spray at 25-30 DAT in the early stage of crop for control of early rice pests such as Stem Borer, Gall Midge and the other spray at the booting leaf stage (@ 50 to 55 DAT) for the control of late rice pests such as GLH,BPH,WBPH etc.
8. Brinjal: Apply first spray during initial pest appearance and repeat 2-3 sprays at 10-15 days interval depending on the level of pest intensity.
9. Okra: Apply first spray during initial pest appearance and repeat one or two sprays at 15 days interval depending on the pest intensity.
10. Mustard: Apply first spray during initial pest appearance and repeat one or two sprays at 15 days interval depending on the level of pest intensity.
11. Citrus: Apply first spray during initial pest appearance and repeat 2-3 sprays at 15-21 days interval depending on the level of pest intensity.

Precaution

1. Keep away from foodstuffs, empty foodstuff containers and animals food. 2. Avoid contact with mouth, eyes and skin. 3. Avoid inhalation the spray mist. Spray in the direction of wind. 4 . Wash thoroughly the contaminated clothes and parts of the body after spraying. 5. Do not smoke, drink, eat and chew anything while spraying. 6. Wear full protective clothing while mixing and spraying.

Symptoms Of Poisoning

Decrease spontaneous movement, tonic conulsion,ptosis may occur.

First Aid

1. If swallowed, induce vomiting by tickling the back of throat. Repeat it until the vomitus is clear. Do not induce vomiting if the patient is unconscious. 2. If clothing and skin are contaminated, remove the cloths and wash the contaminated skin with copious amount of soap and water. 3. If eyes are contaiminated, flush with plenty of saline/clean water for about 10 to 15 minutes. 4. If inhaled, remove the patient to fresh air.

Antidote

No specific antidote is known. Treat symptomatically.

Disposal Of Used Container

1. Packages or surplus materials and washing form machines and containers should be dispose off in a safe manner as to prevent environment and water pollution. 2. The used packages shall not be left outside to prevent their reuse. 3. packages shall be broken and burried away from habibtation.

Storage Conditions

1. The package containing the insecticide should be stored in orignal containers inseparate rooms or premises away from rooms or premises used for storing othe article particularly articles of food or shall be kept in separate almirahs under lock and key. 2. The rooms or premises menat for storing the insecticide shall be built,dry,well lit and ventlated and of sufficient dimension to avoid contamination with vapour.

Chemical Composition:

Thiamethoxam a.i.	25.00 % w/w
Dispersing Agent -sodium Lignosulphate	5.00 % w/w
Weting Agent Sodium Lauryl Sulphate	3.75 % w/w
Plasticiser- Butylated polyvinyl pyrrolidoine	1.25 % w/w

Caution:"Not to Be Used on Crops Other Than Specified on This Label/Leaflet".

Carrier Diatomaceous earth	5.00 % w/w
Binder corn starch	QS % w/w
Total:	**100.000% w/w**

Manufactured By:

NEXA CHEMICALS PRIVATE LIMITED
VILLAGE SUTANA, TEHSIL MADLAUDA,

PANIPAT, Panipat, Haryana

Manufacturer Premises :

VILLAGE SUTANA, TEHSIL MADLAUDA, DISTRICT PANIPAT,
HARYANA

Caution:"Not to Be Used on Crops Other Than Specified on This Label/Leaflet".

F.No. 352699-F/9(4)2022

भारत सरकार

Government of India

कृषि एवं किसान कल्याण मंत्रालय

Ministry of Agriculture & Farmers Welfare

कृषि एवं किसान कल्याण विभाग

Department of Agriculture & Farmers Welfare

वनस्पति संरक्षण, संगरोध एवं संग्रह निदेशालय

Directorate of Plant Protection, Quarantine & Storage

केंद्रीय कीटनाशी बोर्ड एवं पंजीकरण समिति

Central Insecticides Board and Registration Committee

एन. एच. 4, फरीदाबाद (हरियाणा)-121001

N.H. IV, FARIDABAD (HARYANA)-121001

CERTIFICATE OF REGISTRATION UNDER SECTION 9(4) OF THE INSECTICIDES ACT, 1968.

Certified that the Herbicide Pyrazosulfuron ethyl 10% WP for indigenous manufacture has been registered under section 9(4) of the Act in the name of the Person/Undertaking whose particulars are specified below:-

1. Name of the person/Undertaking	**:**	**M/sNEXA CHEMICALS PRIVATE LIMITED,Village Sutana, Tehsil Madlauda, District Panipat, Haryana,Haryana,Panipat,Panipat,132103**
2. Address of the manufacturing premises	**:**	**VILLAGE SUTANA, TEHSIL MADLAUDA, DISTRICT PANIPAT, HARYANA.**
3. Registration Number	**:**	**CIR-266910/2023-Pyrazosulfuron ethyl (WP) (444)-309**
4. Name of the Insecticide	**:**	**Pyrazosulfuron ethyl 10% WP**

5. CONDITIONS :

i. The insecticide shall be manufactured indigenously.

ii. The registration is subject to the strict compliance of various provisions of the Insecticides Act,1968 as amended from time to time and Rules, bye-laws framed and notifications issued thereunder and as amended from time to time.

iii. The registration certificate is further subject to such conditions which may be varied and specified from time to time by the Registration Committee under section 9(3c).

iv. The registration Certificate holder shall strictly comply with the condition and amendments thereof set out in this certificate of registration (CR) including label and leaflets. Non-compliance of the condition set out herein before and hereinafter will entail action under section 17 of the Act.

v. The insecticide shall have the composition (kind, name and percentage of the ingredients) as given below :-

S.No	Component	Component Desc.	Content (% w/w)
1	Pyrazosulfuron ethyl Technical	(Purity 97%)	10.309 % min.
2	(Sodium salt of Lignosulphonic acid)	Wetting agent	2.000 % max.
3	(Aryl sulphonic acid formaldehyde condensate)	Dispersing agent	5.000 % max.
4	(Welson-S)	Inert filler	82.691 % max.
		Total	100 % w/w

vi. **The insecticides shall contain the maximum impurities as quantified/identified and submitted to the Registration Committee.**

vii. **The Product shall confirm to the specification submitted by you and also to the IS vide No. and amendment thereof as and when the same are formulated and published.**

viii. **A sample quantity of the insecticide being registered along with a small quantity of reference analytical standard should be sent to the Director, Central Insecticides Laboratory, Directorate of Plant Protection, Quarantine & Storage, N.H. IV, Faridabad, as and when required, for verification.**

ix. **A copy, each of the approved label and leaflet is enclosed. No change, addition, alteration, modification or deletion with respect to the inscriptions on the labels/leaflets shall be done without the prior approval of the Registration Committee.**

x. **The labels and leaflets shall be printed by using letters that are BOLD enough for a man of ordinary/normal vision to read them without any external help.**

xi. **The Registration Committee does not itself responsible for the use of trade name by you. The use of the trade name shall be regulated as per the existing laws on the subject.**

xii. **The license should be granted subject to the conditions that the licensee shall comply with the provisions of the Act and the Rules made thereunder and the conditions of registration for the time being in force.**

xiii. **No license to manufacture an insecticide shall be granted unless the licensing officer is satisfied that necessary plant and machinery, safety devices, first-aid facilities, quality control measures, the requirement laid down under Chapter VIII of the Rules, etc. exist in the premises where the insecticide is proposed to be manufactured.**

xiv. **The shelf-life of the insecticide shall be 1 year(s) 6 month(s).**

xv. **Inspection of the manufacturing unit should be undertaken to collect in-process samples of the insecticides. The samples should be analyzed to verify the claims made by the licensee relating to chemical parameters, and the report thereof should be submitted to the RegistrationSecretariat within a period of six months.**

xvi. **No export should take place in contravention to the provisions of the Rotterdam Convention on prior informed consent procedure for certain hazardous chemicals and pesticides in international trade.**

xvii. **If a pesticide is banned or severely restricted in India, before exporting such pesticide,permission from Designated National Authority for Pesticide of the Country under RotterdamConvention may be obtained.**

xviii. **Health records of Industrial workers may be maintained in Appendix E (conditions) of Form-IIIas prescribed in the Insecticides Rules 1971. In case any untoward/adverse effect is noticed,then the same may be reported to Registration Secretariat by the Licensing Officer.**

xix. **The registrant shall have to commence actual production of the pesticide within three years from the date of issue of registration certificate and is required to produce a certificate from the concerned State/UT Governments as a proof of production, failing which the certificate of registration shall automatically lapse.**

xx. **In case of export, the packaging shall be as per the requirement of the importing country and conforming to IMDG guidelines.**

xxi. **The registrant has to submit detail of Import/Export or indigenous manufacturing (as the case may be) of this pesticide month wise mandatory to the Secretariat of CIB&RC as the case maybe. In case non compliance of this condition is observed this CR shall be canceled immediately without any Notice.**

xxii. **The product is registered for domestic use as well as for Export.**

xxiii. **The product is registered for domestic as well as for export and in case of export primary packaging shall be as per the requirement of importing country.**

xxiv. **The registrant is required to use the label and leaflets as per GSR 355(E) dated 04.06.2020 and applicable Insecticides Rules. The Issuance of the Certificate of Registration is strictly subject to the outcome of the W.P(C) No. 4136/2020 and W.P(C) No. 4137/2020.**

Specific Conditions

The herbicide formulation shall be used on the approved crop(s) only. The product shall be packed in clean and dry non-gusseted trilaminated pouch (12? PET/9? Aluminium foil / 60? LDPE) of 20gm capacity and heat sealed. 50 No. of pouches each of 20gm capacity are further packed in 3 ply micro fluted laminated card board carton. These 4 card board carton are further packed in 5 ply CFB boxes conforming to IS: 2771 (Part-I)-1990. No other packaging shall be used without approval of Registration Committee.

Dated: 14/02/2023

Copy to: The Director of Agriculture ,Haryana

Dr. Sanjay Arya
Secretary
Central Insecticides Board
and Registration Committee

Note :-

The Labels and leaflets have been generated through newly created data bank. Notwithstanding diligence exercised in creation of the data bank, the possibility of errors creeping into labels and leaflets cannot be ruled out. The same is subjected to necessary corrections.

1796

Label Details

Chemical Composition

S.No	Ingredient	Description	Weight
1	Pyrazosulfuron ethyl Technical	(Purity 97%)	10.309 % min.
2	(Sodium salt of Lignosulphonic acid)	Wetting agent	2.000 % max.
3	(Aryl sulphonic acid formaldehyde condensate)	Dispersing agent	5.000 % max.
4	(Welson-S)	Inert filler	82.691 % max.
		Total	100 % w/w

Direction Of Use

Read the enclosed leaflet carefully before use

Precautions

Do not mix with bare hands. Use a wooden stick for stirring during preparation of spray mixtures. Avoid breathing concentrate or spray mist. Avoid skin contact, keep away from foodstuff and animal feed. Use protective clothings such as full trouser, full sleeve shirt, cap, boots, goggles, handgloves, apron and face shield. do not chew, eat, drink or smoke during application. Wash hands with soap and water, after use. Change the contaminated clothes. destroy empty containers after use.

CIR-266910/2023-Pyrazosulfuron ethyl (WP) (444)-309

Pyrazosulfuron ethyl 10% WP

(Systemic Herbicide)

पाईराज़ोसल्फ्युरान ईथाईल 10% घुलनशील चूर्ण

(अंर्तप्रवाही खरपतवारनाशक)

बच्चों की पहुँच से दूर रखें

Keep out of reach of children.

सूखी और ठण्डी जगह पर आग से दूर रखें

Keep in cool,dry place away from heat and open flame.

Regn.No रजि. नं. _____

Mfg.Lic.No मैनयु ला. नं. _____

Batch No. बैच नं. _____

Mfg Date मैनयु, ता. _____

रासायनिक संरचना

क्रमांक	घटक	विवरण	वज़न
1	पाईराज़ोसल्फयुरान ईथाईल टेक्निकल	(शुद्धता 97.0%)	10.309 % न्यू.
2	(लिगनोसल्फोनेट के सोडियम साल्टस)	वेटिंग एजंट	2.000 % अधि.
3	(अरिल सल्फोनिक एसिड आफ़ फ़ोरमलडिहाईड कन्डेनसेट)	डिसपर्सिंग एजंट	5.000 % अधि.
4	(वेसलोन-एस)	ईनर्ट फ़िलर	82.691 % अधि.
		कुल	100 % w/w

उपयोग के लिए दिशा-निर्देश

इस्तेमाल से पहले सलग्न पत्रिका ध्यानपूर्वक पढ़ें।

प्रयोगकर्ताओं के लिए सावधानियां

दवा को नंगे हाथों से न मिलायें। इसे एक लकड़ी की डंडी द्वारा मिलायें। इस खरपतवारनाशक को न ही सूंघें और न

Antidote

No specific antidote. Treat symptomatically and supportively.

First Aid

Remove the patient to the fresh air. Wash contaminated skin with plenty of soap and water. Remove contaminated clothes. If eyes are contaminated, flush eyes thoroughly with water for atleast 15 minutes and refer to doctor. In case of poisoning by ingestion, victim should be induced to vomit by giving tablespoon of salt in warm water. Repeat till vomit fluid is clear. If necessary, give gastric lavage with 5% sodium bicarbonate solution. In emergency take the patient to the nearest hospital.

Symptoms

Respiratory distress, abnormal movement, convulsion may occur. Eye contact may initially cause eye irritation with discomfort, tearing or blurring of vision. Repeated dermal exposures may lead to skin irritation with discomfort or rash.

Recommendations

It is recommended for pre emergence control of sedges and broad leave weeds like cyperus iria, cyperus difformis, fimbristylis miliacea, alternanthera sessile, caesulia axillaris, cynotis culcullata, ludwigia parviflora, marsilea quadrifoliata, monochoria vaginalis, of transplanted rice.

Manufactured By

178
197

Exp. Date खत्म होने की तारीख _____

Net Content / Volume शुद् भार, आयतन _____

Max. Retail Price अधिकतम खुदरा मूल्य _____

ही स्पर्श करें। इस खरपतवारनाशक को खाद्य पदार्थ तथा पशु आहार से दूर रखें। दवा को उपयोग में लाते समय टोपी, दस्ताने, जूते, चश्मा, सम्पूर्ण शरीर को ढकने वाले कपड़े इत्यादि पहनें। उपयोग के समय खाना, पीना तथा धुम्रपान करना मना है। इसके उपयोग पश्चात हाथों को साबुन और पानी से धोयें। दूषित कपड़ों को बदल डालें। उपयोग पश्चात खाली डिब्बों को नष्ट कर दें।

विष नाशक

कोई खास विषनाशक उपलब्ध नहीं है। लक्षणानुसार इलाज करें।

प्राथमिक चिकित्सा

रोगी को खुली हवा मे लायें। दूषित त्वचा को साबुन और पानी द्वारा अच्छी तरह से धोयें और दूषित कपड़ों को बदल डालें। आँखों में चला गया हो तो आँखें स्वच्छ पानी से 15 मिनट तक धोयें अथवा तुरन्त डॉक्टर को बुलायें। यदि विष, निगल लिया गया हो तो रोगी को नमक युक्त उष्ण पानी पिलायें और उल्टी करा कर पेट साफ करें। आवश्याकता पड़ने पर सोडियम् बाईकारबोनेट द्वारा पेट साफ करें। अगर ज़रूरत हो तो मरीज़ को अस्पताल ले जायें।

लक्षण

साँस लेने में तकलीफ, लड़खड़ाना, ऐंठन जैसे लक्षण दिखाई

M/s NEXA CHEMICALS PRIVATE LIMITED

Village Sutana, Tehsil Madlauda, District Panipat, Haryana

Manufacturer Premises Address

VILLAGE SUTANA, TEHSIL MADLAUDA, DISTRICT PANIPAT, HARYANA

दे सकते हैं। आँख के सम्पर्क में आने से आंसू आना तथा धुंधला दिखाई दे सकता है। बार बार चर्म के सम्पर्क से जलन एवं खुजली हो सकती है।

उपयोग

इस खरपतवारनाशक का उपयोग रोपित धान में अग्रीम उदभवोपरान्त तथा मोथा जातीय और चौड़ी पत्ती वाले खरपतवार जैसे की जंगली धान, मोथा, ग्रहीन, आल्टरनेन्थरा सेसीली, केसुलिया एक्सील्थारीस, सायनोटीस कुकुलेटा, पानी की घास मारसिलिया क्वाड्रीफोलिएटा, नानका के नियंत्रण के लिए किया जाता है।

निर्माता

अंग्रेजी मे लिखे अनुसार

आयात कर्त्ता का उत्पादन परिसर

अंग्रेजी मे लिखे अनुसार

Safety Pictograms / सुरक्षा चित्रलेख

1999

Leaflet Details

CIR-266910/2023-Pyrazosulfuron ethyl (WP) (444)-309
Pyrazosulfuron ethyl 10% WP
(Systemic Herbicide)

Pyrazosulfuron ethyl [ethyl-5-(4,6-dimethoxypyrimidin-2-yl-carbamoyl sulfamoyl)-1-methylpyrazole-4-carboxylate] is a selective, systemic and pre emergence herbicide which effectively controls the various weeds of transplanted rice.

Recommendation

Crop(s)	Common Name of Pest	Dosage/HA		Dilution in Water (L)	Waiting Period between last spray to harvest (days)	Re-entry after each Application (In Hours)
		AI (kg)	Formulation (kg)			
Transplanted Rice	Cyperus iria, Cyperus difformis, Fimbristylis miliacea, Ludwigia parviflora, Monochoria vaginalis,	0.01-0.015	0.1-0.15	500-600	95	

Direction Of Use

METHOD OF APPLICATION: As per the recommendation, mix the pesticide and water at right dosage and spray. Spray by using high volume sprayer, viz. Knapsack sprayer fitted with herbicide nozzel. Use 500 to 600 litres of water per hectare. Before spraying the pesticide, it's suspension should be mixed thoroughly with a wooden log

Time of Application

Spray should be given, before emergence of weeds, at three to seven days after transplanting of rice.

Precautions

Do not mix with bare hands. Use a wooden stick for stirring during preparation of spray mixtures. Avoid breathing concentrate or spray mist. Avoid skin contact, keep away from foodstuff and animal feed. Use protective clothings such as full trouser, full sleeve shirt, cap, boots, goggles, handgloves, apron and face shield. Do not chew, eat, drink or smoke during application. Wash hands with soap and water, after use. Change the contaminated clothes. Destroy empty containers after use.

Symptoms Of Poisoning

Respiratory distress, abnormal movement, convulsion may occur. Eye contact may initially cause eye irritation with discomfort, tearing or blurring of vision. Repeated dermal exposures may lead to skin irritation with discomfort or rash.

First Aid

Remove the patient to the fresh air. Wash contaminated skin with plenty of soap and water. Remove contaminated clothes. If eyes are contaminated, flush eyes thoroughly with water for atleast 15 minutes and refer to doctor. In case of poisoning by ingestion, victim should be induced to vomit by giving tablespoon of salt in warm water. Repeat till vomit fluid is clear. If necessary, give gastric lavage with 5% sodium bicarbonate solution. In emergency take the patient to the nearest hospital.

Phytotoxicity

Antidote

No specific antidote. Treat symptomatically and supportively.

Disposal Of Used Container

1) Packages or surplus materials and washing from the machines and containers should be disposed off in a safe manner so as to prevent environmental or water pollution.

2) The used packages should not be left outside to prevent their re-use.

3) Packages should be broken and buried away from habitation or source of water.

Storage Conditions

1) The packages containing herbicides shall be stored in separate rooms or premises away from the rooms or premises used for storing other articles or shall be kept in separate almirahs under lock and key depending upon the quantity and nature of the herbicides.

2) The rooms or premises meant for storing herbicides shall be well-built, dry, well-lit and ventilated and of sufficient dimension.

Chemical Composition

S.No	Ingredient	Description	Weight
1	Pyrazosulfuron ethyl Technical	(Purity 97%)	10.309 % min.
2	(Sodium salt of Lignosulphonic acid)	Wetting agent	2.000 % max.
3	(Aryl sulphonic acid formaldehyde condensate)	Dispersing agent	5.000 % max.
4	(Welson-S)	Inert filler	82.691 % max.
		Total	100 % w/w

Manufactured By

M/s NEXA CHEMICALS PRIVATE LIMITED

Village Sutana, Tehsil Madlauda, District Panipat, Haryana

Manufacturer Premises Address

VILLAGE SUTANA, TEHSIL MADLAUDA, DISTRICT PANIPAT, HARYANA

पत्रक विवरण

CIR-266910/2023-Pyrazosulfuron ethyl (WP) (444)-309

पाईराज़ोसल्फ्युरान ईथाईल 10% घुलनशील चूर्ण

(अंर्तप्रवाही खरपतवारनाशक)

पाईराज़ोसल्फ्युरान ईथाईल [ईथाईल-5-{4,6-डायमिथोक्सी पायरीमिडीन-2-इलकारबामाईल सल्फामईल}-1-मिथाईल पाईराज़ोल-4-कारबोक्सिलेट], एक चुनिंदा, अन्तर्वाही एवं अग्रीम उदभवोपरान्त खरपतवारनाशक है, जो रोपित धान के खरपतवारों को असरदार ढंग से नियंत्रण करता है।

उपयोग

फ़सल	कीट के नाम	प्रति हैक्टेयर मात्रा		पानी की मात्रा (लीटर)	अन्तिम छिडकाव तथा फसल काटने के बीच अन्तराल (दिनो में)	पुनः प्रवेश की अवधि प्रत्येक छिड़काव के बाद (घंटे)
		स. तत्व (कि.ग्रा.)	संरचना (कि.ग्रा.)			
रोपित धान	सायपरस इरिया (छतरीवाला मोथा), सायपरस डिफारमिस (मारफला), फिम्ब्रीसटायलिस मिलीएशिया (वोगी), मोनोकोरिया वैजिनेलिस, लुडविजिया परविफ्लोरा (महानली)	0.01-0.015	0.1-0.15	500-600	95	

उपयोग के लिए दिशा-निर्देश

संस्तुति अनुसार, उचित मात्रा में दवा और पानी का अच्छी तरह मिश्रण कर, उच्च आयतन वाले छिड़काव यन्त्र (नैपसैक स्प्रेयर) खरपतवार युक्त नोज़ल, द्वारा छिड़काव करें। एक हेक्टर में 500 से 600 लीटर पानी का उपयोग करें। किसी स्थान पर दोहरा छिड़काव न करें।

प्रयोग का समय

खरपतवारनाशक का छिड़काव खरपतवार उगने से पहले तथा धान रोपने के बाद तीन से सात दिनों के अंदर करें।

प्रयोगकर्ताओं के लिए सावधानियां

दवा को नंगे हाथों से न मिलायें। इसे एक लकड़ी की डंडी द्वारा मिलायें। इस खरपतवारनाशक को न ही सूंघें और न ही स्पर्श करें। इस खरपतवारनाशक को खाद्य पदार्थ तथा पशु आहार से दूर रखें। दवा को उपयोग में लाते समय टोपी, दस्ताने, जूते, चश्मा, सम्पूर्ण शरीर को ढकने वाले कपड़े इत्यादि पहनें। उपयोग के समय खाना, पीना तथा धुम्रपान करना मना है। इसके उपयोग पश्चात हाथों को साबुन और पानी से धोयें। दूषित कपड़ों को बदल डालें। उपयोग पश्चात खाली डिब्बों को नष्ट कर दें।

विष के लक्षण

साँस लेने में तकलीफ, लड़खड़ाना, ऐंठन जैसे लक्षण दिखाई दे सकते हैं। आँख के सम्पर्क में आने से आंसू आना तथा धुंधला दिखाई दे सकता है। बार बार चर्म के सम्पर्क से जलन एवं खुजली हो सकती है।

प्राथमिक चिकित्सा

रोगी को खुली हवा मे लायें। यदि विष, निगल लिया गया हो तो रोगी को नमक युक्त उष्ण पानी पिलायें और उल्टी करा कर पेट साफ करें। आवश्याकता पड़ने पर सोडियम् बाईकारबोनेट द्वारा पेट साफ करें। दूषित त्वचा को साबुन और पानी द्वारा अच्छी तरह से धोयें और दूषित कपड़ों को बदल डालें। आँखों में चला गया हो तो आँखें स्वच्छ पानी से 15 मिनट तक धोयें अथवा तुरन्त डॉक्टर को बुलायें। आवश्यकता पड़ने पर रोगी को निकट के अस्पतालय में ले जाएं।

पौधविशाक्तता

विष नाशक

कोई खास विषनाशक उपलब्ध नहीं है। लक्षणानुसार इलाज करें।

खाली डिब्बों का निपटारा

1. खाली डिब्बों, बची हुई दवा को ध्यानपूर्वक नष्ट करें, जिससे की वातावरण या पानी का स्त्रोत दूषित न हो।

2. खरपतवारनाशक के उपयोग के पश्चात खाली डिब्बों को, पुन:उपयोग के लिए बाहर न छोड़ें।

3. खाली डिब्बों को नष्ट कर, आबादी से दूर ज़मीन में गाड़ दें।

संग्रहण की शर्ते

1. खरपतवारनाशक डिब्बों का भंडारण, अलग कमरा या जगह या ऐसी जगह जहाँ अन्य वस्तु भंडारण न हो अथवा ताला बन्द अलमारियों में करें। खरपतवारनाशक को खाद्य पदार्थ से दूर रखें।

2. खरपतवारनाशक के भंडारण की जगह अच्छी तरह बनी हो, शीतल, शुष्क और हवादार हो तथा प्र्यास लम्बी व चौड़ी हो, जैसे की वाष्प द्वारा प्रदूषण होने का डर न रहे।

रासायनिक संरचना

क्रमांक	घटक	विवरण	वज़न
1	पाईराज़ोसल्फयुरान ईथाईल टेक्निकल	(शुद्धता 97.0%)	10.309 % न्यू.
2	(लिगनोसल्फोनेट के सोडियम साल्टस)	वेटिंग एजंट	2.000 % अधि.
3	(अरिल सल्फोनिक एसिड आफ़ फ़ोरमलडिहाईड कन्डेनसेट)	डिसपर्सिंग एजंट	5.000 % अधि.
4	(वेसलोन-एस)	ईनर्ट फ़िलर	82.691 % अधि.
		कुल	100 % w/w

निर्माता

अंग्रेजी मे लिखे अनुसार

<u>उत्पादन परिसर</u>

अंग्रेजी मे लिखे अनुसार

(M): 94168-02304 , 99920-00023

GSTIN NO:06AAFCN2931D1ZU

NEXA CHEMICALS PVT.LTD.

Village : Sutana, Teh – Madlouda, Dist.- Panipat (132103)

Email : nexachemicals@gmail.com

Process (Liquid Formulations)

Addition of raw material

❖

Addition of solvent or water

❖

Mixing

❖

Addition of Emulsifier;

❖

Mixing (Liquid Grinding If Required)

❖

Manual Packaging Dispatch

For Nexa.Chemicals Pvt. Ltd.

Anil Kumar

Director

(M): 94168-02304 , 99920-00023

GSTIN NO:06AAFCN2931D1ZU

NEXA CHEMICALS PVT.LTD.

Village : Sutana, Teh – Madlouda, Dist.- Panipat (132103)

Email : nexachemicals@gmail.com

Process (Powder Formulations)

Addition of raw material

❖

Grinding, if required

❖

Addition of China Clay

❖

Mixing

❖

Manual Packaging Dispatch

For Nexa.Chemicals Pvt. Ltd.

Anil Kumar

Director

(M): 94168-02304 , 99920-00023

GSTIN NO:06AAFCN2931D1ZU

NEXA CHEMICALS PVT.LTD.

Village : Sutana, Teh – Madlouda, Dist.- Panipat (132103)

Email : nexachemicals@gmail.com

Process (Granular Formulations)

Addition of river sand

❖

Addition of technical pesticide

❖

Addition of dye and Emulsifier (mixing is on)

❖

Manual Packaging Dispatch

For Nexa.Chemicals Pvt. Ltd.

Anil Kumar

Director

Application no. :67815656
Industry id: 16PIT3360023
Date: 29/07/2024Application Form Updated on: 06/08/2024

Haryana State Pollution Control Board
SCO-55, Sec.25, HUDA, Panipat Ph. 0180-2672037 Email:-
hspcbropr@gmail.com

From: Industry Id - 16PIT3360023

M/s. Anil Kumar
Partner
VPO Sutana Tehsil Madlauda Panipat

To

The Member Secretary,
Haryana State Pollution Control Board,
Panipat

Sir

I/We hereby apply for authorisation/renewal of authorisation under the Sub-rule (1) of Rule 6 of the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016.

1 a)	Name and address of the unit and location of the activity	Nexa Chemicals Pvt Ltd VPO Sutana Tehsil Madlauda Panipat
b)	Name of the Occupier of the facility /Operator of disposal facility	Anil Kumar
c)	Designation	Partner
d)	Mobile No	9416802304
e)	e-mail Id	nexachemicals@gmail.com
f)	Authorization Type Applied For	Fresh
g)	Authorisation required for	Generation,Collection,Storage,Reception,Reuse
h)	Capital Investment of Unit	46.61 Lakhs
i)	Category	ORANGE
j)	Scale of Industry	Small
k)	Year of Commissioning	2017
2	Nature and quantity of Hazardous waste handled in T/Annum (or) KL/Annum	

	Name of Process	Name of Hazardous Waste (Category No)	Detail/ Reason of Subclass/Basel no.	Quantity	Waste Type	Waste Storage	Waste Disposal	Source of generation of waste	Physical status	Quantity stored at any time	Quantity accumulated as on 31st March
	Handling of Hazardous chemicals and wastes	Empty barrels/ containers/liners contaminated with hazardous chemicals/wastes		0.400 T/Annum	Recyclable	Storage Room	Authorized Recyclers	Empty Barrels	Solid	0.400 T	0 T
	Production, and formulation of pesticides including stock-piles	Process wastes/residues		0.100 T/Annum	Incinerable	Empty Plastic Chemical Container	Pre-processors-GEPIL, Ranipet	Formulation of pesticides	Solid	0.100 T	0 T
	Purification and treatment of exhaust air, water and waste water from the ..... treatment plants (CETP's)	Chemical sludge from waste water treatment		0.100 T/Annum	Landfillable	Plastic Bags	Pre-processors-GEPIL, Ranipet	ETP Plant	Solid	0.100 T	0 T

3 a)	Year of commissioning and commencement of Production?	
b)	Whether the industry works 1 shift/2 shifts/round the clock?	one shift

4	Provide copy of the Emergency Response Plan (ERP) which should address procedures for dealing with emergency situations (viz. Spillage or release or fire) as specified in the guidelines of Central Pollution Control Board. Such ERP shall comprise the following, but not limited to: Containing and controlling incidents so as to minimise the effects and to limit danger to the persons, environment and property; Implementing the measures necessary to protect persons and the environment; Description of the actions which should be taken to control the conditions at events and to limit their consequences, including a description of the safety equipment and resources available; Arrangements for training staff in the duties which they are expected to perform; Arrangements for informing concerned authorities and emergency services; and Arrangements for providing assistance with off-site mitigatory action. (To be attached separately)	Attached
5	Provide undertaking or declaration to comply with all provisions including the scope of submitting bank guarantee in the event of spillage, leakage or fire while handling the hazardous and other waste (To be attached separately)	Attached

Place: **Signature of the Applicant**

Date: **Name and Designation**

Enclosures :

1. Copy of Consent to Establish (CTE) granted by the Board.
2. Copy of valid Consent to Operate (CTO) under Water Act, 1974 and Air Act, 1981 granted by the Board.
3. Occupier/Authorized person Certificate issued by the Management of the applicant industry.
4. Process flow sheet indicating equipment details, inputs and outputs (raw materials, chemicals, products, by-products, wastes, emissions, waste water etc.) - (refer column no. 1 (b) of part B of application form).
5. Membership of CHWTSDF.

Application no. :67815656
Industry id: 16PIT3360023
Date: 03/09/2024

Haryana State Pollution Control Board

SCO-55, Sec.25, HUDA, Panipat Ph. 0180-2672037 Email:-
hspcbropr@gmail.com

No. :HWM/PIT/2024/67815656 **DT: 03/09/2024**

To

M/s Nexa Chemicals Pvt Ltd
VPO Sutana Tehsil Madlauda Panipat
Panipat

Sub: Grant of Authorization under Hazardous and Other Wastes(Management & Transboundry Movement) Rules, 2016

1. Reference of application:67815656 dated: 03/09/2024
2. Anil Kumar of Nexa Chemicals Pvt Ltd is hereby granted an authorization for generation, collection, storage, transportation, reception on the premises situated at VPO Sutana Tehsil Madlauda Panipat

Details of Authorization

S.No.	Name of process and Category of Hazardous Waste as per the Schedules I, II and III of these rules	Authorised mode of disposal or recycling or utilisation or co-processing, etc.	Quantity
1	Handling of Hazardous chemicals and wastes, Empty barrels/containers/liners contaminated with hazardous chemicals/wastes	Sent to authorised Recycler	0.4 T/Annum
2	Production, and formulation of pesticides including stock-piles, Process wastes/residues	Sent to GEPIL	0.1 T/Annum
3	Purification and treatment of exhaust air, water and waste water from the ..... treatment plants (CETP's), Chemical sludge from waste water treatment	Sent to GEPIL	0.1 T/Annum

1. The authorization shall be valid for a period of 22/07/2024 to 31/03/2028
2. The authorization is subject to the following general and specific conditions :-

(i)

Application no. :67815656
Industry id: 16PIT3360023
Date: 03/09/2024

(ii) 1.Unit will handover ETP Sludge only to the Authorized Vendor. 2. That the unit will comply with all the provisions of Hazardous Waste Rules . 3. That unit will submit annual return on form IV before 30th June of every year 4.That the Authorization so granted shall become invalid in case of violation of any of the above / any law of the land 5 Unit shall renew its agreement with Service Provider on the Expiry of same. 6. The authorization is granted without prejudice to the action taken against the unit by the board for the past violation made by the unit under HOWM Rules. 6 The unit will deposit the Environment Compensation imposed by the Board for the past violation made by the unit. 7 Unit will not manufacture pesticide even as intermediate products.

Regional Officer Panipat
For Haryana State Pollution Control Board

Conditions of Authorization:

1. The authorised person shall comply with the provisions of the Environment (Protection) Act, 1986, and the rules made there under.
2. The authorization or its renewal shall be produced for inspection at the request of an officer authorised by the State Pollution Control Board.
3. The person authorised shall not rent, lend, sell, transfer or otherwise transport the hazardous and other wastes except what is permitted through this authorization.
4. Any unauthorised change is personnel equipment or working conditions as mentioned in the application by the person authorised shall constitute a breach of this authorization.
5. The person authorised shall implement Emergency Response Procedure (ERP) for which this authorization is being granted considering all site specific possible scenarios such as spillages, leakages, fire etc. and their possible impacts and also carry out mock drill in this regard at regular interval of time.
6. The person authorised shall comply with the provisions outlined in the Central Pollution Control Board guidelines on "Implementing Liabilities for Environmental Damages due to Handling and Disposal of Hazardous Waste and Penalty".
7. An application for the renewal of an authorization shall be made as laid down under these Rules.
8. Any other conditions for compliance as per the guidelines issued by the Ministry of Environment, Forest and Climate Changes or Central Pollution Control Board from time to time.
9. Annual return shall be filed by June 30 th for the period ensuring 31 st March of the year.

BHUPINDER SINGH
Digitally signed by BHUPINDER SINGH
Date: 2024.09.03 11:06:40 +05'30'

Regional Officer Panipat
For Haryana State Pollution Control Board

DEPARTMENT OF AGRICULTURE AND FARMERS WELFARE,HARYANA

FORM III
LICENSE TO MANUFACTURE INSECTICIDES
[See sub-rule(3) of rule 9]

1. License Number : TA/PP/DA/201718/164

Date of Grant :

License to manufacture insecticide(s) in the premises situated at VILLAGE SUTANA, TEHSIL MADLAUDA, DISTRICT PANIPAT, HARYANA , PANIPAT,Madlauda, Sutana (23) , 132105is granted to M/S Nexa Chemicals Pvt Ltd , VILLAGE SUTANA, TEHSIL MADLAUDA,, PANIPAT, HARYANA ,Panipat ,Haryana

Sr. No.	Particulars of the insecticide	Number Of Certificate Of Registration	Date of grant of License	Validity Of License
1	Thiamethoxam 25% WG	CIR-135593/2016-Thiamethoxam(WG) (369) -546	03-03-2017	
2	Buprofezin 25% SC	CIR-135591/2016-Buprofezin (SC) (369)-426	03-03-2017	
3	Clodinafop propargyl 15%WP	CIR-135589/2016-Clodinafop Propargyl (WP) (369)-225	03-03-2017	
4	Thiamethoxam 30% FS	CIR-135590/2016-Thiamethoxam(FS)(369) -545	03-03-2017	
5	Diafenthiuron 50% WP	CIR-135592/2016-Diafenthiuron(WP)(369) -261	03-03-2017	
6	Lambda Cyhalothrin 2.5% EC	CIR-137892/2017-Lambda Cyhalothrin (EC) (374)-513	04-08-2017	
7	Bifenthrin 10% EC	CIR-137891/2017-Bifenthrin(EC)(374)-522	04-08-2017	
8	Clodinafop Propagyl 9% + Metribuzin 20% WP	CIR-137894/2017-Clodinafop Propagyl + Metribuzin (WP) (374)-18	04-08-2017	
9	Cypermethrin l0% E.C.	CIR-137890/2017-Cypermethrin(EC)(374)-678	04-08-2017	
10	Cypermethrin 25% EC	CIR-137889/2017-Cypermethrin (EC)(374) -677	04-08-2017	
11	Lambda Cyhalothrin 4.9% Capsule Suspension	CIR-137893/2017-Lambda-cyhalothrin (Capsule Suspension) (374)-514	04-08-2017	
12	Lambda Cyhalothrin 5% EC	CIR-137895/2017-Lambdacyhalothrin (EC) (374) -515	04-08-2017	
13	Lambda Cyhalothrin 10% WP	CIR-137896/2017-Lambdacyhalothrin (WP) (374)-516	04-08-2017	
14	Imidacloprid 17.8% SL	CIR-137897/2017-Imidacloprid (SL)(374)-1388	04-08-2017	
15	Imidachloprid 30.5% SC	CIR-137898/2017-Imidacloprid (SC) (374)-1389	04-08-2017	
16	Imidacloprid 48% FS	CIR-137899/2017-Imidacloprid (FS) (374)-1390	04-08-2017	
17	Imidacloprid 70% WG	CIR-137900/2017-Imidacloprid (WG)(374) -1391	04-08-2017	
18	Fipronil 0.3% GR	CIR-137902/2017-Fipronil (GR) (374)-982	04-08-2017	
19	Fipronil 5% SC	CIR-137903/2017-Fipronil (SC) (374)-983	04-08-2017	
20	Fipronil 40% + Imidacloprid 40% WG	CIR-137904/2017-Fipronil + Imidacloprid (WG) (374) -984	04-08-2017	
21	Thiamethoxam 12.6% + Lambda Cyhalothrin 9.5% ZC	CIR-137905/2017-Thiamethoxam + Lambda-Cyhalothrin (ZC) (374)-695	04-08-2017	
22	Pendimethalin 38.7% CS	CIR-138827/2017-Pendimethalin(CS)(375) -513	04-08-2017	
23	Metribuzin 70% WP	CIR-138828/2017-Metribuzin (WP)(375)-246	04-08-2017	
24	Pendimethalin 30% EC	CIR-138829/2017-Pendimethalin(EC) (375) -514	04-08-2017	
25	Cartap Hydrochloride 4% GR	CIR-139478/2017-Cartap Hydrochloride (GR) (375)-632	04-08-2017	

Licensing Officer, Haryana (Panchkula)

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Version NO.: 2.03.01.16

DEPARTMENT OF AGRICULTURE AND FARMERS WELFARE,HARYANA

FORM III
LICENSE TO MANUFACTURE INSECTICIDES
[See sub-rule(3) of rule 9]

1. License Number : TA/PP/DA/201718/164

Date of Grant :

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Sr. No.	Particulars of the insecticide	Number Of Certificate Of Registration	Date of grant of License	Validity Of License
26	Cartap Hydrochloride 50% SP	CIR-139482/2017-Cartap Hydrochloride (SP) (375)-633	04-08-2017	
27	Cartap Hydrochloride 75% SG	CIR-139498/2017-Cartap Hydrochloride (SG)(375)-634	04-08-2017	
28	Carbendazim 46.27% SC	CIR-139509/2017-Carbendazim (SC)(375)-802	04-08-2017	
29	Butachlor 50% EW	CIR-139592/2017-Butachlor (EW) (375)-319	04-08-2017	
30	Paraquate dichloride 24% SL	CIR-139601/2017-Paraquat (SL)(375)-326	04-08-2017	
31	Atrazine 50% WP	CIR-139600/2017-Atrazine (WP)(375)-294	04-08-2017	
32	Fenobucarb (BPMC) 50% EC	CIR-139627/2017-Fenobucarb (B.P.M.C.) (EC) (375)-9	04-08-2017	
33	Chlorpyrifos 50% EC	CIR-140078/2017-Chlorpyrifos (EC)(375)-860	04-08-2017	
34	Chlorpyriphos 20% EC	CIR-140052/2017-Chlorpyriphos(EC)(375) -857	04-08-2017	
35	Acetamiprid 20% SP	CIR-140054/2017-Acetamiprid (SP)(375)-341	04-08-2017	
36	Tricyclazole 75% WP	CIR-140055/2017-Tricyclazole (WP)(375) -334	04-08-2017	
37	Fipronil 4% + Acetamiprid 4% SC	CIR-140077/2017-Fipronil + Acetamiprid (SC) (375)-1115	04-08-2017	
38	Chlorpyriphos 50% + Cypermethrin 5% EC	CIR-140051/2017-Chlorpyriphos + Cypermethrin (EC) (375)-387	04-08-2017	
39	Chlorpyriphos 10% GR	CIR-140053/2017-Chlorpyriphos(GR)(375) -388	04-08-2017	
40	Tricyclazole 18% + Mancozeb 62% WP	CIR-145016/2018-Tricyclazole + Mancozeb (WP) (379)-452	12-03-2018	
41	Sulphur 80% WDG	CIR-145014/2018-Sulphur (WDG) (379)-785	12-03-2018	
42	Mancozeb 75% WP	CIR-145017/2018-Mancozeb (WP) (379)-453	12-03-2018	
43	Carbendazim 12% + Mancozeb 63% WP	CIR-145015/2018-Carbendazim + Mancozeb (WP) (379)-945	12-03-2018	
44	Quinalphos 25% EC	CIR-145002/2018-Quinalphos (EC) (379)-294	12-03-2018	
45	Validamycin 3% L	CIR-145010/2018-Validamycin (L) (379)-245	12-03-2018	
46	Emamectin Benzoate 1.9% EC	CIR-145006/2018-Emamectin Benzoate (EC) (379)-577	12-03-2018	
47	Emamectin Benzoate 5% SG	CIR-145011/2018-Emamectin Benzoate (SG) (379)-578	12-03-2018	
48	Dichlorovos 76% EC	CIR-145007/2018-Dichlorvos (EC) (379)-264	12-03-2018	
49	Tebuconazole 25.9% EC	CIR-145009/2018-Tebuconazole (EC) (379)-506	12-03-2018	
50	Tebuconazole 2% DS	CIR-145003/2018-Tebuconazole (DS) (379)-505	12-03-2018	

Licensing Officer, Haryana (Panchkula)

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Version NO.: 2.03.01.16

DEPARTMENT OF AGRICULTURE AND FARMERS WELFARE,HARYANA

FORM III
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[See sub-rule(3) of rule 9]

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Sr. No.	Particulars of the insecticide	Number Of Certificate Of Registration	Date of grant of License	Validity Of License
51	Sulfosulfuron 75% + Metsulfuron Methyl 5% WG	CIR-142602/2017-Sulfosulfuron + Metsulfuron methyl (WG) (377)-176	12-03-2018	
52	Metsulfuron Methyl 20% WP	CIR-145012/2018-Metsulfuron methyl (WP) (379)- 290	12-03-2018	
53	Imazethapyr 10% SL	CIR-145008/2018-Imazethapyr (SL) (379)-258	12-03-2018	
54	Gibberellic acid 0.186% SP	CIR-145005/2018-Gibberellic acid (SP) (379)-468	12-03-2018	
55	Gibberellic Acid 0.001% L	CIR-145004/2018-Gibberellic Acid (L) (379)-467	12-03-2018	
56	Buprofenzin 15% + Acephate 35% WP	CIR-142060/2017-Buprofenzin + Acephate (WP) (377)-512	12-03-2018	
57	Hexaconazole 5% SC	CIR-142070/2017-Hexaconazole (SC) (377)-743	12-03-2018	
58	Ammonium Salt of Glyphosate 71% SG	CIR-142062/2017-Ammonium Salt of Glyphosate (SG) (377)-880	12-03-2018	
59	Glyphosate 41% SL	CIR-142064/2017-Glyphosate (SL) (377)-881	12-03-2018	
60	Pretilachlor 37% EW	CIR-142065/2017-Pretilachlor (EW) (377)-568	12-03-2018	
61	Monocrotophos 36% SL	CIR-142069/2017-Monocrotophos (SL) (377)-265	12-03-2018	
62	Thiophanate Methyl 70% WP	CIR-142067/2017-Thiophanate Methyl (WP) (377)- 212	12-03-2018	
63	Sulfosulfuron 75% WG	CIR-142061/2017-Sulfosulfuron (WG) (377)-173	12-03-2018	
64	Propiconazole 25% EC	CIR-142068/2017-Propiconazole (EC) (377)-390	12-03-2018	
65	Pretilachlor 50% EC	CIR-142063/2017-Pretilachlor (EC) (377)-567	12-03-2018	
66	Acephate 75 % SP	CIR-142066/2017-Acephate (SP) (377)-738	12-03-2018	
67	Carbendazim 50% WP	CIR-141068/2017-Carbendazim (WP) (377)-841	12-03-2018	
68	Phorate 10% CG	CIR-145013/2018-Phorate (CG) (379)-174	30-08-2019	
69	Carbofuran 3% CG	CIR-139580/2017-Carbofuran (CG) (375)-176	30-08-2019	
70	THIAMETHOXAM 0.9 % + FIPRONIL 0.2% GR	CIR-177187/2021-THIAMETHOXAM + FIPRONIL (GR) (423)-2598	21-06-2021	
71	AZOXYSTROBIN 11.5% + MANCOZEB 30% w/w WP	CIR-177188/2021-AZOXYSTROBIN + MANCOZEB (WP) (423)-1169	21-06-2021	
72	Tebuconazole 10% + Sulphur 65% WG	CIR-177189/2021-Tebuconazole + Sulphur (WG) (423)-1462	21-06-2021	

Licensing Officer, Haryana (Panchkula)

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DEPARTMENT OF AGRICULTURE AND FARMERS WELFARE,HARYANA

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Sr. No.	Particulars of the insecticide	Number Of Certificate Of Registration	Date of grant of License	Validity Of License
73	Azoxystrobin 12.5% + Tebuconazole 12.5% SC for indigenous manufacture	CIR-177190/2021-Azoxystrobin + Tebuconazole (SC) (423)-1170	21-06-2021	
74	Azoxystrobin 18.2% w/w + Difenoconazole 11.4% w/w SC for indigenous manufacture	CIR-177191/2021-Azoxystrobin + Difenoconazole (SC) (423)-1171	21-06-2021	
75	Azoxystrobin 23% SC for indigenous manufacture	CIR-177192/2021-Azoxystrobin (SC) (423)-1172	21-06-2021	
76	Tebuconazole 5.36% w/w FS for Indigenous Manufacture	CIR-177193/2021-Tebuconazole (FS) (423)-1463	21-06-2021	
77	TEBUCONAZOLE 38.39% SC	CIR-177194/2021-TEBUCONAZOLE (SC) (423)-1464	21-06-2021	
78	AZOXYSTROBIN 16.7 % + TRICYCLAZOLE 33.3% SC	CIR-177195/2021-AZOXYSTROBIN + TRICYCLAZOLE (SC) (423)-1173	21-06-2021	
79	TEBUCONAZOLE 6.7% + CAPTAN 26.9% W/W SC	CIR-177196/2021-TEBUCONAZOLE + CAPTAN (SC) (423)-1465	21-06-2021	
80	MANCOZEB 40 % + AZOXYSTRONIN 7 % W/W OS	CIR-177197/2021-MANCOZEB + AZOXYSTRONIN (OS) (423)-953	21-06-2021	
81	Propiconazole 13.9% w/w + Difenoconazole 13.9% w/w EC	CIR-177198/2021-Propiconazole + Difenoconazole (EC) (423)-875	21-06-2021	
82	Difenoconazole 25% EC	CIR-177199/2021-Difenoconazole (EC) (423)-353	21-06-2021	
83	Azoxystrobin 11% + Tebuconazole 18.3% w/w SC	CIR-177200/2021-Azoxystrobin + Tebuconazole (SC) (423)-1174	21-06-2021	
84	AZOXYSTROBIN 7.1% + PROPICONAZOLE 11.9 % W/W SE	CIR-177201/2021-AZOXYSTROBIN + PROPICONAZOLE (SE) (423)-1175	21-06-2021	
85	Azoxystrobin 8.3% + Mancozeb 66.7% WG for indigenous manufacture	CIR-177202/2021-Azoxystrobin + Mancozeb (WG) (423)-1176	21-06-2021	
86	Difenoconazole 3% WS	CIR-177203/2021-Difenoconazole (WS) (423)-354	21-06-2021	
87	EMAMECTIN BENZOATE 3.0% + THIAMETHOXAM 12.0% WG	CIR-176624/2021-EMAMECTIN BENZOATE + THIAMETHOXAM (WG) (421)-1874	21-06-2021	
88	Diafenthiuron 40.1% + Acetamiprid 3.9% WP	CIR-172929/2020-DIAFENTHIURON + ACETAMIPRID (WP) (414)-756	21-06-2021	

Licensing Officer, Haryana (Panchkula)

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DEPARTMENT OF AGRICULTURE AND FARMERS WELFARE,HARYANA

FORM III
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Sr. No.	Particulars of the insecticide	Number Of Certificate Of Registration	Date of grant of License	Validity Of License
89	Fenobucarb (BPMC) 20% + Buprofezin 5% SE for Indigenous Manufacture	CIR-172930/2020-Fenobucarb (BPMC) + Buprofezin (SE) (414)-184	21-06-2021	
90	Fipronil 4% w/w + Thiamethoxam 4% w/w SC for indigenous manufacture	CIR-177114/2021-Fipronil + Thiamethoxam (SC) (421)-3551	21-06-2021	
91	Sulphur 40% SC	CIR-172931/2020-Sulphur (SC) (414)-1720	21-06-2021	
92	Metalaxyl 8% + Mancozeb 64% WP	CIR-177204/2021-Metalaxyl + Mancozeb (WP) (423)-703	21-06-2021	
93	THIAMETHOXAM 75% W/W SG	CIR-176623/2021-THIAMETHOXAM (SG) (421)-2569	21-06-2021	
94	Sulphur 55.16% SC	CIR-172932/2020-Sulphur (SC) (414)-1721	21-06-2021	
95	Pendimethalin 30% + Imazethapyr 2% EC	CIR-172927/2020-Pendimethalin + Imazethapyr (EC) (413)-1272	21-06-2021	
96	Tricyclazole 45% + Hexaconazole 10% WG for indigenous manufacture	CIR-176621/2021-Tricyclazole + Hexaconazole (WG) (418)-690	21-06-2021	
97	Propiconazole 10.7% + Tricyclazole 34.2% SE	CIR-172926/2020-Propiconazole + Tricyclazole (SE) (413)-822	21-06-2021	
98	HEXACONAZOLE 5% + VALIDAMYCIN 2.5% SC	CIR-172921/2020-HEXACONAZOLE + VALIDAMYCIN (SC) (411)-1508	21-06-2021	
99	Captan 70%+ Hexaconazole 5% WP	CIR-176620/2021-Captan + Hexaconazole (WP) (418)-460	21-06-2021	
100	Imidacloprid 18.5% + Hexaconazole 1.5% FS for Indigenous Manufacture	CIR-172928/2020-Imidacloprid + Hexaconazole (FS) (413)-3124	21-06-2021	
101	Emamectin Benzoate 1.5% + Fipronil 3.5% SC for indigenous manufacture	CIR-172917/2020-Emamectin Benzoate + Fipronil (SC) (411)-1709	21-06-2021	
102	Buprofezin 20% + Acephate 50% (w/w) WP for Indigenous Manufacture	CIR-172914/2020-Buprofezin + Acephate (WP) (411)-1171	21-06-2021	
103	Acetamiprid 0.4% + Chlorpyrifos 20% w/w EC	CIR-172913/2020-Acetamiprid + Chlorpyrifos (EC) (411)-784	21-06-2021	

Licensing Officer, Haryana (Panchkula)

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DEPARTMENT OF AGRICULTURE AND FARMERS WELFARE,HARYANA

FORM III
LICENSE TO MANUFACTURE INSECTICIDES
[See sub-rule(3) of rule 9]

1. License Number : TA/PP/DA/201718/164

Date of Grant :

License to manufacture insecticide(s) in the premises situated at VILLAGE SUTANA, TEHSIL MADLAUDA, DISTRICT PANIPAT, HARYANA , PANIPAT,Madlauda, Sutana (23) , 132105is granted to M/S Nexa Chemicals Pvt Ltd , VILLAGE SUTANA, TEHSIL MADLAUDA,, PANIPAT, HARYANA ,Panipat ,Haryana

Sr. No.	Particulars of the insecticide	Number Of Certificate Of Registration	Date of grant of License	Validity Of License
104	Propineb 70% WP	CIR-176622/2021-Propineb (WP) (418)-224	21-06-2021	
105	Oxyflourfen 23.5% E.C (w/w)	CIR-172923/2020-Oxyflourfen (EC) (411)-422	21-06-2021	
106	Metalaxyl 35% W.S.	CIR-172922/2020-Metalaxyl (WS) (411)-658	21-06-2021	
107	Imidacloprid 0.3% GR	CIR-172924/2020-Imidacloprid (GR) (413)-3123	21-06-2021	
108	Hexaconazole 75% WG	CIR-172925/2020-Hexaconazole (WG) (413)-1509	21-06-2021	
109	Fipronil 80% WG	CIR-172920/2020-Fipronil (WG) (411)-3278	21-06-2021	
110	FIPRONIL 18.87% W/W SC	CIR-172919/2020-FIPRONIL (SC) (411)-3277	21-06-2021	
111	Fipronil 0.6% w/w GR	CIR-172918/2020-Fipronil (GR) (411)-3276	21-06-2021	
112	DIAFENTHIURON 47.8% w/w SC	CIR-172916/2020-DIAFENTHIURON (SC) (411)-755	21-06-2021	
113	Captan 50% W.P.	CIR-172915/2020-Captan (WP) (411)-441	21-06-2021	
114	Acephate 95% SG (w/w)	CIR-172912/2020-Acephate (SG) (411)-1578	21-06-2021	
115	Ziram 27% S.C	CIR-166301/2019-Ziram (SC) (404)-139	21-06-2021	
116	2,4-D amine salt 58% S.L.	CIR-202132/2022-2,4-D amine salt (SL) (437)-999	06-10-2023	
117	2,4-D Ethyl Ester 38% E.C. (Having 2,4-D, Acid 34% w/w)	CIR-267895/2023-2,4-D Ethyl Ester (EC) (444)-476	06-10-2023	
118	Abamectin 1.9% EC	CIR-267808/2023-ABAMECTIN (EC) (444)-321	06-10-2023	
119	Acephate 50% + Fipronil 5% WDG	CIR-267858/2023-Acephate + Fipronil (WDG) (444)-93	06-10-2023	
120	Alphacypermethrin 10% EC	CIR-267900/2023-Alphacypermethrin (EC) (444)-331	06-10-2023	
121	Alphacypermethrin 10% SC	CIR-267766/2023-Alphacypermethrin (SC) (444)-489	06-10-2023	
122	Aluminium Phosphide 56% (f) Tablet	CIR-267124/2023-Aluminium Phosphide (Tablet) (444)-205	06-10-2023	
123	AZOXYSTROBIN 2.5% + THIOPHANATE METHYL 11.25% + THIAMETHOXAM 25% FS	CIR-266993/2023-Azoxystrobin + Thiophanate methyl + Thiamethoxam (FS) (444)-215	06-10-2023	
124	Azoxystrobin 4.8% w/w + Chlorothalonil 40.0% w/w SC	CIR-266968/2023-AZOXYSTROBIN + CHLOROTHALONIL (SC) (444)-211	06-10-2023	
125	Benfuracarb 3% GR	CIR-268021/2023-Benfuracarb (GR) (444)-50	06-10-2023	
126	Benfuracarb 40% EC	CIR-267048/2023-Benfuracarb (EC) (444)-26	06-10-2023	

Licensing Officer, Haryana (Panchkula)

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DEPARTMENT OF AGRICULTURE AND FARMERS WELFARE,HARYANA

FORM III
LICENSE TO MANUFACTURE INSECTICIDES
[See sub-rule(3) of rule 9]

1. License Number : TA/PP/DA/201718/164

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Sr. No.	Particulars of the insecticide	Number Of Certificate Of Registration	Date of grant of License	Validity Of License
127	BIFENTHRIN 3% + CHLORPYRIPHOS 30% EC	CIR-267134/2023-BIFENTHRIN + CHLORPYRIPHOS (EC) (444)-174	06-10-2023	
128	BIFENTHRIN 8.8% CS	CIR-267909/2023-BIFENTHRIN (CS) (444)-92	06-10-2023	
129	Bispyribac sodium 10% w/v SC	CIR-202133/2022-Bispyribac sodium (SC) (437)- 318	06-10-2023	
130	BISPYRIBAC SODIUM 20% + PYRAZOSULFURON ETHYL 15% WDG	CIR-267050/2023-BISPYRIBAC SODIUM + PYRAZOSULFURON (WDG) (444)-205	06-10-2023	
131	Bromadiolone 0.005% R.B.	CIR-267832/2023-Bromadiolone (RB) (444)-73	06-10-2023	
132	Bromodiolone 0.25% CB	CIR-267818/2023-Bromodiolone (CB) (444)-64	06-10-2023	
133	Carbosulfan 25% EC	CIR-268092/2023-Carbosulfan (EC) (444)-190	06-10-2023	
134	Carbosulfan 6% G	CIR-267906/2023-Carbosulfan (G) (444)-93	06-10-2023	
135	Carboxin 37.5% + Thiram 37.5% WS	CIR-266964/2023-Carboxin + Thiram (WS) (444)-100	06-10-2023	
136	Carboxin 75% WP	CIR-267104/2023-Carboxin (WP) (444)-47	06-10-2023	
137	CARTAP HYDROCHLORIDE 4% + FIPRONIL 0.5% CG	CIR-266990/2023-CARTAP HYDROCHLORIDE + FIPRONIL(CG) (444)-168	06-10-2023	
138	Cartap hydrochloride 50% + Buprofezin 10% WP	CIR-267885/2023-Cartap hydrochloride + Buprofezin (WP) (444)-66	06-10-2023	
139	CHLORANTRANILIPROLE 0.4% w/w GR	CIR-267987/2023-CHLORANTRANILIPROLE (GR) (444)-354	06-10-2023	
140	Chlorantraniliprole 18.5% w/w SC	CIR-267044/2023-Chlorantraniliprole (SC) (444)-583	06-10-2023	
141	CHLORANTRANILIPROLE 4.3% w/w + ABAMECTIN 1.7% w/w SC	CIR-267119/2023-CHLORANTRANILIPROLE + ABAMECTIN (SC) (444)-199	06-10-2023	
142	CHLORANTRANILIPROLE 8.8% + THIAMETHOXAM 17.5% SC	CIR-267122/2023-CHLORANTRANILIPROLE + THIAMETHOXAM (SC) (444)-249	06-10-2023	
143	Chlorantraniliprole 9.3% + Lambdacyhalothrin 4.6% ZC	CIR-267763/2023-Chlorantraniliprole + Lambdacyhalothrin (ZC) (444)-250	06-10-2023	
144	Chlorimuron Ethyl 25% WP	CIR-267916/2023-Chlorimuron Ethyl (WP) (444)-223	06-10-2023	
145	Chlormequat Chloride 50% SOL.	CIR-267774/2023-Chlormequat Chloride (Sol) (444)-240	06-10-2023	
146	Chlorpropham 50% HN	CIR-267761/2023-Chlorpropham (HN) (444)-36	06-10-2023	

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DEPARTMENT OF AGRICULTURE AND FARMERS WELFARE,HARYANA

FORM III
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[See sub-rule(3) of rule 9]

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Sr. No.	Particulars of the insecticide	Number Of Certificate Of Registration	Date of grant of License	Validity Of License
147	Clothianidin 50°/o WG	CIR-266715/2023-Clothianidin (WG) (444)-29	06-10-2023	
148	Cyantraniliprole 10.26% w/w OD	CIR-267047/2023-Cyantraniliprole (OD) (444)-93	06-10-2023	
149	CYANTRANILIPROLE 19.8% + THIAMETHOXAM 19.8% FS	CIR-266985/2023-CYANTRANILIPROLE + THIAMETHOXAM (FS) (444)-84	06-10-2023	
150	Deltamethrin 11% W/W EC	CIR-267977/2023-Deltamethrin (EC) (444)-439	06-10-2023	
151	DELTAMETHRIN 2% w/w EW	CIR-266823/2023-DELTAMETHRIN (EW) (444)-107	06-10-2023	
152	Deltamethrin 2.5 % FLOW	CIR-266943/2023-Deltamethrin (FLOW) (444)-195	06-10-2023	
153	Deltamethrin 2.8% EC	CIR-266937/2023-Deltamethrin (EC) (444)-390	06-10-2023	
154	Diafenthiuron 30% + Pyriproxyfen 8% SE	CIR-266973/2023-Diafenthiuron + Pyriproxyfen (SE) (444)-116	06-10-2023	
155	Dimethomorph 50% WP	CIR-267769/2023-Dimethomorph (WP) (444)-124	06-10-2023	
156	Dinotefuran 15% + Pymetrozine 45% WG	CIR-266956/2023-Dinotefuran + Pymetrozine (WG) (444)-227	06-10-2023	
157	DINOTEFURAN 20% W/W SG	CIR-267962/2023-DINOTEFURAN (SG) (444)-261	06-10-2023	
158	DINOTEFURAN 4% + ACEPHATE 50% SG	CIR-266975/2023-DINOTEFURAN + ACEPHATE (SG) (444)-110	06-10-2023	
159	Fenazaquin 10% + Bifenthrin 4% EC	CIR-268089/2023-Fenazaquin + Bifenthrin (EC) (444)-33	06-10-2023	
160	Fenpyroximate 5% SC	CIR-268084/2023-Fenpyroximate (SC) (444)-134	06-10-2023	
161	Flonicamid 50% WG	CIR-267905/2023-Flonicamid (WG) (444)-211	06-10-2023	
162	Flubendiamide 0.7% GR	CIR-266810/2023-FLUBENDIAMIDE (GR) (444)-123	06-10-2023	
163	Flubendiamide 19.92% + Thiacloprid 19.92% w/w SC for indigenous manufacture	CIR-267049/2023-Flubendiamide + Thiacloprid (SC) (444)-96	06-10-2023	
164	Flubendiamide 20% WG	CIR-266705/2023-FLUBENDIAMIDE (WG) (444)-201	06-10-2023	
165	Flubendiamide 3.5% + Hexaconazole 5% WG for indigeneous manufacture	CIR-266950/2023-Flubendiamide + Hexaconazole (WG) (444)-99	06-10-2023	
166	Flubendiamide 39.35 % m/m SC	CIR-267046/2023-Flubendiamide (SC) (444)-352	06-10-2023	

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DEPARTMENT OF AGRICULTURE AND FARMERS WELFARE,HARYANA

FORM III
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167	Flubendiamide 4% w/w + Buprofenzin 20% w/w SC for indigenous manufacture	CIR-267798/2023-Flubendiamide + Buprofenzin (SC) (444)-81	06-10-2023	
168	Flubendiamide 8.33% + Deltamethrin 5.56% SC	CIR-268117/2023-FLUBENDIAMIDE + DELTAMETHRIN (SC) (444)-96	06-10-2023	
169	Flusilazole 40% EC	CIR-267903/2023-Flusilazole (EC) (444)-69	06-10-2023	
170	Forchlorfenuron(CPPU) 0.1% w/v liquid	CIR-267899/2023-Forchlorfenuron(CPPU) (liquid) (444)-143	06-10-2023	
171	Glufosinate Ammonium 13.5 % w/w SL	CIR-267898/2023-Glufosinate Ammonium (SL) (444)-208	06-10-2023	
172	IPA Salt of Glyphosate 54% SL for indigenous manufacture	CIR-268199/2023-IPA Salt of Glyphosate (SL) (444)-471	06-10-2023	
173	Kasugamycin 3% SL	CIR-268094/2023-Kasugamycin (SL) (444)-225	06-10-2023	
174	Kasugamycin 5% + Copper Oxychloride 45% WP	CIR-266977/2023-Kasugamycin + Copper Oxychloride (WP) (444)-104	06-10-2023	
175	Kresoxim-Methyl 44.3% w/w (500 g/l) SC	CIR-268126/2023-Kresoxim-Methyl (SC) (444)-151	06-10-2023	
176	Lufenuron 5.4% EC	CIR-268137/2023-Lufenuron (EC) (444)-166	06-10-2023	
177	Mepiquat Chloride 5 % Aqueous Solution	CIR-268069/2023-Mepiquat Chloride (Aqueous Solution) (444)-95	06-10-2023	
178	METAMITRON 700 g/l (60% w/w) SC	CIR-267997/2023-METAMITRON (SC) (444)-32	06-10-2023	
179	Metolachlor 50 % E C	CIR-268175/2023-Metolachlor (EC) (444)-59	06-10-2023	
180	Metsulfuron Methyl 10% w/w + Chlorimuron Ethyl 10% WP	CIR-267106/2023-Metsulfuron Methyl + Chlorimuron Ethyl (WP) (444)-243	06-10-2023	
181	Novaluran 5.25% + Emamectin Benzoate 0.9% W/W SC	CIR-267103/2023-NOVALURAN + EMAMECTIN BENZOATE (SC) (444)-349	06-10-2023	
182	Novaluron 10% EC	CIR-267936/2023-Novaluron (EC) (444)-97	06-10-2023	
183	Novaluron 5.25% + Indoxacarb 4.5% w/w SC	CIR-267102/2023-Novaluron + Indoxacarb (SC) (444)-365	06-10-2023	
184	Oxadiargyl 80% W.P	CIR-267928/2023-Oxadiargyl (WP) (444)-74	06-10-2023	
185	Paclobutrazol 23% W/W SC	CIR-267969/2023-Paclobutrazol (SC) (444)-205	06-10-2023	

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DEPARTMENT OF AGRICULTURE AND FARMERS WELFARE,HARYANA

FORM III
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186	PACLOBUTRAZOLE 40% SC	CIR-267954/2023-PACLOBUTRAZOLE (SC) (444)-386	06-10-2023	
187	Penconazole 10% EC	CIR-268060/2023-Penconazole (EC) (444)-62	06-10-2023	
188	PENDIMETHALIN 35% + METRIBUZIN 3.5% SE	CIR-267108/2023-PENDIMETHALIN + METRIBUZIN (SE) (444)-136	06-10-2023	
189	PENDIMETHALIN 38.4% + PYRAZOSULFURON ETHYL 0.85% ZC	CIR-267116/2023-PENDIMETHALIN + PYRAZOSULFURON ETHYL (ZC) (444)-101	06-10-2023	
190	PENOXSULAM 1% + PENDIMETHALIN 24% w/w SE	CIR-267883/2023-PENOXSULAM + PENDIMETHALIN (SE) (444)-81	06-10-2023	
191	PENOXSULAM 2.67% w/w OD	CIR-266714/2023-PENOXSULAM (OD) (444)-103	06-10-2023	
192	Penoxsulam 21.7% SC	CIR-266712/2023-Penoxsulam (SC) (444)-118	06-10-2023	
193	PENOXULAM 0.97% + BUTACHLOR 38.8% SE	CIR-267118/2023-PENOXULAM + BUTACHLOR (SE) (444)-70	06-10-2023	
194	Picoxystrobin 22.52% SC for indigenous manufacture	CIR-266909/2023-Picoxystrobin (SC) (444)-126	06-10-2023	
195	Pinoxaden 5.1% EC for indigenous manufacture	CIR-266814/2023-Pinoxaden (EC) (444)-110	06-10-2023	
196	PRETILACHLOR 30.0% + PYRAZOSULFURON ETHYL 0.75% WG	CIR-267867/2023-PRETILACHLOR + PYRAZOSULFURON ETHYL (WG) (444)-131	06-10-2023	
197	Pretilachlor 6.0% + Pyrazosulfuron Ethyl 0.15% GR for indigenous manufacture	CIR-268074/2023-Pretilachlor + Pyrazosulfuron Ethyl (GR) (444)-146	06-10-2023	
198	Profenofos 40% + Fenpyroximate 2.5% EC	CIR-267794/2023-PROFENOFOS + FENPYROXIMATE (EC) (444)-90	06-10-2023	
199	Propaquizafop 2.5% + Imazethapyr 3.75% w/w ME	CIR-268064/2023-Propaquizafop + Imazethapyr (ME) (444)-67	06-10-2023	
200	Propargite 57% EC	CIR-266718/2023-Propargite (EC) (444)-296	06-10-2023	
201	PYMETROZINE 50% WG	CIR-267131/2023-PYMETROZINE (WG) (444)-471	06-10-2023	
202	PYRACLOSTROBIN 100% g/l CS	CIR-266906/2023-PYRACLOSTROBIN (CS) (444)-59	06-10-2023	
203	Pyraclostrobin 20% WG	CIR-266962/2023-Pyraclostrobin (WG) (444)-123	06-10-2023	
204	Pyrazosulfuron ethyl 10% WP	CIR-266910/2023-Pyrazosulfuron ethyl (WP) (444)-309	06-10-2023	

Licensing Officer, Haryana (Panchkula)

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DEPARTMENT OF AGRICULTURE AND FARMERS WELFARE,HARYANA

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205	Pyriproxyfen 10% + Bifenthrin 10% w/w EC for indigenous manufacture	CIR-267132/2023-Pyriproxyfen + Bifenthrin (EC) (444)-322	06-10-2023	
206	PYRIPROXYFEN 5% + DIAFENTHIURON 25% SE	CIR-266822/2023-PYRIPROXYFEN + DIAFENTHIURON (SE) (444)-307	06-10-2023	
207	Pyriproxyfen 5% + Fenpropathrin 15% EC	CIR-266820/2023-Pyriproxyfen + Fenpropathrin (EC) (444)-119	06-10-2023	
208	Pyrithiobac- Sodium 10 % EC	CIR-266905/2023-Pyrithiobac- Sodium (EC) (444)-107	06-10-2023	
209	Quizalofop Ethyl 10% EC	CIR-267875/2023-QUIZALOFOP ETHYL (EC) (444)-346	06-10-2023	
210	Quizalofop Ethyl 10% EC + Chlorimuron Ethyl 25% WP + Surfacant (0.2) Herbicide (Twin Pack) for indigenous manufacture	CIR-267913/2023-Quizalofop Ethyl + Chlorimuron Ethyl +Surfacant (0.2) Herbicide (Twin Pack) (444)-73	06-10-2023	
211	Quizalofop Ethyl 4% + Oxyfluorfen 6% EC	CIR-266811/2023-QUIZALOFOP ETHYL + OXYFLUORFEN (EC) (444)-150	06-10-2023	
212	QUIZALOFOP ETHYL 7.5% + IMAZETHAPYR 15 % EC	CIR-266722/2023-QUIZALOFOP ETHYL + IMAZETHAPYR (EC) (444)-174	06-10-2023	
213	Quizalofop-ethyl 5% w/w EC	CIR-268080/2023-QUIZALOFOP-ETHYL (EC) (444)-303	06-10-2023	
214	Sodium Acifluorfen 16.5% + Clodinafop-Propargyl 8% EC for indigenous manufacture	CIR-266709/2023-Sodium Acifluorfen + ClodinafopPropargyl (EC) (444)-84	06-10-2023	
215	Spinosad 45% SC	CIR-266944/2023-Spinosad (SC) (444)-298	06-10-2023	
216	Spiromesifen 22.9% SC	CIR-266952/2023-Spiromesifen (SC) (444)-135	06-10-2023	
217	Tebuconazole 50% + Trifloxystrobin 25% WG	CIR-266988/2023-Tebuconazole + Trifloxystrobin (WG) (444)-108	06-10-2023	
218	Tembotrione 34.4% w/w SC	CIR-266979/2023-Tembotrione (SC) (444)-104	06-10-2023	
219	Thiamethoxam 1.0% + Chlorantraniliprole 0.5% GR	CIR-266938/2023-THIAMETHOXAM + CHLORANTRANILIPROLE (GR) (444)-172	06-10-2023	
220	Thifluzamide 24 % SC	CIR-266967/2023-Thifluzamide (SC) (444)-236	06-10-2023	
221	THIOPHANATE METHYL 450 g/l + PYRACLOSTROBIN 50 g/l (w/v) FS	CIR-266954/2023-THIOPHANATE METHYL + PYRACLOSTROBIN (FS) (444)-63	06-10-2023	

Licensing Officer, Haryana (Panchkula)

NOTE: This is system generated license copy and requires no signature or seal.

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Version NO.: 2.03.01.16

DEPARTMENT OF AGRICULTURE AND FARMERS WELFARE,HARYANA

FORM III
LICENSE TO MANUFACTURE INSECTICIDES
[See sub-rule(3) of rule 9]

1. License Number : TA/PP/DA/201718/164

Date of Grant :

License to manufacture insecticide(s) in the premises situated at VILLAGE SUTANA, TEHSIL MADLAUDA, DISTRICT PANIPAT, HARYANA , PANIPAT,Madlauda, Sutana (23) , 132105is granted to M/S Nexa Chemicals Pvt Ltd , VILLAGE SUTANA, TEHSIL MADLAUDA,, PANIPAT, HARYANA ,Panipat ,Haryana

Sr. No.	Particulars of the insecticide	Number Of Certificate Of Registration	Date of grant of License	Validity Of License
222	Tolfenpyrad 15%EC	CIR-268160/2023-Tolfenpyrad (EC) (444)-133	06-10-2023	
223	Triacontanol EC 0.05% Min.	CIR-199300/2022-Triacontanol (EC) (437)-1440	06-10-2023	
224	Triacontanol EW 0.1% Min.	CIR-199309/2022-Triacontanol (EW) (437)-1444	06-10-2023	
225	Triacontanol GR 0.05% Min.	CIR-199310/2022-Triacontanol (GR) (437)-1445	06-10-2023	
226	Zineb 75% WP	CIR-268143/2023-Zineb (WP) (444)-36	06-10-2023	

Endorsement of Marketing Firms:

Sr. No.	Particulars of the marketing firms	Unique no. of Insecticides	Date of endorsement	Validity Of Endorsement
1	German Pesticides India, Regd. Office at B-419, Green Field Colony, Faridabad (Haryana)	1,2,3,4,5	22-03-2017	31-12-2018
2	German Pesticides India, Regd. Office at B-419, Green Field Colony, Faridabad (Haryana)	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63,64,65,66,67	12-03-2018	11-02-2021
3	Hokko Chemicals,Purkhas Road, Town Sonipat, 131001	ALL	13-09-2019	31-07-2021
4	German Pesticides India,Shop No 192, NAM, Panipat	ALL	16-04-2021	31-12-2026
5	M/s Coromandal Agro Chemicals,Village Namunda, Panipat, Haryana 132101	ALL	12-07-2021	01-06-2025
6	Hokko Chemicals,Purkhas Road, Town Sonipat, 131001	ALL	18-08-2021	30-04-2023

2 . The insecticide(s) shall be manufactured under the direction and supervision of the following expert staff: **Manoj Kumar , Chemist cum Production Manager and Quality Control**

3 . The license is subject to such conditions as may be specified in the rules for the time being in force under the Insecticides Act, 1968 as well as the conditions on the certificate of registration and others as stated below.

Licensing Officer, Haryana (Panchkula)

NOTE: This is system generated license copy and requires no signature or seal.

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Version NO.: 2.03.01.16

DEPARTMENT OF AGRICULTURE AND FARMERS WELFARE,HARYANA

FORM III
LICENSE TO MANUFACTURE INSECTICIDES
[See sub-rule(3) of rule 9]

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1. License Number : TA/PP/DA/201718/164

Date of Grant :

License to manufacture insecticide(s) in the premises situated at VILLAGE SUTANA, TEHSIL MADLAUDA, DISTRICT PANIPAT, HARYANA , PANIPAT,Madlauda, Sutana (23) , 132105is granted to M/S Nexa Chemicals Pvt Ltd , VILLAGE SUTANA, TEHSIL MADLAUDA,, PANIPAT, HARYANA ,Panipat ,Haryana

Licensing Officer, Haryana

Panchkula

CONDITIONS

1. This license shall be displayed in the prominent place in the premises for which the license is being issued and shall be produced for inspection as and when required by an Insecticide Inspector, Licensing officer or any other officer authorised by the Government in this regard.
2. Any change in the name of the expert staff, named in the license, shall forthwith be reported to the licensing officer.
3. The licensee shall scrupulously comply with each and every condition of registration of the insecticide (s), failing which the license is liable to be cancelled.
4. No insecticide shall be sold or exhibited for sale or distributed or issued for use in commercial pest control operations except in packages approved by the Registration Committee from time to time.
5. If the licensee wants to manufacture/sell, stock or exhibit for sale of distribute/stock and use for commercial pest control operations, any additional insecticide, he may apply to the licensing officer for addition in the licence for each such insecticide on payment of the prescribed fee.
6. For pest control operations an application for the renewal of the license shall be made as laid down in sub-rule (3A) of rule 10 of the Insecticides Rules, 1971
7. The license shall comply with the provisions of the Insecticides Act, 1968 and the rules made there under for the time being in force.
8. The license also authorizes the storage and stocking of insecticide (s) manufactured at the licensed premises, in the factory premises for sale by way of wholesale dealing by the licensee.
9. The license shall maintain the record of ‘date expired insecticides’ separately in the format as per Appendix A.
10. The license shall maintain the record of sale/distribution of insecticides in the format as per Appendix B and shall submit monthly return to the Licensing Officer.
11. The license shall maintain the stock register for technical and formulated products separately as per Appendix C1 and C2, respectively. (for manufacturer only).
12. The license shall submit the monthly return for technical grade and formulated insecticides separately as per Appendix D1 and D2, respectively. (for manufacturer only).
13. The licensee shall maintain a record of periodical medical examination of persons engaged in connection with insecticides as per Appendix E.
14. All the registers are to be kept under secured custody by the Licensee and shall be provided for scrutiny any time to the Insecticide Inspector, Licensing Officer or any other officer authorised by the Central Government and/or the State Government.
15. Any other condition (s) as specified by the licensing officer.

Licensing Officer, Haryana (Panchkula)

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PESTICIDE FORMULATIONS REGISTERED FOR USE IN THE COUNTRY
UNDER THE INSECTICIDES ACT, 1968

(Updated on 31.03.2024)

APPROVED FORMULATIONS OF SOLO PESTICIDES	
A. INSECTICIDES	
Sr. No.	**Formulation registered**
1.	Abamectin 1.9% EC
2.	Acephate 75% SP
3.	Acephate 95% SG
4.	Acephate 97% DF
5.	Acetamiprid 20%SP
6.	Acequinocyl 15 % SC
7.	Afidopyropen 50g/LDC
8.	Allerthrin 0.02%Coil
9.	Allerthrin 0.05%Coil
10.	Allerthrin 0.2% Coil
11.	Allerthrin 0.5% Aerosol
12.	Allerthrin 0.5% Coil
13.	Allerthrin 3.6% LV
14.	Allerthrin 4%Mat
15.	Alphacypermethrin 0.1% RTU
16.	Alphacypermethrin 0.5% Chalk
17.	Alphacypermethrin 0.667% LLIN
18.	Alphacypermethrin 05% WP
19.	Alphacypermethrin10.00% EC
20.	Alphacypermethrin10.00% SC
21.	Aluminiumphosphide15%Tab(12gm)
22.	Aluminiumphosphide 56%Powder
23.	Aluminiumphosphide 56%Tab
24.	Aluminiumphosphide 6%Tab
25.	Aluminiumphosphide 77.5%GR
26.	BariumCarbonate 1%P
27.	Benfuracarb 03% GR
28.	Benfuracarb 40% EC
29.	Benzoate00.10 %w/w Gel

30.	Benzpyrimoxan10% SC
31.	Beta-cyfluthrin 02.45% SC
32.	Bifenazate 22.60% SC
33.	Bifenazate 50 % WP
34.	Bifenthrin 0.05% MC(8hrs)
35.	Bifenthrin 02.50% EC
36.	Bifenthrin 08% SC
37.	Bifenthrin 08.80% CS
38.	Bifenthrin 10% EC
39.	Bifenthrin 10%WP
40.	Brodifacoum 0.005 %w/w BB
41.	Broflanilide 20%SC
42.	Broflanilide 300 g/l SC
43.	Bromadiolone 00.005% RB
44.	Bromadiolone 00.25% CB
45.	Buprofezin 25% SC
46.	Buprofezin 70% DF
47.	Carbofuran 03% CG
48.	Carbosulfan 06% Granules
49.	Carbosulfan 25% DS
50.	Carbosulfan 25% EC
51.	CartapHydrochloride 04% Granules
52.	CartapHydrochloride 50%SP
53.	CartapHydrochloride 75%SG
54.	Chlorantraniliprole 00.40%GR
55.	Chlorantraniliprole18.50% SC
56.	Chlorantraniliprole 35 %WG
57.	Chlorantraniliprole 50% FS
58.	Chlorfenapyr 10 % SC
59.	Chlorfenapyr 240 g/l SC
60.	Chlorfluazuron 05.40%EC
61.	Chlorpyrifos 01.50% DP
62.	Chlorpyrifos 10% Granules
63.	Chlorpyrifos 20% EC
64.	Chlorpyrifos 50% EC
65.	Chlorpyriphos 02 %w/w EC

66.	Chlorpyriphos 75 %w/w WG
67.	Chlorpyrifos 19% ME
68.	ChlorpyriphosMethyl 40%EC
69.	Chromafenozide 80%WP
70.	Clothianidin 0.5%GR
71.	Clothianidin 50% WDG
72.	Coumatetralyl 0.037%Bait
73.	Coumatetralyl 0.75%Gel
74.	Cyantraniliprole10.26%OD
75.	Cyclaniliprole 100 DC
76.	Cyclaniliprole 7.4 % SL
77.	Cyenopyrafen 30%SC
78.	Cyflumetofen 20% SC
79.	Cyfluthrin 05%EW
80.	Cyfluthrin 10%WP
81.	Cypermethrin 0.1%Aqueous
82.	Cypermethrin 0.25%DP
83.	Cypermethrin 03%Smoke Generator
84.	Cypermethrin 1%Chalk
85.	Cypermethrin 1%Dust
86.	Cypermethrin 10%EC
87.	Cypermethrin 25%EC
88.	Cyphenothrin 7.2%VP w/w (For use by pest control operators only)
89.	DDT 50% WP
90.	DDT 75% WP
91.	Deltamethrin 00.50% w/w Chalk
92.	Deltamethrin 01 % RTU
93.	Deltamethrin 01.25% w/w (01.00% w/v) EC
94.	Deltamethrin 01.80% EC
95.	Deltamethrin 02.50%Flow
96.	Deltamethrin 02.50% WP
97.	Deltamethrin 02.80% EC
98.	Deltamethrin 1.25% ULV
99.	Deltamethrin 11%w/wEC
100.	Deltamethrin 25 %Tablet
101.	Deltamethrin 55%mg/m2 (impregnated bed net)

102.	Deltamethrin 25% WG
103.	Diafenthiuron 47.80% SC
104.	Diafenthiuron 50% WP
105.	Diflubenzuron 0.1% w/w Termite bait
106.	Diflubenzuron 02%GR
107.	Diflubenzuron 02%Tablets
108.	Diflubenzuron 25% WP
109.	Dimethoate 30%EC
110.	Dimpropyridaz 120 g/L SL
111.	Dinotefuran 0.5% RB Gel
112.	Dinotefuran 20% SG
113.	Dinotefuran 70% WG
114.	D-transallethrin 0.1%Coil
115.	D-transallethrin 2% Mat
116.	D-transallethrin 21.97% Mos.Mat
117.	Emamectinbenzoate 01.90% EC
118.	Emamectinbenzoate 05% SG
119.	Ethion 50% EC
120.	Ethofenoprox 10% EC
121.	Ethylene Dichloride and Carbon Tetra chloride mixture (EDCT mixture3:1)
122.	Etoxazole10% SC
123.	Fenazaquin10% EC
124.	Fenazaquin18.3% SC
125.	Fenitrothion 2% Spray
126.	Fenitrothion 20% OL
127.	Fenitrothion40% WP
128.	Fenobucarb (BPMC) 50%EC
129.	Fenpropathrin 10% EC
130.	Fenpropathrin 10% EW
131.	Fenpropathrin 30% EC
132.	Fenpyroximate 05% EC
133.	Fenpyroximate 05% SC
134.	Fenvalerate 00.40% DP
135.	Fenvalerate 02% Conc.
136.	Fenvalerate 20% EC
137.	Fipronil 0.03% Gel

138.	Fipronil 0.05% GEL
139.	Fipronil 0.30% GR
140.	Fipronil 0.60%w/w GR
141.	Fipronil 0.6% WG
142.	Fipronil 0.8% WG
143.	Fipronil 2.92% EC
144.	Fipronil 5% SC
145.	Fipronil 18.87% w/w SC
146.	Fipronil 80% WG
147.	Flocoumafen 0.005% Block Bait
148.	Flonicamid 50% WG
149.	Fluazandolizine 41.15 % SC
150.	Flubendiamide 00.70% GR
151.	Flubendiamide 20%WG
152.	Flubendiamide 39.35% w/w SC
153.	Flufenoxuron 10% DC
154.	Flumite 20% SC/ Flufenzine 20% SC
155.	Flupyradifurone 17.09% w/w SL
156.	Flupyrimin 10%SC
157.	Flupyrimin 2%GR
158.	Fluvalinate 25% EC
159.	Fluxametamide 10% EC
160.	Hexythiazox 5.45% w/w EC
161.	Imidacloprid 0.03% w/w Gel
162.	Imidacloprid 0.30% GR
163.	Imidacloprid 2.15% w/w Gel
164.	Imidacloprid 17.1%w/w SL
165.	Imidacloprid 17.80% SL
166.	Imidacloprid 30.50% m/m SC
167.	Imidacloprid 48%FS
168.	Imidacloprid 70% WG
169.	Imidacloprid 70% WS
170.	Indoxacarb 14.50 % SC
171.	Indoxacarb 15.80 % EC
172.	Isocycloseram 9.2% w/w DC (Isocycloseram 10% DC)
173.	Isocycloseram 18.1% SC

174.	Lambda-cyhalothrin 0.50% Chalk
175.	Lambda-cyhalothrin 02.43% CS
176.	Lambda-cyhalothrin 02.50% EC
177.	Lambda-cyhalothrin 04.90% CS
178.	Lambda-cyhalothrin 5%EC
179.	Lambda-cyhalothrin 10%WP
180.	Lambda-cyhalothrin 9.7 % CS
181.	Lufenuron 05.40% EC
182.	Malathion 02% House Hold Spray
183.	Malathion 05%DP
184.	Malathion 25 %WP
185.	Malathion 50% EC
186.	Malathion 96%ULV
187.	Metaflumizone 22%SC
188.	Metaldehyde 2.5%DP
189.	Methoxyfenozide 21.8%w/w SC
190.	Methyl Bromide 98%w/w
191.	Metofluthrin 0.005% Mosquito coil (12 Hrs)
192.	Metofluthrin 0.005% Mosquito coil (7 Hrs)
193.	Metofluthrin 0.32%LV
194.	Milbemectin 01% EC
195.	Monocrotophos15% SG
196.	Novaluron 08.80 %SC
197.	Novaluron 10% EC
198.	Oxydemeton-methyl 25%EC
199.	Permethrin 02.00% w/w for Import only (Olyset@Net)
200.	Permethrin 2.0% Aerosol
201.	Permethrin 25% EC
202.	Phenthoate 2% DP
203.	Phenthoate 50% EC
204.	Phosalone 04 % DP
205.	Phosalone 35 %EC
206.	Phosmet50%WP
207.	Pirimiphosmethyl 50%EC
208.	Pirimiphos-methyl 01% Spray
209.	Prallethrin 0.04% Mosquito coil (11 Hrs)

210.	Prallethrin 0.04%Mosquitocoil(12Hrs)
211.	Prallethrin 0.04%Mosquitocoil(6Hrs)
212.	Prallethrin 0.5%Mosquitocoil
213.	Prallethrin 0.8%Redmosquitomat
214.	Prallethrin 0.8%Vaporizer
215.	Prallethrin 1.2%Mat
216.	Prallethrin 19%w/wVP
217.	Profenofos 50%EC
218.	Propargite 57 % EC
219.	Propetamphos 1% Spray
220.	Propoxur 01% Spray
221.	Propoxur 02% Bait
222.	Propoxur 20%EC
223.	Pymetrozine 50% WG
224.	Pyrethrin 0.20% Spray
225.	Pyribenzoxim 05 % w/w EC
226.	Pyridaben 20 % w/wWP
227.	Pyridalyl 10% EC
228.	Pyrifluinazon 20%WG
229.	Pyriproxyfen 0.50% GR
230.	Pyriproxyfen10 % EC
231.	Pyriproxyfen 10%EW
232.	Quinalphos 01.50% DP
233.	Quinalphos 5 %Granules
234.	Quinalphos 20 % AF
235.	Quinalphos25 % EC
236.	Quinalphos25 % Gel
237.	Renofluthrin 0.025%w/w Mosquito Coil
238.	Renofluthrin 5%MUP
239.	S-Bioallethrin 2.4% Mat
240.	Spinetoram 11.70%SC
241.	Spinosad 02.50% SC
242.	Spinosad 45%SC
243.	Spiromesifen 22.90% SC
244.	Spirotetramat 15.31%w/w OD
245.	Sulfoxaflor 11.4%w/w SC

246.	Sulfoxaflor 21.8%w/wSC
247.	Temephos 50 % EC
248.	Tetraniliprole 18.18 %w/w SC
249.	Tetraniliprole 40.34%FS
250.	Thiacloprid 21.70% SC
251.	Thiamethoxam 0.01%w/w Gel Bait
252.	Thiamethoxam 25%WG
253.	Thiamethoxam 30 %FS
254.	Thiamethoxam 70%WS
255.	Thiamethoxam 75 % w/wSG
256.	Thiocyclam Hydrogen Oxalate 50%SP
257.	Thiodicarb 75% WP
258.	Tolfenpyrad 15% EC
259.	Transfluthrin 0.15% Mosquito coil
260.	Transfluthrin 0.03% Mos.Coil
261.	Transfluthrin 0.08% Aerosol
262.	Transfluthrin 0.88% Liquid Vaporiser
263.	Transfluthrin 1%EU
264.	Transfluthrin 1.2%LV
265.	Transfluthrin 1.6%LV
266.	Transfluthrin 12.0%AE
267.	Transfluthrin 20% MV Gel (30 days mat tray)
268.	Triflumezopyrim 10.6% SC
269.	Triflumezopyrim 20% WG
270.	Zinc Phosphide 01%bait (Household Product)
271.	Zinc Phosphide 80%Powder
B. HERBICIDES	
Sr No.	**Formulation registered**
272.	2,4-D Amine Salt 58%SL
273.	2,4-D Ethyl Ester 20% WP
274.	2,4-D Ethyl Ester 38% EC
275.	2,4-D Ethyl Ester 4.5% GR
276.	2,4-D Sodium Salt 80% min.
277.	Ametryn 80%WG
278.	Anilofos 18%EC
279.	Anilofos 2%G

280.	Anilofos 30%EC
281.	Atrazine 50%WP
282.	Azimsulfuron 50%DF
283.	BensulfuronMethyl 60%DF
284.	Bentazone 480 g/l SL
285.	BispyribacSodium10%SC
286.	Butachlor 5% GR
287.	Butachlor 50% EC
288.	Butachlor 50% EW
289.	Carfentrazone ethyl 40% DF
290.	Chlorimuron Ethyl 25% WP + Surfactant
291.	Cinmethylin10% EC
292.	Clethodim 25% EC
293.	Clodinafop propargyl 12.5% EC
294.	Clodinafop-propargyl 15% DF
295.	Clodinafop-propargyl 15% WP
296.	Clomazone 50%EC
297.	Cyhalofop-butyl 10%EC
298.	Dicamba 48% SL
299.	Diclofop-methyl 28% EC
300.	Diclosulam 84%WDG
301.	Diuron 80%WP
302.	Ethafluralin 35.65% EC (36% EC)
303.	Ethoxysulfuron15% WDG
304.	Fenoxaprop-p-ethyl 10%EC
305.	Fenoxaprop-p-ethyl 6.7%w/w EC
306.	Fenoxaprop-p-ethyl 9%w/w DF
307.	Fenoxaprop-p-ethyl 9.3%w/w EC
308.	Florpyrauxifen-benzyl 2.7% EC
309.	Fluazifop-p-butyl 13.4% EC
310.	Flucetosulfuron10% WG
311.	Fluchloralin 45%EC
312.	Flufenacet 60%DF
313.	Flumioxazin 50%SC
314.	Flurochloridone18.3%CS
315.	Fluroxypyrmeptyl 48%w/v(45.5%w/w) EC

316.	Fluthiacetmethyl 10.3%EC
317.	Glufosinate Ammonium13.5% SL
318.	Glufosinate Ammonium 50% WG
319.	Glyphosate 20.2% SL (IPASalt)
320.	Glyphosate 41% SL (IPASalt)
321.	Glyphosate 54% SL (IPASalt)
322.	Glyphosate Ammonium Salt 20% SL
323.	Glyphosate Ammonium Salt 5%SL
324.	Glyphosate Ammonium Salt 71%SG
325.	Glyphosate potassium salt 41.60% (equivalent to 54% SL w/v)
326.	Halosulfuron methyl 75%WG
327.	Haloxyfop R Methyl 10.5%w/w EC
328.	Imazethapyr 10%SL
329.	Imazethapyr 10%SL+ Surfactant
330.	Imazethapyr 70% WG + Surfactant
331.	Ipfencarbazone 25% SC (22.81% w/w)
332.	Isoproturon 50%WP
333.	Isoproturon 75%WP
334.	MCPA,Aminesalt 40%WSC
335.	Metamifop 10%EC
336.	Metamitron 70%SC
337.	Methabenzthiazuron 70%WP
338.	Metolachlor 50%EC
339.	Metribuzin 70% WG
340.	Metribuzin70% WP
341.	Metsulfuron-methyl 20%WG
342.	Metsulfuron-methyl 20%WP
343.	Orthosulfamuron 50%WG
344.	Oxadiargyl 6%EC
345.	Oxadiargyl 80%WP
346.	Oxadiazon 25% EC
347.	Oxyflourfen 0.35%GR
348.	Oxyflourfen 23.5%EC
349.	Oxyfluorfen 20%DF
350.	Paraquatdichloride 24%SL
351.	Pendimethalin 30%EC

352.	Pendimethalin 38.7% CS
353.	Pendimethalin 5%Gr.
354.	Penoxsulam 2.67%OD
355.	Penoxsulam 21.7%SC
356.	Pinoxaden 5.1%EC
357.	Pretilachlor 30.7%EC
358.	Pretilachlor 37%EW
359.	Pretilachlor 50% EC
360.	Propanil 35%EC
361.	Propanil 80% DF
362.	Propaquizafop10%EC
363.	Pyrazosulfuron-ethyl 10%WP
364.	Pyrazosulfuron-ethyl 70%WDG
365.	Pyribenzoxim 5 % w/w EC
366.	PyrithiobacSodium10% EC
367.	Pyroxasulfone 85%WG
368.	Quinclorac 250 g/l SC
369.	Quizalofop-ethyl 10%EC
370.	Quizalofop-ethy l5%EC
371.	Quizalofop-p-tefury l4.41%EC
372.	Saflufenacil 70.0%WG
373.	Sulfentrazone 39.6% SC
374.	Sulfosulfuron 75% WG
375.	Tembotrione 34.4%SC
376.	Topramezone 336g/l w/v SC
377.	Triallate 50% EC
378.	Triasulfuron 20% WG
C. PLANT GROWTH REGULATORS	
Sr No.	**Formulation registered**
379.	1-Methylcyclopropene 3.3%VP(Vapour Releasing Product)
380.	AlphaNaphthyl AceticAcid 4.5%SL (Nasalt)
381.	ChlormequatChloride 50%SL
382.	Chlorpropham 50%HN
383.	Chlorpropham 55.37% w/w (624 g/l) HN
384.	Ethephon 10%Paste
385.	Ethephon 39% SL

386.	Forchlorfenuron(CPPU) 0.1%L
387.	Forchlorfenuron 0.12%EC
388.	Gibberellic Acid 0.001%L
389.	Gibberellic Acid 0.1%GR
390.	Gibberellic Acid 0.186%SP
391.	Gibberellic Acid 0.45%SL
392.	Gibberellic Acid 40%WSG
393.	Gibberellic Acid Technical 90 %w/w
394.	Hydrogen Cynamide 49%AS
395.	Hydrogen Cynamide 50%SL
396.	Mepiquat chloride 5% AS
397.	Nitrobenzene 20% w/w EW
398.	Paclobutrazol 23%SC
399.	Paclobutrazol 40%SC
400.	Prohexadione-Ca 10%WG
401.	Sodiumparanitrophenolate 0.3% SL
402.	Sodiumparanitrophenolate 1.8% SL
403.	Triacontanol 0.05%EC
404.	Triacontanol 0.05%w/w min.GR
405.	Triacontanol 0.1% EW
D. FUNGICIDES	
406.	Amisulbrom 17.7% (20%w/v) SC
407.	Aureofungin 46.15%SP
408.	Azoxystrobin 23%SC
409.	Bitertanol 25%WP
410.	Buprimate 26.7%EC
411.	Captan 50%WG
412.	Captan 50%WP
413.	Captan 75%WS
414.	Captan 75%WP
415.	Carbendazim 25% DS
416.	Carbendazim 46.27%SC
417.	Carbendazim 5%Gr
418.	Carbendazim 50%WP
419.	Carboxin 75%WP
420.	Carpropamid 27.8%SC

421.	Chlorothalonil 75%WP
422.	CopperHydroxide 46.1%WG
423.	CopperHydroxide 53.8%DF
424.	CopperHydroxide 77%WP
425.	CopperOxychloride 40%paste
426.	CopperOxychloride 50%WP
427.	CopperOxychloride 50%WG
428.	CopperOxychloride 56%OP
429.	CopperSulphate 2.62%SC
430.	Copper Sulphate Pentahydrate 23.99 % (Containing copper content 6 % w/v)
431.	Cyazofamid 34.5%SC
432.	Cyflufenamide 5%EW
433.	Cymoxanil 50%WP
434.	Difenoconazole 25%EC
435.	Difenoconazole 3%WS
436.	Dimethomorph 50%WP
437.	Dithianon 75%WP
438.	Dodine 40%SC
439.	Dodine 65%WP
440.	Edifenphos 50%EC
441.	Ethaboxam 40%SC
442.	Flusilazole 40%EC
443.	Fluxapyroxad 333g/lFS
444.	Fosetyl-Al 80%WP
445.	Hexaconazole 0.5%GR
446.	Hexaconazole 2%SC
447.	Hexaconazole 5% EC
448.	Hexaconazole 5%SC
449.	Hexaconazole 75%WG
450.	Iprobenfos(Kitazin)17%GR
451.	Iprobenfos(Kitazin) 48%EC
452.	Iprodione 50%WP
453.	Isoprothiolane 40% EC
454.	Kasugamycin 3%SL
455.	Kresoxim-methyl 44.3% (500g/l) SC
456.	LimeSulphur 22%SC

457.	Mancozeb 35% SC
458.	Mancozeb 75%WP
459.	Mancozeb 75% WG
460.	Mandipropamid 23.4%SC
461.	Meptyldinocap 35.7%EC
462.	Metalaxyl–M 31.8%ES
463.	Metalaxyl 35%WS
464.	Metiram 70%WG
465.	Metrafenone 500g/lSC
466.	Myclobutanil 10%WP
467.	Oxathiapipron 10.1%OD
468.	Oxycarboxin 20%EC
469.	Paclobutarzole 23% SC
470.	Paclobutrazole 40% SC
471.	Penconazole 10%EC
472.	Pencycuron 22.9%SC
473.	Penflufen 22.43% FS
474.	Picoxystrobin 22.52%SC
475.	Polyoxin D Zinc salt 5%SC
476.	Prochloraz 39.6%EC
477.	Propiconazole 25%EC
478.	Propineb 70%WP
479.	Pyraclostrobin 100g/l CS
480.	Pyraclostrobin 20%WG
481.	Pyriofenone 18% w/v SC (16.51% w/w)
482.	Sulphur 40%SC
483.	Sulphur 52%Flowable
484.	Sulphur 55.16%SC (800gm/L)
485.	Sulphur 80%WG
486.	Sulphur 80%WP
487.	Sulphur 85%DP
488.	Tebuconazole 2%DS
489.	Tebuconazole 25%WG
490.	Tebuconazole 25.9%EC
491.	Tebuconazole 38.39%SC
492.	Tebuconazole 5.36%FS

493.	Tebuconazole 5.4%(6.0%w/v)FS
494.	Tetraconazole 11.6%w/w(12.5%w/v)SL
495.	Tetraconazole 3.8%EW
496.	Thifluzamide 24%SC
497.	Thiophanate-methyl 41.7%SC
498.	Thiophanate-methyl 70%WG
499.	Thiophanate-methyl 70%WP
500.	Thiram 40%FS
501.	Thiram 75%WS
502.	Thiram 80% WP
503.	Triadimefon 25%WP
504.	Tribasic Copper Sulphate 34.5% SC
505.	Tricyclazole 70%WG
506.	Tricyclazole 75%WP
507.	Triflumizole 42.14%w/w SC
508.	Validamycin 3%L
509.	Zineb 75%WP
510.	Zineb 80%WP
511.	Ziram 27%SC
512.	Ziram 80% WP
E: BIO-INSECTICIDES	
Sr No.	**Formulation registered**
513.	Azadirachtin 0.15% ECw/wMin. Neem Seed Kernel Based
514.	Azadirachtin 0.15%EC
515.	Azadirachtin 00.30%EC(3000PPM)Min. Neem Seed Kernel Based
516.	Azadirachtin 01.00% EC Min. Neem Based
517.	Azadirachtin 01.00%EC(10000PPM)Min.Neem Based
518.	Azadirachtin 00.03%ECMin. Neem Oil Based
519.	Azadirachtin 00.03%WSP (300PPM) Neem Oil Based
520.	Azadirachtin 05.00%w/w Min. Neem Extract Concentrates
521.	*Bacillusthuringiensis*var.galleriae1593MserotypeH595b,1.3%
522.	*Bacillusthuringiensis*var.*4rustaki*
523.	*Bacillusthuringiensis*var.*4rustaki*,serotypeH-39,3B,StrainZ-52
524.	*Bacillusthuringiensis* serovar4rustaki(3a,3b,3c)5.0%WPPotency55000SU
525.	*Bacillusthuringiensis*var.5rustaki 0.5%WPserotype3a,3b,3c,Strain DORBt-1, Potency9000 IU/mg min. U/s9(3b)

526.	*Bacillusthuringiensis*var.5rustaki 0.5%WPserotype3a,3b,3c,StrainDORBt-1; NAIMCC-B-01118, Potency13329IU/mgmin.U/s9(3b)
527.	*Bacillusthuringiensis*var.5rustaki 0.5%WPserotype3a,3b,3c,Strain DORBt-1, Potency16000IU/mgmin.
528.	*Bacillusthuringiensis*var.5rustaki2.5%AS
529.	*Bacillusthuringiensis*var.6rustaki StrainHD-1,serotype3a,3b,3.5%ESfor Import& repack.Potency17600IU/mg
530.	*Bacillusthuringiensis*var.6rustaki Serotype3a,3b,SAIIWGPotency:-53000 ; SU/mg,32000IU/mg
531.	*Bacillusthuringiensis*var.israelensisWP
532.	*Bacillusthuringiensis*var.israelensis,SerotypeH-14(VECTOBAC12AS) Potency1200ITU /MG
533.	*Bacillusthuringiensis*var.israelensis,SerotypeH-14(Vectobac12AS)potency 1200ITU/mg
534.	*Bacillusthuringiensis*var.israelensis5.0%AS(StrainVCRC-B-17,SerotypeH-14,Accession No.-MTCC5596
535.	*Bacillusthuringiensis*var.israelensis(H-14)5.0%AS
536.	*Bacillusthuringiensis*var.israelensis,SerotypeH-14,5%WPPotency2000ITU/mg
537.	*Bacillus thuringiensis* var. israelensis, Strain Designation- ABIL, Accession No.NAMICC-B01318(CFU Count-4.8 x 10^8) Serotype H-14,5%WP Potency7000 ITU/mg
538.	*Bacillusthuringiensis*var.sphaericus1593MserotypeH59 5b
539.	*Bacillusthuringiensis*var.israelensis12%AS(Vectobac)
540.	*Bacillusthuringiensis*var.israelensis00.50%WP
541.	*Bacillusthuringiensis*var.israelensis05.00%WP
542.	*Bacillussphaericus*1593MserotypeH595b,1.3%flowableconcentratePotency 13000IU/mg
543.	*Beauveriabassiana*1.15%WP
544.	*Beauveriabassiana*1.15%WP.(1x10^8/gmmin)StrainBB-ICAR-RJP,Accession No–MCC1022
545.	*Beauveriabassiana*1.15%WP(Strain:BB –5372,own R&DIsolate)
546.	*Beauveriabassiana*1.15%WP(1x10^8 /gmmin)Strain ICAR,ResearchComplex, Umiam,Meghalaya,AccessionNo–NAIMCC-F-03045
547.	*Beauveriabassiana*1.15%WP(1x10^8/gmmin)AccessionNo –NAIMCC-F-03045,StrainNo.NBAIM,MAU.
548.	*Beauveriabassiana*1.15%WP(1x10^8/spores/ml)StrainBCRL,AccessionNo– BCRLBbpx-6892
549.	*Beauveriabassiana*1.0%WP,Strain No:NBRI–9947(1x10^8CFU/gmMin.)
550.	*Beauveriabassiana*1.0%WP(1x10^9CFU/gmmin),StrainNo.IPL/BB/MI/01
551.	*Beauveriabassiana*1.0%WP(1x10^8CFU/gmmin),StrainNo.SVBPU/CSP/Bb-10,AccessionNo.ITCC-7520
552.	*Beauveriabassiana*5.0%WP,(1x10^8CFU/gmmin)StrainIARI, Accession No. ITCC-7353
553.	*Beauveriabassiana*5.0%SC, Strain: NBAII,Bangalore ,Accession No.ITCC- 7102
554.	*Beauveriabassiana*5.0%ASStrain:BB-AAU-RJPAccessionNo.MCC–1024
555.	*Beauveriabassiana*1.15%WP(1x10^8/gmmin)AccessionNo–NAIMCC-F- 03048
556.	*Beauveriabassiana*10.00%SC

557.	*Beauveriabassiana 1.5%*Liquid Formulation(CFUcount 10X10^{8}) Accession No.MTCC-5171
558.	*Beauveriabassiana*1.15%WP (1X10^{6}CFU/gmmin)
559.	*Metarhiziumanisopliae*1.0%WP(1x10^{8}CFU/gmmin)StrainNo.IPL/KC/44 (OwnR&D Isolate),Accession No.6895
560.	*Metarhiziumanisopliae*1.15%WP(1x10^{8}CFU/gmmin)AccessionNo.MTCC– 5173
561.	*Metarhiziumanisopliae*1.15%WP(1x10^{8}CFU/gmmin)StrainNo.AAI, Allahabad,AccessionNo.NAIMCC-F-03037.
562.	*Metarhiziumanisopliae*10%GR(CFUcount 1X 10^{8}/gm.min.)StrainBCRL–Me,AccessionNo.ITCC6911
563.	NPVof*Helicoverpaarmigera*0.5%AS,(1x109POB/mlMin.)
564.	NPVofHelicoverpaarmigera 2.0%AS,(1x109POBscount/mlmin)Biological Insecticide
565.	NuclearPolyhedrosisVirusof*Helicoverpa armigera*0.43%AS(1x109POB/ml)
566.	NuclearPolyhedrosisVirusof*Helicoverpaarmigera*0.43%AS,StrainNo. BIL/HV-9(1x109POB/mlMin.)
567.	NuclearPolyhedrosisVirusofHelicoverpaarmigera2.0%AS,StrainNo. GBS/HNPV-01(1x109POB/ml Min.)
568.	NuclearPolyhedrosisVirusof*Helicoverpaarmigera*2.0%AS,StrainNo.NBRI-8821(1x109POB/mlMin.)
569.	NuclearPolyhedrosisVirusof*Helicoverpaarmigera*2.0%AS,StrainNo.IBH-17268(1x109POB/mlMin.)
570.	NuclearPolyhedrosisVirusof*Helicoverpaarmigera*2.0%AS,StrainNo. BIL/HV-9POB(1x109POB/mlMin.)
571.	NuclearPolyhedrosisVirus of*Helicoverpaarmigera*2.0%AS,StrainNo.IBL- 17268
572.	NuclearPolyhedrosis Virusof *Spodopteralitura*0.5%AS,(1x109POB/ml Min.)
573.	*Paecilomyceslilacinus*01.15%WP
574.	PB Rope L
575.	*Pseudomonasfluorescens*1.0%WP(StrainNo.IIHR-PF-2,AccessionNo.ITCC- B0034)
576.	*Trichodermaharzianum*1.0%WP(StrainNo.IIHR-TH-2AccessionsNo.ITCC 6888)
577.	*Trichodermaharzianum*1.5%WP(Strain No.IIHR-TV-5AccessionsNo.ITCC 6889)
578.	*Trichodermaviride*1.5%WP(StrainNo. IIHR-TV-5AccessionsNo.ITCC6889)
579.	*Verticilliumchlamydosporium*1.0%WP,(2x106CFU/gmmin)Strain –IIHR-VC- 3AccessionNo – ITCC-6898
580.	*Verticilliumlecanii*1.15%WP,(1x10^{8}CFU/gmmin)Strain–ASMEGH-VL AccessionNo–MCC-1028
581.	*VerticilliumLecanii*1.50%LiquidFormulation,(1x10^{8}CFU/ml.min.)Strain–T StanesVI-1,AccessionNo– MTCC-5172
582.	*Verticilliumlecanii*3.0%AS,(strain:AccessionNo.MCC-1127,StrainNo.MPKV /Biocontrol/RVN/VL-01
583.	*Verticilliumlecanii*5.0%SC,(1x10^{8}CFU/gmMin.)Strain –OwnRedIsolate, Strain No.VI-17874,MTCCNo.5716
584.	*Verticilliumlecanii*5.0%SC,(Strain:AccessionNo.NFCCI-2638

F: BIO-FUNGICIDES	
Sr No.	**Formulation registered**
585.	*Ampelomycesquisqualis*2.0%WP(Aq-1MTCC-5683)
586.	*Bacillussubtilis*1.0%WP(CPBT15,MTCC5527)
587.	*Bacillussubtilis*1.15%A.S
588.	*Bacillussubtilis*1.5%LF(Bs-1,MTCC25072)
589.	*Bacillussubtilis* 1.5%A.S.(BIL,BS-168)
590.	*Bacillussubtilis* 1.5%A.S.(KTSBMTCC5786)
591.	*Bacillussubtilis*2.0%A.S.(IPL/BS/09,MTCC-5728)
592.	*Pseudomonasflourescens*1.5%LF(PF-1,MTCCNo.5671)
593.	*Pseudomonasfluorescens*0.5%W.P.(TNAUPF1ITCCBE-0005)
594.	*Pseudomonasfluorescens*1.0%W.P.(IIHR-PF-2, ITCCB-0034)
595.	*Pseudomonasfluorescens* 1.0%W.P.(IPL/PS-01,MTCC-5727)
596.	*Pseudomonasfluorescens* 1.5%A.S.(AS-AAIF,MCC2539)
597.	*Pseudomonasfluorescens*1.5%WP
598.	*Pseudomonasfluorescens*1.75%WP(PF-1MTCCNo.5671)
599.	*Pseudomonasfluorescens*2.0%A.S.(IPL/PS-01)
600.	*Trichodermaharzianum*0.5%WS(T-39)
601.	*Trichodermaharzianum*1.0%WP(Th3,ITCC-5593)
602.	*Trichodermaharzianum*1.0%W.P.(IIHR-Th-2,ITCC-6888)
603.	*Trichodermaharzianum*2.0%A.S.(IPL/VT/1026893)
604.	*Trichodermaharzianum*2.0%WP (NBRI-1055)
605.	*Trichodermaharzianum*5.0%SC(ITCC-7111)
606.	*Trichoderma harzianum*5.0%WP
607.	*Trichodermaressei*3.0%WP(CSR-T-3,NAIMCC-SF-0030)
608.	*Trichodermaviride*0.50%W.P.
609.	*Trichodermaviride*1.0%AS(TV-AAU-RJP,MCC-1013)
610.	*Trichodermaviride*1.0%W.P.(Tv-1,ITCC-6914)
611.	*Trichodermaviride*1.00%W.P.(IPL/VT/101)
612.	*Trichodermaviride*1.00%W.P.(T-14)
613.	*Trichodermaviride*1.5%LF(Tv-1,MTCC-5170)
614.	*Trichodermaviride*1.5%W.P.(IIHR-Tv-5,ITCC-6889)
615.	*Trichodermaviride*2%W.P.(BHU, NAIMCC-F-02976)
616.	*Trichodermaviride*5%LF(NAIM-F-03034)

FORMULATIONS OF COMBINATION OF PESTICIDES	
A. INSECTICIDES	
Sr No.	**Formulation registered**
617.	Acephate 25%+ Fenvalerate 3% EC
618.	Acephate 45%+ Cypermethrin 5% DF
619.	Acephate 50%+ Bifenthrin 10% WDG
620.	Acephate 50%+ Fiproni l5% WDG
621.	Acephate 50%+ Imidacloprid 1.8% SP
622.	Acetamiprid 0.4%+ Chlorpyriphos 20% EC
623.	Acetamiprid 1.1%+ Cypermethrin 5.5% EC
624.	Acetamiprid 20% + Chlorantraniliprole 20% WG
625.	Acetamiprid 25% + Bifenthrin 25% WG
626.	Alphacypermethrin 75 g/l + Teflubenzuron 75 g/l SC
627.	Benzpyrimoxan 10% + Pymetrozine 20% WG
628.	Benzpyrimoxan 15% + Fipronil 10% SC
629.	Benzpyrimoxan 10.0 % + Thiamethoxam 3.3 % SC
630.	Betacyfluthrin 8.49%+Imidacloprid1 9.81% OD
631.	Bifenthrin 2.5% + Acetamiprid 2.1% ME
632.	Bifenthrin 10% + Thiamethoxam 5% SC
633.	Bifenthrin 3% + Chlorpyriphos 30% EC
634.	Bifenthrin 8%+ Clothianidin 10% SC
635.	Buprofezin 20%+ Acephate 50% WP
636.	Buprofezin 20%+ Acetamiprid 2% WP
637.	Buprofezin 22.0%+ Fipronil 3.0% SC
638.	Buprofezin 23.1%+ Fipronil 3.85% SC
639.	Buprofezin 9.0%+ Acephate 24.0% WP
640.	Buprofezin 15%+ Acephate 35% WP
641.	Cartap hydrochloride 25% + Emamectin benzoate 1% SG
642.	CartapHydrochloride 4.0%+ Fipronil 0.50% GC
643.	Cartaphydrochloride 50%+ Buprofezin 10% WP
644.	CartapHydrochloride 7.5%w/w+ EmamectinBenzoate 0.25%w/w GR
645.	Cartap hydrochloride 7.5% + Chlorantraniliprole 0.4% GR
646.	Chlorantraniliprole 0.50%+ Thiamethoxam 1% GR
647.	Chlorantraniliprole 4.3%+ Abamectin 1.7% SC
648.	Chlorantraniliprole 8.8%+ Thiamethoxam17.5% SC
649.	Chlorantraniliprole 9.3% + Lambdacyhalothrin 4.6% ZC

650.	Chloropyriphos 16% + Alphacypermethrin 1% EC
651.	Chlorpyriphos 50% + Cypermethrin 5% EC
652.	Chlorpyriphos 50% + Cypermethrin 5% WG
653.	Clothianidin 3.5% + Pyriproxyfen 8% SE
654.	Cyantraniliprole 16.9% + Lufenuron 16.9% SC
655.	Cyantraniliprole 7.3% + Diafenthiuron 36.4% SC
656.	Cyantraniliprole 10 % + Pymetrozine 50 % WG
657.	Cyantraniliprole 19.8% + Thiamethoxam 19.8% FS
658.	Cyclanilide 2.10% + MepiquatChloride 8.40% SC
659.	Cyfluthrin 0.025% + Tranfluthrin 0.04% Aerosol
660.	Cypermethrin10% + Indoxacarb 10% SC
661.	Cypermethrin 3% + Quinalphos 20% EC
662.	Deltamethrin 0.02% + Allethrin 0.13% EC
663.	Deltamethrin 0.05% + Allethrin 0.04% EC
664.	Deltamethrin 0.15% + Piperonyl 0.55% EC
665.	Deltamethrin 0.15%+Fipronil 0.55% EC
666.	Deltamethrin 0.72% + Buprofezin 5.65% EC
667.	Deltamethrin 2.5% + D-trans-allethrin 2.0% EC
668.	Diafenthiuron 30% + Pyriproxyfen 8% SE
669.	Diafenthiuron 40% + Spinetoram 5% SC
670.	Diafenthiuron 47.0% + Bifenthrin 9.4% SC
671.	Diafenthiuron 48.0% + Dinotefuran 8.0% WG
672.	Diflubenzuron 20% + Deltamethrin 2% SC
673.	Dimethoate 20% + Cypermethrin 3% EC
674.	Dinotefuran 11% + Pymetrozine 36% WG
675.	Dinotefuran 15% + Pymetrozine 45% WG
676.	Dinotefuran 4% + Acephate 50% SG
677.	Dinotefuran 5% + Ethion 50% EC
678.	D-trans-allethrin 0.1% + Permethrin 0.03% + Imiprothroin 0.02% Aerosol
679.	Emamectin benzoate 1.1% + Diafenthiuron 30% SC
680.	EmamectinBenzoate1.5% + Fipronil 3.5% SC
681.	EmamectinBenzoate1.5% + Profenofos 35% WDG
682.	Emamectin benzoate 2.2% + Permethrin 15.3% SC
683.	EmamectinBenzoate 5% + Lufenuron 40% WG
684.	Emamectin benzoate 3.5% + Lambda cyhalothrin 5% WP
685.	Emamectin benzoate 3.8% + Thiamethoxam 20% WDG

686.	Ethion 40% + Cypermethrin 5% EC
687.	Ethiprole 10.7% + Pymetrozine 40% WG
688.	Ethiprole 40% + Imidacloprid 40% WG
689.	Etofenprox 6% + Diafenthiuron 25% WG
690.	Etoxazole 6 % + Abamectin 1.5 % SC
691.	Fenazaquin10% + Bifenthrin 4% EC
692.	Fenobucarb 20% + Buprofezin 5% SE
693.	Fenobucarb 22.5% + Buprofezin 11.25% + Acephate 2.5% ME
694.	Fipronil 10% + Diafenthiuron 30% WG
695.	Fipronil 15% + Deltamethrin 2.5% SC
696.	Fipronil 15%+ Flonicamid 15% WDG
697.	Fipronil 2.50% + Propargite 35.00% SE
698.	Fipronil 4%+ Acetamiprid 4%w/w SC
699.	Fipronil 4%+ Thiamethoxam 4%w/w SC
700.	Fipronil 40%+ Imidacloprid 40% WG
701.	Fipronil 15 % + Imidacloprid 5 % SC
702.	Fipronil 5% + Buprofenzin 20% SC
703.	Fipronil 15 % + Chlorantraniliprole 5 % SC
704.	Fipronil 7% + Hexythiazox 2%w/wSC
705.	Fipronil 8% + Pymetrozine 35% WG
706.	Flubendiamide19.92% + Thiacloprid19.92%SC
707.	Flubendiamide 3.50% + Hexaconazole 5%WG
708.	Flubendiamide 4%+ Buprofezin 20%SC
709.	Flubendiamide 7.5%+ Kresoximmethyl 37.5%SC
710.	Flubendiamide 8.33%+ Deltamethrin 5.56%SC
711.	Fluxametamide 3.8%+ Pyridaben 9.5% SC
712.	Fluxametamide 5.81 % + Bifenthrin 5.81 % EC
713.	Hexythiazox 3.5 + Diafenthiuron 42% WDG
714.	Imidacloprid 18.50% + Hexaconazole1.50% FS
715.	Imidacloprid 20%+ Bifenthrin 8% SL
716.	Imidacloprid 21% + Beta-cyfluthrin10.5% SC
717.	Imidacloprid 6.0% + Lambdacyhalothrin 4.0% SL
718.	Imiprothrin 0.05% + Cypermethrin 1.0% CL
719.	Imiprothrin 0.07% + Cypermethrin 0.20% Aerosol
720.	Imiprothrin 0.1% + Cyphenothrin 0.15%
721.	Indoxacarb 10% + Thiamethoxam 10% WG

722.	Indoxacarb 14.5% + Acetamiprid 7.7% SC
723.	Indoxacarb 5% + Fipronil 5% SC
724.	Isoprothiolane 28% + Fipronil 5%EC
725.	Methoxyfenozide 5% + Chlorpyriphos 25% SE
726.	Methoxyfenozide 20 % + Chlorantraniliprole 5 % SC
727.	Novaluron 5.25% + Emamectinbenzoate 0.9%w/w SC
728.	Novaluron 5.25%+ Indoxacarb 4.5%SC
729.	Novaluron 9.45% + Lambda cyhalothrin 1.9% ZC
730.	Phenthoate 45% + Cypermethrin 6%EC
731.	Profenofos 40% + Cypermethrin 4%EC
732.	Profenofos 50 % + Fenpropathrin 5 % EC
733.	Profenofos 40 % + Fenpyroximate2.50 % EC
734.	Profenofos 40% + Lambda cyhalothrin 1.5% EC
735.	Propargite 42% + Hexythiazox 2%EC
736.	Propargite 50% + Bifenthrin 5%SE
737.	Propoxur 0.5% + Cyfluthrin 0.025% Spray
738.	Propoxur 0.75% + Cyfluthrin 0.025% Aerosol
739.	Pyrethrin 0.05% + Malathion 1% Household
740.	Pyriproxyfen 10% + Bifenthrin 10%EC
741.	Pyriproxyfen 5% + Fenpropathrin 15%EC
742.	Pyriproxyfen 5.0% + Diafenthiuron 25%SE
743.	Pyriproxyfen 8% + Dinotefuran5% + Diafenthiuron18%SC
744.	Spinoteram 5.66% + Methoxyfenozide 28.3% SC
745.	Spirotetramat11.01%+Imidacloprid11.01%SC
746.	Tetraniliprole 10.08 % + Thiacloprid 30.25 % SC
747.	Thiamethoxam 0.4% + Bifenthrin 0.8% GR
748.	Thiamethoxam 0.9% + Fipronil 0.2%GR
749.	Thiamethoxam 1.0% + Chlorantraniliprole 0.5%GR
750.	Thiamethoxam12.6% + Lambda-cyhalothrin 9.5%ZC
751.	Tolfenpyrad 15% + Bifenthrin 7.5% SE
752.	Transfluthrin1.0% + Cypermethrin 0.25%Spray
753.	Thiocyclam hydrogen oxalate 3.0% + Clothianidin 1.2% GR
	B. **FUNGICIDES**
Sr No.	**Formulation registered**
754.	Ametoctradin 27%+Dimethomorph 20.27%SC
755.	Azoxystrobin 11.0%+Tebuconazole18.3%SC
756.	Azoxystrobin 11.5%+Mancozeb 30.0%WP

757.	Azoxystrobin 12.5%+Tebuconazole 12.5%SC
758.	Azoxystrobin 120g/l+Tebuconazole 240g/lSC
759.	Azoxystrobin 14% +Epoxiconazole 09%SC
760.	Azoxystrobin16.7%+Tricyclazole 33.3%SC
761.	Azoxystrobin18.2%+Cyproconazole 7.3%SC
762.	Azoxystrobin18.2%+Difenoconazole 11.4%SC
763.	Azoxystrobin 4.7%+Mancozeb59.7%+Tebuconazole 5.6%WG
764.	Azoxystrobin 4.8%+Chlorothalonil 40.0%SC
765.	Azoxystrobin 5.1%+Tebuconazole9.1 %+ Prochloraz18.2% EC
766.	Azoxystrobin 7.1%+Propiconazole 11.9%SE
767.	Azoxystrobin 8.3%+Mancozeb 66.7%WG
768.	Azoxystrobin 20% + Thifluzamide 15% SC
769.	Benalaxyl 8.0 %+Mancozeb 65%WP
770.	Benalaxyl-M4.0%+Mancozeb 65.0%WP
771.	Boscalid25.2+Pyraclostrobin 12.8%WG
772.	Captan70% + Hexaconazole 5%WP
773.	Carbendazim 1.92% + Mancozeb10.08%GR
774.	Carbendazim12% + Mancozeb 63%WP
775.	Carbendazim12% + Mancozeb 63%WS
776.	Carbendazim 25%+Flusilazole 12.5%SE
777.	Carbendazim 25% + Mancozeb 50%WS
778.	Carboxin17.5% +Thiram1 7.5% FF
779.	Carboxin 37.5% +Thiram37.5%WS
780.	Chlorothalonil 40% + Difenconazole 4%w/w SC
781.	CopperSulphate 47.15% + Mancozeb 30%WDG
782.	Copper Oxychloride 47% + Metalaxyl 8% WP
783.	Cymoxanil 8%+Mancozeb 64%WP
784.	Difenconazole10% +Mancozeb 50%WDG
785.	Difenoconazole 6% + Validamycin 6% SC
786.	Dimethomorph 12%+Pyraclostrobin 6.7%WG
787.	Famoxadone 16.6%+Cymoxanil 22.1%SC
788.	Fenamidone 10%+Mancozeb 50%WDG
789.	Fenamidone 4.44% + Fosetyl-Al 66.66%WDG
790.	Fenoxanil 5%+ Isoprothiolane 30% EC
791.	Fluopicolide 5.56%+Propamocarbhydrochloride 55.6%SC
792.	Fluopyram 17.7%+Tebuconazole 17.7% SC

793.	Fluopyram 21.37% + Trifloxystrobin 21.37% SC
794.	Fluxapyroxad 167g/L+Pyraclostrobin 333g/lSC
795.	Fluxapyroxad 250g/l + Pyraclostrobin 250g/l SC
796.	Fluxapyroxad 62.5g/l +Epoxiconazole 62.5g/l EC
797.	Fluxapyroxad 75g/l +Difenconazole 50g/l SC
798.	Hexaconazole 4%+Carbendazim16%w/w SC
799.	Hexaconazole 4%+ Zineb 68%WP
800.	Hexaconazole 5%+Validamycin 2.5%SC
801.	Iprodion 25% + Carbendazim 25% WP
802.	Iprovalicarb 5.5% + Propineb 61.25%WP
803.	Kasugamycin 5% + CopperOxychloride 45%WP
804.	Kasugamycin 6% +Thiafluzamide 26% SC
805.	Kresoximmethyl 15% + chlorothalonil 56%WG
806.	Kresoximmethyl 18% + Mancozeb 54%w/w WP
807.	Kresoximmethyl 40%+Hexaconazole8%w/w WG
808.	Mancozeb 40%+Azoxytrobin 7.0%w/w OS
809.	Mancozeb 68% + Hexaconazole 4% WG
810.	Mancozeb 50%+Thiophanatemethyl 25%WG
811.	Mancozeb 60% + Pyraclostrobin 5% w/w WG
812.	Mandipropamid 5.0%+Mancozeb 60.0%WG
813.	Mefentrifluaconazole 133g/l + Fluxapyroxad 89g/l +Pyraclostrobin 178 g/l SC
814.	Metalaxyl–M 3.3%+Chlorothalonil 33.1%SC
815.	Metalaxyl-M 3.9%+Mancozeb 64%WG
816.	Metalaxyl-M 8%+Mancozeb 64%WP
817.	Metalaxyl-M 4%+Mancozeb 64%WP
818.	Metiram 44%+Dimethomorph 9%WG
819.	Metiram 55%+Pyraclostrobin 5%WG
820.	Oxathiapiprolin 2.77% + Mandipropamid 23.08% SC
821.	Penflufenl 3.28%+Trifloxystrobin 13.28FS
822.	Picoxystrobin 6.78%+Tricyclazole 20.33%SC
823.	Picoxystrobin 7.05%+Propiconazole 11.7%SC
824.	Prochloraz 23.5%+Tricyclazole 20% SE
825.	Prochloraz 24.4%+Tebuconazole 12.1%EW
826.	Prochloraz 34.8%+Propiconazole 7.8%EC
827.	Prochloraz 5.7%+Tebuconazole 1.4%ES
828.	Propiconazole 10.7%+Tricyclazole 34.2%SE

829.	Propiconazole 13.9%+Difenoconazole 13.9%EC
830.	Propineb 54.2%+Tricyclazole 15.0%WP
831.	Pyraclostrobin 133g/l+Epoxiconazole 50g/l(w/v)SE
832.	Pyraclostrobin 10% + Thifluzamide 10% SC
833.	Pydiflumetofen 6.89% + Difenoconazole 11.49% SC (Pydiflumetofen 7.5% + Difenoconazole 12.5% SC)
834.	Sedaxane12.61%+Azoxystrobin3.15%+Thiamethoxam22.06%FS
835.	Sedaxane 15.27% + Fludioxonil 7.64 + Metalaxyl-M 3.06% FS
836.	Streptomycin+Tetracycline(90+10)
837.	Tebuconazole10% +Sulphur65%WG
838.	Tebuconazole15%+Zineb57%WDG
839.	Tebuconazole 50%+Trifloxystrobin 25%WG
840.	Tebuconazole 6.7% +Captan 26.9% SC
841.	Thiafluzamide 15% + Difenconazole 20% SC
842.	ThiophanateMethyl 38%+Kasugamycin 2.23SC
843.	ThiophanateMethyl 450g/L+Pyroclostrobin 50g/L FS
844.	Tricyclazole 18%+Mancozeb 62%WP
845.	Tricyclazole1 8.0+Tebuconazole 14.4%SC
846.	Tricyclazole 20.4%+Azoxystrobin 6.8%SC
847.	Tricyclazole 45%+Hexaconazole 10%WG
848.	Triticonazole 80g/l+Pyraclostrobin 40%g/lFS
849.	Trifloxystrobin 10% + Difenoconazole 12.5% + Sulphur 3% SC
850.	Trifloxysrobin 6% + Thiamethoxam 24% + Thiophanate methyl 9.5% FS
851.	Valifenalate 6%+Mancozeb 60%WG
852.	Validamycin 5% + Tebuconazole 15% SC
C. HERBICIDES	
Sr No.	**Formulation registered**
853.	2,4-D SodiumSalt 44%+Metribuzin 35%+ Pyrazosulfuronethyl 1.0%WDG
854.	2,4-D Sodium salt 48% + Metribuzin 32% + Chlorimuron ethyl 0.85% WDG
855.	2,4-D sodium salt 50% + Metribuzine 15% WP
856.	Ametryn 73.1%+TrifloxysulfuronSodium1.8% WG
857.	Anilofos 24%+ 2,4-D Ethyl Ester32%EC
858.	Bensulfuronmethyl 0.6%+Pretilachlor 6%Gr.
859.	Bensulfuron methyl 4.8% + Pretilachlor 48% OD
860.	BispyribacSodium 20%+PyrazosulfuronEthyl1 5%WDG
861.	Bispyribac sodium 38% + Chlorimuron ethyl 2.5% + Metsulfuron methyl 2.5% WG
862.	Bispyribac sodium 2.00% + 2,4-D sodium salt 54.30% SP
863.	Bispyribac sodium 9.5% + Penoxsulam 7.8% SC

864.	Carfentrazoneethyl 0.43%+Glyphosate 30.82%EW
865.	Carfentrazoneethyl 20%+Sulfosulfuron 25%WG
866.	Clodinafoppropargyl 15%+Metsulfuronmethyl 1%WP
867.	Clodinafoppropargyl 9%+Metribuzin 20%WP(w/w)
868.	Clodinafop- propargyl 12.25 % + Oxyfluorfen 14.7 % EC
869.	Clomazone 20% + 2,4-DEthyl Ester 30%EC
870.	Clomazone22.5%+Metribuzin 21%WP
871.	Diclosulam 0.9% + Pendimethalin 35% SL
872.	Diuron 25.6% + Glyphosate 14.9% + Oxyfluorfen 11.5% SC
873.	Fenoxaprop-p-ethyl 7.77%+ Metribuzin13.6% EC
874.	Fenoxaprop-p-ethyl 6% + Chlorimuron ethyl 0.9% + Imazethapyr 10% SC
875.	Fenoxaprop p ethyl 5% + Chlorimuron ethyl 0.6% + Pretilachlor 50% ME
876.	Florpyrauxifen-benzyl 1.31% +Penoxasulam 2.1%OD
877.	Florpyrauxifen-benzyl 2.13% + Cyhalofop butyl 10.64% EC
878.	Fluazifop-p-butyl 11.1%+Fomesafen 11.1%SL
879.	Fluthiacet-methyl 2.5 % + Quizalofop-ethyl 10 % EC
880.	Fomesafen12%+ Quizalofopethyl 3%SC
881.	Fomesafen 12.5% + Quizalofop ethyl 4.68% EC
882.	Fomesafen 16.8% + Propaquizafop 5.2% ME
883.	Fomesafen 17.5% + Clodinafop-propargyl 12.5% ME
884.	Glufosinate ammonium 13.4% + Oxyfluorfen 4.8% w/w EW
885.	Glufosinate ammonium 14.3% + Glyphosate (isopropyl ammonium) 18.04% SL
886.	Halauxifenmethyl 20.8%+Florasulam20.0%w/w WG (With Surfactant)
887.	Halosulfuronmethyl 12%+Metribuzin55%WG
888.	Halosulfuron methyl 6% + Metribuzin 50% WG
889.	Halosulfuronmethyl 5%+Atrazine48%WG
890.	Hexazinone13.2% + Diuron 46.8% WP
891.	Imazethapyr 35%+Imazamox35%WG
892.	Indaziflam1.65% + GlyphosateIsopropyl Ammonium 44.63%SC
893.	Mesosulfuronmethyl 3% +Iodosulfuronmethylsodium0.6% WG
894.	Mesotrione2.27%+Atrazine 22.7%SC
895.	Metribuzin 42% + Clodinafoppropargyl 12%WG
896.	Metribuzin 16.8% + 2,4-D sodium salt 56% WP
897.	Metsulfuronmethyl 10%+Carfentrazoneethyl 40%DF
898.	Metsulfuronmethyl 10%+Chlorimuronethyl 10%WP
899.	Oxyfluorfen 2.5% + Glyphosate(Isopropyl amine salt) 41%SC

900.	Oxadiargyl 1% + Pretilachlor 6% GR
901.	Paraquat dichloride 7.50% + Glyphosate 30% SC
902.	Paraquat dichloride 24% + Oxyfluorfen 5% SC
903.	Pendimethalin 30%+Imazethapyr 2% EC
904.	Pendimethalin 35%+ Metribuzin 3.5%SE
905.	Pendimethalin 38.4%+Pyrazosulfuronethyl 0.85%ZC
906.	Pendimethalin 15% + Pyrazosulfuron ethyl 0.15% GR
907.	Pendimethalin 40%+ Metribuzin 8% EC
908.	Penoxsulam 0.97%+ Butachlor 38.8% SE
909.	Penoxsulam 1.02 %+ Cyhalofop-butyl 5.1% OD
910.	Penoxsulam 1% + Pendimethalin 24% SE
911.	Pretilachlor 30.0% + Pyrazosulfuron Ethyl 0.75%WG
912.	Pretilachlor6%+PyrazosulfuronEthyl0.15%(H)
913.	Pretilachlor 6.0%+Pyrazosulfuron Ethyl 0.15%GR
914.	Propaquizafop 2.5%+ Imazethapyr 3.75% w/w ME
915.	Propaquizafop 5%+ Oxyfluorfen12% w/w EC
916.	Pyriftalid 31.0%w/w+ Bensulfuronmethyl 15.7%w/w SC
917.	PyrithiobacSodium 6%ECw/w + Quizalofop-ethy l4%ECw/w MEC
918.	Pyrithiobac sodium 3.1% + Pendimethalin 34.0% ZC
919.	Saflufenacil 68 g/l + Dimethanamid-P 600 g/l EC min
920.	Quizalofopethyl 10%EC+Chlorimuronethyl 25%WP+Surfactant(0.2)(Herbicide)(Twin pack)
921.	Quizalofopethyl 4%+Oxyfluorfen 6%EC
922.	Quizalofopethyl 7.5%+Imazethapyr 15%w/wEC
923.	SodiumAcifluorfen1 6.5% + Clodinafop propargyl 8% EC
924.	Sulfentrazone 28%+ Clomazone 30% WP
925.	Sulfosulfuron 75%+MetsulfuronMethyl 5%WG
926.	Topramezone 10g/l +Atrazine 300g/l SC
927.	Topramezone 32 g/l + Dimethenamid-p 538 g/l EC
928.	Triafamone 20%+ Ethoxysulfuron l0%WG
	D. INSECTICIDE + FUNGICIDE
Sr No.	**Formulation registered**
929.	Azoxystrobin 1.3%+Tebuconazole0.22%+Thiamethoxam 25.9% FS
930.	Azoxystrobin 2.5%+ThiophanateMethyl 11.25%+Thiamethoxam 25%FS
931.	Azoxystrobin 10% + Fipronil 5% SC
932.	Carboxin 22.5% + Thiram 22.5% + Imidacloprid 18% WS
933.	Flubendiamide 3.5%+Hexaconzole 5%WG

934.	Flubendiamide 7.5%+Kresoximmethyl 37.5%SC
935.	Imidacloprid 18.5%+Hexaconzole1.5%FS
936.	Isoprothiolane 28%+Fipronil 5% EC
937.	Pyraclostrobin 3.5% + Thiram 15% + Clothianidin 22.5% FS
938.	Pyraclostrobin 10% + Fipronil 5% SC
939.	Pymetrozine 25.0% + Thiamethoxam 17.5% + Hexaconazole 12.5% WG
940.	Pymetrozine 30 % + Tebuconazole 37 % WG
E. PLANT GROTH REGULATORS	
941.	Cyclanilide 2.10% w/w +Mepiquat Chloride 8.40% w/w SC
942.	Gibberellic acid 1.8% + 6-Benzyl Adenine 1.8% L (Promalin)
F. PLANT GROWTH REGULATOR + FUNGICIDE	
943.	Tricontano l80 g/ L + Pyraclostrobin 40g/L FS
G. NEMATICIDE	
944.	Fluensulfone 2% GR
945.	Fluopyram 34.48 % w/w SC
946.	Fluazaindolizine 41.15% SC

HARYANA STATE POLLUTION CONTROL BOARD
SCO No.55, SECTOR-25, HUDA, PANIPAT

Ph. – (0180) 2672037, Telefax – 2664951, E-mail: hspcbropr@gmail.com

No.HSPCB/PR/2024/909 Dated 16-08-2024

To

M/s Nexa Chemicals Pvt Ltd.,
VPO Sutana Tehsil Madlauda Panipat.

Sub: Show cause notice under section 27 of Water Act, 1974 for withdrawal of consent-regarding disposal of effluent generated from wet scrubber.

Whereas your unit is covered under consent management of the Board under Orange category and obtained CTO from the Board upto 31/03/2027 vide No.HSPCB/Consent/:320392517PITCTO4347962 dated 16/10/2017.

Whereas your unit was inspected on 02/07/2024 by this office alongwith CPCB and during the inspection following deficiencies were observed by the committee:

1. Unit has not provided an effluent treatment plant (ETP) for treating the effluent generated from the wet scrubber. Further, the residue recovered from this treatment must be disposed of in accordance with the HWM Rules, 2016. Furthermore, the Consent to Operate (CTO) and the Authorization issued by HSPCB do not mention anything about the generation, treatment, or disposal of effluent and hazardous residue from the wet scrubber. The CTO mentions the quantity of trade effluent as NIL.

In view of that above, you are hereby directed to show cause within **15 days**, as to why CTO granted to your unit may not be withdrawal under the provision of section 27 of Water Act, 1974 beside imposition of Environmental compensation as per policy of the Board.

In case you fail to comply with the deficiencies mentioned above within the above mentioned stipulated period, it will be presumed that you have nothing to say in this regard and accept the status as above, which will warrant action under the provision of section 27 of Water Act, 1974.

The reply of SCN submitted to concerned RO offices shall only be considered and in case unit submitted their reply to other offices of the Board. The same is not liable for consideration on any legal forum.

Further representative of the units may also come in person at the concerned regional office to represent against the proposed action communicated through show cause notice, within the stipulated time period mentioned in show cause notice.

This may be treated as MOST URGENT.

Regional Officer
Panipat Region

STATE POLLUTION CONTROL BOARD
C-11 Sector-6, Panchkula
Ph – 0172- 577870-73, Fax No. 2581201
E-mail- hspcbplanning@gmail.com
Website: hspcb.gov.in

Office Order.

Whereas, Hon'ble National Green Tribunal (NGT) has issued directions to impose penalty on non-complying polluting units and to levy compensation on the principle of "Polluter Pays" to recover the Environment compensation for the restoration of environmental damages caused;

Whereas, the Hon'ble NGT in the matter of Paryavaran Surksha samiti & Ors. Vs Union of India & Parveen Kakkar & Ors. Vs MOEF & Ors. it was held that:

> "*11. Needless to say that it will be open to the SPCBs/Committees and CPCB to take coercive measure including recovery of compensation for the damage to the environment on* " *Polluter Pays*" *as well as also to direct taking of such precautionary measure as may be....*"

Whereas, in the 63rd Conference of Chairmen and Member Secretaries of PCBs/Committees held on 18.03.2019 it was decided that SPCBs/PCCs may frame their guidelines on environmental compensation based on the CPCB's report circulated in the agenda of the said meeting and to provide their inputs environmental compensation report;

Whereas, the Board has decided to adopt the methodology suggested by the CPCB for assessment, imposing, collection and utilization environment compensation from the polluting units in the state of Haryana. Accordingly, a policy was framed by the Board vide order dated 29.04.2019 and dated 20.12.2019 in this regard, which have been superceded on 22.12.2021;

Whereas, the Board has constituted environment assessment compensation committee from time to time and presently the committee constituted vide order no. HSPCB/Estt./2023/4429-4437 dated 26.10.2023 is in force to assess the environment compensation of the units found operating in violation of the provisions of the environmental acts;

Whereas, the Regional Officer, Panipat vide his letter dated 29.08.2024 and subsequent clarification letter dated 11.09.2024 has proposed for levy of environmental compensation on the above said unit for an amount of Rs. 2,10,800/- under the HOWM Rules, 2016. The unit is engaged in manufacturing of pesticides and insecticides through formulation process and is covered under Orange Category of consent

management of the Board. The unit was inspected by the team of officials from the CPCB & the HSPCB on 02.07.2024 and during inspection, it was found that the unit has not obtained authorization under the HWM Rules, 2016 for the handling of empty barrels and has not made any agreement with the authorized service provider or proper disposal of hazardous waste (Sludge) generated from the wet scrubber. The SCN was issued to the unit vide letter dated 17.07.2024 to which unit has submitted reply on 24.07.2024 and stated that the unit has made all the compliances observed by the team. Further unit has obtained authorization under the HWM Rules and complied with the observations. As per policy order of CPCB environmental compensation for the procedural violations which has not caused environment damage is Rs.1,00,000/- per violation, therefore for the said non-compliance the EC has been recommended Rs. 2,00,000/-;

Whereas, RO has mentioned that the violation of the unit also falls under B1 category and accordingly environmental compensation as per the formula for determination of environment compensation to be recovered for violation of Hazardous and Other Waste (Management and Trans boundary movement) rules, 2016 is given as under:-

Environmental Compensation (EC) = Q x ERF x R

Where, Q is noticed or observed quantity (in tons) of hazardous or other wastes which have not been managed in compliance with various provisions of the Acts/Rules/Guidelines/conditions of the authorization/directions issued by CPCB/SPCB/PCC/MOEF&CC (barring procedural violations which have not caused environmental damage), ERF = Environmental Risk Factor which is a number denoting the increasing degree of risk to the environment and human health. R= Environmental Compensation factor, which may be taken as Rs. 30,000. As per field inspection report dated 02.07.2024, 0.6 TPA of sludge was generated in the unit and since unit was operating from more than 03 years therefore Y factor is taken as 06, and accordingly the value of Q is taken as 0.6 ton, ERF is taken as 0.1. The unit is thus liable to pay the environmental compensation as per the letter no, HSPCB/PLG/2021/2343-2381 dated 22.12.2021 of the Board, Accordingly, after deliberations, the environmental compensation is calculated and finalized as under:

EC=QxERFxR=0.6x6x0.1x30000 = Rs.10,800/-

Total EC= 2,00,000+10,800= 2,10,800/-

Therefore, M/s Nexa Chemicals Pvt Ltd, VPO Sutana Tehsll Madlauda Panlpat is hereby directed to deposit Rs. **2,10,800**/- (Rupees Two lac ten thousand eight hundred only) towards environmental compensation penalty for the damage caused to the environment, with the Haryana State Pollution Control Board in its account no. 100053543757 having IFSC code no. INDB0000164 in INDUSIND BANK situated at Sector-9, Panchkula, within a period of 30 days, failing which unit shall be liable for action under the applicable

provisions for non compliance of the directions of the Board.

Dated Panchkula, the **P. RAGHAVENDRA RAO**
24-10-2024 **CHAIRMAN**

Endst.No. HSPCB/PLG/2024 **Dated:-**

A copy of the above is forwarded to the following for information and necessary action please:

1. The Regional Officer, Panipat Region, Panipat.
2. Sr. Accounts Officer, HSPCB Panchkula.
3. M/s Nexa Chemicals Pvt Ltd, VPO Sutana Tehsll Madlauda Panlpat.

Signed by
Vikas Chand
Date: 24-10-2024 18:32:42

Env. Engineer (HQ)
For Chairman

NEXA CHEMICALS PRIVATE LIMITED

Address: Village Sutana, Tehsil Madlauda, District Panipat, Haryana
Contact Details: nexachemicals@gmail.com, 94168-02304

To

The Regional officer

HSPCB,

Panipat

Subject: Deposit Amount For Environmental Compensation Penalty

R/sir

We are direct by department to deposit by environmental compensation penalty for the damage caused to the environment, with the Haryana State Pollution Control Board in its account no- 100053543757 having IFSC code no. INDB0000164 in INDUSIND BANK situated at Sector-9, Panchkula, with UTR NO:-CLBLN24316004437 on Date-12-11-2024 & Account Statement Attached with copy and RTGS.

So. You are requested to please do the needful

Thanks & Regards

Nexa Chemicals Privated Limited

Director

For Nexa Chemicals Pvt. Ltd.
Anil Kumar
Director

Capital Small Finance Bank Ltd.

STATEMENT OF ACCOUNT

Date 14-Nov-2024
Time 13:05:56

M/s NEXA CHEMICALS PRIVATE LIMITED
VILLAGE SUTANA
MADLAUDA
PANIPAT, HARYANA

Branch		Statement	Page
PANIPAT			1 of1
Account Number		**Currency**	**Opening Date**
108300000008		INR	10-Nov-2020
Type of Account		**Period**	
CC-Domestic	10-Nov-2024	14-Nov-2024	
IFSC	CLBL0000108	**MICR**	132545002

Date	Value Date	Transaction	Debit	Credit	Balance
		Opening Balance			49,18,541.42 DB
11-Nov-2024	11-Nov-2024	RTGS CREDIT:GERMAN PESTICIDES IN UTR :SBINR12024111161536433 STATE BANK OF		2,00,000.00	47,18,541.42 DB
12-Nov-2024	12-Nov-2024	NEFT To: HARYANA STATE POLLUTION CONTROL IN SLP:395671	2,10,800.00		49,29,341.42 DB
		Total	2,10,800.00	2,00,000.00	
		Closing Balance			

HARYANA STATE POLLUTION CONTROL BOARD
SCO No.55, SECTOR-25, HUDA, PANIPAT
Ph. – (0180) 2672037, Telefax – 2664951, E-mail: hspcbropr@gmail.com

No.HSPCB/PR/2024/920 Dated 16-08-2024

To

M/s Nexa Chemicals Pvt Ltd.,
VPO Sutana Tehsil Madlauda Panipat.

Sub: **Direction not to manufacture technical pesticides even as intermediate products.**

Whereas your unit is covered under consent management of the Board under Orange category and obtained CTO from the Board upto 31/03/2027 vide No.HSPCB/Consent/:320392517PITCTO4347962 dated 16/10/2017.

Whereas your unit was inspected on 02/07/2024 by this office alongwith CPCB in compliance of Hon'ble NGT Orders.

Whereas CTO was granted to your unit with some general and specific conditions. Now one more specific condition is inserted at Sr. No.11 as under:-

11. That the unit will not manufacture technical pesticides even as intermediate products.

In view of that above, you are hereby directed to strictly comply with the above said condition failing which relevant action under the provision of section 25/27 of Water Act, 1974 and section 22 of Air Act, 1981 will be taken, beside imposition of Environmental compensation as per policy of the Board

This may be treated as MOST URGENT.

Regional Officer
Panipat Region

केन्द्रीय प्रदूषण नियंत्रण बोर्ड
CENTRAL POLLUTION CONTROL BOARD
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार
MINISTRY OF ENVIRONMENT, FOREST & CLIMATE CHANGE, GOVT. OF INDIA

CP-18/1/2023-IPC-VI-HO-CPCB-HO

Date: 12.02.2025

To

The Chairman
State Pollution Control Board/Pollution Control Committee
(As per the list)

Sub: Directions under section 18(1)(b) of the Water (Prevention & Control of Pollution) Act, 1974 and the Air (Prevention & Control of Pollution) Act, 1981 regarding harmonization of classification of industrial sectors under Red, Orange, Green, White and Blue categories.

WHEREAS, under section 16 (2)(b) of the Water (Prevention and Control of Pollution) Act, 1974 and under Section 16 (2)(c) of the Air (Prevention & Control of Pollution) Act, 1981, one of the functions of the Central Pollution Control Board (CPCB), constituted under the Water (Prevention and Control of Pollution) Act, 1974, is to coordinate activities of the State Pollution Control Boards (SPCBs) and Pollution Control Committees (PCCs); and

WHEREAS, under section 16 (2)(c) of the Water (Prevention and Control of Pollution) Act, 1974 and under Section 16 (2)(d) of the Air (Prevention & Control of Pollution) Act, 1981, one of the functions of the CPCB is to provide technical assistance and guidance to SPCBs and PCCs; and

WHEREAS, it was brought to the notice of CPCB, that different SPCBs/PCCs were following different criteria for the classification of industrial sectors under different categories. Therefore, in 2012, to have uniformity in classification throughout the country, CPCB vide letter no. B-29012/1/2012/ESS/1526-1563, dated 04.06.2012 issued directions under section 18(1(b) of the Water Act, 1974 and the Air Act, 1981 to SPCBs/PCCs to adopt and implement standardized list of Red, Orange and Green categories of industries; and

WHEREAS, in 2016, the Central Pollution Control Board (CPCB) developed a scoring methodology based on the Pollution Index (PI) to harmonize the criteria for classification of industrial sectors. The PI is determined based on Precautionary Principle- by evaluating potential of water pollution, air pollution, and hazardous waste generation from particular sector. CPCB vide letter no. B-29012//ESS(CPA)/2015-16, dated 07.03.2016 issued directions under section 18(1(b) of the Water Act, 1974 and the Air Act, 1981 to SPCBs/PCCs to adopt and implement revised classification. SPCBs/PCCs were also directed to categorize any new or left over sectors at their level by constituting a Committee and following the methodology prescribed by CPCB; and

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Parivesh Bhawan, East Arjun Nagar, New Delhi - 110032
दूरभाष/Tel: 43102030, 22305792, वेबसाईट/Website : www.cpbc.nic.in

WHEREAS, CPCB vide letter no. B-29016/ROGW/IPC-VI/2020-21, dated 30.04.2020, issued directions under section 18(1)(b) of the Water Act, 1974 and the Air Act, 1981 to SPCBs/PCCs regarding segregated list of non-industrial sectors (activities/ facilities/ infrastructure/ services) such as sewage treatment plants, healthcare facilities, hotels, building and construction projects, airports, highways etc. Further, CPCB also classified few additional sectors from time to time; and

WHEREAS, based on the experience gained over the years in Pollution Index calculation, use of cleaner fuels like PNG/CNG etc., adoption of cleaner technology resulting in reduced emission/wastewater generation, a need was felt to revisit the classification methodology of 2016; and

WHEREAS, during July 2023, CPCB prepared a "Draft Report on Classification of Industrial Sectors into Red, Orange, Green and White Categories: A Tool for Progressive Environmental Management" which was uploaded on CPCB website for seeking comments/suggestions of the stakeholders/public on the same. The draft report was also circulated to SPCBs/PCCs/MoEF&CC for comments; and

WHEREAS, CPCB vide office order dated 26.09.2023 constituted a committee to critically examine and analyse the comments/suggestions and to make recommendations for suitable incorporation in the finalizing the methodology and classification; and

WHEREAS, based on the stakeholders' comments, a need was felt to promote/incentivize units for adopting measures resulting in better environmental performance. Additionally, a requirement was also felt for separate category – Blue Category- for essential environmental services for management of environmental pollution arising from domestic/household activities. Accordingly, CPCB prepared an "Addendum and substitution thereto in Draft Report on Classification of Sectors into Red, Orange, Green, White and Blue Categories", which was shared with SPCBs/PCCs and also uploaded on CPCB website on 11.07.2024 for seeking inputs/comments; and

WHEREAS, the amendment in Section-21 of the Air (Prevention and Control of Pollution) Act, 1981 through the Jan Vishwas (Amendment of Provisions) Act, 2023 and amendment in Section-25 of the Water (Prevention and Control of Pollution) Act, 1974 through the Water (Prevention and Control of Pollution) Amendment Act, 2024, grant exemption to certain categories of industries, as notified by Central Government, for obtaining consent under these Acts; and

WHEREAS, the Ministry of Environment, Forest and Climate Change, Government of India vide notification no. G.S.R. 702(E), dated 12.11.2024 granted exemption of consent under the Water Act, 1974 and the Air Act, 1981 to exemption of Consent to Establish (CTE) and Consent to Operate (CTO) to all industrial plants having pollution index score upto 20 (at present total 39 industrial sectors under white categories as per 2016 methodology) subject to

condition that such plant shall inform in writing to the concerned State Pollution Control Board (SPCB) or Pollution Control Committee (PCC); and

WHEREAS, the MoEF&CC vide letter no. Q-15012/2/2022/-CPW-Part (1)/e-240741, dated 14.11.2024 has issued Standard Operating Procedure for implementation of the said Notification dated 12.11.2024. The SOP includes the following provisions for White categories of industries:

i. Industry to intimate to concerned SPCB/PCC about operations and self-declare the compliance with prevalent rules & regulations,
ii. Concerned SPCB/PCC to maintain separate list of such industries/activities, and
iii. Concerned SPCB/PCC to ensure that no activities other than those intimated, are carried out by exempted units.

WHEREAS, the Committee constituted by CPCB evaluated the comments, incorporated the suitable changes and finalized the revised methodology as well as classification of sectors. Final report in this regard titled as "Classification of sectors in to Red, Orange, Green, White and Blue Categories (A tool for progressive environmental management)" was submitted to Ministry of Environment, Forest and Climate Change (MoEF&CC) for concurrence. The MoEF&CC vide letter no. Q-16017-57-2015-CPA, dated 15.01.2025 granted concurrence to the revised classification; and

WHEREAS, as per the revised methodology, the category of the sector is decided based on the following ranges of Pollution Index:

i. Red: $PI \geq 80$,
ii. Orange: $55 \leq PI < 80$,
iii. Green: $25 \leq PI < 55$,
iv. White: $PI < 25$; and

WHEREAS, based on the revised methodology, CPCB has classified a total of 419 sectors and sub-sectors as under:

i. The Red Category: 125
ii. The Orange Category: 137
iii. The Green Catcgory: 94
iv. The White Category: 54
v. The Blue Category: 9; and

WHEREAS, the purpose of classification is to ensure that the industry is established in a manner consistent with the environmental objectives and also to prompt industrial sectors to adopt cleaner technologies, ultimately resulting in the generation of no or minimum pollutants. The revised classification system also defines criteria for incentivizing such industry. The industry may self-assess the PI score as per defined criteria and can submit application to respective SPCBs/PCCs for consideration; and

NOW, THEREFORE, in the exercise of the powers delegated under Section 18(1)(b) of the Water (Prevention & Control of Pollution) Act, 1974 and Section 18(1)(b) of the Air (Prevention & Control of Pollution), Act, 1981 the earlier directions dated 07.03.2016 and subsequent directions/letter in the context of categorization of industries are withdrawn with immediate effect and following **'Directions'** are hereby issued for compliance by all SPCBs and PCCs:

1. That SPCBs and PCCs shall immediately adopt the revised methodology for classification of sectors and list of 419 sectors/sub-sectors classified under Red, Orange, Green, White, and Blue categories as detailed in the **attached** report- "Classification of Sectors into Red, Orange, Green, White and Blue Categories (A tool for progressive environmental management)".
2. That all pending application for consideration of consent (CTE/CTO) and future such application shall be processed as per the revised classification. In case CTE granted before the revised classification, applicability of CTO will be as per revised classification.
3. That the revised sectors/subsectors classified under Red, Orange, Green, White, and Blue category of sectors as given in the attached document shall be used by the SPCBs and PCCs for consent management, inventorization of units under different categories, siting criteria, deciding environmental surveillance frequency, calculation of environmental compensation, etc., as per the guidelines issued from time to time.
4. That SPCBs and PCCs shall prepare the inventory of Red, Orange, Green, White and Blue categories of units operating in their jurisdictions, based on the revised classification. SPCBs and PCCs shall upload the category and sector-wise list of such units on their website. SPCBs and PCCs shall also forward such list to CPCB, latest by 30.06.2025 and thereafter updated list by 30th June every year.
5. That the classification of sectors shall not be linked to sanction of loans/finance of bank proceedings.
6. That any further addition of any new or left-out sector and their classification which is not listed in the revised list of Red, Orange, Green, and White categories, shall be done at the level of concerned SPCB /PCC by constituting a Committee and following revised criteria & guidelines as detailed in the attached report and no concurrence of CPCB shall normally be required. Intimation of same from time to time will suffice. However, addition in Blue Category Sectors-Essential Environmental Services for domestic waste management, will be done at the level of CPCB only. SPCBs/PCCs may forward their proposal, if any, to CPCB in this regard.
7. That SPCBs and PCCs are required to prepare and submit list of additional sector classified under white category to CPCB on annual basis, by 30th of June every year, in the prescribed format (Annexure-V) as given in the attached report, for further notification for exemption from consent as per the provisions of the Jan Vishwas (Amendment of Provisions) Act, 2023, the Water Act, and the Air Act as amended from time to time by MoEF&CC.
8. That SPCBs and PCCs shall constitute a committee as prescribed in the report to evaluate the applications of the units for incentives due to adopting measures resulting in better environmental performance and reduction in PI score. The SPCB/PCC shall

place the separate list of such units on their website and also submit list of such units to CPCB on Annual Basis by 30th June every year.

The SPCBs/PCCs shall acknowledge the receipt of directions and submit the "Action Taken Report" in compliance with these directions to CPCB before 20.02.2025.

Encl. As above.

(Bharat Kumar Sharma)
Member Secretary

Copy to:

1. The Chief Secretary of all the States and UTs
   (As per the list)
2. The Secretary,
   Ministry of Micro, Small and Medium Entrepreneurs
   Udyog Bhawan, Rafi Marg, New Delhi - 110 011
3. The Secretary,
   Ministry of Heavy Industries
   Udyog Bhawan, Rafi Marg, New Delhi - 110 011
4. The Secretary,
   Ministry of New and Renewable Energy
   Block-14, CGO Complex,
   Lodhi Road, New Delhi-110 003
5. The Joint Secretary (CP Division)
   Ministry of Environment, Forests and Climate Change
   Indira Paryavaran Bhawan
   Jor Bagh Road, New Delhi - 110 003
6. All Regional Directorates, CPCB
   (As per the list)

(Bharat Kumar Sharma)
Member Secretary

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5.	The Chief Secretary, Government of Chattisgarh, Mahanadi Bhawan, Mantralaya, Naya Raipur-492002 E-mail:- (Csoffice.cg@gov.in)	6.	The Chief Secretary, Government of Goa, Secretariat, Porvroim, Bardez, Goa-403521 E-mail:- (Cs-goa@nic.in)
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9	The Chief Secretary, Government of Himachal Pradesh, H.P Secretariat, Shimla-171002 E-mail:- (Cs-hp@nic.in)	10	The Chief Secretary, Government of Jammu & Kashmir, R. No. 2/7, 2nd Floor, Main Building, Civil Secretariat, Jammu-180001 E-mail:- (Cs-jandk@nic.in)
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35.	The Chief Secretary, Government of West Bengal, Nabanna, 13th Floor, 325 Sarat Chatterjee Road, Mandirtala, Shibpur, Howrah-711102 E-mail:- (Cs-westbengal@nic.in)	36	The Advisor to Hon'ble Lt. Governor of Ladakh, Civil Secretariat, Leh-Ladakh-194101 E-mail:- (Advisor-lg-ladakh@gov.in)

Address List of The Chairman, SPCBs/PCCs			
1.	The Chairman Andhra Pradesh Pollution Control Board D.No. 33-26-14 D/2, Near Sunrise Hospital, Pushpa Hotel Centre, Chalamvari Street, Kasturibaipet, Vijayawada- 520007 (Andhra Pradesh) Email:- (chairman@appcb.gov.in)	2.	The Chairman Arunachal Pradesh State Pollution Control Board Paryavaran Bhawan, Yupia Road, Papu Nalah, Naharlagun – 791110 (Arunachal Pradesh) Email-: (arunachalspcb@gmail.com)
3	The Chairman Assam Pollution Control Board Bamunimaidan, Guwahati – 781021 (Assam) Email:- (chairman@pcbassam.org)	4	The Chairman Bihar State Pollution Control Board PariveshBhawan, Plot No.N-B/2, Patliputra Industrial Area Patna-800010 (Bihar) Email:- (chairmanbspcb-bihar@gov.in)
5.	The Chairman Chhattisgarh Environment Conservation Board ParyavasBhawan, North Block, Sector-19 Atal Nagar, Raipur– 492 002 (Chhattisgarh) Email:- (henv.cg@nic.in)	6.	The Chairman Goa State Pollution Control Board Nr. Pilerne Industrial Estate, Opp. Saligao Seminary, Saligao ,Bardez,- 403511(Goa) Email:- (chairman-gspcb.goa@nic.in)
7.	The Chairman Gujarat Pollution Control Board Paryavaran Bhavan, Sector-10A, Gandhinagar– 382043 (Gujarat) Email:- (chairman-gpcb@gujarat.gov.in)	8.	The Chairman Haryana State Pollution Control Board C-11, Sector 6, Panchkula- 134109 (Haryana) Email:- (hspcbho@gmail.com)
9	The Chairman Himachal Pradesh State Pollution Control Board Paryavaran Bhavan, Phase III, New Shimla – 171009 Email:- (chairmanpcbhp@gmail.com)	10	The Chairman Jammu & Kashmir Pollution Control Committee, Parivesh Bhawan, Forest Complex, Gladni, Narwal, Transport Nagar, Jammu-180004 Email:- (chairman87jkspcb@gmail.com)
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21	The Chairman Punjab State Pollution Control Board Nabha Road, ITI Rd, Adarsh Nagar, Prem Nagar, Patiala - 147001. Email:- (chairman.ptl.ppcb@punjab.gov.in)	22	The Chairman Sikkim State Pollution Control Board Department of Forest, Environment & Wildlife Management Government of Sikkim, Deorali, Gangtok, -737102 (Sikkim) Email:- (spcbsikkim@gmail.com)
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3.	The Regional Director (Shillong) Central Pollution Control Board BSNL NE- 1, Telecom Circle CTO Building Ground Floor Shillong-793001 E-mail: - (zoshillong.cpcb@nic.in)	4.	The Regional Director (Bhopal) Central Pollution Control Board 3rd Floor, Sahkar Bhawan North T.T Nagar Bhopal- 462003 E-mail: - (cpcb.bhopal@gov.in)
5.	The Regional Director (Lucknow) Central Pollution Control Board Ground Floor, PICUP Bhawan Vibhuti Khand, Gomti Nagar Lucknow- 226020 E-mail: - (zolucknow.cpcb@nic.in)	6.	The Regional Director (Bengaluru) Central Pollution Control Board 1st& 2nd Floors, Nisarga Bhawan A-Block, Thimmaiah Main Road 7th D Cross, Shivanagar Opposite Pushpanjali Theatre Bengaluru-560010 E-mail:- (zobangalore.cpcb@nic.in)
7.	The Regional Director(Chandigarh) Central Pollution Control Board BSNL Exchange, 2nd Floor Sector 49-C, Chandigarh-160047 E-mail: - (rdchandigarh.cpcb@gov.in)	8.	The Regional Director (Chennai) Central Pollution Control Board Regional Directorate - Chennai 2nd Floor, 40-E, BSNL Building TVK Industrial Estate, CIPET Road, Guindy, Chennai – 600032. E-mail: - (rdchennai.cpcb@gov.in)
9.	The Regional Director (Pune) Central Pollution Control Board Row House No. 1, Nisarg Vihar, Near Mitcon International Public School, Balewadi, Pune-411045 E-mail: - (rdpune.cpcb@gov.in)		

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Classification of Sectors into Red, Orange, Green, White and Blue Categories

(A tool for progressive environmental management)

Central Pollution Control Board

"Parivesh Bhawan", East Arjun Nagar

Delhi-110032

(January 2025)

तन्मय कुमार, भा.प्र.से.
अध्यक्ष
Tanmay Kumar, I. A. S.
Chairman

केन्द्रीय प्रदूषण नियंत्रण बोर्ड
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार
CENTRAL POLLUTION CONTROL BOARD
MINISTRY OF ENVIRONMENT, FOREST & CLIMATE CHANGE, GOVT. OF INDIA

सत्यमेव जयते

FOREWORD

The concept of classifying industries into different pollution categories originated in 1989 with the Doon Valley (Uttarakhand) Notification issued by Ministry of Environment and Forests. Subsequently the concept of pollution index was developed by Central Pollution Control Board (CPCB) during 2016 to classify the sectors into different category. The 2016 classification helped State Pollution Control Boards (SPCBs)/Pollution Control Committees (PCCs) in streamlining consent management, prioritizing regulatory oversight & environmental monitoring, taking decision related to siting of units, etc. However, necessity felt for refining the concept of calculating Pollution Index to overcome certain limitation and to bifurcate sub-sectors based on pollution load, scale of operation etc.

Accordingly, draft methodology was prepared and widely circulated for inputs/comments/suggestions by placing the same on CPCB website (public domain) as well as by inviting comments from MoEF&CC/SPCBs/PCCs. As of 11.08.2024, i.e. the extended date for receipt of suggestions, CPCB received 170 representations, comprising over 700 comments from PSUs, NGOs, industries, industrial associations, including feedback from SPCBs of Kerala, Nagaland, Tamil Nadu, Mizoram, West Bengal, Punjab and Lakshadweep. The report has been finalised after examining all the comments by a working committee.

The 2025 classification methodology bifurcates sub-sectors based on pollution load, scale of operation, production technology, and type of fuel used into Red, Orange, Green, White and Blue categories. Red indicates the highest pollution potential, requiring stringent regulatory oversight, while White signifies minimal or no pollution, with much reduced compliance burden of merely intimation to the concerned SPCBs/PCCs. **A new Blue Category has also been introduced to distinguish the Essential Environmental Services** required for management of environmental concerns arising from anthropogenic pollution due to domestic/household activities which otherwise will have large littering potential. Additional 2 years validity for consent to operate (as per Pollution Index) is prescribed for the blue category.

This report also outlines the implementation pathway, which includes guidelines for State Pollution Control Boards/Pollution Control Committees to follow and implement the new classification system. Earlier classified 257 sectors have now been bifurcated and classified into 403 sectors (including sub sectors) and additionally, 16 new sectors have been introduced. Thus, the revised classification of 273 key sectors comprising of total 419 sectors/sub-sectors are further classified into Red Category (125 nos.), Orange Category (137 nos.), Green Category (94 nos.), White Category (54 nos.) and Blue Category (9 nos.). Progression between red, orange and green categories for the industrial sectors is also incorporated based on the use of less polluting available processes and technologies.

The report also comprises provisions for individual units to adopt cleaner technologies and practices resulting in reduction of pollution load in any sector. Incentives, such as extended validity for Consent to Operate (CTO) and reduced inspection frequencies, are outlined to encourage continual improvement of environmental performance. The incentive mechanism allowing progression between categories will thereby promote Ease of Doing Business by extended consent validity and enhance duration between inspections, thereby leading to reduced compliance burden.

To sum up, this report aims to create a more transparent, consistent, and incentivized regulatory mechanism for better environment management, promoting sustainable industrial development and better governance. I hope the report will be useful to all concerned in the field of industrial pollution control in the country and would incentivise the industries to switch over to cleaner process and technology leading to reduced air, water and soil pollution and also encourage setting up of blue category industries.

I would like to place on record my sincere appreciation for the hard work and valuable contributions by the CPCB team comprising of Shri Amit R. Thakkar, Add. Director, Shri Saubhagya Dixit, Scientist D, and Dr. Anantha N. S., SSA under the guidance of Shri Bharat Kumar Sharma, Member Secretary. I would also like to extend my thanks to Dr. Prashant Gargava, former Member Secretary, Shri P. K. Gupta, former Director and Shri Ajay Aggarwal, former Director, for their contribution. I would also express gratitude to the Working Committee, CPCB, MoEF&CC, SPCBs/PCCs and others for their contributions in the preparation of this report.

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EXECUTIVE SUMMARY

The concept of classification of industrial sectors into red, orange, and green categories based on the size of operations and consumption of resources was first introduced in 1989 for Doon Valley, Uttarakhand. This classification aimed to aid decisions regarding siting of industries. Over the period of time, this concept was extended nationwide to manage consents and establish norms for surveillance and inspection of industry. In 2012, to have uniformity in classification throughout the country, the Central Pollution Control Board (CPCB) issued a standardized list of 244 sectors, classified under red (85 sectors), orange (73 sectors) and green (86 sectors) categories.

In 2016, the Central Pollution Control Board (CPCB) developed a scoring methodology based on the Pollution Index (PI) to harmonize the criteria for categorizing industries. This PI was determined by evaluating water pollution, air pollution, and hazardous waste generation. Using this methodology, CPCB classified 257 industrial sectors into four categories: Red (63 sectors), Orange (91 sectors), Green (65 sectors), and White (38 sectors). The White category was introduced for sectors considered "practically non-polluting" during 2016. Additionally, State Pollution Control Boards (SPCBs) and Pollution Control Committees (PCCs) were authorized to categorize any new or left over sectors according to the CPCB's 2016 methodology.

Further, based on the experience gained over the years, the increased use of cleaner fuels like PNG and bio-CNG, adoption of cleaner technology resulting into reduced wastewater generation, normalisation approach & different formula for calculating PI etc. a need was felt to revisit the classification methodology of 2016 for several such identified areas for improvement. Separate scoring for trade effluent and sewage effluent was also required due to differing characteristics and treatment methods.

Considering the scope of revision, CPCB published a draft report revising the methodology for calculating PI and accordingly classification of sectors into Red, Orange, Green, and White categories based on pollution index range was placed in the public domain for inputs/comments. Around 160 representations comprising more than 700 comments were received. Based on feedback/suggestions and examination of same by the working committee constituted for the purpose, the methodology was finalised. As per the final methodology, the scoring criteria for the following three major pollutant groups are as follows:

i. Water Pollutant Score (PI_W): Assesses the water pollution potential considering the oxygen demand of wastewater, other pollutants in the wastewater and quantity of wastewater generated.
ii. Air Pollutant Score (PI_A): Evaluates the potential air pollution due to process emissions (point source), work zone emissions (fugitive and odour) and type & quantity of fuel used.
iii. Waste Pollutant Score (PI_H): Considering the type and quantity of waste (which are hazardous/toxic/infectious/bulk in nature) generated.

Each pollutant group is scored out of 100, and the Cumulative Pollution Index is calculated. The category of the sector is decided based on the pollution index range, if PI ≥ 80 the category

of sector is Red, if PI ranges between 55 ≤ PI < 80, the category of sector is orange, similarly for the range of PI between 25 ≤ PI < 55, the category is Green and for PI < 25, the category of the sector is white.

Further, based on the stakeholders' comments, a need was felt to introduce a separate "blue category" for Essential Environmental Services (ESS) required for management of waste generated from domestic/household activities and, an incentive mechanism to promote units in a particular sector, taking measures resulting into better environmental performance. An addendum was prepared, shared and presented to all SPCBs/PCCs. The addendum was also placed in the CPCB Website on 11.07.2024 for inputs/comments. 09 representations were received in the addendum. All representations were examined, and classification based on revised methodology is finalised. Based on the revised methodology, CPCB has classified total 419 sectors and sub-sectors under Red (125), Orange (137), Green (94), White (54) and Blue (9) categories.

The report introduced incentive mechanism for the units in any sector that adopt environment friendly practices such as treatment and recovery of 100% wastewater, use of 100% cleaner fuel/renewal energy etc. and ensuring continuous compliance. These incentives are designed to encourage continuous improvement in environmental performance and to reward units that demonstrate proven implementation of sustainable practices and compliances.

Following are the salient features of the revised classification methodology:

- Methodology focusses on "Potential to pollute the environment" by the sector.
- Simplified single formula for Cumulative Pollution Index for all cases.
- Equal weightage to all three pollutant groups- Air, Water, and Waste.
- Cumulative PI based on weighted proportionate scores of pollutant groups.
- Separate scoring criteria for sectors generating sewage (such as Building & construction projects, STPs, Airports, etc.) and bio-medical waste (Health Care Facilities).
- Introduced Blue Category for 9 sectors under Essential Environmental Services required for management of waste generated from domestic/household activities.
- Appropriate weightage to scale of operations by introducing more slabs to bifurcates sub-sectors based on pollution load, scale of operation, production technology and type of fuel used.
- Introduction of sub-categories for sectors based on cleaner technologies, fuel types, integrated/segregated operations etc.
- Motivation to industries for progressive environmental management.
- A tool to assess the Cumulative Pollution Index and category based on revised method.

This report, prepared by the Central Pollution Control Board (CPCB), presents a revised methodology for classifying sectors based on their pollution potential. The classification aims to enhance environmental management and regulatory oversight by classifying sectors into red, orange, green, white, and blue categories. The report covers in detail about the genesis of

classification, need for the revision of 2016 methodology, scoring methodology for calculation of cumulative PI, etc.

The report also outlines guidelines for implementing the classification system. The classification may be used for consent management, inspection frequency, siting criteria, cluster development, pollution control plans, levying environmental compensation, promoting progressive environmental management, etc.

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LIST OF ABBREVIATION

CBG: Compressed Biogas

CNG: Compressed Natural Gas

CPI: Cumulative Pollution Index

CPCB: Central Pollution Control Board

CTE: Consent to Establishment

CTO: Consent to Operate

EC: Environment Compensation

ETP: Effluent Treatment Plant

EES: Essential Environmental Services

Gen-Set: Generator Set

HAPs: Hazardous Air Pollutants

HCFs: Health Care Facilities

HW: Hazardous Waste

MoEF&CC: Ministry of Environment, Forest & Climate Change

LNG: Liquefied Natural Gas

LPG: Liquefied Petroleum Gas

NGT: National Green Tribunal

NOC: No Objection Certificate

OCEMS: Online Continuous Effluent/Emission Monitoring System

PCC: Pollution Control Committee

PM: Particulate Matter

PI: Pollution Index

PI_A: Air pollutant score

PI_H: Waste pollutant score

PI_W: Water pollutant score

PNG: Piped Natural Gas

SPCB: State Pollution Control Board

TTZ: Taz Trapezium Zone

VOCs: Volatile Organic Compounds

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Genesis and Journey of Classification

1.1 Introduction

The notifications issued by the Ministry of Environment and Forest during 1989 for Doon Valley, Uttarakhand introduced the concept of classification of industries as red, orange, and green categories. The purpose of this classification was to facilitate decisions related to location of these industries. The criteria for classification of industries was primarily based on quantity of industrial effluent, quantity of fuel/coal, and the number of employees, and amount of waste generated. The notification included list of 129 sectors, classified under red (45), orange (35), and green (39) categories. The criteria used for Doon Valley Notification, 1989 is summarized in the **Figure I**.

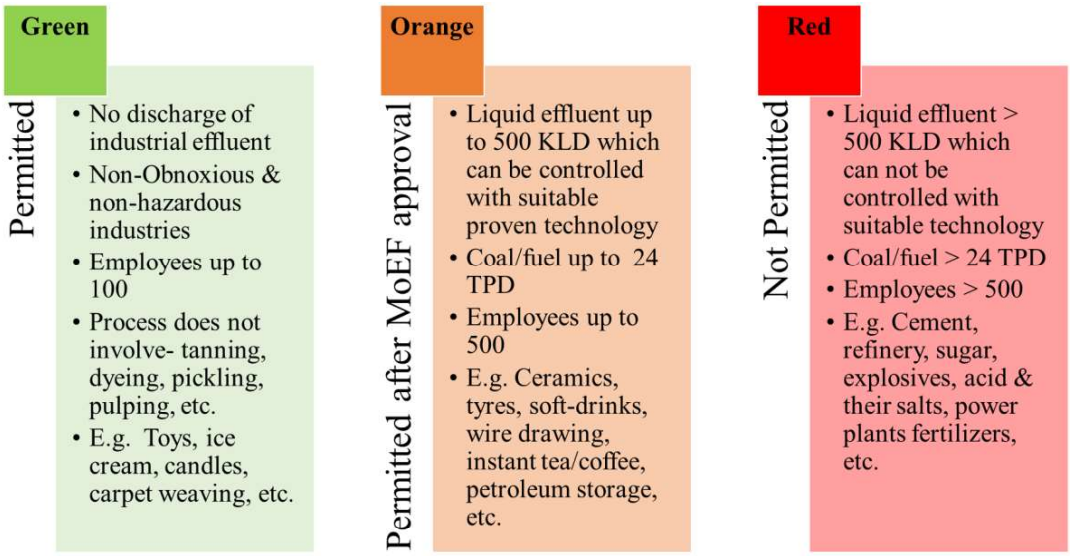

Figure I: Criteria for classification of industries in Doon Valley Notification, 1989

Subsequently, the application of this concept was extended to other parts of the country not only for the purpose of location of industries, but also for the purpose of consent management and formulation of norms related to surveillance/inspection of industries. As the State Pollution Control Boards (SPCBs) and Pollution Control Committees (PCCs) were following different

categorization of industries, to maintain the uniformity across the country, during 2012, CPCB issued a list of 244 sectors, classified under red (85), orange (73) and green (86) categories.

In order to harmonize the criteria for categorization, during the year 2016, CPCB developed the scoring methodology to classify the industries based on the Pollution Index (PI) which was a function of water pollution, air pollution and hazardous waste generation. Based on this methodology, CPCB has classified 257 sectors under red (63), orange (91), green (65) and white (38) categories and directed SPCBs/PCCs to adopt the same. During 2016, CPCB introduced white category as a new category for such sectors which are "practically non-polluting". SPCBs/PCCs were also empowered to categorize any new/left-out sector at their own level, following the methodology prescribed by CPCB. Additionally, during 2020, CPCB also segregated the list of non-industrial operations/facilities. The overall journey of classification may be understood with the help of milestone chart shown in **Figure II**.

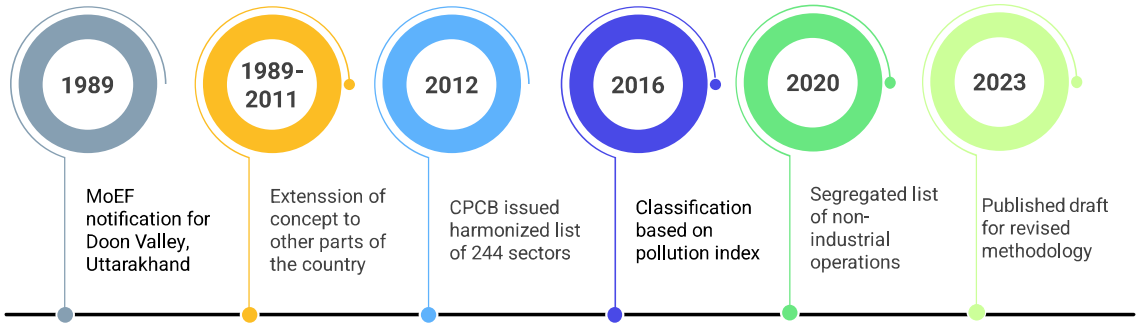

Figure II: Genisis and journey of classification of sectors

The concept of categorization is based on the "Precautionary Principle", which focuses on potential of industries to pollute the environment. The purpose of categorization is to ensure that the industry is established in a manner consistent with the environmental objectives and to prompt industrial sectors to adopt cleaner technologies, ultimately resulting in generation of minimum pollutants.

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2

Modified Methodology for Classification

2.1 Need and scope for revision of methodology

Based on the experience gained over the years, a need was felt to revisit the 2016 methodology for classification of sectors considering following scope of improvement:

i. Assessment of Pollution Index:

The category of any industrial sector depends on the Pollution Index (PI), which comprises of scores of three pollutant groups i.e., air pollution, water pollution and hazardous waste. The water and air pollutants were each assigned a weight of 40%. However, the hazardous waste generation was given 20% weightage in pollution index.

As per the classification methodology of 2016, in case of absence of any pollutant groups, pollution index was normalized to 100. As a result, different formulas were required to compute pollution index.

Further, the normalization method has certain limitations while comparing pollution potential among sectors having scores for all three pollutant groups verses score only for any one/two pollutant group(s). Moreover, it was also observed that in some sectors normalization involved subjectivity based on perception.

ii. Size of operations of industrial activities:

It was observed that, there was less variation in PI score of industry based on size of operation in same sector. Limited variables/slabs were considered for the quantity of wastewater discharge and fuel consumption. It was also observed that adequate weightage in the considered variables/slabs to account the variation in size of operations of industrial activities need to introduce.

iii. Consideration to segregated industrial activities:

Although there were differences in pollution potential of integrated and standalone units of a particular sector, the classification methodology (2016) classifies the integrated or standalone units in the same sector. For example, standalone cement grinding units will have less pollution potential than integrated cement plants, but both were classified under red category.

iv. Consideration of type of fuel used:

In industrial operations requiring fuels, the amount of emissions is governed by many factors such as the type of fuel and its calorific value, combustion efficiency, emission factors, etc. Use of biomass and cleaner gaseous fuels such as Piped Natural Gas (PNG), Liquefied Petroleum Gas (LPG), Compressed Natural Gas (CNG), bio-CNG etc. have increased significantly in recent years. It was observed that adequate weightage based on type of fuel used is required.

v. Separate scoring for sewage and trade effluent:

It is desirable to have separate wastewater scoring criteria for the sectors generating trade effluent and sewage effluent, as characteristics, treatment method and impact are different for trade effluent generated from industrial sectors and sewage effluent generated from infrastructure & development sectors.

vi. Motivation to industries for progressive environmental management:

In the previous classification regime, there was no effective provision for change in category of industries based on the variation in pollution potential of a sector, even if the industries adopt cleaner technologies or switch over to cleaner raw material/cleaner fuel etc., resulting into reduction in pollution index.

2.2 Modified methodology for classification of sectors

Considering the scope of revision, CPCB prepared a draft report on "Classification of Industrial Sectors into Red, Orange, Green and White Categories: A Tool for Progressive Environmental Management". As per the draft report, a revised methodology for the classification is proposed which incorporates, water pollutant score, air pollutant score and waste generation score, based on the pollution potential of a sector on the environment. Scores out of 100 were given to each three pollutant groups and formula for calculating cumulative score based on the impact pollutant is devised. These scores are used for computation of pollution index for deciding the

category of industrial sector. The cut-offs for deciding the category were based on the quartiles of pollution indices, pollution potential of sectors, etc. The draft report was placed on CPCB website in July 2023, for comments/feedback from stakeholders.

CPCB received 161 representations, comprising more than 700 comments from various State Pollution Control Boards, research and technical institutions, industrial associations, NGOs, individual industries, and the public. The stakeholder-wise representations are shown with the help of pie-chart in **Figure III**.

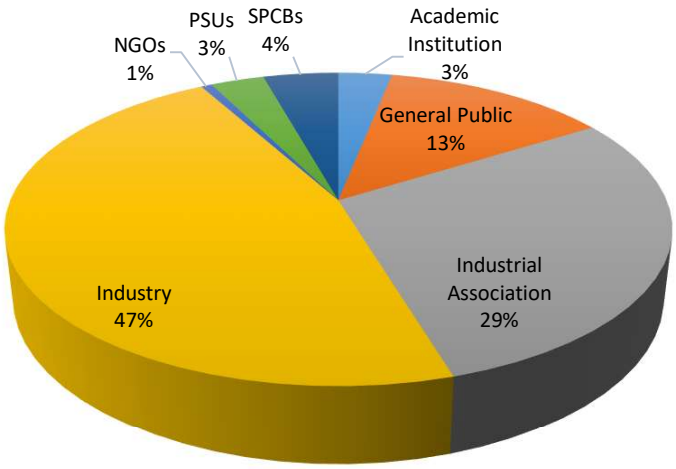

Figure III: Stakeholder-wise representations received

Subsequently, CPCB constituted a committee to critically examine and analyse the comments and to make recommendations for suitable incorporation in the final methodology and classification. After incorporating the feedback received from stakeholders, the Committee has finalized the basic methodology which can be used as a yardstick for classification of the sectors into Red, Orange, Green and White Categories.

Further, based on the stakeholders' comments, a need was felt to introduce a separate "blue category" for Essential Environmental Services (ESS) required for management of waste generated from domestic/household activities and, an incentive mechanism to promote units in a particular sector, taking measures resulting into better environmental performance. An addendum was prepared, shared and presented to all SPCBs/PCCs. The addendum was also placed in the CPCB Website on 11.07.2024 for inputs/comments. Till last date (i.e. 11.08.2024) 09 representations were received in the addendum. All representations were examined, and classification based on revised methodology is finalised.

It is worth to mention that to safeguard the environment, following the fundamental principle of classification i.e., “Precautionary Principle", scope is always available for application of mind and collective wisdom. As per the precautionary principle, when human activities may lead to morally unacceptable harm that is scientifically plausible but uncertain, actions shall be taken to avoid or diminish that harm. Therefore, variation from methodology is possible in case of projects having high chances of damage to the environment/eco-system such as river mining, etc. or having associated accidental risk such as major accident hazards installations wherein risk is associated with industrial activities having potential in terms of operation or process, manufacturing, transportation, and storage of one or more hazardous chemicals as prescribed by the Manufacture, Storage, and Import of Hazardous Chemical Rules, 1989.

Considering the above issues, the classification methodology was modified based on the potential of three pollutant groups, namely, water pollutant, air pollutant and waste pollutant (which are hazardous/toxic/infectious/bulk in nature), which have been given scores out of 100, each. Slabs are assigned for selection of pollutant groups respectively for water, air, and waste. Score can be decided based on dominant pollutants in the pollutant groups and quantity as detailed in Table-I, Table-II and Table-III. These scores are used for computation of pollution index for deciding the category of sector. The scoring methodology is based on the pollution potential during generation and not at the end of pipe/ after treatment considering the fact that all pollutants need to be treated and disposed as per the provisions/rules notified under the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981 and the Environment (Protection) Act, 1986 and as amended.

The details of scoring criteria for PI_W for “water pollutant,” PI_A for “air pollutant” and PI_H for “waste generating sector” are as follows:

2.2.1 Scoring criteria for Water Pollutant “PIw”

Water pollution score consider the potential water pollution load from any sector in terms of characteristics and quantity of untreated trade effluent (wastewater). The “trade effluent” includes any liquid, gaseous or solid substance which is discharged from any premises used for carrying on any [industry, operation or process, or treatment and disposal system], other than domestic sewage.

The water pollutant score (PI_W) is the addition of three sub-scores which are based on organic content in terms of oxygen demand of wastewater (W1), potential of other pollutants (W2) and

quantum of wastewater (W3). The weightages of W1, W2 and W3 in the water pollution score are 35%, 30% and 35%, respectively.

Proportionate higher scores are assigned to the sectors generating trade effluent of high BOD and/or high COD, heavy metals/toxic compounds, and large volume of wastewater. The scores are assigned considering the potential for causing damage to the environment. It may be noted that for sectors generating industrial effluent, dominant quantity of trade effluent is considered in score W3 (W3-1 to W3-5). Whereas, for sectors generating huge volume of sewage effluent such as railway stations, STPs, residential building projects, airports etc., the separate scores W3 (W3-6 to W3-10) are assigned. The term used, "Sewage effluent" means effluent from any sewerage system or sewage disposal works and includes sullage from open drains. The scoring criteria for water polluting sectors are given in **Table-I**.

Table I: Scoring Criteria for Water Polluting Sector

Water Pollutant Group	Description	Score
Score W1: Score based on the oxygen demand of wastewater (Maximum of the following scores to be considered)		
W1-1	BOD ≥ 5,000 mg/l or COD ≥ 10,000 mg/l	35
W1-2	1000 ≤ BOD < 5,000 mg/l or 5000 ≤ COD < 10,000 mg/l	30
W1-3	500 ≤ BOD < 1,000 mg/l or 1000 ≤ COD < 5,000 mg/l	25
W1-4	100 ≤ BOD < 500 mg/l or 250 ≤ COD < 1,000 mg/l	20
W1-5	10 ≤ BOD < 100 mg/l or 50 ≤ COD < 250 mg/l	10
Score W2: Score based on other pollutants in the wastewater (Maximum of the following scores to be considered)		
W2-1	Pollutants like pesticides, heavy metals, and toxic compounds: *(Aluminium, Anionic detergents, Barium, Chloramines, Copper, Fluoride, Total residual chlorine, Iron, Manganese, Mineral oil, Phenolic compounds, Selenium, Silver, Sulphide, Cadmium, Cyanide, Lead, Zinc, Mercury, Tin, Vanadium, Antimony, Benzene, Benzo-a-pyrene, Molybdenum, Nickel, Phosphates, Polychlorinated biphenyls, Polynuclear aromatic hydrocarbons, Arsenic, Total/Hexavalent Chromium, Trichloroethane, Trichloroethylene, Adsorbable Organic Halogens (AOx), Pesticides compounds, Residual antibiotic, Radioactive materials, etc.)*	30
W2-2	Pollutants like Nitrate Nitrogen, Nitrate, Ammonical Nitrogen, Total Kjeldahl Nitrogen (TKN), Oil & grease, pH<5.5 or > 9	25
W2-3	Pollutants mainly in terms of inorganic dissolved solids and associated other impurities due to process e.g. wastewater generated from DM water rejects, boiler blowdowns, brine solution rejects, fresh-water RO rejects, etc.	20
W2-4	Pollutants mainly in terms of inorganic dissolved solids e.g. wastewater from cooling towers, cooling-re-circulation processes, etc.	15

Score W3: Score based on quantity of wastewater generated		
A. For sectors generating Industrial Trade effluent (Maximum score to be considered)		
W3-1	Wastewater ≥ 500 KLD	35
W3-2	100 KLD ≤ Wastewater < 500 KLD	30
W3-3	50 KLD ≤ Wastewater < 100 KLD	25
W3-4	10 KLD ≤ Wastewater < 50 KLD	20
W3-5	Wastewater < 10 KLD	15
B. For sectors such as STPs, building projects, etc. generating/handling only high-volume Sewage (Maximum score to be considered)		
W3-6	Sewage ≥ 5,000 KLD	35
W3-7	2,000 KLD ≤ Sewage < 5,000 KLD	30
W3-8	500 KLD ≤ Sewage < 2,000 KLD	25
W3-9	100 KLD ≤ Sewage < 500 KLD	20
W3-10	Sewage < 100 KLD	15
Water Pollutant Score (PI_W) = W1+W2+W3		

2.2.2 Scoring criteria for Air Pollutant "PI_A":

Air pollution score consider the potential air pollution load from any sector in terms of characteristics of emissions and its quantum/scale in terms of quantity of fuel. The air pollutant score is based on generation of emission. The "air pollutant" means any solid, liquid, or gaseous substance (including noise) present in the atmosphere in such concentration as may be or tend to be injurious to human beings or other living creatures or plants or property or environment.

The air pollution score (PI_A) is the addition of three sub-scores which are based on the type of pollutants in emissions (A1), work zone emission/fugitive emissions & odour nuisance (A2), and fuel type & quantity (A3). The weightages of A1, A2 and A3 in air pollution score are 35%, 30% and 35%, respectively.

Proportionate higher scores are assigned to the sectors generating emissions with hazardous air pollutants, process-based fugitive emissions and using solid/liquid fuels, as such pollutants have higher potential to damage the environment.

The California Air Resources Board defines fugitive emissions as "Emissions not caught by a capture system which are often due to equipment leaks, evaporative processes and windblown disturbances." The fugitive emissions from any process having acid mist, VOCs, etc. are given higher weightage (score A2=30) as compared to the fugitive emissions of inert material (score A2=25). Sectors having persistent foul odour issue, will get score A2=20. Sectors/units using solid/liquid fuel will get higher score-A3, compared to the sectors using cleaner gaseous fuel or electricity. The scoring criteria for air polluting sectors are given at **Table-II.**

Table II : Scoring criteria for air polluting sectors

Air Pollutant Group	Description	Score
Score A1: Score based on Process emissions (point source) (Maximum of the following scores to be considered)		
A1-1	Hazardous Air Pollutants (HAPs) and heavy metals: *HAPs (Phosgene, Benzene, Benzo(α)pyrene, Butadiene, Toluene Di-isocyanate, Methylene-di-phenyl Di-isocyanate, Ethylene Oxide, Ethylene Di Chloride, Acrylonitrile, Propylene Oxide), Dioxins & Furans, Asbestos, Polycyclic Aromatic Hydrocarbons (PAHs), HCN, Cd, Th, Hg, Sb, As, Pb, Co, Cr, Cu, Mn, Ni, V, etc.*	35
A1-2	Halogens, acids, and pesticides-based pollutants: *H_2S, HF, HBr, P_2O_5 as H_3PO_4, NH_3, TOC, Cl, HCl, SO_3, CH_3Cl, Total Fluoride, PM having pesticide compounds/other organic compounds, Acid mist, etc.*	30
A1-3	Pollutants due to combustion of fuel or due to process: *PM, CO_2, CO, NOx, SO_2, etc.*	25
A1-4	Volatile Organic Compounds (VOCs): *Ethyl benzene, Styrene, Toluene, Xylene, Aromatics, Propylene Glycol, Ethylene Glycol, etc.*	20
Score A2: Score based on fugitive emissions and odour nuisance (Maximum of the following scores to be considered)		
A2-1	Fugitive emissions of Particulate Matter (PM), acid mist, VOCs, etc. from process	30
A2-2	Fugitive emissions of Particulate Matter (PM), acid mist, VOCs, etc. due to storage and handling, etc.	25
A2-3	Odour nuisance, including odour due to the use of binding gums, cements, adhesives, enamels etc.	20
Score A3: Score based on quantity of fuel (Maximum of the following scores to be considered)		
	Coal or liquid fuels	
A3-1	Fuel consumption ≥ 24 TPD	35
A3-2	12 TPD ≤ Fuel consumption < 24 TPD	30
A3-3	Fuel consumption < 12 TPD	25
	Biomass-based fuels	
A3-4	Fuel consumption ≥ 48 TPD	25
A3-5	24 TPD ≤ Fuel consumption < 48 TPD	20
A3-6	Fuel consumption < 24 TPD	15
	Cleaner/gaseous fuels, such as, PNG, CNG, LPG, Compressed Biogas (CBG), propane, butane etc.	
A3-7	Fuel consumption ≥ 120 TPD	20
A3-8	60 TPD ≤ Fuel consumption < 120 TPD	15
A3-9	Fuel consumption < 60 TPD	10
A3-10	Electricity	0
Air Pollutant Score (PI_A) =A1+A2+A3		
Note: In case, any sector/unit is using more than one type of fuel, the most polluting fuel category, will be considered.		

2.2.3 Scoring criteria for Industrial Waste Generating Sector "PI_H"

Industrial waste generating sectors are considered based on the generation of hazardous waste/high volume low effect waste. As per the Hazardous and Other Wastes (Management & Trans-boundary Movement) Rules, 2016, the "hazardous waste" means any waste which by reason of characteristics such as physical, chemical, biological, reactive, toxic, flammable, explosive or corrosive, causes danger or is likely to cause danger to health or environment, whether alone or in contact with other wastes or substances and shall include waste as per the Schedule I, Schedule II and Schedule III of the rule. Further, scores are also assigned to the high-volume low effect wastes such as fly ash, phosphogypsum, red mud, jarosite, slags from pyro-metallurgical operations, mine tailings and ore beneficiation rejects.

The score for waste comprises of two sub-scores H1 and H2. The H1 score is based on the different type of hazardous waste which are generated during the process, and which required to be managed/disposed through common facility OR based on the generation of high-volume low effect waste/ HW like contaminated bags/ drums etc. The H2 score is based on the total quantum of waste generated.

The desirable disposal method such as incineration, landfill after treatment, landfill etc. signifies the potency of hazardous waste. In recent time, the utilization of hazardous waste as per the Rule-9 of Hazardous and Other Wastes (Management & Trans-boundary Movement) Rules, 2016, as alternate fuel and raw material in cement kilns, as recyclable hazardous waste etc. has increased. The classification is based on the pollution potential due to generation of such types of hazardous waste from any sector. The score for the quantum of hazardous waste is total potential of generation of such hazardous waste by any sector., Score H1: Based on potency of hazardous waste and score H2: Based on quantum of hazardous waste, are given weightage of 30% and 70%, respectively. Considering the higher risk due to amount of hazardous waste generated rather than its disposal method, more weightage is given to the quantity. Overall waste generation score in case of waste generating sector will be PI_H =H1+H2. The scoring criteria for hazardous waste generating sectors are given at **Table-III**.

A separate scoring criterion has been included for sectors generating bio-medical waste. Bio-medical waste means any waste, which is generated during the diagnosis, treatment or immunisation of human beings or animals or research activities pertaining thereto or in the production or testing of biological or in health camps, including the categories mentioned in Schedule-I appended to the Bio-Medical Waste Management Rules, 2016. As any Health Care

Facilities (HCFs) generates all types of bio-medical waste (red, yellow, blue, and white) and quantities of such wastes may vary considerably based on the type of facility/location of facility (rural/urban), and other such factors. Therefore, scoring based on number of beds in a healthcare facility is considered as sole criteria for assigning waste score (H: B-1 to B-7) as tabulated in **Table-III**.

Least score of 25 is given to non-bedded healthcare facilities and maximum score of 100 is given to facilities having more than 1,000 beds. Overall waste generation score in case of bio-medical waste generating sector will be PI_H.

Table III: Scoring criteria for waste generating Sectors

Waste Pollutant Group	Description	Score
A. Score for sectors generating hazardous waste		
Score H1: Score based on the hazardous waste management/disposal method. (Maximum of the following scores to be considered)		
H1-1	Hazardous wastes which are flammable, ignitable, corrosive, oxidizing toxic, etc. and requiring disposal through incineration	30
H1-2	Hazardous wastes which are reactive, capable of yielding another material post disposal, etc. and requiring disposal in secured landfill after stabilization/treatment	25
H1-3	Hazardous wastes which are requiring direct disposal in secured landfill without stabilization	20
H1-4	High volume and low effect wastes, contaminated bags/ drums/ containers etc.	10
Score H2: Score based on quantity of hazardous waste generation. (Maximum of the following scores to be considered)		
H2-1	Hazardous Waste ≥ 5000 TPA	70
H2-2	1000 TPA ≤ Hazardous Waste < 5000 TPA	50
H2-3	200 TPA ≤ Hazardous Waste < 1000 TPA	30
H2-4	10 TPA ≤ Hazardous Waste < 200 TPA	20
H2-5	Hazardous Waste < 10 TPA	10
B. Scores for the sectors generating bio-medical waste		
B-1	No. of beds ≥ 1,000	100
B-2	500 ≤ No. of beds < 1,000	80
B-3	200 ≤ No. of beds < 500	60
B-4	50 ≤ No. of beds < 200	50
B-5	10 ≤ No. of beds < 50	40
B-6	No. of beds < 10	30
B-7	Non-bedded facility	25
For sectors generating hazardous waste PI_H =H1+H2 **For sectors generating bio-medical waste PI_H =B**		

2.3 Computation of Cumulative Pollution Index and criteria for deciding category of sector

In the revised methodology of classification (2025), all three pollutant scores due to water, air and industrial waste generation are taken into account while computing pollution index. The formula for computing cumulative pollution index (PI) is as follows:

$$PI = i_{max} + (100 - i_{max})\left(\frac{i_2 + i_3}{200}\right)$$

Where, i_{max}, is the maximum score among Water (PI_W), Air (PI_A), and Waste (PI_H) pollutant scores and i_2 & i_3 are the remaining pollutant scores.

The category of the sector will be decided based on the pollution index ranges given at **Table-IV.**

Table IV: Ranges of Cumulative Pollution Index for different categories

Cumulative Pollution Index (PI)	Category of industrial sector
PI ≥ 80	Red
55 ≤ PI < 80	Orange
25 ≤ PI < 55	Green
PI < 25	White

The purpose of classification is to have uniform consent mechanism, defined routine monitoring frequency by concerned SPCB/PCC, environmental protection plans etc. Modified methodology also considers the variation in pollution potential due to various type of activities and operations in a particular sector.

The scores/pollution index/category of any two sectors may be same, however, comparing two different sectors based on the category or pollution index is not desirable as the cumulative PI is a function of air pollutant, water pollutant, and waste pollutant and the cumulative score is arithmetically relates the maximum score of one pollutant with the remaining other two pollutants. Hence, PI/category of sectors may be same but may have different impact on environment.

2.4 Blue Category Projects- Essential Environmental Services for management of environmental pollution arising from domestic/household activities

Essential Environmental Services may be defined as those facilities which are essential to control, abate and mitigate pollution generated from Domestic and Industrial activities. Such Essential environment services for Industrial Activity includes CETP, CHWTSDF, Effluent conveying system etc. and essential environment services for domestic activities includes STP, MSW etc. Both the type of EES plays a vital role in Environment Management. However, during the treatment of waste, some EES generates/handle hazardous waste/infectious waste. The EES which do not generate Hazardous Waste, and which otherwise have large littering potential can be categorised as Blue Category Projects. Further, there are past legal references wherein Hon'ble Apex court has also considered the importance and requirement of such Essential Environment Services.

Human settlements whether located in rural/urban/eco-sensitive area generate sewage, solid waste, and C&D waste, which are required to be managed to prevent adverse impact on environment and human health. Basic environment management facilities are required to be set-up to manage such waste which includes STP, C&D waste processing facility, MSW management facility like sanitary landfill, material recovery facility & waste processing units, bio-methanation, bio-composting, waste to energy, etc.

These facilities are basically essential environment services which play a vital role in protecting environment and human health. These facilities may also bring value addition by producing various by-products such as secondary raw material, compost, energy, etc. and promotes circular economy and sustainable development by converting waste into wealth. Moreover, these categories do not generate hazardous or infectious wastes.

As the role and importance of these facilities is different in nature as compared to other activities and industries in the sense that they are primarily set-up for prevention, control and abatement of soil, water and air pollution. It is more appropriate to have a separate colour category-Blue Category for essential environmental services facilizes related to environmental pollution arising from domestic/household activities. These activities are required to meet all the prescribed environmental norms/rules notified from time to time and the pollution index for such Essential Environmental Services (EES) shall continue to be calculated as per the formula and consent to operate will be governed based on the pollution index. However, the

category of the EES will be termed "Blue Category sector" and as an incentive for the essential services, additional 2 years validity for consent to operate (as per PI) will be provided.

The list of EES facilities is given at **Annexure-II**.

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3

Classification of Sectors as per Revised Methodology

3.1 Types of sectors based on their activities

The revised methodology of classification will be applicable to all industries which may have potential for generation of environmental pollutants. As per the Section 2(j) of the Industrial Disputes Act, 1947, "Industry" means any business, trade, undertaking, manufacture, or calling of employers and includes any calling, service, employment, handicraft or industrial occupation or avocation of workman", however, based on type of operational activities, the industries are divided into following four sectors:

i. Industrial Sectors
ii. Essential Environmental Services (EES)
    a. EES for Industrial Waste
    b. EES for Domestic Waste (Blue Category Sector)
iii. Service/Infrastructure Development Sectors
iv. Others/Special Category Sectors

The sectors which are involved in production of goods, products, etc. are considered under "Industrial Sectors". The sectors covered under "Essential Environmental Services (EES)" are those facilities which are essential to control, abate and mitigate pollution generated from Domestic and Industrial activities. These services are essential facilities which are required to reduce pollution load on the environment, such as sewage treatment plants, common bio-medical waste treatment facilities, construction & demolition waste processing plants, etc. Essential Environmental Services Sectors are sub classified as "EES for industrial waste" and "EES for domestic waste (Blue category sectors which do not handle or generate infectious or hazardous waste)". On the other hand, sectors which carry out service-related activities such as infrastructure projects, railways, airports, hospitals, etc. are covered under "Service/infrastructure development sectors".

"Other/special category sectors" include those projects which cannot be classified based on the scoring methodology of pollution index but require classification based on precautionary principle and considering the potential of ecological damage/ health and environment related risk, etc. Few such sectors are sand mining, hydel power plants, etc.

The revised methodology of classification, sub-categorises the main sector based on the usage of cleaner technology/cleaner production/cleaner fuel which has proven reduction in trade effluent generation, emissions, waste, etc., for better environmental management, resulting into overall reduction of pollution index compared to main sector. For example, if coffee seeds processing industries use eco-pulping technology, which generates less water pollution, the pollution index of the said sector gets reduced and category changes from orange to green. Similarly, variation in type/scale of activities in a particular sector is also considered for classification of sub-sectors.

The methodology and scores have been screened through stakeholder feedback/consultation and public opinion. Available standard literature, various documents and guidelines, inspection reports, etc. were also referred, while assessing the scores for water pollution, air pollution, and waste generation for classification of sectors. Based on the modified methodology, the list of sectors and sector specific sub-classification is given at **Annexure-I** to **Annexure-IV**. Summary of classified sectors is given in **Table-V**.

Table V: Number of sectors classified under different categories

Sl. No.	Type of sector	Total number of sectors/sub-sectors	Red	Orange	Green	White	Blue
1.	Industrial Sectors	**359**	**107**	**120**	**81**	**51**	**-**
2.	Essential Environmental Services (ESS)						
2.a.	ESS for domestic waste	**9**	**-**	**-**	**-**	**-**	**9**
2.b.	ESS for industrial waste	**9**	**9**	**-**	**-**	**-**	**-**
3.	Service/Infrastructure Development Sectors	**37**	**7**	**15**	**13**	**2**	**-**
4.	Others/Special Category Sectors	**5**	**2**	**2**	**`-**	**1**	**-**
	Total	**419**	**125**	**137**	**94**	**54**	**9**

3.2. Usage of classification of sectors

The classification of sectors may be used for the following purposes:

i. **Consent management:** SPCBs/PCCs may grant Consent to Operate (CTO) to red, orange, and green categories of industries for validity up to 5 years, 10 years, and 15 years, respectively as per existing provisions which would be later governed as per the provisions/guidelines under Jan Vishwas (Amendment of Provisions) Act, 2023/Water Act, as amended. The validity of blue category sectors will be 2 years more than the category based on PI.

ii. **Inspection frequency:** SPCBs/PCCs may prioritize their environmental surveillance programs based on the categories of sectors. SPCBs/PCCs are required to ensure inspection of red, orange, and green category of industries at least once in six-months, one-year, and two-years, respectively. Common facilities and 17 categories of industries are to be inspected at least once in every three-months.

iii. **Siting criteria:** The categorization may be used as a tool for deciding the location/siting of an industry in a particular location.

iv. **Development of cluster:** The classification will help in planning of sector specific cluster, based on scoring of various pollutants and development of adequate environment management infrastructure facility, accordingly.

v. **Sector specific plans for pollution control:** The plans for control of pollution may be prepared and implemented on priority for the sectors having higher pollution index and overall higher pollution load.

vi. **Levying environmental compensation:** Pollution index may be used for determining and levying environmental compensation on industries violating the environmental norms.

vii. **A tool for progressive environmental management:** Industrial units may adopt cleaner technologies, cleaner fuels, etc. which may result in reduction of pollution index, thus, moving to lower pollution potential category. It will provide incentives to industries in terms of less consent renewal fees, less environmental surveillance/compliance burden, more validity period for consents/authorizations, etc.

3.3 Classification of left-out/new sectors

The revised methodology of classification (2025) and list of sectors classified by CPCB is required to be adopted and implemented by all SPCBs/PCCs. In case of any new or left-out

sector, the SPCB/PCC may categorize the sector at its own level. For this purpose, a committee headed by the Member Secretary, SPCB/PCC and comprising of at least two senior cadre engineers/scientists of the SPCB/PCC (as nominated by the Member secretary of the concerned SPCB/PCC) may be constituted to examine the matter and classify the sector in accordance with the methodology prescribed by CPCB. The State Level Committee may also co-opt subject experts, industrial association representative, etc., as member, as per requirement. CPCB has also developed a tool to assess the Cumulative Pollution Index and category of any sector, which is available on CPCB website (https://cpcb.nic.in/categorization-of-industrial-sectors/).

In addition, all SPCBs/PCCs are required to submit list of all such sector classified under white category to CPCB in the prescribed format (**Annexure-V**), for notification as per provisions of Jan Vishwas (Amendment of Provisions) Act, 2023.

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4

Incentives to unit in a sector for adopting measures resulting to better environmental performance

A methodology has been strategized to provide incentives to the unit in a sector which are dedicated to reduce environmental impacts from their operations/process. The objective can be achieved by 100% treatment and reuse of wastewater generated, having complete dependency on cleaner fuel alternatives (such as PNG, LPG, compressed biogas, propane, butane, electricity etc. for meeting energy requirement), implementation & achievements of targets of sector-specific charters of CPCB/SPCB for environmental management, EPR obligations and use of cleaner process/cleaner technology to eliminate generation of toxic/hazardous pollutants.

The units fulfilling the following eligibility criteria may submit their formal proposal to the concerned SPCB/PCC for consideration:

4.1 Eligibility Criteria

- The unit should have completed at least one year of completion of production/operations with demonstrated, verifiable steps and submitted audit report from institute of repute for considering the unit for the purpose by concerned SPCB/PCC. To facilitate verification, the unit must have properly maintained logbooks/bills for production, electricity consumption, fuel, water consumption, wastewater treatment and use of treated wastewater.
- The unit should be located in conforming area with applicable Environment Clearance, Consent to Establishment (CTE) and Consent to Operate (CTO) and hazardous/bio-medical waste authorization from SPCB/PCC.
- Unit should comply with all the norms/conditions stipulated under EC, CTO and Guidelines/Rules issued by CPCB.

- In case, unit using ground water resource, it should have valid permission/NOC and also required to install electronic flowmeter.
- No penalty or legal obligation is imposed/pending against unit for violation of environmental norms. Records for last 5 years may be verified. In case establishment period of the unit is less than 5 years, the past records since the start of production may be verified.
- Unit should not be involved in any sort of accident/incident resulting into emission /discharge into the environment. Records for last 5 years may be verified.

All such units, interested in availing incentives are required to demonstrate and prove their initiatives to the Committee (to be constituted at the level of concerned SPCB/PCC), comprising of members as mentioned in **Table VI**.

Table VI: Structure of Committee to evaluate the request of units adopting measures resulting in better environmental performance

Sl. No.	Members	Role
1	Member Secretary, SPCB/PCC	Chairman
2	Subject expert from Indian Institute of Technologies (IITs) or National Institute of Technologies (NITs) or any other institute/university of repute.	Member
3	Expert from CSIR institute/laboratories, having expertise in industrial process and pollution control technologies/ environmental management	Member
4	Two officials of concerned SPCB/PCC, as nominated by the Member Secretary, SPCB/PCC	Member

4.2. Evaluation Criteria

The committee shall scrutinize the proposals based on the eligibility criteria. The basis of evaluation will be- (i) Measures taken for treatment and reuse of wastewater to reduce freshwater consumption, (ii) Use of alternative cleaner fuel to reduce emissions, and (iii) Use of cleaner technology/ cleaner production which results in reduction in pollution/hazardous waste generation (iv) Recycling units identified for EPR obligations and has fulfilled all requirement including Environmentally Sound Management Facility for recycling.

The unit is required to demonstrate the successful implementation of measures by annual submission of third-party audit report (through institute of repute) regarding performance of environmental management measures. The Committee members may also inspect unit, collect samples, and get it analysed, check logbooks, electricity/water bills, examine system feasibility through mass-balances, ensure real-time submission of environment data to SPCB/PCC server, etc. The check and balances to examine the industry claims are summarized in **Table VII.**

Table VII: Checks and balances to assess the adequacy of environment management measures

Criteria	Checks and balances
I. Wastewater Management	
Installation of wastewater recovery system resulting into treatment and 100% reuse of treated wastewater in industrial process.	• Unit must have adequate operational Effluent Treatment Plant (ETP). The freshwater requirement of the unit has shown proportionate reduction. • There should not be any flow/ponding of wastewater inside the premises or discharge outside from the premises. Further, there should not be any by-pass. • Electronic flowmeters and Pan-tilt-zoom (PTZ) camera should have been installed with connectivity for continuous transmission of data to SPCB/PCC and CPCB servers (as applicable). • Recirculation system should be clearly mapped and visible for inspection and flow meter should be installed at required locations with records. • Mass/water balance based on actual production need to be checked. The claim regarding reduction in freshwater consumption should have concurrency with the readings of flow meters, water bill, log-books, etc. • Treated wastewater should not be used for horticulture or agriculture purposes. • Sludge generated from treatment of wastewater should be managed properly as per the authorization issued by the concerned SPCB/PCC and timely submission of Form-IV as per the requirement of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016.
II. Air Pollution Management	
100% fuel dependency on cleaner fuels, such as- Piped Natural Gas (PNG), Compressed Natural Gas (CNG), Liquefied Natural Gas (LNG) Liquefied Petroleum Gas (LPG), Compressed	• No other fuel (coal, pet-coke, furnace oil, etc.) should be stored/used in the unit premises. Diesel for Gensets (as an auxiliary power source) may be allowed. Preference may be given to the units using gas based Gensets. • Adequate facility for stack monitoring (port holes, zig-zag ladder etc.) should be available with provision of OCEMS (as applicable).

Biogas (CBG), propane, butane, etc.	• Use of upgraded air pollution control devices with higher efficiency for the reduction of emissions. • Adoption of cleaner technology, advanced pollution control systems etc. to control fugitive/emissions • Use of alternate cleaner raw material for generation of less pollution. • Use of renewable energy as an alternate to conventional fuel/power should be considered.
III. Waste Management	
The unit has adopted cleaner technology/ cleaner production which results in reduction in pollution/ hazardous waste generation	• Reduction in generation of pollution/waste due to adoption of cleaner technology/change in raw material etc. • Mass balance based on actual production need to be checked. There should be concurrency in generation of hazardous waste, utilization, disposal, etc. with respect to net reduction in generation.
IV. EPR Targets (for recycling facilities)	
Recycling units identified for EPR obligations and has fulfilled all requirement including Environmentally Sound Management Facility for recycling.	• Complying with the requirement of EPR obligation identified by CPCB from time to time.

4.3. Re-assessment of Pollution Index (PI)

The purpose of giving star category is to classify the unit in the sector as star performing units. The category of the unit may be re-assessed as detailed below:

A. For Industries, Service/Infrastructure facilities and Essential Environmental Services Sectors for management of waste.

The pollution index of the units in any sector which have proven reduction in trade effluent generation and/or air pollution management and/or waste management measures, can be calculated based on submission of same with the supporting documents for considering the modified score based on the same methodology.

The revised cumulative pollution index (PI) will be calculated with modified air/water/waste scores as discussed in the methodology given in previous section. If revised, cumulative PI results to change in the category of unit in the sector, the nomenclature for revised category will be as per the **Table VIII**.

Table VIII: Nomenclature for revised category

Change in category	Nomenclature of revised category
Red to Orange	Red*
Orange to Green	Orange*
Green to White	Green*

B. Essential Environmental Service Sectors for Domestic/Household Waste- "Blue Category Sectors":

Units under Blue Category are required to reduce their existing PI score by 25%, by meeting evaluation criteria/check and balances, as mentioned in **Table III** to qualify for change in category to Blue*.

4.4 Incentives to the units for better environmental management

Units which have demonstrated the successful implementation of environmental management measures and verified by the Committee, shall be eligible for the incentives, as listed in the **Table IX**.

Table IX: Incentives to units for better environmental performance

Category	Incentives
Red*	• CTO may be granted for the validity of max. 10 years. • Prescribed random environmental surveillance inspection frequency may be once a year, considering the change in category.
Orange*	• CTO may be granted for the validity of max. 15 years. • Prescribed random environmental surveillance inspection frequency may be once in two years, considering the change in category.
Green*	• CTO may be granted for the validity of max. 20 years. • Prescribed random environmental surveillance inspection frequency may be once in four years, considering the change in category and given incentives twice the original category.
Blue*	• CTO may be granted with additional 3 years validity period. • Prescribed random environmental surveillance inspection frequency may be once in 3 months.

In case of non-compliance(s) observed in future, the State Board can remove the star status and for calculation of EC, the PI of original category shall be considered.

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5 Implementation pathway/guidelines

The revised methodology and classification of sectors will be implemented in prospective manner. For this purpose, following guidelines may be referred:

i. All pending application for consideration of CTE/CTO and future such application shall be processed as per the revised methodology of classification. In case CTE granted before the revised classification, applicability of CTO will be as per new classification.

ii. New classification will be applicable to existing units at the time of renewal of CTO or within one year from the date of directions issued by CPCB regarding implementation of revised classification, whichever is earlier. The annual fees or cumulative fees for the remaining period shall be as per the revised category.

iii. SPCBs/PCCs may grant Consent to Operate (CTO) to units under red, orange, and green categories for maximum validity up to 5 years, 10 years, and 15 years, respectively as per existing provisions which would be later governed as per the provisions/guidelines under Jan Vishwas (Amendment of Provisions) Act, 2023/Water Act, as amended. SPCBs/PCCs may grant Consent to Operate (CTO) to units under Blue Category sectors with additional 2 years validity, considering their role as Essential Environmental Services for management of waste generated from domestic/household activities.

iv. Requirement of intimation/consent for white category of industries, shall be governed as per the provisions/guidelines under Jan Vishwas (Amendment of Provisions) Act, 2023//Water Act, as amended.

v. All sectors irrespective of category shall follow guidelines for pollution control, if any, issued by SPCB/PCC/CPCB time to time.

vi. Siting of units shall be only in the conforming area as per the guidelines of CPCB/SPCB/PCC. Further, as per the Section 17(1)(n) of the Water Act, 1974 and the Section 17(1)(h) of the Air Act, 1981, SPCB/PCC may also frame policies/advisory with respect to the location of any industry/operations, the carrying on of which is likely to cause air/water pollution, considering the scale/type of industries and sensitivity of area. Siting of units in eco-sensitive area will be governed by their respective notifications.

vii. The classification of sectors shall not be linked to sanction of loans/finance of bank proceedings.

viii. In the matter of Taz Trapezium Zone (TTZ), for air pollution scores of 10 and 20 (as per 2016 methodology), equivalent scores of 30 and 60 (as per 2025 methodology), respectively, may be considered for sectoral guidelines/opinion from NEERI (Ref: Order dated 08.12.2021, in the matter of M.C. Mehta v/s Union of India, Writ Petition (Civil) No.13381/1984, before Hon'ble Supreme Court).

ix. As per CPCB directions dated 12.12.2019, issued under Section 18(1)(b) of the Water Act, 1974 and the Air Act, 1981, SPCBs/PCCs are required to ensure inspection of red, orange, and green category of industries at least once in six-months, one-year, and two-years, respectively. Common waste treatment facilities and 17 categories of industries are to be inspected at least once in every three-months. (Ref: Order dated 05.11.2019, in the matter of Shailesh Singh v/s State of Haryana & Ors., OA No.639/2018, before Hon'ble National Green Tribunal, Principal Bench).

x. The sectors which are classified under white or green category and if such sectors have installed Genset(s) of higher capacity which are classified under orange/green category, then such sector will be considered under higher category.

xi. All Industrial units are encouraged to adopt measures such as cleaner technology/cleaner production, cleaner raw material, cleaner fuel etc., for better environmental management. If such measures result into overall reduction of pollution

index, request regarding change in category of such sectors/units may be made to concerned SPCB/PCC as detailed under Section 8 of this report.

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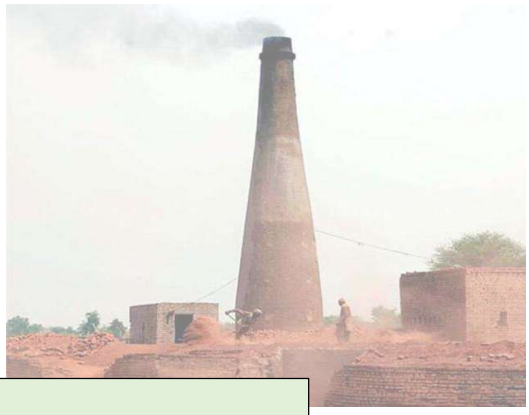

ANNEXURE-I

(LIST OF INDUSTRIAL SECTORS CLASSIFIED UNDER RED, ORANGE, GREEN, AND WHITE CATEGORIES)

LIST OF INDUSTRIAL SECTORS

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
	~A~															
1	Manufacturing of **Automobiles** (integrated facilities)	20	30	25	**75**	0	25	0	**25**	25	20	**45**	83.8	Red	i. Such types of plants are having either one or combinations of polluting activities viz. washing, metal surface finishing operations, pickling, plating, electro-plating, phosphating, painting, heat treatment etc. ii. Some of such plants may outsource some /all of the polluting activities or may have stand-alone units. In such cases, after thorough inspection of such units by concerned SPCB, re-categorization of the industry shall be made accordingly.	IPC-V
2	**Asbestos** and asbestos based industries	10	30	25	**65**	35	30	30	**95**	25	30	**55**	98	Red	Asbestos is carcinogenic and banned in many countries.	IPC-II
3	**Almirah**, Grill Manufacturing (Dry Mechanical Process)	0	0	0	**0**	0	30	0	**30**	0	0	**0**	30	Green		IPC-V
	~B~															
4.0	**BAKERY**, CONFECTIONERY AND SWEETS PRODUCTS															
4.1	Bakery, confectionery, sweets with production capacity ≥ 1 TPD	25	0	20	**45**	25	0	25	**50**	0	0	**0**	61.3	Orange		IPC-III

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
4.2	Bakery, confectionery, sweets with production capacity ≥ 1 TPD. (using cleaner/gaseous fuel)	25	0	20	**45**	25	0	10	**35**	0	0	**0**	54.6	Green		IPC-III
5.0	**BRICK** MANUFACTURING															
5.1	Brick kilns using coal as fuel	0	0	0	**0**	25	25	25	**75**	0	0	**0**	75	Orange		IPC-V
5.2	Brick kilns using biomass as fuel	0	0	0	**0**	25	25	15	**65**	0	0	**0**	65	Orange		IPC-V
5.3	Tunnel brick kilns (gas fired)	0	0	0	**0**	25	25	10	**60**	0	0	**0**	60	Orange		IPC-V
6.0	MANUFACTURING OF AUTOCLAVED AERATED CONCRETE (AAC) **BRICKS/BLOCKS.**															
6.1	AAC bricks/blocks manufacturing using coal as fuel (12 TPD and above)	0	0	0	**0**	25	25	30	**80**	0	0	**0**	80	Red		IPC-V
6.2	AAC bricks/blocks manufacturing using coal as fuel (less than 12 TPD)	0	0	0	**0**	25	25	25	**75**	0	0	**0**	75	Orange		IPC-V
6.3	AAC bricks/blocks manufacturing using biomass as fuel	0	0	0	**0**	25	25	20	**70**	0	0	**0**	70	Orange		IPC-V
6.4	AAC bricks/blocks manufacturing using gas as fuel	0	0	0	**0**	25	25	15	**65**	0	0	**0**	65	Orange		IPC-V
7.0	FLY ASH **BRICKS / BLOCK** MANUFACTURING															
7.1	Fly ash bricks/ block manufacturing (with boiler)	0	0	0	**0**	25	25	25	**75**	0	0	**0**	75	Orange		IPC-V
7.2	Fly ash bricks/ block manufacturing (without boiler)	0	0	0	**0**	0	25	0	**25**	0	0	**0**	25	Green		IPC-V
8.0	MANUFACTURING OF NON-ALCOHOLIC **BEVERAGES**															
8.1	Wastewater generation ≥ 100 KLD	25	20	30	**75**	25	0	25	**50**	0	0	**0**	81.3	Red		IPC-III
8.2	Wastewater generation < 100 KLD	25	20	25	**70**	25	0	25	**50**	0	0	**0**	77.5	Orange		IPC-III

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
9.0	**BATTERY** MANUFACTURING															
9.1	Lead-acid **Battery** manufacturing (excluding assembling and charging of lead acid **Battery** in micro-scale)	0	30	20	**50**	35	30	25	**90**	25	10	**35**	94.3	Red		IPC-V
9.2	Dry cell **Battery** (excluding manufacturing of electrodes) and assembling & charging of acid lead battery on micro scale	0	30	15	**45**	25	25	10	**60**	25	10	**35**	76	Orange		IPC-V
9.3	**Battery** manufacturing without boiler (excluding lead acid battery)	0	0	0	**0**	0	25	0	**25**	25	10	**35**	43.1	Green		IPC-V
10	**Briquette** manufacturing (coal/biomass/coke)	0	0	0	**0**	0	30	0	**30**	0	0	**0**	30	Green	The process involves mixing, mechanized compression and drying.	IPC-II
11	Assembly of **Bicycles**, **Baby** carriages and other small non motorizing vehicles	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-V
12	**Bailing** (hydraulic press) of waste papers	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-V
13	**Bio fertilizer** and bio-pesticides without using inorganic chemicals	0	0	0	**0**	0	20	0	**20**	0	0	**0**	20	White		IPC-V
14	**Block** making of printing without foundry (excluding wooden block making)	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-V

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
15	Flavoured **Betel** nuts production/ grinding (completely dry mechanical operations)	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-V
16	Manufacturing of shoe **Brush** and wire **Brush**	0	0	0	**0**	0	20	0	**20**	0	0	**0**	20	White		IPC-V
	~C~															
17.0	MANUFACTURING OF INDUSTRIAL **CARBON** INCLUDING ELECTRODES AND GRAPHITE BLOCKS, ACTIVATED **CARBON**, **CARBON BLACK**															
17.1	Carbon black manufacturing	20	15	20	**55**	25	30	30	**85**	30	20	**50**	92.9	Red		IPC-I
17.2	Industrial carbon including electrodes & graphite blocks and calcined pet coke	20	15	20	**55**	25	25	25	**75**	30	10	**40**	86.9	Red		IPC-II
17.3	Activated carbon manufacturing (with steam activation)	20	15	20	**55**	25	25	15	**65**	0	0	**0**	74.6	Orange		IPC-V
18.0	INORGANIC **CHEMICALS**															
18.1	Basic inorganic chemicals and electro chemicals and its derivatives including manufacturing of acid	10	30	25	**65**	30	30	20	**80**	20	20	**40**	90.5	Red		IPC-I
18.2	Phosphorous and its compounds, including phosphorous rock processing	20	30	20	**70**	35	25	10	**70**	10	30	**40**	86.5	Red		IPC-I
18.3	Chlorates, per-chlorates & peroxides	20	30	20	**70**	30	20	25	**75**	20	20	**40**	88.8	Red		IPC-I
18.4	Chlorine, fluorine, bromine, iodine, and their compounds	10	30	25	**65**	35	20	10	**65**	20	20	**40**	83.4	Red		IPC-I
19	Coke oven plant, coal liquefaction, coal tar distillation and fuel gas-making	30	30	30	**90**	25	30	35	**90**	25	50	**75**	98.3	Red		IPC-II
20.0	**CEMENT** PLANTS															

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
20.1	With co-processing with CPP (Captive Power Plant)	20	25	35	**80**	35	30	35	**100**	10	50	**60**	100	Red		IPC-II
20.2	With co-processing without CPP	20	0	20	**40**	35	30	35	**100**	30	20	**50**	100	Red		IPC-II
20.3	Without co-processing with CPP	10	25	35	**70**	35	30	35	**100**	10	50	**60**	100	Red		IPC-II
20.4	Without co-processing without CPP	0	0	0	**0**	25	30	35	**90**	30	10	**40**	92	Red		IPC-II
20.5	Stand-alone grinding units with CPP	20	25	35	**80**	25	30	35	**90**	10	50	**60**	97	Red		IPC-II
20.6	Stand-alone grinding units without CPP	0	0	0	**0**	25	30	0	**55**	30	10	**40**	64	Orange		IPC-II
20.7	Bulk terminals for storage and packaging of cement	0	0	0	**0**	0	30	0	**30**	0	0	**0**	30	Green		IPC-II
21.0	**CHLOR** ALKALI															
21.1	Chlor alkali	10	20	25	**55**	30	25	25	**80**	20	20	**40**	89.5	Red		IPC-I
21.2	Chlor alkali using washed salt	10	20	15	**45**	30	25	25	**80**	20	10	**30**	87.5	Red		IPC-I
21.3	Chlor alkali using cleaner/gaseous fuel	10	20	25	**55**	30	25	10	**65**	20	20	**40**	81.6	Red		IPC-I
21.4	Chlor alkali using cleaner/gaseous fuel and washed salt	10	20	15	**45**	30	25	10	**65**	20	10	**30**	78.1	Orange		IPC-I
22	Manufacturing of **Compact** disc **Computer** (CD/DVD) / cassette manufacturing / reel manufacturing	0	15	15	**30**	30	0	0	**30**	20	10	**30**	51	Green		IPC-V
23.0	MANUFACTURING OF **COIR/COIR** PITH AND **COIR** PRODUCTS															
23.1	Coir bleaching and dyeing/printing units	25	0	25	**50**	25	25	20	**70**	0	0	**0**	77.5	Orange		IPC-V
23.2	Coir fibre/pith processing units generating effluent	25	0	20	**45**	0	25	0	**25**	0	0	**0**	51.9	Green		IPC-V

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
23.3	Coir fibre/pith processing and/or Manufacturing of coir products from coir (only dry process)	0	0	0	**0**	0	20	0	**20**	0	0	**0**	20	White		IPC-V
24.0	**CERAMICS**															
24.1	Ceramics/ Glass /Earthen potteries and tile manufacturing using coal/oil fired kilns (fuel consumption: 12 TPD and above)	0	0	0	**0**	25	25	30	**80**	0	0	**0**	80	Red		IPC-V
24.2	Ceramics/ Glass /Earthen potteries and tile manufacturing using coal/oil fired kilns (fuel consumption: less than 12 TPD)	0	0	0	**0**	25	25	25	**75**	0	0	**0**	75	Orange		IPC-V
24.3	Ceramics/ Glass /Earthen potteries and tile manufacturing (using gas fired kilns)/tunnel kiln	0	0	0	**0**	25	25	10	**60**	0	0	**0**	60	Orange		IPC-V
24.4	Ceramics/ Glass /Earthen potteries and tile manufacturing (using only electrical kiln)	0	0	0	**0**	0	25	0	**25**	0	0	**0**	25	Green		IPC-V
25	**Coal Washeries**	20	25	30	**75**	0	25	0	**25**	0	0	**0**	78.1	Orange		IPC-II
26	Liquid floor **Cleaner**, black phenyl, liquid soap, glycerol mono-stearate manufacturing	25	25	15	**65**	0	20	0	**20**	0	0	**0**	68.5	Orange		IPC-V
27	Phenyl/toilet **Cleaner** formulation and bottling	10	0	15	**25**	0	20	0	**20**	0	0	**0**	32.5	Green		IPC-V

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
28	**Cashew** nut processing	20	0	15	**35**	25	20	15	**60**	0	0	**0**	67	Orange		IPC-III
29.0	**COFFEE** SEEDS PROCESSING INDUSTRY															
29.1	Coffee seeds processing (wet process)	35	0	20	**55**	25	0	15	**40**	0	0	**0**	64	Orange		IPC-III
29.2	Coffee seeds processing with eco-pulper	20	0	15	**35**	25	0	15	**40**	0	0	**0**	50.5	Green		IPC-III
30	Manufacturing of **Candy**	10	0	15	**25**	0	0	0	**0**	0	0	**0**	25	Green		IPC-V
31	**Cardboard** or corrugated box and paper products (excluding paper or pulp manufacturing and without using boilers)	0	0	0	**0**	0	20	0	**20**	0	0	**0**	20	White		IPC-V
32	Manufacturing of precast **Cement** products (without using asbestos/ boiler / steam curing) like pipe, pillar, jafri, well ring, block/tiles etc.(should be done in closed covered shed to control fugitive emissions)	0	0	15	**15**	0	25	0	**25**	0	0	**0**	30.6	Green		IPC-V
33	Manufacturing of **Ceramic Colour** by mixing & blending only (not using boiler and wastewater recycling process)	0	0	0	**0**	0	25	0	**25**	0	0	**0**	25	Green		IPC-V
34.0	**CHILLING** PLANT, COLD STORAGE AND ICE-MAKING															
34.1	Chilling plant	20	15	15	**50**	0	0	0	**0**	0	0	**0**	50	Green		IPC-IV
34.2	Cold storage	0	15	15	**30**	0	0	0	**0**	0	0	**0**	30	Green		IPC-V
34.3	Ice Making	0	20	15	**35**	0	0	0	**0**	0	0	**0**	35	Green		IPC-V

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
35	Decoration of **Ceramic Cup**s and plates by electric furnace	0	0	0	**0**	0	25	0	**25**	0	0	**0**	25	Green		IPC-V
36	Ready mix **Cement Concrete**	0	0	0	**0**	0	30	0	**30**	0	0	**0**	30	Green		IPC-V
37	**CO_2** recovery plant	0	0	0	**0**	0	0	0	**0**	20	10	**30**	30	Green	Exhausted molecular sieves are generated as hazardous waste.	IPC-V
38	Assembly of air **Coolers/Conditioners**, repairing and servicing	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-V
39	**Chalk** making from plaster of Paris (only casting without boilers etc. - sun drying / electrical oven)	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-V
40	Standalone manufacturing of **Concrete** admixtures up to 1000 MT per Month capacity by physical mixing (without boiler and reactor and no generation of wastewater)	0	0	0	**0**	0	0	0	**0**	10	10	**20**	20	White	The sector may become green category if it generates wastewater. The unit needs to be re-classified as per the methodology in case the capacity exceeds 1000 MT per Month.	IPC-V
41	Used **Cooking** oil (UCO) collection centers	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-V
~D~																
42.0	**DYES, DYE** INTERMEDIATES AND PIGMENT PRODUCTIONS															
42.1	Dyes, Dye Intermediates and Pigments produced by chemical synthesis	35	30	25	**90**	30	20	25	**75**	30	20	**50**	96.3	Red		IPC-I

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
42.2	Natural Dye and Pigments requiring acidic/ alkaline/ solvent extraction	30	30	20	**80**	25	20	25	**70**	20	10	**30**	90	Red		IPC-I
42.3	Natural Dye and Pigments not require acidic/ alkaline/ solvent extraction	30	20	20	**70**	25	0	25	**50**	0	0	**0**	77.5	Orange		IPC-I
43.0	SYNTHETIC **DETERGENT** AND SOAPS															
43.1	Synthetic detergents and soaps (wastewater generation ≥ 100 KLD)	20	20	30	**70**	25	0	25	**50**	25	10	**35**	82.8	Red		IPC-I
43.2	Synthetic detergents and soaps (wastewater generation < 100 KLD)	20	20	25	**65**	25	0	25	**50**	25	10	**35**	79.9	Orange		IPC-I
43.3	Synthetic detergents and soaps (only formulation)	0	0	0	**0**	25	0	25	**50**	0	0	**0**	50	Green		IPC-I
43.4	Soap manufacturing (handmade -without steam boiling / boiler)	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-V
	DISTILLERIES AND FERMENTATION SECTORS															
44.0	**DISTILLERIES** AND FERMENTATION INDUSTRIES															
44.1	Distillery (Molasses based)	35	25	35	**95**	25	25	35	**85**	0	0	**0**	97.1	Red		IPC-III
44.2	Distillery (Grain based)	35	25	30	**90**	25	25	25	**75**	0	0	**0**	93.8	Red		IPC-III
44.3	Distillery (Grain based) with Distiller's Dried Grains with Soluble (DDGS) as by-product	25	25	20	**70**	25	25	25	**75**	0	0	**0**	83.8	Red		IPC-III
44.4	Standalone yeast manufacturing units	35	25	35	**95**	25	20	25	**70**	0	0	**0**	96.8	Red		IPC-III
44.5	Breweries and malteries industry (with fermentation)- Wastewater generation ≥ 100 KLD	30	15	30	**75**	25	0	25	**50**	0	0	**0**	81.3	Red		IPC-III
44.6	Breweries and malteries industry (with fermentation)- Wastewater generation < 100 KLD	30	15	25	**70**	25	0	25	**50**	0	0	**0**	77.5	Orange		IPC-III

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
44.7	Potable alcohol by blending, bottling of alcohol products	20	0	25	**45**	0	0	0	**0**	0	0	**0**	45	Green		IPC-III
45	**Diesel** pump repairing and servicing (complete mechanical dry process)	0	0	0	**0**	0	0	0	**0**	10	10	**20**	20	White		IPC-V
~E~																
46	Manufacturing of **Explosives**, detonators, fuses, etc.	25	30	15	**70**	0	30	0	**30**	30	10	**40**	80.5	Red	Explosives manufacture contribute to release of hazardous pollutants, including generation of other toxic chemicals. Accident/safety hazard is also associated with such sector during manufacturing and usages.	IPC-I
47	Manufacturing of coated **Electrode**	0	15	15	**30**	0	25	0	**25**	0	0	**0**	38.8	Green	Process involves preparation of core wire / rod, preparation of dry mix, preparation of wet mix, application of coating by extrusion, baking of coated electrodes.	IPC-V
48	**Emery** powder (fine dust of sand) manufacturing	0	0	0	**0**	0	30	0	**30**	0	0	**0**	30	Green	Fugitive emissions from grinding operations.	IPC-V
49	**Electric** lamp (bulb) and CFL manufacturing by assembling only	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-V
50	**Electrical** and electronic item assembling (completely dry process)	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-V

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
51	**Engineering** and fabrication units (dry process without any heat treatment / metal surface finishing operations / painting)	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-V
	~F~															
52.0	**FIBRE** GLASS (FIBRE REINFORCED PLASTIC) PRODUCTION															
52.1	Fibre glass (containing lead) production and processing (excluding moulding)	0	0	0	**0**	35	0	25	**60**	25	20	**45**	69	Orange		IPC-V
52.2	Fibre glass (without lead) production and processing (excluding moulding)	0	0	0	**0**	30	0	25	**55**	25	20	**45**	65.1	Orange	The use of styrene in most methods of fibre glass production causes hazardous air pollution that is harmful to breathe at excessive levels.	IPC-V
53	Manufacturing of **Firecrackers** including improved crackers/green crackers, etc.	0	0	0	**0**	35	30	0	**65**	30	10	**40**	72	Orange	Various hazardous chemicals are used in the manufacturing process. Accident/safety hazard is also associated with such sector during manufacturing and usages.	IPC-V
54.0	SYNTHETIC **FIBRES** MANUFACTURING															
54.1	Synthetic fibres-PSF & PFY, generated from petrochemical	35	30	35	**100**	30	25	35	**90**	30	20	**50**	100	Red		IPC-I
54.2	Synthetic fibres including rayon, tyre cord, viscose filament yarn/staple fibre, acrylic fibres	25	20	25	**70**	30	20	25	**75**	20	10	**30**	87.5	Red		IPC-I
54.3	Synthetic fibres including rayon, tyre cord, viscose filament yarn/staple fibre, acrylic fibres using cleaner/gaseous fuel	25	20	25	**70**	30	20	10	**60**	20	10	**30**	83.5	Red		IPC-I

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
55.0	**FERTILIZERS** PRODUCTION															
55.1	Fertilizers (Urea)	10	30	35	**75**	30	30	20	**80**	20	30	**50**	92.5	Red		IPC-I
55.2	Fertilizers (Calcium Ammonium Nitrate/Ammonium Nitrate)	10	30	25	**65**	30	25	25	**80**	20	20	**40**	90.5	Red		IPC-I
55.3	Fertilizers (NPK)	10	30	25	**65**	30	25	25	**80**	20	20	**40**	90.5	Red		IPC-I
55.4	Fertilizers (Straight Phosphatic Fertilizers)	10	30	25	**65**	30	25	25	**80**	20	20	**40**	90.5	Red		IPC-I
55.5	Fertilizer (granulation /formulation / blending) generating wastewater through floor washings, cooling towers etc.	10	30	15	**55**	30	30	0	**60**	10	10	**20**	75	Orange		IPC-I
55.6	Fertilizer (granulation /formulation / blending) not generating wastewater	0	0	0	**0**	30	30	0	**60**	10	10	**20**	64	Orange		IPC-I
56.0	**FOOD** AND **FOOD PROCESSING** INCLUDING FRUITS AND VEGETABLE PROCESSING															
56.1	Wastewater generation ≥ 10 KLD	25	0	25	**50**	25	0	25	**50**	0	0	**0**	62.5	Orange		IPC-III
56.2	Wastewater generation < 10 KLD (without boiler)	25	0	15	**40**	0	0	0	**0**	0	0	**0**	40	Green		IPC-III
57.0	**FISH** FEED, POULTRY FEED AND CATTLE FEED															
57.1	Fish feed, poultry feed and cattle feed (with boiler)	0	20	15	**35**	25	25	25	**75**	0	0	**0**	79.4	Orange		IPC-V
57.2	Fish feed, poultry feed and cattle feed (without boiler)	0	0	0	**0**	0	25	0	**25**	0	0	**0**	25	Green		IPC-V
58	**Fish** processing and packing (excluding chilling of fishes)	25	25	20	**70**	0	20	0	**20**	0	0	**0**	73	Orange		IPC-IV
59.0	MANUFACTURING OF MODULAR WOODEN **FURNITURE**															

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
59.1	Modular wooden furniture from particle board, MDF, swan timber etc, Ceiling tiles/ partition board from saw dust, wood chips etc., and other agricultural waste using synthetic adhesive resin, wooden box making (With boiler)	0	0	0	**0**	25	25	10	**60**	0	0	**0**	60	Orange		IPC-V
59.2	Modular wooden furniture from particle board, MDF, swan timber etc, Ceiling tiles/ partition board from saw dust, wood chips etc., and other agricultural waste using synthetic adhesive resin, wooden box making (Without boiler)	0	0	0	**0**	0	25	0	**25**	0	0	**0**	25	Green		IPC-V
60.0	CARPENTRY & WOODEN **FURNITURE** MANUFACTURING															
60.1	Carpentry & wooden furniture manufacturing with spray painting (excluding saw mill) with the help of electrical (motorized) machines such as electrical wood planner, steel saw cutting circular blade, etc.	0	0	0	**0**	0	25	0	**25**	0	0	**0**	25	Green		IPC-V
60.2	Carpentry & wooden furniture manufacturing without spray painting (excluding saw mill) with the help of electrical (motorized) machines such as electrical wood planner, steel saw cutting circular blade, etc.	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-V

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
61	**Foam** manufacturing	0	0	0	**0**	35	0	0	**35**	20	10	**30**	44.8	Green	Emissions of VOCs and HAPs. Raw materials are polyurethane, latex etc.	IPC-V
62	**Flour** mills (dry process)	0	0	0	**0**	0	25	0	**25**	0	0	**0**	25	Green	Separate classification for domestic flour mills may not require.	IPC-V
63.0	STEEL **FURNITURE** INDUSTRY															
63.1	Steel furniture with spray painting	0	0	0	**0**	0	25	0	**25**	0	0	**0**	25	Green	Obnoxious gases from welding.	IPC-V
63.2	Steel furniture without spray painting	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-V
	~G~															
64.0	MANUFACTURING OF **GLUE** AND **GELATIN**															
64.1	Manufacturing of glue and gelatin using coal/liquid fuel	25	20	15	**60**	25	20	25	**70**	10	10	**20**	82	Red		IPC-I
64.2	Manufacturing of glue and gelatin by using biomass/cleaner fuel	25	20	15	**60**	25	20	15	**60**	10	10	**20**	76	Orange		IPC-I
65.0	MANUFACTURING OF **GLASS** (INCLUDING PRINTING OR ETCHING OF **GLASS** SHEET USING HYDROFLUORIC ACID)															
65.1	Manufacturing of glass (Oil/coal fired)	0	15	15	**30**	25	25	25	**75**	0	0	**0**	78.8	Orange		IPC-V
65.2	Manufacturing of glass (gas fired)	0	15	15	**30**	25	25	10	**60**	0	0	**0**	66	Orange		IPC-V
66	Producer **Gas** plant using conventional coal **Gasification**	20	25	15	**60**	25	0	25	**50**	30	10	**40**	78	Orange		IPC-V

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
67.0	COMPRESSED **BIOGAS** (CBG)/BIO-CNG PLANTS															
67.1	CBG plants based on Municipal Solid Waste (MSW) as feed	30	25	25	**80**	0	20	0	**20**	0	0	**0**	82	Red		UPC-II
67.2	CBG plants based on process waste (industrial/ process liquid effluent & solid waste like press mud, organic sludge, molasses, etc.) as feed	30	25	25	**80**	0	20	0	**20**	0	0	**0**	82	Red		IPC-III
67.3	CBG plants based on crop residue (paddy straw /wheat straw /corn sweet sorghum/ Napier grass, etc.) as feed	30	25	20	**75**	0	20	0	**20**	0	0	**0**	77.5	Orange		IPC-III
67.4	CBG plants based on animal waste (dairy farms, poultry farms, and other animal waste) as feed	30	25	20	**75**	0	20	0	**20**	0	0	**0**	77.5	Orange		IPC-III
67.5	CBG plants producing Fermented Organic Manure (FOM) & Liquid Fermented Organic Manure (LFOM) as by-products	0	0	0	**0**	0	20	0	**20**	0	0	**0**	20	White	CBG plants producing FOM & LFOM as by-products in conformity with requirements of Gazette Notification No. 2051 dated 14.07.2020 & No. 1972 dated 01.06.2021, respectively, and utilizing entire FOM & LFOM as a fertilizer or manure on land and also not discharging any waste-water, to be considered under White category, subject to verification by SPCB on case-to-case basis.	IPC-III
68.0	STANDALONE PRODUCTION OF **HYDROGEN** AND/OR **AMMONIA** (WITHOUT CAPTIVE POWER PLANT USING FOSSIL FUEL)															

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
68.1	Integrated unit for production of Ammonia through Hydrogen generated by pyrolysis/gasification	20	25	20	**65**	20	25	25	**70**	30	20	**50**	87.3	Red	i. Pyrolysis of biomass will generate syn gas and other condensable gases having hydrocarbons and other impurities. ii. Purification of gas will generate wastewater having high organic content and tarry residue as hazardous waste. iii. The process will generate fugitive emissions and due to pyrolysis operation.	IPC-I
68.2	Integrated unit for production of ammonia through Hydrogen generated by electrolysis using renewable energy (capacity ≥ 15 TPD)	10	25	35	**70**	0	20	0	**20**	30	20	**50**	80.5	Red	i. Ammonia manufacturing process (Haber process) and associated safety hazards remain same as per the chemical properties of ammonia. ii. Wastewater generation due to the production of hydrogen through electrolysis and condensation of ammonia, other scrubbed liquid etc. iii.Generation of ETP sludge, exhausted membranes, molecular sieves, spent catalysts, etc. as hazardous waste.	IPC-I

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
68.3	Integrated unit for production of Ammonia through hydrogen generated by electrolysis using renewable energy (Capacity < 15 TPD)	10	25	20	**55**	0	20	0	**20**	30	10	**40**	68.5	Orange	i. Ammonia manufacturing process (Haber process) and associated safety hazards remains same as per the chemical properties of ammonia. ii. Wastewater generation due to production of hydrogen through electrolysis and condensation of ammonia, other scrubbed liquid etc. iii.Generation of ETP sludge, exhausted membranes, molecular sieves, spent catalysts, etc. as hazardous waste.	IPC-I
68.4	Hydrogen production through pyrolysis/gasification	20	25	20	**65**	20	25	25	**70**	30	10	**40**	85.8	Red	i. Pyrolysis of biomass will generate syn gas and other condensable gases having hydrocarbons and other impurities. ii. Purification of gas will generate wastewater having high organic content and tarry residue as hazardous waste. iii.The process will generate fugitive emissions and due to pyrolysis operation.	IPC-I

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
68.5	Hydrogen production through electrolysis using raw/seawater and renewable energy (capacity ≥ 2.5 TPD)	0	20	35	**55**	0	0	0	**0**	30	10	**40**	64.0	Orange	i. Type of electrolysers may include Alkaline Water Electrolyser (AWE), Proton Exchange Membrane (PEM), Solid Oxide Electrolyser Cell (SOEC) and Anion Exchange Membrane (AEM), etc. ii. Generation of DM reject, cooling tower blowdown, draining of alkaline/electrolyser water during maintenance, etc. as wastewater. iii. Generation of ETP sludge, exhausted membranes, molecular sieves, spent catalysts, etc. as hazardous waste.	IPC-I
68.6	Hydrogen production through electrolysis using raw/sea water and renewable energy (capacity < 2.5 TPD)	0	20	20	**40**	0	0	0	**0**	30	10	**40**	52.0	Green	i. Type of electrolysers may include Alkaline Water Electrolyser (AWE), Proton Exchange Membrane (PEM), Solid Oxide Electrolyser Cell (SOEC) and Anion Exchange Membrane (AEM), etc. ii. Generation of DM reject, cooling tower blowdown, draining of alkaline/electrolyser water during maintenance, etc. as wastewater. iii. Generation of ETP sludge, exhausted membranes, molecular sieves, spent catalysts, etc. as hazardous waste.	IPC-I
68.7	Hydrogen production through electrolysis (using	0	0	0	**0**	0	0	0	**0**	0	10	**10**	10.0	White	i. DM water as feed water for electrolyser and cooling/chilling	IPC-I

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
	renewable energy) on BOO/BOOT/BOT, mode etc., located in the premises of end user industry and directly using de-mineralized water & other utilities (cooling tower, ETP, etc.) sourced from end user industry														water requirement to be met by the end user industry. ii. Wastewater and other waste generated during O&M shall also be managed by the end user industry.	
69	**Glue** from starch (physical mixing) with Gas/ electrically operated oven /boiler.	0	0	0	**0**	25	0	10	**35**	0	0	**0**	35	Green		IPC-V
70	**Gold** and silver smithy (purification with acid smelting operation and sulphuric acid polishing operation) (using less or equal to 1 litre of sulphuric acid/ nitric acid per month)	0	0	0	**0**	0	25	0	**25**	0	0	**0**	25	Green		IPC-V
71	Compressed oxygen **Gas** from crude liquid oxygen (without use of any solvents and by maintaining pressure & temperature only for separation of other **Gases**)	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-V
72	**Glass** and ampules and vials making from **Glass** tubes	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-V
73	**Ground** nut decorticating	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-V

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
74	**Medical Oxygen**	0	0	0	**0**	0	0	0	**0**	10	10	**20**	20	White	The sector may become green category if it generates wastewater	IPC-V
	~H~															
75.0	**HOT** MIX PLANTS															
75.1	Hot mix plants using oil as fuel	0	0	0	**0**	25	25	25	**75**	0	0	**0**	75	Orange		IPC-V
75.2	Hot mix plants using gaseous as fuel	0	0	0	**0**	25	25	10	**60**	0	0	**0**	60	Orange		IPC-V
76	**Hazardous** waste pre-processing/processing facility including spent acid processing, spent solvent recovery, etc.	25	30	15	**70**	25	25	15	**65**	30	20	**50**	87.3	Red		WM-II
77	**Handloom**/ carpet weaving (without dying and bleaching operation)	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-V
	~I~															
78	**Ice** cream manufacturing units	25	25	20	**70**	25	0	25	**50**	0	0	**0**	77.5	Orange		IPC-IV
79	Printing **Ink** Manufacturing	20	30	15	**65**	0	20	10	**30**	30	10	**40**	77.3	Orange	In the process pigments, binders and solvents are used. VOCs are generated.	IPC-I

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
80	Manufacturing of scientific and mathematical **Instrument** (assembling only)	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-V
	~J~															
81.0	**JUTE** PROCESSING															
81.1	Jute processing (with dyeing / with boiler)	25	20	25	**70**	25	0	25	**50**	0	0	**0**	77.5	Orange		IPC-III
81.2	Jute processing (without dyeing / without boiler)	20	0	20	**40**	0	0	0	**0**	0	0	**0**	40	Green		IPC-III
81.3	Manufacturing of products from jute (without dyeing/ without boiler)	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-III
	~L~															
82	**Lime** manufacturing (using lime kiln)	0	0	0	**0**	25	0	30	**55**	0	0	**0**	55	Orange		IPC-V
83	**Leather** foot wear and **Leather** products (excluding tanning and hide processing)	0	0	0	**0**	0	20	0	**20**	0	0	**0**	20	White	Fumes due to use of adhesives / gums.	IPC-IV
84	Manufacturing of optical **Lenses** (using electrical furnace)	0	20	15	**35**	0	0	0	**0**	0	0	**0**	35	Green		IPC-V
85	**Leather** cutting and stitching (more than 10 machine and using motor)	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-V
	~M~															

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
86	**Mobile** towers using genset(s)	0	0	0	**0**	25	0	25	**50**	0	0	**0**	50	Green	i. The used oil/waste oil generated during repair and maintenance need to be disposed through authorized hazardous waste recycler by service provider/OEM. ii. Order dated 24.08.2017 in the related matter with OA No. 83(THC) OF 2012 (Bharti Infratel Ltd.) may be referred for issuance of composite consent in case of mobile towers.	UPC-I
87.0	**MILK** PROCESSES AND DAIRY PRODUCTS															
87.1	Milk processes and dairy products (integrated project)	30	25	30	**85**	25	20	30	**75**	0	0	**0**	90.6	Red		IPC-IV
87.2	Dairy and dairy products (Small scale units), using coal/biomass as fuel (Wastewater generation ≥ 100 KLD)	25	25	30	**80**	25	0	25	**50**	0	0	**0**	85	Red		IPC-IV
87.3	Dairy and dairy products (Small scale units), using coal/biomass as fuel (Wastewater generation < 100 KLD)	25	25	20	**70**	25	0	25	**50**	0	0	**0**	77.5	Orange		IPC-IV
87.4	Dairy and dairy products, (Small scale units), using PNG as fuel	25	25	20	**70**	0	0	10	**10**	0	0	**0**	71.5	Orange		IPC-IV
88.0	**MINING** AND ORE BENEFICIATION															
88.1	Open-cast coal mining	10	25	35	**70**	25	30	35	**90**	10	70	**80**	97.5	Red		IPC-II
88.2	Underground coal mining	0	25	35	**60**	25	30	35	**90**	0	0	**0**	93	Red		IPC-II
88.3	Mining of major minerals and ore beneficiation	20	30	35	**85**	25	30	35	**90**	25	70	**95**	99.4	Red	Includes captive limestone mining.	IPC-II

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
88.4	Mining of minor minerals (except Sand/riverbed material mining)	10	0	20	**30**	25	25	25	**75**	0	0	**0**	78.8	Orange		IPC-II
88.5	Grinding, processing, and screening of minor minerals	0	0	0	**0**	25	30	0	**55**	0	0	**0**	55	Orange		IPC-II
89	Manufacturing of **Mirror** from sheet glass	0	0	0	**0**	30	20	0	**50**	25	10	**35**	58.8	Orange		IPC-V
90	**Mineral** processing, industries involving ore sintering, pelletisating, grinding & pulverization	0	0	0	**0**	25	25	25	**75**	0	0	**0**	75	Orange		IPC-II
91	**Malteries** (without fermentation)	30	15	25	**70**	25	0	25	**50**	0	0	**0**	77.5	Orange		IPC-III
92	Manufacturing of **Mosquito** repellent & coil	0	0	0	**0**	30	0	25	**55**	0	0	**0**	55	Orange	Toxic fumes may be released.	IPC-V
93	Organic **Manure** (physical mixing)	0	0	0	**0**	0	20	0	**20**	0	0	**0**	20	White		IPC-V
94	Packing of powdered **Milk**	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-V
METALS AND METALLURGICAL SECTORS																
95.0	**IRON & STEEL** (PRIMARY PROCESSING FROM ORE, INTEGRATED STEEL PLANTS AND SPONGE IRON UNITS)															
95.1	Integrated iron and steel plants	25	30	35	**90**	25	30	35	**90**	25	50	**75**	98.3	Red		IPC-II
95.2	Stand-alone sintering/palletisation	0	0	0	**0**	25	30	35	**90**	0	0	**0**	90	Red		IPC-II
95.3	Sponge iron with CPP (Captive Power Plant)	20	25	35	**80**	25	30	35	**90**	10	50	**60**	97	Red		IPC-II
95.4	Sponge iron without CPP	20	15	30	**65**	25	30	35	**90**	10	50	**60**	96.3	Red		IPC-II

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
95.5	Stand-alone coke oven gas plants	25	30	30	**85**	25	30	35	**90**	25	50	**75**	98	Red		IPC-II
96.0	**ALUMINIUM** PROCESSING															
96.1	Aluminium Refinery	10	30	35	**75**	25	25	35	**85**	10	70	**80**	96.6	Red		IPC-II
96.2	Aluminium Smelter	10	30	35	**75**	30	25	35	**90**	25	70	**95**	99.1	Red		IPC-II
97	**Copper Smelter**	10	30	35	**75**	30	25	35	**90**	10	70	**80**	97.8	Red		IPC-II
98	**Zinc smelter**	10	30	35	**75**	30	25	35	**90**	10	70	**80**	97.8	Red		IPC-II
99.0	**FERROUS AND NON-FERROUS METAL** SECONDARY PROCESSING/REPROCESSING UNITS INVOLVING DIFFERENT FURNACES THROUGH MELTING, REFINING, CASTING, ALLOY-MAKING															
99.1	All Ferrous and Non-ferrous metal secondary processing/reprocessing units involving different furnaces through melting, refining, casting, alloy-making (using coal/liquid fuels)	0	15	15	**30**	25	25	25	**75**	25	10	**35**	83.1	Red		IPC-V
99.2	Ferrous and Non-ferrous metal (excluding lead, nickel, and manganese) secondary processing/reprocessing units involving different furnaces through melting, refining, casting, alloy-making (using cleaner fuels/electricity)	0	15	15	**30**	25	25	10	**60**	10	10	**20**	70	Orange		IPC-V
100	Aluminium & copper extraction from scrap using an oil-fired furnace (dry process only)	0	0	0	**0**	25	25	25	**75**	0	0	**0**	75	Orange		IPC-V
101.0	INDUSTRY OR PROCESS INVOLVING **METAL** SURFACE TREATMENT OR PROCESS/HEAT TREATMENT															

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
101.1	Industry or process involving metal surface treatment or process such as pickling/ electroplating/paint stripping/ heat treatment using cyanide bath/ phosphating or finishing and anodizing / enamellings/ galvanizing	25	30	20	**75**	30	25	0	**55**	25	30	**55**	88.8	Red		IPC-V
101.2	Plasma electrolytic polishing (electroplating)	25	30	15	**70**	30	25	0	**55**	0	0	**0**	78.3	Orange		IPC-V
101.3	Heat treatment using furnace (without cyaniding)	0	0	0	**0**	25	0	25	**50**	0	0	**0**	50	Green		IPC-V
101.4	Heat treatment with any of the new technology like ultrasound probe, induction hardening, ionization beam, gas carburizing etc.	0	15	15	**30**	0	25	0	**25**	0	0	**0**	38.8	Green		IPC-V
102.0	FORGING OF **FERROUS AND NON- FERROUS METALS**															
102.1	Forging of ferrous and non-ferrous metals using liquid fuel	0	0	0	**0**	25	25	20	**70**	30	10	**40**	76	Orange		IPC-V
102.2	Forging of ferrous and non-ferrous metals using gaseous fuel	0	0	0	**0**	25	25	10	**60**	30	10	**40**	68	Orange		IPC-V
102.3	Forging of ferrous and non-ferrous metals using electricity	0	0	0	**0**	25	25	0	**50**	30	10	**40**	60	Orange		IPC-V
102.4	Forging of ferrous and non-ferrous metals (cold forging, without any heat treatment)	0	0	0	**0**	0	0	0	**0**	30	10	**40**	40	Green		IPC-V
103.0	ROLLING **MILLS**															
103.1	Rolling and pickling	25	30	15	**70**	25	30	25	**80**	25	10	**35**	90.5	Red		IPC-V
103.2	Rolling mills (oil and coal fired)	0	15	15	**30**	25	0	25	**50**	0	0	**0**	57.5	Orange		IPC-V
103.3	Rolling mills (gas fired)	0	15	15	**30**	25	0	10	**35**	0	0	**0**	44.8	Green		IPC-V

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
103.4	Cold rolling mill (without heat treatment)	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-V
104.0	**FOUNDRY OPERATIONS**															
104.1	Cupola furnace	**0**	**0**	**0**	**0**	25	25	25	**75**	10	10	20	77.5	Orange		IPC-V
104.2	Induction furnace/arc furnace	0	0	0	**0**	25	30	0	**55**	10	10	**20**	59.5	Orange		IPC-V
105.0	**WIRE** DRAWING AND **WIRE** NETTING															
105.1	Wire drawing and wire netting (with pickling)	25	30	15	**70**	30	25	0	**55**	10	10	**20**	81.3	Red		IPC-V
105.2	Wire drawing and wire netting (without pickling and with heat treatment)	0	0	0	**0**	25	0	20	**45**	10	10	**20**	50.5	Green		IPC-V
105.3	Wire drawing and wire netting (without pickling and without heat treatment)	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-V
106	**Die-casting** /extrusion process only	0	0	0	**0**	25	0	25	**50**	0	0	**0**	50	Green		IPC-V
107	Manufacturing of aluminium utensils from aluminium circles pressing/ Brass and bell **Metal** utensils manufacturing from circles (dry mechanical operation only)	0	0	0	**0**	0	30	0	**30**	0	0	**0**	30	Green	Emissions during buffing	IPC-V
108	Manufacturing of **Metal** caps containers etc	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-V
~N~																

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
109	Formulation/palletisation of camphor tablets, **Naphthalene** balls from camphor/ naphthalene powders.	0	0	0	**0**	35	20	0	**55**	0	0	**0**	55	Orange	Emissions of benzene, hydrocarbons etc. are expected.	IPC-V
110	Organic and inorganic **Nutrients** by physical mixing (without boiler and without any reactor)	0	0	0	**0**	0	0	0	**0**	10	10	**20**	20	White	The sector may become green category if it generates wastewater	IPC-V
111.0	**ORGANIC** CHEMICALS INCLUDING HALOGENATED HYDROCARBONS															
111.1	Organic chemicals including halogenated hydrocarbons (using solid/liquid fuel)	30	30	25	**85**	35	0	30	**65**	30	20	**50**	93.6	Red		IPC-I
111.2	Organic chemicals including halogenated hydrocarbons (using cleaner fuel)	30	30	25	**85**	35	0	10	**45**	30	20	**50**	92.1	Red		IPC-I
112	**Oil** and gas extraction (offshore & onshore extraction through drilling wells), Coal Bed Methane (CBM) drilling and shale gas, including group gathering stations (GGS), etc.	25	30	15	**70**	20	25	0	**45**	30	10	**40**	82.8	Red		IPC-I
113.0	EDIBLE **OIL** MILLS															
113.1	Vegetable oil manufacturing including solvent extraction and refinery /hydrogenated oils	25	25	20	**70**	25	0	20	**45**	0	0	**0**	76.8	Orange		IPC-III
113.2	Oil mills Ghani and extraction without boiler (no refining/ hydrogenation)	10	25	15	**50**	0	0	0	**0**	0	0	**0**	50	Green		IPC-III

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
	~P~															
114.0	**POWER** GENERATION PLANTS															
114.1	Power plants based on coal	0	15	35	**50**	35	25	35	**95**	10	70	**80**	98.3	Red		IPC-II
114.2	Power plants based on liquid fuels	0	15	35	**50**	25	25	35	**85**	30	20	**50**	92.5	Red		IPC-II
114.3	Biomass-based power plants	0	15	30	**45**	25	25	25	**75**	10	50	**60**	88.1	Red		IPC-II
114.4	Nuclear energy-based power plants (> 220 MW)	0	30	35	**65**	25	0	25	**50**	25	20	**45**	81.6	Red	Overall safety aspects related with radioactivity is regulated by Atomic Energy Regulatory Board (AERB).	IPC-II
114.5	Nuclear energy-based power plants (up to 220 MW)	0	30	35	**65**	25	0	25	**50**	25	10	**35**	79.9	Orange	Overall safety aspects related with radioactivity is regulated by Atomic Energy Regulatory Board (AERB).	IPC-II
114.6	Gas-based power plants	0	15	35	**50**	25	0	20	**45**	0	0	**0**	61.3	Orange		IPC-II
115.0	**PULP & PAPER** (AGRO & WOOD)															
115.1	Manufacturing of bleached chemical pulp, papers, and paperboards	30	30	35	**95**	30	0	35	**65**	30	30	**60**	98.1	Red		IPC-III
115.2	Unbleached or Totally Chlorine Free (TCF) bleaching for manufacturing of chemical pulp, papers, and paperboards	30	20	35	**85**	30	0	35	**65**	10	30	**40**	92.9	Red		IPC-III
115.3	Bleached grades of chemical pulp, paper, and paperboard having Totally Chlorine Free (TCF) bleaching	30	20	35	**85**	30	0	35	**65**	10	30	**40**	92.9	Red		IPC-III
116.0	**PULP AND PAPER** (RECYCLED FIBRE/WASTE PAPER BASED)															
116.1	Pulp & Paper (With bleaching)	30	15	35	**80**	25	0	25	**50**	10	30	**40**	89	Red		IPC-III
116.2	Pulp & Paper (Without bleaching, capacity ≥15 TPD)	25	15	35	**75**	25	0	25	**50**	10	30	**40**	86.3	Red		IPC-III

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
116.3	Pulp & Paper (Without bleaching; plant capacity <15 TPD)	25	15	20	**60**	25	0	25	**50**	10	10	**20**	74	Orange		IPC-III
117.0	MANUFACTURING OF **PAINTS**, VARNISHES															
117.1	Manufacturing of solvent-based paints/varnish	35	30	20	**85**	25	20	25	**70**	25	30	**55**	94.4	Red	The process may cause considerable emissions of volatile organic compounds (VOC)	IPC-I
117.2	Manufacturing of water-based paints	25	30	20	**75**	25	20	25	**70**	20	20	**40**	88.8	Red		IPC-I
117.3	Manufacturing of powder coatings	0	15	15	**30**	20	30	25	**75**	10	20	**30**	82.5	Red		IPC-I
117.4	Manufacturing of paint and varnishes (only blending and mixing)	20	30	15	**65**	0	20	0	**20**	30	20	**50**	77.3	Orange		IPC-I
118.0	**PESTICIDE** INDUSTRIES															
118.1	Pesticide technical (organic chemicals based)	30	30	20	**80**	30	25	25	**80**	30	30	**60**	94	Red		IPC-I
118.2	Pesticide technical (inorganic chemicals based like Zinc Phosphide and Aluminium Phosphide)	20	30	20	**70**	30	25	25	**80**	20	20	**40**	91	Red		IPC-I
118.3	Pesticide formulation industries (Liquid formulation only) having boiler/thermopack	20	30	20	**70**	25	20	25	**70**	20	20	**40**	86.5	Red		IPC-I
118.4	Pesticide formulation industries (Liquid formulation only) without having boiler/thermopack	20	30	20	**70**	0	20	0	**20**	20	20	**40**	79	Orange	Considering that dry formulation industries can also generate effluent because of equipment cleaning, the water pollution score is given	IPC-I
118.5	Pesticide formulation industries (having both liquid and dry formulation or dry formulation only) without having boiler / thermopack	20	30	20	**70**	30	20	0	**50**	20	20	**40**	83.5	Red	Considering that dry formulation industries can also generate effluent because of equipment cleaning, the water pollution score is given	IPC-I

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
118.6	Pesticide formulation industries (having both liquid and dry formulation or dry formulation only) having boiler / thermopack	20	30	20	**70**	30	20	25	**75**	20	20	**40**	88.8	Red	Considering that dry formulation industries can also generate effluent because of equipment cleaning, the water pollution score is given	IPC-I
119	**Photographic** film and its chemicals	20	20	15	**55**	30	0	25	**55**	20	10	**30**	74.1	Orange	Silver salts and other chemicals are used	IPC-I
120	**Petroleum** oil refineries	35	30	30	**95**	35	20	35	**90**	20	20	**40**	98.3	Red		IPC-I
121.0	**PETROCHEMICALS**															
121.1	Petrochemicals (Naphtha cracker.)	30	30	30	**90**	35	25	35	**95**	30	20	**50**	98.5	Red		IPC-I
121.2	Petrochemicals (Gas cracker)	30	30	30	**90**	35	25	25	**85**	30	20	**50**	96.8	Red		IPC-I
121.3	Petrochemicals (without cracker)	25	30	20	**75**	25	25	15	**65**	20	20	**40**	88.1	Red		IPC-I
121.4	Petrochemicals (without cracker and using cleaner/gaseous fuel)	25	30	20	**75**	25	25	10	**60**	20	20	**40**	87.5	Red		IPC-I
122.0	MANUFACTURING OF LUBRICATING OILS, GREASE AND **PETROLEUM**-BASED PRODUCTS															
122.1	Manufacturing of lubricating oils, grease, and petroleum-based products	20	15	15	**50**	25	20	10	**55**	30	10	**40**	75.3	Orange	Such unit uses distillation columns/ boilers etc	IPC-I
122.2	Manufacturing of lubricating oils, grease, and petroleum-based products (only blending)	0	0	0	**0**	0	25	0	**25**	10	10	**20**	32.5	Green		IPC-I
123.0	**PHARMACEUTICAL** INDUSTRY															
123.1	Pharmaceuticals manufacturing	35	30	30	**95**	35	25	35	**95**	30	20	**50**	98.6	Red		IPC-I
123.2	Pharmaceuticals manufacturing using cleaner/gaseous fuel	35	30	30	**95**	35	25	10	**70**	30	20	**50**	98	Red		IPC-I

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S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
123.3	Pharmaceuticals (Formulation)	20	15	15	**50**	25	0	25	**50**	30	10	**40**	72.5	Orange		IPC-I
123.4	Pharmaceuticals (Formulation) using cleaner/gaseous fuel	20	15	15	**50**	25	0	10	**35**	30	10	**40**	68.8	Orange		IPC-I
123.5	Vaccine manufacturing	20	15	15	**50**	25	0	35	**60**	30	10	**40**	78	Orange		IPC-I
123.6	Vaccine manufacturing using cleaner/gaseous fuel	20	15	15	**50**	25	0	10	**35**	30	10	**40**	68.8	Orange		IPC-I
123.7	Pharmaceutical R&D facilities	20	15	15	**50**	25	0	25	**50**	30	10	**40**	72.5	Orange		IPC-I
123.8	Ayurvedic or Unani medicines manufacturing	20	15	15	**50**	25	0	25	**50**	30	10	**40**	72.5	Orange		IPC-I
123.9	Ayurvedic or unani medicines manufacturing using cleaner fuel	20	15	15	**50**	25	0	10	**35**	0	0	**0**	58.8	Orange		IPC-I
123.10	Ayurvedic or unani medicines manufacturing (Without boiler)	20	15	15	**50**	0	0	0	**0**	0	0	**0**	50	Green		IPC-I
124	Digital **Printing** on flex /vinyl, PVC etc. (more than 5 machines)	0	0	0	**0**	20	0	0	**20**	30	10	**40**	46	Green		IPC-V
125	Spray **Painting**, Paint baking, Paint shipping	0	0	0	**0**	0	25	0	**25**	30	10	**40**	47.5	Green	Emissions in the form of VOCs and HC are generated.	IPC-V
126	**Plywood**/board manufacturing (including Veneer and laminate) with biomass fired boiler / thermic fluid heater (without resin plant)	20	20	15	**55**	25	20	25	**70**	0	0	**0**	78.3	Orange		IPC-V

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
127	**Printing** press (newspaper, books, magazines, etc./ Gravure printing	20	0	15	**35**	20	0	0	**20**	30	10	**40**	56.5	Orange		IPC-V
128	Manufacturing of bi-axially oriented **Polypropylene** (PP) film along with metalizing operations	0	15	15	**30**	0	0	0	**0**	0	0	**0**	30	Green	Mainly extrusion process involving	IPC-V
129	**Pulse**/Dal Mills	0	0	0	**0**	0	30	0	**30**	0	0	**0**	30	Green		IPC-V
130	Insulation and other coated **Papers** (excluding paper or pipe manufacturing)	0	0	0	**0**	0	25	0	**25**	0	0	**0**	25	Green		IPC-V
131	**Packaging** materials manufacturing from non-asbestos fibre, vegetable fibre yarn	0	0	0	**0**	0	25	0	**25**	0	0	**0**	25	Green		IPC-V
132	**Polythene** and plastic processed products manufacturing (virgin/compostable plastic)	0	15	15	**30**	0	20	0	**20**	0	0	**0**	37	Green		IPC-V
133	**Poultry**, piggery, and hatchery	0	0	0	**0**	30	20	0	**50**	0	0	**0**	50	Green		IPC-V
134	**Puffed** rice (muri) (using gas)	0	0	0	**0**	25	0	10	**35**	0	0	**0**	35	Green		IPC-V

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
135	Biscuits trays etc from rolled **PVC** sheet (using automatic vacuum forming machines)	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-V
136	Fountain **Pen** manufacturing by assembling only	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-V
137	Glass **Putty** and sealant (by mixing with machine only)	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-V
138	Manufacturing of **Paper** Pins, U-clips, etc.	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-V
139	Solar **Power** generation through solar photovoltaic cell and wind power	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-V
~R~																
140	Synthetic **Rubber** excluding molding	20	15	15	**50**	20	0	25	**45**	20	10	**30**	68.8	Orange	Most synthetic rubber is created from two materials, styrene, and butadiene.	IPC-I
141.0	**REFRACTORIES**															
141.1	Refractories based on coal/liquid fuel (fuel consumption: 12 TPD and above)	0	0	0	**0**	25	25	30	**80**	0	0	**0**	80	Red		IPC-V
141.2	Refractories based on coal/liquid fuel (fuel consumption: less than 12 TPD)	0	0	0	**0**	25	25	25	**75**	0	0	**0**	75	Orange		IPC-V
141.3	Refractories based on cleaner fuels	0	0	0	**0**	25	25	10	**60**	0	0	**0**	60	Orange		IPC-V
142.0	**RUBBER** PRODUCTS MANUFACTURING															

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
142.1	Tyre and tube manufacturing	0	15	15	**30**	25	25	25	**75**	0	0	**0**	78.8	Orange		IPC-V
142.2	Tyres and tubes vulcanization/ hot retreading	0	15	15	**30**	25	20	10	**55**	0	0	**0**	61.8	Orange	Emissions of PM, VOCs and obnoxious odour are generated.	IPC-V
142.3	Rubber goods industry (with solid fuel/oil-based boiler)	0	15	15	**30**	25	0	25	**50**	0	0	**0**	57.5	Orange		IPC-V
142.4	Rubber goods industry (with gas-based boiler)	0	15	15	**30**	25	0	10	**35**	0	0	**0**	44.8	Green		IPC-V
143.0	SYNTHETIC **RESINS**															
143.1	Synthetic resins manufacturing	20	15	15	**50**	25	20	25	**70**	20	10	**30**	82	Red		IPC-I
143.2	Synthetic resins manufacturing (using only gaseous fuel)	20	15	15	**50**	25	20	10	**55**	20	10	**30**	73	Orange		IPC-I
144	Blending of melamine **Resins** & different powder, additives by physical mixing, including phenolic resin (without boiler)	0	15	15	**30**	0	30	0	**30**	20	10	**30**	51	Green		IPC-I
145.0	**RICE** MILLS															
145.1	Parboiled rice mill (with soaking and steam/drier)	25	0	20	**45**	25	0	25	**50**	0	0	**0**	61.3	Orange		IPC-V
145.2	Raw rice mill (Without soaking and steam/drier)/ hullers)	0	0	0	**0**	0	30	0	**30**	0	0	**0**	30	Green		IPC-V
146	**Repairing** of electric motors and generators (dry mechanical process)	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-V
147	Manufacturing of plastic or cotton **Rope**	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-V

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
148	Tyre **Retraders**	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		WM-III
RECYCLING AND REPROCESSING SECTOR																
149.0	INDUSTRIES ENGAGED IN **RECYCLING/REPROCESSING/ RECOVERY/REUSE** OF HAZARDOUS WASTE UNDER SCHEDULE IV OF H&OW(M & TBM) RULES, 2016 - ITEMS, NAMELY, SPENT CATALYSTS CONTAINING NICKEL, CADMIUM, ZINC, COPPER, ARSENIC, VANADIUM, AND COBALT, INCLUDING DRY BATTERY (EXCEPT LEAD), AND CLEARED METAL CATALYST.															
149.1	Hydro & pyro metallurgy	0	30	15	**45**	35	25	25	**85**	25	10	**35**	91	Red		WM-II
149.2	Hydro & pyro metallurgy (using cleaner/gaseous fuels & without crushing of materials)	0	30	15	**45**	35	25	10	**70**	25	10	**35**	82	Red		WM-II
149.3	Pyro metallurgy (using coal/liquid fuels)	0	0	0	**0**	35	25	25	**85**	20	10	**30**	87.3	Red		WM-II
149.4	Pyro metallurgy (using cleaner/gaseous fuels)	0	0	0	**0**	35	25	10	**70**	20	10	**30**	74.5	Orange		WM-II
149.5	Hydro metallurgy	0	30	15	**45**	30	25	0	**55**	25	10	**35**	73	Orange		WM-II
150.0	E-WASTE DISMANTLING / **RECYCLING**															
150.1	Industry engaged in recycling of e-waste generated from the electrical and electronic Equipment (EEE) listed in the E-Waste (Management) Rules 2022 using pyro/ hydro/ electro-metallurgical processing and recycling of plastic separated from Waste EEE	30	30	20	**80**	35	25	15	**75**	25	20	**45**	92	Red		WM-III

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
150.2	Industry engaged in recycling of e-waste generated from the electrical and electronic equipment (EEE) listed in the E-Waste (Management) Rules 2022 (PCB processing limited to only mechanical processing and separation without pyro/ hydro/ electro-metallurgical processing), production of Al, Cu, and other metals from non-PCB sources and/or recycling of plastic separated from Waste EEE.	0	15	15	**30**	20	25	15	**60**	25	10	**35**	73	Orange		WM-III
150.3	Industry engaged in dismantling (only) of e-waste, generated from the electrical and electronic equipment (EEE) listed in the E-Waste (Management) Rules 2022	0	0	0	**0**	0	25	0	**25**	25	10	**35**	43.1	Green		WM-III
150.4	E-waste refurbishing centres	0	0	0	**0**	0	25	0	**25**	25	10	**35**	43.1	Green		WM-III
151.0	INDUSTRIES ENGAGED IN **RECYCLING/REPROCESSING/ RECOVERY/REUSE** OF HAZARDOUS WASTE (Items as per Schedule IV of H&OW(M & TBM) Rules, 2016.)															
151.1	Lead Recycling (Lead Acid Batteries with Acids; Lead Scrap Recycling) Rotary Furnace/ Pit Furnace (Mandir/Canopy Bhatti)	0	30	20	**50**	35	30	25	**90**	20	20	**40**	94.5	Red	This also includes battery scrap, namely: Lead battery plates covered by ISRI, Code word "Rails" Battery lugs covered by ISRI, Code word "Rakes." Scrap drained/dry while intact, lead batteries covered by ISRI, Code word "rains."	WM-II

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
151.2	Lead Recycling (Drained Lead Acid Batteries; Lead Scrap Recycling) Rotary Furnace/Mandir Bhatti on Cleaner Fuel	0	30	15	**45**	35	30	10	**75**	20	10	**30**	84.4	Red	This also includes, battery scrap, namely: Lead battery plates covered by ISRI, Code word "Rails" Battery lugs covered by ISRI, Code word "Rakes." Scrap drained/dry while intact, lead batteries covered by ISRI, Code word "rains."	WM-II
151.3	Isolated storages (as defined under Manufacture, Storage, and Import of Hazardous Chemicals Rules, 1989 as amended)	10	25	15	**50**	20	25	0	**45**	30	10	**40**	71.3	Orange		IPC-I
151.4	Paint and ink sludge / residues recycling	20	25	15	**60**	0	20	0	**20**	30	10	**40**	72	Orange		WM-II
151.5	Industries engaged in recycling / reprocessing/ recovery/reuse of Hazardous Waste, excluding lead, paint, and ink sludge	0	30	15	**45**	35	0	25	**60**	20	10	**30**	75	Orange	This includes items namely - Brass Dross, Copper Dross, Copper Oxide Mill Scale, Copper everts, Cake & Residues, Waste Copper and copper alloys in dispersible form, Slags from copper processing for further processing or refining, Insulated Copper Wire, Scrap/copper with PVC sheathing including ISRI-code material namely "Druid" Jelly filled Copper cables, Zinc Dross-Hot dip Galvanizers SLAB,, Zinc Dross-Bottom Dross, Zinc ash/Skimming arising from galvanizing and die casting operations, Zinc ash/Skimming/other zinc bearing wastes arising from smelting and refining,, Zinc ash and residues including zinc alloy residues in dispersible form.	WM-II

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
151.6	Refining of used oil by hydro-treating/using solvent extraction	10	25	25	**60**	25	0	25	**50**	20	20	**40**	78	Orange		WM-II
151.7	Refining of used oil by using thin film evaporation/vacuum distillation with clay treatment	10	25	15	**50**	25	0	15	**40**	20	10	**30**	67.5	Orange		WM-II
151.8	Recycling / reprocessing of waste oil	20	25	15	**60**	25	0	15	**40**	20	10	**30**	74	Orange		WM-II
152.0	**RECYCLING** OF PLASTIC WASTE															
152.1	Manufacturing of flakes/staple fibre/strip from the recycling of PET bottles	20	15	25	**60**	0	20	0	**20**	0	0	**0**	64	Orange		IPC-I
152.2	Plastic waste processing (manufacturing of flakes/granules)	20	15	15	**50**	0	20	0	**20**	0	0	**0**	55	Orange	Process using In-built heaters.Washwater and fugitive emission.	UPC-II
153.0	SCRAPING FACILITIES FOR **RECYCLING** END-OF-LIFE VEHICLES, WAGONS, AND COACHES															
153.1	Collection, Depollution and Dismantling Centers (Without shredding)	0	30	15	**45**	0	30	0	**30**	25	10	**35**	62.9	Orange		WM-II
153.2	Collection, Depollution, Dismantling and shredding Centers	0	30	15	**45**	0	30	0	**30**	25	10	**35**	62.9	Orange		WM-II
153.3	Common Shredders (Standalone)	0	0	0	**0**	0	30	0	**30**	25	10	**35**	44.8	Green		WM-II
153.4	Collection Centers (Without depollution, dismantling and shredding)	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		WM-II
	~S~															
154	**Sugar** (excluding khandsari/jaggery)	30	25	35	**90**	25	0	25	**50**	30	10	**40**	94.5	Red	Generates large volume of wastewater.	IPC-III

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
155	**Ship** breaking industries	0	0	0	**0**	0	30	0	**30**	30	20	**50**	57.5	Orange	Ship breaking releases a large number of pollutants, including toxic waste, used/waste oil, poly-chlorinated biphenyls, and heavy metals.	WM-III
156	**Slaughterhouse** / **Slaughterhouse** (with rendering plant)/ integrated slaughtering unit, meat processing units, bone mill, processing of animal horns, hoofs and other body parts	30	25	30	**85**	25	20	25	**70**	0	0	**0**	90.3	Red		IPC-IV
157	Manufacturing of **Silica** gel	10	25	20	**55**	30	0	20	**50**	25	10	**35**	74.1	Orange		IPC-I
158	Manufacturing of Iodized **Salt** from Crude / Raw Salt	10	20	15	**45**	25	0	25	**50**	0	0	**0**	61.3	Orange	Process may involve boiling in evaporators (multiple effect evaporators), centrifuging, iodization, mixing, etc.	IPC-V
159	Manufacturing of **Starch** / Sago / Sorbitol	20	25	25	**70**	25	0	25	**50**	0	0	**0**	77.5	Orange		IPC-III
160	**Stone** crushers	0	0	0	**0**	25	30	0	**55**	0	0	**0**	55	Orange		IPC-V
161	**Stone** crushing/grinding/washing & screening of riverbed material(s)	10	0	25	**35**	25	30	0	**55**	0	0	**0**	62.9	Orange		IPC-V

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
162.0	MANUFACTURING OF **SURGICAL** AND MEDICAL PRODUCTS															
162.1	Manufacturing of **Surgical** and medical products	10	25	15	**50**	25	0	10	**35**	0	0	**0**	58.8	Orange		IPC-V
162.2	Surgical and medical products assembled only (with effluent-generating processes)	10	25	15	**50**	0	0	0	**0**	0	0	**0**	50	Green		IPC-V
162.3	Surgical and medical products assembled only (without effluent-generating processes)	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-V
163.0	**SEMICONDUCTOR** MANUFACTURING INDUSTRIES															
163.1	Semiconductor fabs manufacturing	25	30	35	**90**	35	30	0	**65**	25	10	**35**	95	Red	i. Toxic wastewater is generated due to presence of Hydrofluoric acid (HF), Mixed Nitric HF ($HF+HNO_3$), Phosphoric acid, Sulphuric acid (H_2SO_4), Hydrogen Peroxide, Isopropyl alcohol (IPA) / Methanol (Methanol Only), Stripper EKC-265 /ACT N396 (ACT N396 Only), BHF – 63 U, Choline etchant, etc. ii. The air pollutants which are being emitted during the manufacturing process are SiH_4, PH_3, B_2H_6, HF, HBr, DCS, NF_3, SF_6, BCl_3, Cl_2, HCL, NH_3, $C2F_6$, CHF_3, CF_4, C_4F_8, C_2F_6 etc. iii. Process waste, used oil etc. are generated as hazardous waste.	WM-III
163.2	Display fabs manufacturing	25	30	35	**90**	25	30	0	**55**	25	10	**35**	94.5	Red		WM-III
163.3	Sensor fabs manufacturing/ Compound semiconductors/ silicon photonics	25	30	35	**90**	25	30	0	**55**	25	10	**35**	94.5	Red		WM-III
163.4	Semiconductor Assembly, Testing, Marking and Packaging Facility (ATMP)	0	0	0	**0**	0	25	0	**25**	25	10	**35**	43.1	Green		WM-III
164	**Saw** mills	0	0	0	**0**	0	30	0	**30**	0	0	**0**	30	Green		IPC-V

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
165	**Spice** grinding	0	0	0	**0**	0	30	0	**30**	0	0	**0**	30	Green		IPC-V
166	Cutting, **Sizing** and polishing of marble, granite and other stones	10	0	20	**30**	0	30	0	**30**	0	0	**0**	40.5	Green		IPC-V
167	Manufacturing of **Solar** module/ non-conventional energy apparatus	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-V
	~T~															
168.0	**TANNERIES**															
168.1	Tanneries (Raw to finish)	35	30	25	**90**	0	20	0	**20**	25	30	**55**	93.8	Red		IPC-IV
168.2	Tanneries (Raw to wet blue)	35	30	25	**90**	0	20	0	**20**	25	30	**55**	93.8	Red		IPC-IV
168.3	Tanneries (Wet blue to finish)	35	30	20	**85**	0	20	0	**20**	25	30	**55**	90.6	Red		IPC-IV
168.4	Vegetable tanning	20	25	25	**70**	0	20	0	**20**	20	10	**30**	77.5	Orange		IPC-IV
169.0	MANUFACTURING OF **TOOTH** POWDER, TOOTHPASTE, TALCUM POWDER AND OTHER COSMETIC ITEMS															
169.1	Manufacturing of toothpaste and other cosmetic items	20	25	20	**65**	25	0	25	**50**	0	0	**0**	73.8	Orange		IPC-V
169.2	Manufacturing of tooth powder, talcum powder	0	0	0	**0**	0	25	0	**25**	0	0	**0**	25	Green		IPC-V
170.0	**THERMOMETER** MANUFACTURING															
170.1	Glass (mercury based) thermometer manufacturing	10	30	15	**55**	25	0	10	**35**	25	10	**35**	70.8	Orange	Process involves making of glass bulb, forming reservoir in the glass tube for fluid, inserting fluid, scale marking. Use of fuel to heat the glass tubes and hydrofluoric acid to seal the scaling. Small quantities of spent acids are generated.	IPC-V
170.2	Digital thermometer manufacturing	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-V

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
171	Manufacturing of **Teflon**-based products	10	0	15	**25**	25	25	25	**75**	0	0	**0**	78.1	Orange	Due to spraying applications, emissions (HC) are generated	IPC-V
172	**Thermocol** manufacturing (with boiler)	0	20	15	**35**	25	0	25	**50**	0	0	**0**	58.8	Orange		IPC-V
173.0	MANUFACTURING OF **TOBACCO** PRODUCTS INCLUDING CIGARETTES AND TOBACCO PROCESSES															
173.1	Manufacturing of tobacco products including cigarettes and tobacco processes (with boiler)	20	0	15	**35**	25	20	25	**70**	0	0	**0**	75.3	Orange		IPC-III
173.2	Manufacturing of tobacco products including cigarettes and tobacco processes (without boiler)	20	0	15	**35**	0	20	0	**20**	0	0	**0**	41.5	Green		IPC-III
174	**Transformer** repairing/ manufacturing (dry process only)	0	0	0	**0**	0	25	0	**25**	30	10	**40**	47.5	Green		IPC-V
175	**Tyre** Pyrolysis Oil Industries-Applicable for advanced batch automated process / continuous TPO units	10	0	15	**25**	25	25	25	**75**	0	0	**0**	78.1	Orange		WM-III
176	**Tamarind** powder manufacturing	10	15	15	**40**	25	0	10	**35**	0	0	**0**	50.5	Green	Dried tamarind fruits are cleaned, soaked, and boiled in steam jacketed kettle. Then pulp is extracted in pulper and dried in drum type drier.	IPC-V

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
177.0	**TEA** PROCESSING AND BLENDING															
177.1	Tea processing (with boiler)	10	0	15	**25**	25	0	25	**50**	0	0	**0**	56.3	Orange		IPC-III
177.2	Tea processing (without boiler)	10	0	15	**25**	0	0	0	**0**	0	0	**0**	25	Green		IPC-III
177.3	Blending and packing of tea	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-V
	TEXTILE SECTOR															
178.0	**TEXTILE** INDUSTRY															
178.1	Yarn / Textile processing involving any effluent/emission generating processes including bleaching, dyeing, printing, and colouring, including the garment and apparel manufacturing industry	30	30	30	**90**	25	0	35	**60**	30	20	**50**	95.5	Red		IPC-III
178.2	Yarn to grey fabric manufacturing with water jet machines	20	25	25	**70**	0	0	0	**0**	0	0	**0**	70	Orange		IPC-III
178.3	Garment and apparel manufacturing industry including Doubling / Reeling / TFO-Two for one unit (dry process)-with boiler	0	0	0	**0**	25	0	25	**50**	0	0	**0**	50	Green		IPC-III
178.4	Garment and apparel manufacturing industry including Doubling / Reeling / TFO-Two for one unit (dry process)-without boiler	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-III
179.0	**SAREE/FABRIC PRINTING** BY SCREEN / WOODEN BLOCK /HAND BLOCK															
179.1	Saree/fabric printing by screen / wooden block/hand block	25	0	25	**50**	25	0	20	**45**	30	10	**40**	71.3	Orange		IPC-III
179.2	Hand block printing without effluent generation	0	0	0	**0**	25	0	20	**45**	0	0	**0**	45	Green		IPC-III

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
180.0	**TEXTILE** SPINNING, SIZING AND WEAVING MILLS															
180.1	Textile spinning, sizing and weaving mills (wastewater generation≥ 10 KLD)	10	20	20	**50**	25	0	15	**40**	0	0	**0**	60	Orange		IPC-III
180.2	Textile spinning, sizing and weaving mills (wastewater generation <10 KLD)	10	20	15	**45**	25	0	10	**35**	0	0	**0**	54.6	Green		IPC-III
181	**Power looms** (without dye and bleaching)	0	0	0	**0**	0	25	0	**25**	0	0	**0**	25	Green		IPC-III
182.0	REPROCESSING OF WASTE **TEXTILE** FABRIC															
182.1	Integrated facility for reprocessing of waste textile fabric (including washing, bleaching, dyeing etc.)	30	30	20	**80**	25	25	15	**65**	0	0	**0**	86.5	Red		IPC-III
182.2	Reprocessing of waste textile fabric (dry process)	0	0	0	**0**	0	25	0	**25**	0	0	**0**	25	Green		IPC-III
183	**Cotton and woollen Hosiers** making (Dry process only without any dying / washing operation)	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-V
	~W~															
184	Seasoning of **Wood** in steam heated chamber	0	0	0	**0**	25	0	25	**50**	0	0	**0**	50	Green		IPC-V
185	Pulverization of bamboo and scrap **Wood**	0	0	0	**0**	0	25	0	**25**	0	0	**0**	25	Green		IPC-V
186	Distilled **Water** (without boiler) with electricity as source of heat	0	20	20	**40**	0	0	0	**0**	0	0	**0**	40	Green		IPC-V

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
187	Purification of **Water** and packaging (mineralized/non-mineralized water)	0	20	25	**45**	0	0	0	**0**	0	0	**0**	45	Green	RO Rejects.	IPC-V

ANNEXURE-II

(LIST OF ESSENTIAL ENVIRONMENTAL SERVICES)

LIST OF ESSENTIAL ENVIRONMENTAL SERVICES

i. Essential Environmental Services for Industrial Waste Management

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
1.0	**COMMON EFFLUENT TREATMENT PLANT (CETP)**															
1.1	CETP having MEE/spray drier	30	30	35	**95**	25	0	25	**50**	25	50	**75**	98.1	Red		IPC-VII
1.2	CETP (without having MEE/spray drier), Common MEE/common spray driers	25	30	30	**85**	0	0	0	**0**	25	30	**55**	89.1	Red		IPC-VII
1.3	Common Sewage-Effluent Treatment Plant (CSETP)	25	30	30	**85**	0	0	0	**0**	25	20	**45**	88.4	Red		WQM-I & IPC-VII
2.0	Effluent conveyance projects	20	30	35	**85**	0	0	0	**0**	25	10	**35**	87.6	Red	Such projects during O&M operation will generate deposited sludge, spillage etc. in addition regular operation of handling of effluent and its disposal.	IPC-VII
3.0	**COMMON HAZARDOUS WASTE TREATMENT, STORAGE AND DISPOSAL FACILITY**															
3.1	Integrated facility (Secured landfill and incinerator)	35	30	15	**80**	25	25	15	**65**	30	70	**100**	100.0	Red		WM-II
3.2	Only secured landfill	35	30	15	**80**	0	25	0	**25**	25	70	**95**	97.6	Red		WM-II
3.3	Only incinerator	35	30	15	**80**	25	25	15	**65**	30	70	**100**	100.0	Red		WM-II
4.0	**COMMON BIO-MEDICAL WASTE TREATMENT FACILITY (CBWTF)**															
4.1	CBWTF	20	25	20	**65**	35	20	25	**80**	20	20	**40**	90.5	Red		WM-I
4.2	CBWTF using cleaner/gaseous fuel	20	25	20	**65**	35	20	10	**65**	20	20	**40**	83.4	Red		WM-I

ii. LIST OF BLUE CATEGORY SECTORS- Essential Environmental Services for Domestic/Household Activities:

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
1.0	**MUNICIPAL SOLID WASTE MANAGEMENT FACILITY**															
1.1	Municipal Solid Waste Management Facility (Sanitary landfill/ Integrated Sanitary landfill with material recycling facility/ refused derived fuel, etc.)	35	30	15	**80**	35	25	0	**60**	0	0	**0**	86.0	Blue		UPC-II
1.2	Waste to energy power plants	0	15	30	**45**	35	25	35	**95**	10	50	**60**	97.6	Blue		UPC-II
1.3	Bio-mining of legacy waste projects	35	30	25	**90**	35	25	0	**60**	0	0	**0**	93.0	Blue		UPC-II
1.4	Municipal Solid Waste Bio-methanation plant (Quantity of MSW ≥ 5 TPD)	30	25	25	**80**	0	20	0	**20**	0	0	**0**	82.0	Blue		UPC-II
1.5	Municipal Solid Waste Composting Facility (Quantity of MSW ≥ 5 TPD)	30	25	15	**70**	0	30	0	**30**	0	0	**0**	74.5	Blue		UPC-II
1.6	Municipal Solid Waste Material Recovery Facility (Quantity of MSW ≥ 5 TPD)	20	25	15	**60**	0	30	0	**30**	0	0	**0**	66.0	Blue		UPC-II
2.0	Construction and Demolition (C&D) Waste Processing Plants	10	0	15	**25**	25	25	0	**50**	0	0	**0**	56.3	Blue	Wastewater of high TDS of inorganic nature is generated.	UPC-I
3.0	**SEWAGE TREATMENT PLANT**															
3.1	Sewage Treatment Plant (5 MLD and above)	20	0	35	**55**	0	20	0	**20**	0	0	**0**	59.5	Blue		WQM-I
3.2	Sewage Treatment Plant (less than 5 MLD)	20	0	25	**45**	0	20	0	**20**	0	0	**0**	50.5	Blue		WQM-I

ANNEXURE-III

(LIST OF SERVICE/INFRASTRUCTURE DEVELOPMENT SECTORS CLASSIFIED UNDER RED, ORANGE, GREEN, AND WHITE CATEGORIES)

SERVICE/INFRASTRUCTURE DEVELOPMENT SECTORS

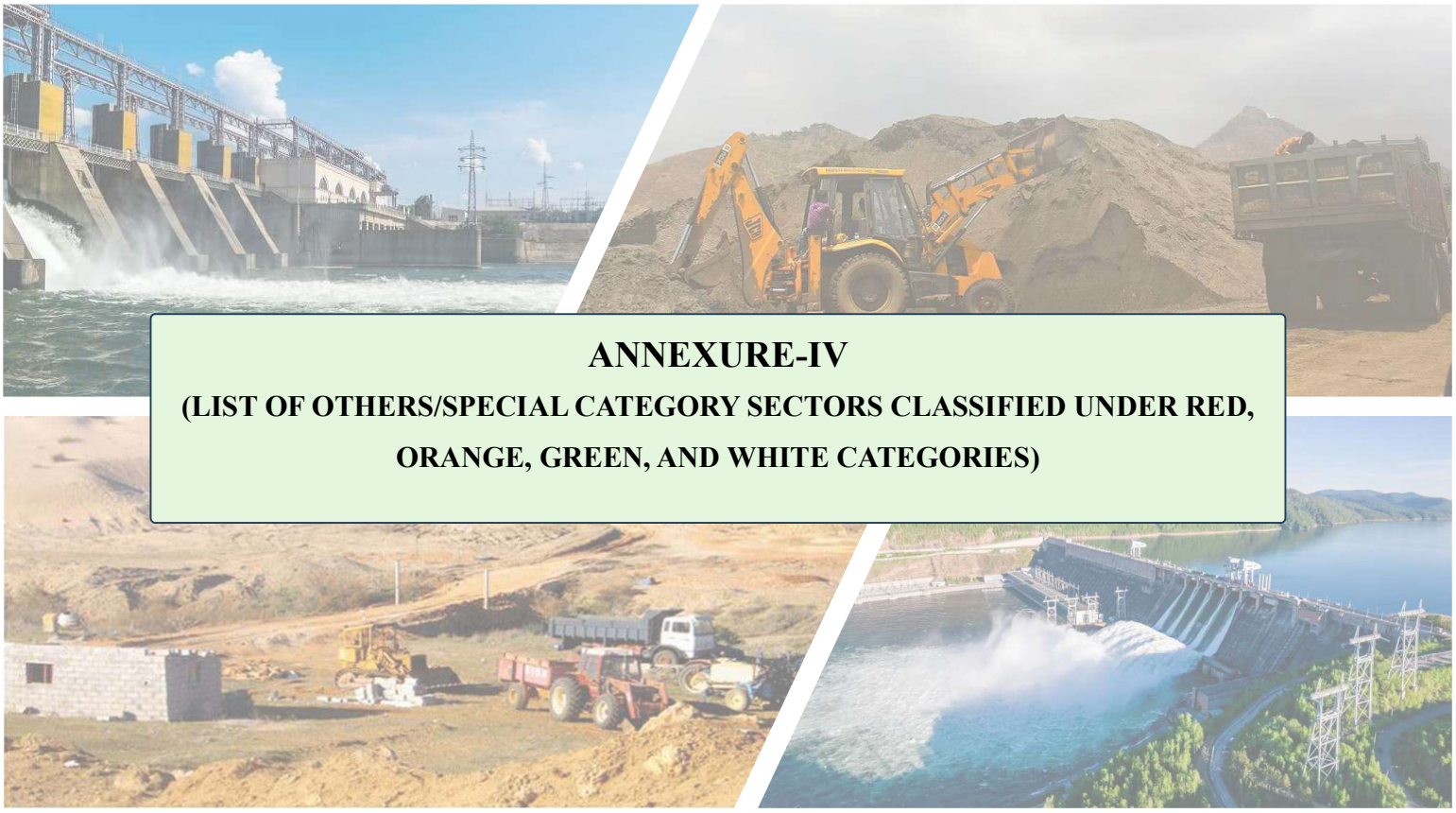
S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
1.0	**STANDALONE GENERATOR SET** (Genset)															
1.1	Genset(s) of total capacity ≥ 1 MVA, using liquid fuel	0	0	0	**0**	25	0	25	**50**	30	10	**40**	60.0	Orange	i. Standalone genset(s) of total capacity less than 1000 KVA may not require additional classification. The used oil/waste oil generated during repair and maintenance need to be disposed through authorized hazardous waste recycler by service provider/OEM. ii. Projects such data centers etc. having pollution potential due to gensets only, may be classified based on the capacity and fuel used.	UPC-I
1.2	Genset(s) of total capacity ≥ 1 MVA, using cleaner/gaseous fuel	0	0	0	**0**	25	0	10	**35**	30	10	**40**	50.5	Green		UPC-I
2.0	Airports	20	0	35	**55**	25	0	25	**50**	30	10	**40**	75.3	Orange	Airports generates mainly domestic sewage as wastewater. Emissions and generation of hazardous waste due to overall operations in airport are considered.	UPC-I
3.0	**HEALTH CARE FACILITIES (HCFS, AS DEFINED UNDER BIO-MEDICAL WASTE MANAGEMENT RULES, 2016)**															
3.1	HCFs with captive incinerator, irrespective of number of beds	20	0	15	**35**	35	20	25	**80**			**50**	88.5	Red	Sector generates bio-medical waste. As per methodology scores assigned to H.	WM-I
3.2	more than 1000 bedded HCFs	20	0	35	**55**	0	0	0	**0**			**100**	100.0	Red		WM-I
3.3	501 to 1,000 bedded HCFs	20	0	30	**50**	0	0	0	**0**			**80**	85.0	Red		WM-I
3.4	201 to 500 bedded HCFs	20	0	30	**50**	0	0	0	**0**			**60**	70.0	Orange		WM-I
3.5	51 to 200 bedded HCFs	20	0	20	**40**	0	0	0	**0**			**50**	60.0	Orange		WM-I
3.6	11 to 50 bedded HCFs	20	0	20	**40**	0	0	0	**0**			**40**	52.0	Green		WM-I
3.7	Up to 10 bedded HCFs	20	0	15	**35**	0	0	0	**0**			**30**	44.8	Green		WM-I
3.8	Non-bedded HCFs	0	0	0	**0**	0	0	0	**0**			**25**	25.0	Green		WM-I

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
4.0	**HOTELS/BANQUET HALLS HAVING ROOM FACILITY**															
4.1	Hotels (above 3 star) or having 100 & above rooms	20	25	30	**75**	25	0	25	**50**	0	0	**0**	81.3	Red		UPC-I
4.2	Hotels (above 3 star) or having 100 & above rooms (based on cleaner /gaseous fuel)	20	25	30	**75**	25	0	10	**35**	0	0	**0**	79.4	Orange		UPC-I
4.3	Hotels (up to 3 star) or having more than 20 rooms but less than 100 rooms.	20	25	20	**65**	25	0	25	**50**	0	0	**0**	73.8	Orange		UPC-I
4.4	Up to 20 rooms	10	25	15	**50**	0	0	10	**10**	0	0	**0**	52.5	Green		UPC-I
5.0	**RAILWAY LOCOMOTIVE WORK SHOP/ INTEGRATED ROAD TRANSPORT WORKSHOP/ AUTHORIZED SERVICE CENTERS**															
5.1	Railway locomotive work shop/ Integrated road transport workshop/ Authorized service centers (wastewater generation ≥ 10 KLD)	20	25	25	**70**	30	25	0	**55**	30	10	**40**	84.3	Red		IPC-V
5.2	Railway locomotive work shop/ Integrated road transport workshop/ Authorized service centers (wastewater generation <10 KLD)	20	25	15	**60**	30	25	0	**55**	30	10	**40**	79.0	Orange		IPC-V
6.0	**RAILWAY STATIONS**															
6.1	Railway Stations (Wastewater Generation ≥ 5 MLD)	20	0	35	**55**	25	0	25	**50**	30	10	**40**	75.3	Orange	Wastewater generating from public toilets, public taps, platform, and apron washing, coach cleaning, laundry, restaurants etc. Emissions and generation of hazardous waste due to overall operations are considered.	UPC-I
6.2	Railway Stations (Wastewater Generation ≥ 100 KLD, but < 5 MLD)	20	0	15	**35**	0	0	0	**0**	0	0	**0**	35.0	Green	Wastewater generating from various domestic uses as public toilets, public taps, platforms, and apron washing, restaurants etc.	UPC-I

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
7.0	**RAILWAY SIDINGS**															
7.1	Railway sidings / Mineral stock yard	0	0	0	**0**	0	25	0	**25**	0	0	**0**	25.0	Green	Fugitive emissions due to loading, unloading, storage and transportation of the minerals.	UPC-I
7.2	Railway sidings only for defence purpose	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0.0	White		UPC-I
8.0	**PORTS AND HARBOURS**															
8.1	Ports and harbours, jetties and dredging operations	20	30	25	**75**	0	25	0	**25**	30	20	**50**	84.4	Red		WM-I
8.2	Ports and harbours (only containers handling)/ Captive jetties	20	25	20	**65**	0	25	0	**25**	30	10	**40**	76.4	Orange		WM-I
9.0	Automobile service stations/ workshops	20	25	20	**65**	20	0	0	**20**	30	10	**40**	75.5	Orange		IPC-V
10.0	**BUILDING CONSTRUCTION PROJECTS**															
10.1	Building construction project ≥ 20,000 sq. m. built-up area	20	0	25	**45**	25	0	25	**50**	0	0	**0**	61.3	Orange	i. During the construction phase, the sector is mainly air polluting. However, in post construction phase it is mainly water polluting due to generation of sewage. Consent to Establish/Operate to be taken as per EC conditions, as applicable. ii. Building construction project ≥ 5,000 sq. m., but < 20,000 sq. m. built-up area (with connectivity to terminal STP) may not require separate classification. iii. For projects < 5000 the wastewater shall be managed according to on-site sanitation methods as mentioned in the Manual on Sewerage and Sewage Treatment System (2013), published by the	UPC-I
10.2	Building construction project ≥ 5,000 sq. m., but < 20,000 sq. m. built-up area (without connectivity to terminal STP)	20	0	20	**40**	0	0	0	**0**	0	0	**0**	40.0	Green		UPC-I

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
															Central Public Health and Environmental Engineering Organisation (CPHEEO), and as amended from time to time.	
11.0	Standalone mechanized laundry (using boiler)	20	0	20	**40**	25	0	25	**50**	0	0	**0**	60.0	Orange		IPC-V
12.0	New highway construction project	0	0	0	**0**	25	25	25	**75**	0	0	**0**	75.0	Orange	Such projects involve use of hot mix plants, ready-mix concrete plants, construction activities generating fugitive emissions, etc.	UPC-I
13.0	**DAIRY FARM**															
13.1	Dairy Farm (having more than 500 animals)	30	25	25	**80**	0	20	0	**20**	0	0	**0**	82.0	Red	Dairy farms having less than 15 animals do not require separate classification.	IPC-IV
13.2	Dairy Farm (having 101 to 500 animals)	30	25	20	**75**	0	20	0	**20**	0	0	**0**	77.5	Orange		IPC-IV
13.3	Dairy Farm (having 15 to 100 animals)	30	25	15	**70**	0	20	0	**20**	0	0	**0**	73.0	Orange		IPC-IV
14.0	Gold Assaying & Hallmarking Centres	0	0	0	**0**	35	0	0	**35**	25	10	**35**	46.4	Green	Lead oxide, nitrous fumes are generated during cupellation and parting acid treatment, respectively contributing to the air emissions.The hazardous waste is generated during fire assay in the form of spent cupels bearing lead, spent acid, scrubbed water etc.	IPC-V
15.0	Facility of handling, storage, and transportation of food grains in bulk	0	0	0	**0**	0	25	0	**25**	0	0	**0**	25.0	Green		IPC-V
16.0	Flyash export or disposal operations	0	0	0	**0**	0	25	0	**25**	0	0	**0**	25.0	Green		IPC-V

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
17.0	Oil and gas transportation pipeline (excluding pipeline covered under definition of isolated storage of hazardous chemicals, as per Manufacture, Storage, and Import of Hazardous Chemicals Rules, 1989)	0	0	0	**0**	25	0	10	**35**	0	0	**0**	35.0	Green		IPC-I
18.0	Gaushalas	20	0	15	**35**	0	20	0	**20**	0	0	**0**	41.5	Green		IPC-IV
19.0	Household bio-digesters/gobar-gas (cow-dung) plants based on biodegradable wastes, etc.	0	0	0	**0**	0	20	0	**20**	0	0	**0**	20.0	White		IPC-V



ANNEXURE-IV

(LIST OF OTHERS/SPECIAL CATEGORY SECTORS CLASSIFIED UNDER RED, ORANGE, GREEN, AND WHITE CATEGORIES)

OTHERS/SPECIAL CATEGORY SECTORS

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
1.0	**HYDEL POWER PLANTS INCLUDING PUMPED STORAGE PROJECTS**															
1.1	Hydel power plants (Capacity > 50 MW)													Red	PI may be considered as 90.	IPC-II
1.2	Mini Hydel power plants (Capacity from more than 25 MVA and up to 50 MW)													Orange	PI may be considered as 67.5.	IPC-II
1.3	Mini Hydel power plants (Capacity ≤ 25 MW)													White	PI may be considered as 12.5.	IPC-II
2.0	**SAND / RIVERBED MATERIAL MINING FROM RIVERBED AND ITS FLOODPLAINS** (excluding manual excavation)															
2.1	Mining lease area more than 5 hectares or Mining lease area up to 5 hectares which is part of cluster mining													Red	i. Sand / riverbed material mining from riverbed and its floodplains may cause ecological disturbances, erosion of riverbed, change in hydro-geological conditions & river ecosystem, etc.	IPC-II
2.2	Standalone mining lease area up to five hectares in areas (not a part of any cluster mining)													Orange	ii. Cluster mining means that the distance of mining lease area is less than 500 m from periphery of another lease area. iii. This categorization is made considering the ecological damages and not based on pollution potential/index. iv. Cluster mining as defined in 'Enforcement & Monitoring Guidelines for Sand Mining, 2020', issued by MoEF&CC. v. PI may be considered as 90 and 67.5 for red and orange category, respectively.	IPC-II

ANNEXURE-V

FORMAT FOR SUBMISSION OF INFORMATION BY SPCBS/PCCS REGARDING SECTORS CLASSIFIED UNDER WHITE CATEGORY

S. No.	Sector	Water Pollutant Score (PI_W)				Air Pollutant Score (PI_A)				Waste Pollutant Score (PI_H)			Pollution Index (PI)	Remarks (including brief description of process and pollution potential)
		W1	W2	W3	W	A1	A2	A3	A	H1	H2	H		

A tool for progressive environmental Management

CPCB

Central Pollution Control Board

"Parivesh Bhawan", East Arjun Nagar, Delhi - 110032

Annexure-4

HARYANA STATE POLLUTION CONTROL BOARD
SCO-55, Sec.25, HUDA,
Panipat Ph. 0180-2672037
E-mail: hspcb.pkl@sify.com

No. HSPCB/Consent/ : 320392517PITCTO4347962 **Dated:16/10/2017**

To.

M/s :Nexa Chemicals Pvt Ltd
VPO Sutana Tehsil Madlauda Panipat

Subject: Grant of consent to operate to M/s Nexa Chemicals Pvt Ltd.

Please refer to your application no. 4347962 received on dated 2017-07-17 in regional office Panipat.With reference to your above application for consent to operate,M/s Nexa Chemicals Pvt Ltd is here by granted consent as per following specification/Terms and conditions.

Consent Under	BOTH
Period of consent	17/07/2017 - 31/03/2027
Industry Type	Formulation of pesticides
Category	ORANGE
Investment(In Lakh)	46.6100006
Total Land Area(Sq. meter)	4046.86
Total Builtup Area(Sq. meter)	836.127
Quantity of effluent	
1. Trade	0.0 KL/Day
2. Domestic	0.0 KL/Day
Number of outlets	0.0
Mode of discharge	
1. Domestic	
2. Trade	-
Domestic Effluent Parameters	
1. NA	00
Trade Effluent Parameters	
1. NA	00
Number of stacks	1
Height of stack	
1. Granule Formulation	22 meter
Emission parameters	
1. SPM	150 mg/m3
2. NOX	80 mg/m3
3. SOX	80 mg/m3
Product Details	

For NEXA CHEMICALS PRIVATE LIMITED
Anil Kumar
DIRECTOR

1. Pesticides Phorate, Cartrap Hydrochloride n other	0.500 Metric Tonnes/day
Capacity of boiler	
1. NA	00 Ton/hr
Type of Furnace	
1. NA	00
Type of Fuel	
1. NA	00
Raw Material Details	
cartap hydrochloride technical	10 Kg/Day
River Sand	250 Kg/Day
pouches	4 Metric Tonnes/Day
outer bags	3 Metric Tonnes/Day
emulsifiers	20 Metric Tonnes/Day
triacontanol technical	250 Metric Tonnes/Day

Regional Officer, Panipat
Haryana State Pollution Control Board.

Terms and conditions

1. The applicants shall maintain good house keeping both within factory and in the premises. All hose pipelines values, storage tanks etc. shall be leak proof. In plant allowable pollutants levels, if specified by State Board should be met strictly.
2. The applicant/company shall comply with and carry out directive/orders issued by the Board in this consent order at all subsequent times without negligence of his /its part. The applicant/company shall be liable for such legal action against him as per provision of the law/act in case of violation of any order/directives. Issued at any time and or non compliance of the terms and conditions of his consent order.
3. The applicant shall make an application for grant of consent at least 90 days before the date of expiry of this consent.
4. Necessary fee as prescribed for obtaining renewal consent shall be paid by the applicant alongwith the consent application.
5. If due to any technological improvement or otherwise this Board is of opinion that all or any of the conditions referred to above required variation (including the change of any control equipment either in whole or in part) this Board shall after giving the applicant an opportunity of being heard vary all or such condition and there upon the applicant shall be bound to comply with the conditions so varied.
6. The industry shall provide adequate arrangement for fighting the accidental leakages, discharge of any pollutants gas/liquids from the vessels, mechanical equipment etc. which are likely to cause environment pollution.
7. The industry shall comply noise pollution (Regulation and control) Rules, 2000.
8. The industry shall comply all the direction/Rules/Instructions as may be issued by the MOEF/CPCB/HSPCB from time to time.

For NEXA CHEMICALS PRIVATE LIMITED
Anil Kumar
DIRECTOR

9. The industry shall ensure that various characteristics of the effluents remain within the tolerance limits as specified in EPA Standard and as amended from time to time and at no time the concentration of any characteristics should exceed these limits for discharge.
10. The industry would immediately submit the revised application to the Board in the event of any change in the raw material in process, mode of treatment/discharge of effluent. In case of change of process at any stage during the consent period, the industry shall submit fresh consent application alongwith the consent to operate fee, if found due, which may be on any account and that shall be paid by the industry and the industry would immediately submit the consent application to the Board in the event of any change during the year in the raw material, quantity, quality of the effluent, mode of discharge, treatment facilities etc.
11. The officer/official of the Board shall reserve the right to access for the inspection of the industry in connection with the various process and the treatment facilities. The consent to operate is subject to review by the Board at any time.
12. Permissible limits for any pollutants mentioned in the consent to operate order should not exceed the concentration permitted in the effluent by the Board.
13. The industry shall pay the balance fee, in case it is found due from the industry at any time later on.
14. If the industry fails to adhere to any of the conditions of this consent to operate order, the consent to operate so granted shall automatically lapse.
15. If the industry is closed temporarily at its own, they shall inform the Board and obtain permission before restart of the unit.
16. The industry shall comply all the Directions/ Rules/Instructions issued from time to time by the Board.

Specific Conditions :

1. That the unit will submit the analysis report on yearly basis and will keep the parameters within prescribed limit as laid down under EP Act, 1986.
2. That the unit provide separate energy meter on their ETP/APCM and will maintain the logbook for energy consumption and chemical consumption.
3. That the unit will provide interlocking arrangement of DG set with APCM/ETP/STP and shall have separate DG set to ensure regular and effective running of pollution control devices.
4. That the unit will adopt cleaner technology thereby reducing pollution load of the unit
5. That the unit will comply with the standard for discharge of effluents from textile industry as per notification 10.10.2016 issued by Ministry of Environment, Forest and climate change and directions issued by CPCB vide letter no. B-400/PCI-III/2016-17/28067 dated 28.11.2016 under section 18(1)(b) of Water (Prevention & Control of pollution Act, 1974).
6. That the unit will not made any expansion within existing plant without prior permission of the Board.
7. That the unit will not add any water and air polluting activity which results in increase in pollution load of the industry without prior permission of the Board.
8. That the unit will apply for renewal of Consent to operate (CTO) 90 days earlier before the expiry previous consent to operate obtained from the Board.
9. That the unit will deposit the balance consent CTO fee as per schedule.
10. That the CTO so granted shall become invalid in case of violation of any of the Environment Laws/policy of the Board/Rules/conditions.

For NEXA CHEMICALS PRIVATE LIMITED

Anil Kumar

DIRECTOR

Regional Officer, Panipat
Haryana State Pollution Control Board.

For NEXA CHEMICALS PRIVATE LIMITED

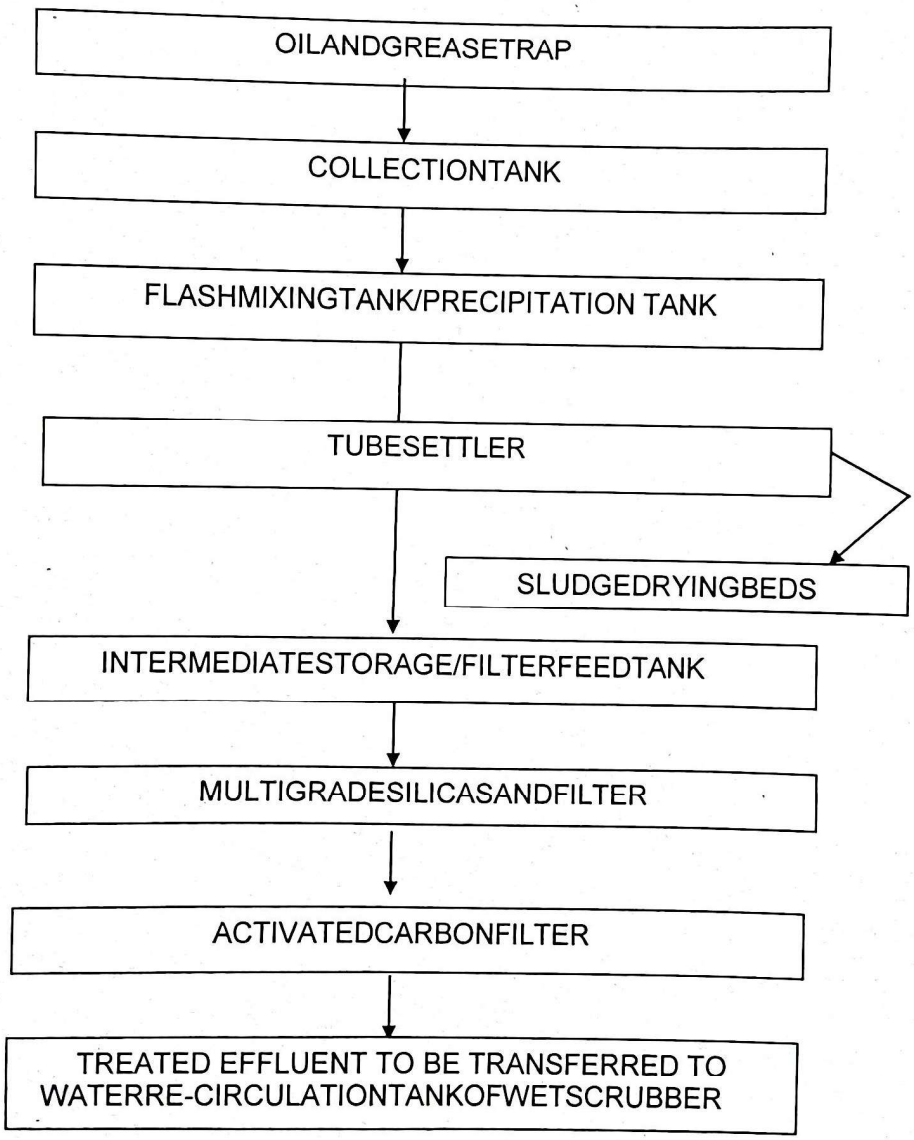
Anil Kumar DIRECTOR

NEXA CHEMICALS PRIVATE LIMITED

Address: Village Sutana, Tehsil Madlauda, District panipat, Haryana
Contact Details: nexachemicals@gmail.com, 94168-02304

FLOWCHARTFORTREATMENTOFTRADEEF FLUENT

Thetradeeffluentwillbetreatedbygivingphysiochemicaltreatment.Thetreatment scheme will be as per the following process flow:



FOR NEXA CHEMICALS PVT. LTD.
Anil Kumar
DIRECTOR

ASIA ENVIRO LAB INDIA PVT. LTD.

Laboratory Recognised From Govt. of India & Ministry of Environment Forest and Climate Change (CPCB)

Job Description : Environmental Testing, ETP/STP Manufacturing, ETP/STP Plant Operation Pollution NOC Etc.

Lab - H1-837, Near Pollution Control Board, RIICO Industrial Area, Bhiwadi, Distt. Khairthal-Tijara (Rajasthan)-301019

Ph. No. : 09694666022, Email : asiaenvirolab@gmail.com, Website : www.asiaenvirolab.com

Test Report

Report No.: AEL/NCPL/13082025/WW/01	Reporting Date:18/08/2025

Issued to:		
M/s Nexa Chemical Pvt. Ltd. VPO Sutana, Tehsil-Madlauda, Panipat	**Sample I'd** **Date** **Period of Testing**	: AEL/NCPL/130825/WW/01 : 13.08.2025 : 13.08.2025 to 18.08.2025

SAMPLE PARTICULARS:	
Type of the Sample	Treated Effluent Water Sample
Date of Sample Receiving	13.08.2025
Point of Sample Collection	From ETP Outlet
Sample Collected By	Customer
Purpose of Analysis	Monitoring

TEST RESULTS:

Sr. No.	Parameters	Unit	Results	Standards Limit as per CPCB	Test Protocol
1	pH	--	7.43	5.5-9.0	APHA 24th Ed. 4500 H B
2	Chemical Oxygen Demand(COD)	mg/l	85.9	250	APHA 24th Ed. P-5220 B
3	Bio-Chemical Oxygen Demand (BOD) at 20° C for 5 days	mg/l	17.0	30	IS-3025 (P-44)
4	Total Suspended Solids	mg/l	21.8	100	APHA 24th Ed. 2540 D
5	Oil & Grease	mg/l	<4.0	10	IS-3025 (P-39)

Remark:-CPCB-Central Pollution Control Board.

*******End of Test Report*******

Checked By

Authorized Signatory

ASIA ENVIRO LAB INDIA PVT. LTD. Auth. Sign.

Note: 1. The result listed refer only to the tested samples and applicable parameters.
2. Sample will be destroyed one month from the date of issue of test certificate.
3. Any complaints about this report should be communicated within 7 days of issue of this report
4. The report is Not to be reproduced-wholly or in part and can Not be used as an evidence in the Court of law and should Not be used in any advertising Media without our special permission in writing.

ASIA ENVIRO LAB INDIA PVT. LTD.

Laboratory Recognised From Govt. of India & Ministry of Environment Forest and Climate Change (CPCB)

Job Description : Environmental Testing, ETP/STP Manufacturing, ETP/STP Plant Operation Pollution NOC Etc.

Lab - H1-837, Near Pollution Control Board, RIICO Industrial Area, Bhiwadi, Distt. Khairthal-Tijara (Rajasthan)-301019

Ph. No. : 09694666022, Email : asiaenvirolab@gmail.com, Website : www.asiaenvirolab.com

Test Report

Report No.: AEL/NCPL/13082025/WW/02	Reporting Date:18/08/2025

Issued to:		
M/s Nexa Chemical Pvt. Ltd. VPO Sutana, Tehsil-Madlauda, Panipat	**Sample I'd** **Date** **Period of Testing**	: AEL/NCPL/130825/WW/02 : 13.08.2025 : 13.08.2025 to 18.08.2025

SAMPLE PARTICULARS:	
Type of the Sample	Untreated Effluent Water Sample
Date of Sample Receiving	13.08.2025
Point of Sample Collection	From ETP Inlet
Sample Collected By	Customer
Purpose of Analysis	Monitoring

TEST RESULTS:

Sr. No.	Parameters	Unit	Results	Test Protocol
1	pH	--	6.59	APHA 24th Ed. 4500 H B
2	Chemical Oxygen Demand (COD)	mg/l	379.4	APHA 24th Ed. P-5220 B
3	Bio-Chemical Oxygen Demand (BOD) at 20° C for 5 days	mg/l	141.0	IS-3025 (P-44)
4	Total Suspended Solids	mg/l	193.0	APHA 24th Ed. 2540 D
5	Oil & Grease	mg/l	14.6	IS-3025 (P-39)

*******End of Test Report*******

Checked By

ASIA ENVIRO LAB INDIA PVT. LTD. Auth. Sign.

Authorized Signatory

Note: 1. The result listed refer only to the tested samples and applicable parameters.
2. Sample will be destroyed one month from the date of issue of test certificate.
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ASIA ENVIRO LAB INDIA PVT. LTD.

Laboratory Recognised From Govt. of India & Ministry of Environment Forest and Climate Change (CPCB)

Job Description : Environmental Testing, ETP/STP Manufacturing, ETP/STP Plant Operation Pollution NOC Etc.

Lab - H1-837, Near Pollution Control Board, RIICO Industrial Area, Bhiwadi, Distt. Khairthal-Tijara (Rajasthan)-301019

Ph. No. : 09694666022, Email : asiaenvirolab@gmail.com, Website : www.asiaenvirolab.com

Test Report

Report No.: AEL/NCPL/13082025/ST/01	Reporting Date:18/08/2025

Issued to:		
M/s Nexa Chemical Pvt. Ltd. VPO Sutana, Tehsil-Madlauda, Panipat	**Sample I'd** **Date** **Period of Testing**	: AEL/NCPL/130825/ST/01 : 13.08.2025 : 13.08.2025 to 18.08.2025

SAMPLE PARTICULARS:	
Type of the Sample	Process Stack Emission (Granule Formulation)
Date of Sampling	13.08.2025
Height of Stack from ground Level	22 Meter
Sample Collected By	Lab Rep.
Sampling Method	IS 11255
Purpose of Analysis	Monitoring

SAMPLE OBSERVATIONS	
Ambient Temperature, °C	39
Stack Temperature, °C	46
Flue gas velocity, m/sec	6.2
Sampling flow rate, liter per minute	25

Test Result:

Sr. No.	Parameters	Unit	Results	Standards Limit as per (CTO) HSPCB	Test Protocol
1	PM (Particulate Matter)	mg/Nm³	53.4	150	IS 11255(P-1)
2	Sulphur Dioxide (SO_2)	mg/Nm³	10.8	80	IS 11255(P-2)
3	Oxides of Nitrogen (NO_x)	mg/Nm³	20.9	80	IS 11255(P-7)

*******End of Test Report*******

Checked By

Auth. Signatory

Authorized Signatory

Note: 1. The result listed refer only to the tested samples and applicable parameters.
2. Sample will be destroyed one month from the date of issue of test certificate.
3. Any complaints about this report should be communicated within 7 days of issue of this report
4. The report is Not to be reproduced-wholly or in part and can Not be used as an evidence in the Court of law and should Not be used in any advertising Media without our special permission in writing.

Annexure-7

Application no. : 67815656
Industry id: 16PIT3360023
Date: 03/09/2024

Haryana State Pollution Control Board

SCO-55, Sec.25, HUDA, Panipat Ph. 0180-2672037 Email:- hspcbropr@gmail.com

No. :HWM/PIT/2024/67815656 **DT: 03/09/2024**

To

M/s Nexa Chemicals Pvt Ltd
VPO Sutana Tehsil Madlauda Panipat
Panipat

Sub: Grant of Authorization under Hazardous and Other Wastes(Management & Transboundry Movement) Rules, 2016

1. Reference of application:67815656 dated: 03/09/2024
2. Anil Kumar of Nexa Chemicals Pvt Ltd is hereby granted an authorization for generation, collection, storage, transportation, reception on the premises situated at VPO Sutana Tehsil Madlauda Panipat

Details of Authorization

S.No.	Name of process and Category of Hazardous Waste as per the Schedules I, II and III of these rules	Authorised mode of disposal or recycling or utilisation or co-processing, etc.	Quantity
1	Handling of Hazardous chemicals and wastes, Empty barrels/containers/liners contaminated with hazardous chemicals/wastes	Sent to authorised Recycler	0.4 T/Annum
2	Production, and formulation of pesticides including stock-piles, Process wastes/residues	Sent to GEPIL	0.1 T/Annum
3	Purification and treatment of exhaust air, water and waste water from the ..... treatment plants (CETP's), Chemical sludge from waste water treatment	Sent to GEPIL	0.1 T/Annum

1. The authorization shall be valid for a period of 22/07/2024 to 31/03/2028
2. The authorization is subject to the following general and specific conditions :-

(i)

(ii) 1.Unit will handover ETP Sludge only to the Authorized Vendor. 2. That the unit will comply with all the provisions of Hazardous Waste Rules . 3. That unit will submit annual return on form IV before 30th June of every year 4.That the Authorization so granted shall become invalid in case of violation of any of the above / any law of the land 5 Unit shall renew its agreement with Service Provider on the Expiry of same. 6. The authorization is granted without prejudice to the action taken against the unit by the board for the past violation made by the unit under HOWM Rules. 6 The unit will deposit the Environment Compensation imposed by the Board for the past violation made by the unit. 7 Unit will not manufacture pesticide even as intermediate products.

Regional Officer Panipat
For Haryana State Pollution Control Board

Conditions of Authorization:

1. The authorised person shall comply with the provisions of the Environment (Protection) Act, 1986, and the rules made there under.
2. The authorization or its renewal shall be produced for inspection at the request of an officer authorised by the State Pollution Control Board.
3. The person authorised shall not rent, lend, sell, transfer or otherwise transport the hazardous and other wastes except what is permitted through this authorization.
4. Any unauthorised change is personnel equipment or working conditions as mentioned in the application by the person authorised shall constitute a breach of this authorization.
5. The person authorised shall implement Emergency Response Procedure (ERP) for which this authorization is being granted considering all site specific possible scenarios such as spillages, leakages, fire etc. and their possible impacts and also carry out mock drill in this regard at regular interval of time.
6. The person authorised shall comply with the provisions outlined in the Central Pollution Control Board guidelines on "Implementing Liabilities for Environmental Damages due to Handling and Disposal of Hazardous Waste and Penalty".
7. An application for the renewal of an authorization shall be made as laid down under these Rules.
8. Any other conditions for compliance as per the guidelines issued by the Ministry of Environment, Forest and Climate Changes or Central Pollution Control Board from time to time.
9. Annual return shall be filed by June 30 th for the period ensuring 31 st March of the year.

BHUPINDER SINGH
Digitally signed by BHUPINDER SINGH
Date: 2024.09.03 11:06:40 +05'30'

Regional Officer Panipat
For Haryana State Pollution Control Board

379

FORM 10

[See rule 19 (1)]

MANIFEST FOR HAZARDOUS AND OTHER WASTE 478

1.	Sender's name and mailing address (including Phone No. and e-mail) :	Nexa chemicals pvt. Ltd Vpo. Sutana, Kodlida, panipat
2.	Sender's authorisation No. :	HWM/PIT/2024/7815656 478
3.	Manifest Document No. :	
4.	Transporter's name and address: (including Phone No. and e-mail)	S.S.R. processor
5.	Type of vehicle :	(Truck/Tanker/Special Vehicle)
6.	Transporter's registration No. :	
7.	Vehicle registration No. :	HR-67A-1523
8.	Receiver's name and mailing address (including Phone No. and e-mail) :	S.S.R. processor Plot No - 370, Sec-59-II, PKP
9.	Receiver's authorisation No. :	HWM/PIT/2024/7662477
10.	Waste description :	Used plastic Empty can.
11.	Total quantity : No. of Containers :	.....m^3 or MT ....40.....Nos.
12.	Physical form :	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid)
13.	Special handling instructions and additional information :	PPE'S
14.	Sender's Certificate FOR NEXA CHEMICALS PVT. LTD. Anil Kumar DIRECTOR	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed, marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.
	Name and stamp: Signature:	Month 10 Day 01 Year 2025
15.	Transporter acknowledgement of receipt of Wastes	
	Name and stamp: Signature:	Month 10 Day 01 Year 2025
16.	Receiver's certification for receipt of hazardous and other waste	
	Name and stamp: Signature:	Month 10 Day 01 Year 2025

Prop.

FORM 10

[See rule 19 (1)]

478

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1.	Sender's name and mailing address (including Phone No. and e-mail) :	Nexa chemicals pvt. ltd vpo. Sutana, Kodlub, paripat
2.	Sender's authorisation No. :	HWM/PIT/2024/67815656
3.	Manifest Document No. :	478
4.	Transporter's name and address: (including Phone No. and e-mail)	S.S.R. processor
5.	Type of vehicle :	(Truck/Tanker/Special Vehicle)
6.	Transporter's registration No. :	
7.	Vehicle registration No. :	HR 67D - 1529
8.	Receiver's name and mailing address (including Phone No. and e-mail) :	S.S.R. processor plot No - 370, Sec-29-II, PNP
9.	Receiver's authorisation No. :	HWM/PIT/2024/76624977
10.	Waste description :	used plastic Empty can.
11.	Total quantity No. of Containers :	……40……m³ or MT ……………………Nos.
12.	Physical form :	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid)
13.	Special handling instructions and additional information :	PPE'S
14.	Sender's Certificate FOR NEXA CHEMICALS PVT. LTD. Ravi Anil Kumar DIRECTOR	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed, marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.
	Name and stamp: Signature:	Month 10 Day 01 Year 2025
15.	Transporter acknowledgement of receipt of Wastes	
	Name and stamp: Signature:	Month 10 Day 01 Year 2025
16.	Receiver's certification for receipt of hazardous and other waste	
	Name and stamp: Signature:	Month 10 Day 01 Year 2025

FORM 10

[See rule 19 (1)]

MANIFEST FOR HAZARDOUS AND OTHER WASTE 470

1.	Sender's name and mailing address (including Phone No. and e-mail) :	Nexa chemicals pvt. Ltd. Vpo. Sultana, Madauda, PNP
2.	Sender's authorisation No. :	HWM/PIT/2024/6781565 6
3.	Manifest Document No. :	470
4.	Transporter's name and address: (including Phone No. and e-mail)	S.S.R. processor
5.	Type of vehicle :	(Truck/Tanker/Special Vehicle)
6.	Transporter's registration No. :	
7.	Vehicle registration No. :	HR-67D-1593
8.	Receiver's name and mailing address (including Phone No. and e-mail) :	S.S.R. processor Plot No-370, Sec-29-II, PNP
9.	Receiver's authorisation No. :	HWM/PIT/2024/7662417 7
10.	Waste description :	
11.	Total quantity : No. of Containers :	.....m^3 or MT ...99.....Nos.
12.	Physical form :	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid)
13.	Special handling instructions and additional information :	PPE'S
14.	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed, marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.
	Name and stamp: For Nexa Chemicals Pvt. Ltd. Amil Kumar Signature:	Month 09 Day 17 Year 2025
15.	Transporter acknowledgement of receipt of Wastes	
	Name and stamp: Signature:	Month 09 Day 17 Year 2025
16.	Receiver's certification for receipt of hazardous and other waste	
	Name and stamp: Prop. Signature:	Month 09 Day 17 Year 2025

FORM 10

[See rule 19 (1)]

MANIFEST FOR HAZARDOUS AND OTHER WASTE 470

1.	Sender's name and mailing address (including Phone No. and e-mail) :	Nexa chemicals pvt. Ltd. Vpo. Sultana, Madauda, PNP
2.	Sender's authorisation No. :	HWM/PIT/2024/6781565 6
3.	Manifest Document No. :	470
4.	Transporter's name and address: (including Phone No. and e-mail)	S.S.R. processor
5.	Type of vehicle :	(Truck/Tanker/Special Vehicle)
6.	Transporter's registration No. :	
7.	Vehicle registration No. :	HR-67D-1593
8.	Receiver's name and mailing address (including Phone No. and e-mail) :	S.S.R. processor Plot no-370, sec-29-II, pnp
9.	Receiver's authorisation No. :	HWM/PIT/2024/76624197
10.	Waste description :	
11.	Total quantity : No. of Containers :	.....m^3 or MT ...99.....Nos.
12.	Physical form :	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid)
13.	Special handling instructions and additional information :	PPE'S
14.	Sender's Certificate For Nexa Chemicals Pvt. Ltd. Anil Kumar	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed, marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.
	Name and stamp: Signature:	Month Day Year 09 17 2025
15.	Transporter acknowledgement of receipt of Wastes	
	Name and stamp: Signature:	Month Day Year 09 17 2025
16.	Receiver's certification for receipt of hazardous and other waste	
	Name and stamp: Signature:	Month Day Year 09 17 2025

HSPCB

HARYANA STATE POLLUTION CONTROL BOARD
SCO-55, Sec.25, HUDA, Panipat Ph. 0180-2672037 Email:-
hspcbropr@gmail.com

Manifest No: 75379728 [redacted]

(Hazardous Waste Manifest)

Form 10

[See rule 19(1)]

By Receiver To Sender

HQ: Haryana State Pollution Control Board,
C-11, Sector-6, Panchkula 134109,
Ph-0172-2577870-73,
Email: hspcbho@gmail.com

1	**Sender's Name, Mailing Address, Phone no & Email Address:**	Nexa Chemicals Pvt Ltd VPO Sutana Tehsil Madlauda Panipat 9416802304 nexachemicals@gmail.com
2	**Authorization Application No.:**	5771072
3	**Authorization Letter No and Date:**	111 , 2024-05-13
4	**Authorization validity:**	From: To:
5	**Transporter's Name, Address & Phone no:**	Gujarat enviro Protection and Infrastructure (Haryana) Pvt. Ltd. Village-Pali, Near Pali-Mohabatabad Stone Crusher Zone,Faridabad +919166096920
6	**Transport's Registration No:**	HR-55-AP-5496
7	**Vehicle No. & Type:**	5496 | Pick-up
8	**Receiver's Name, Mailing Address, Phone no & email address:**	M/s Gujarat Enviro Protection and infrastructure (Haryana) Pvt. Ltd Village Pali, near Pali- Mohabatabad Stone crusher Zone, faridabad,Haryana 7290099681 haryana@luthraindia.com
9	**Receiver's Authorization No. with PCB:**	HWM/FDBD/2021/13751961 , 07-08-2021
10	**Total Quantity:**	0.250 MT
11	**Physical Form:**	Solid,Sludge,
12	**Number of Containers:**	1 Container 1 | 0.250 | MT
13	**Name of Schedule:**	Schedule I
	Name of Process/Sub Class/Basel no:	Purification and treatment of exhaust air, water and waste water from the ..... treatment plants (CETP's)
	Name of Process Waste(Category No):	Chemical sludge from waste water treatment
	Detail/Reason of Subclass/Basel no:	
	Quantity:	0.250 MT
	Waste Type:	Pre-Processing
	Waste Storage:	MS Tanks
	Waste Description:	Etp sludge

14 **Sender's Certificate:**

I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed, marked, and labeled, and are in all respects in proper condition for transport by road according to applicable national government regulations.

For Nexa Chemicals Pvt. Ltd.

Anil Kumar

Name & Stamp of Industry : Nexa Chemicals Pvt Ltd **Date :04-Aug-24** **Signature**

15 **Transporter Acknowledgement of Receipts of Wastes:**

Stamp of: Gujarat enviro Protection and Infrastructure (Haryana) Pvt. Ltd. **Date :04-Aug-24** **Signature**

Gujarat Enviro Protection And Infrastructure (Haryana) Pvt. Ltd.

16	**Special handling instructions and additional information**	Use ppe

17 **Receiver's Certification for receipt of Hazardous and other waste:**

Stamp of: M/s Gujarat Enviro Protection and infrastructure (Haryana) Pvt. Ltd
Village Pali, near Pali- Mohabatabad Stone crusher Zone, faridabad

Date:__-__-____ **Signature**

M/s Gujarat Enviro Protection & Infrastructure (H) Pvt. Ltd.
Pali Crusher Zone, FARIDABAD

**** This is System Generated Manifest for HAZARDOUS AND OTHER WASTE by HROCMMS Haryana ****
Created By OCMMS ID:- 16PIT3360023 | Created Date:- 04-Aug-24 | Nexa Chemicals Pvt Ltd, VPO Sutana Tehsil Madlauda Panipat1

NEXA CHEMICALS PRIVATE LIMITED

Address: Village Sutana, Tehsil Madlauda, District panipat, Haryana
Contact Details: nexachemicals@gmail.com, 94168-02304

EMERGENCY MANAGEMENT PLAN

Introduction

Since the proposed project of Formulation of pesticides. There is a possibility of any emergencysituationduetoreleaseoftoxicgases.ThereotherhazardousrawmateriallikeMethanol,PropargylChloride, HCl, DMF,etc. isbeing used which pose adanger of fireand explosion.Asper the hazardous chemical handling rules of 1989, it is necessary for the facility to prepare theemergencymanagementplanandtestitperiodically.TheemergencyplandelineatestheOrganizationalproceduresfordealingwithaccidentsorunpredictedeventsandnaturalcalamitiesarisingfromoperationof the facility.

Anexperienceofanyaccidentsthathaveoccurredinothermanufacturingprojectsisconsideredtoprepare thisplan. ThisEmergencyplanshouldbeperiodicallyreviewedandmodified. It should also be changed based on the observations of emergency mock drills andexperienceofhandlingactual emergencies.

Objective

The main objective of emergency plan will be to get prepared for any foreseeable emergencysituations (like toxic release & fire) and to reduce the damage to the property, environment andhuman life in these situations.The other objective of emergency management plan is to preventsuch emergencies especially the manmade emergencies by suitable corrective and preventivemeasures. The emergency plan is useful to tackle emergencies such as fire, explosion, majoraccidentsatthesite and naturalcalamities.

ThisEmergencyresponseplanhasbeendesignedtofixresponsibilitiesandactiontobeexecuted by various groups to contain the emergency within short time period with minimumdamage of human lives, environment, materials, machines and properties. It is responsibility ofallpersons in theirrespectiveareas toensuresuccess ofthis emergencyplan.

Majorobjectives ofthis onsite –offsite emergencyplan are:

FOR NEXA CHEMICALS PVT. LTD.
Anil Kumar
DIRECTOR

- ✓ To take necessary proactive and preventive actions to avoid the emergency. The main aim ofanyemergencyplanshouldbe topreventemergencysituations.
- ✓ To trainthemanpower tohandle theemergenciesofthefollowingnature:
  - i. Onsite (Within boundaryofindustry)
  - ii. Offsite(Outside agencies)
- ✓ To control the disaster (Emergency) with minimum damage to Human beings, Environment,MachinesandNaturalresources.Toidentifyaffectedpersonsandarrangefirstaidan dmedicaltreatment to theaffected persons.
- ✓ Toinformrelativesoftheaffectedpersons,provideauthoritativeinformationtoGovernment authorities, media and others, and preserve relevant records and equipment'sneededas evidenceinanyinquiryorinvestigation.

Onsiteoff-siteemergency Plan

Typeofemergencies:Therewillbesomeidentifiedasemergencysituationsat insideoff acility suchas:

A. Emergencyonaccountof

- Fire
- Explosion
- Electrocution
- Majoraccidentsinvolvingspillage&exposure tohazardous andtoxic chemicals.

B. Disasterdue tonaturalcalamities like

- Flood/heavyrains whichcaninvolve naturallandslides.
- Earthquake
- Cyclone
- Lightening

C. Emergenciesductoexternal factors

- Sabotage
- Civil riots.
- Terrorism,air raidetc

Preventiveactions /measuresto avoid emergencies

- **Fire**: As we all know, fire sets in with combination of air, fuel and heat. That is why it'snecessary to eliminate all sources of heat generation. Proactive measures and prevention isthe best remedyto avoidfire incidence.

✓ Install fire alarms and flammable gas detectors with proper guidelines by safety auditor thisshouldbe doneifLPGornatural gasisused asfuel.

✓ Installationofflame proofelectricfittingsas per area classification.

- ✓ Ensureearthling ofall equipmentssuchas,electrical motors, air compressors,reactorsandstorage vesselstoavoidstatic electricity generationandstatic spark.
- ✓ Storingoffuelslikedieselandricehuskbriquettesinseparateareasatasafedistanceawayfrom the mainoperations.
- ✓ The entire facilityshouldbe declaredasnosmokingzone.
- ✓ Training of employees and operators in firefighting operations and use of fire extinguishers.Thiswillensurethataminorfirewillbeextinguishedbeforeitcanturnintoamajoreme rgency.

- **Explosion**:When a mixture of flammable gas or dust and air gets a source of ignition aspontaneous reaction takes place causing a pressure and sound wave of high intensity, this istermed as explosion. The explosion of the air receivers is common in compressed air system ifpropercheckingandmaintenanceisnotdone.Toavoidexplosions,followingprecautionsshouldbe taken.

1. Thedieselandflammablechemicaldrumsshouldalsobekeptinshedtoavoiddirectcontactofs unlight.
2. Always checkleakyfuel andsolventdrums
3. Inthepresentfacilitytherearechancesofdustexplosionofdustifproperprecautionsare nottaken.

- **Electrocution:**ToPreventelectricshockandelectricalshort circuit followingpreventiveactionsshould be taken

1. InstallGroundFault CircuitInterrupter(GFCI)outletsandadapters.
2. Ensureallthеelectrical equipment'sare properlygrounded.
3. Wearprotectivegearse.g.insulatedhandgloveswhileworkingonelectricswitches,motors orgenerators.
4. Lockout/tagoutpermittobeenforcedforworkingonelectricallyoperatedequipment's.

GeneralGuidelines:

- FireandfirstaidtrainedOperator/Firemanmustbeavailableatallthetimesduringoperations.
- Theoperatingplantshouldbeimmediatelystopped(emergencyshutdown)incaseofanyemergen cy.A siren can besoundedif available.
- Anemergencyassemblypointshouldbecreatedandall Employeesshouldguidevisitorsorcontrac torstoapproach assembly point.
- Thesecurityofficeonthegatecanserveasemergencycontrolroom(Centre)incaseofemergency.

- Emergency vehicle should be available near security main gate and rush to the emergencycontrol center at the blowing ofemergency siren.The driverofemergency vehicle willfollowthe instructions ofIncident Controller /SiteMain Controller.
- The shift engineer/electrician should get ready to manage generator set and MCC as per theinstructions ofIncident Controller.
- People should be trained for the precautions to be taken during natural disasters line heavyrain,floods, earthquakeandcyclone.
- Allweather escape routesto the assemblypointoranyothersafe locationshould bemade.

EmergencyPrevention:

- PreparemaintenanceScheduleforalltheequipment'sasperrecommendationsofmanufacturer's user manuals.
- To collect and analyze information of minor incidents and accidents at site and recordingnear emergencies that were averted which gives indication of likely or unlikely site facingemergencies.

EmergencyStructureandResponsibility:

Theemergencypreparedness organizationalstructure should consistofthefollowingpersons

1. Sitemaincontroller–TheFactorymanager canbe namedassitemaincontroller
2. IncidentController–
   Theshiftsupervisororproductionsupervisorcanactasincidentcontrollerincaseof emergency.
3. Safetyofficer orfire &safetycoordinator(ifavailable)
4. Securityheadorsecurityincharge
5. Rescueteamconsistingofoperatorsandemployeesspeciallytrainedinsafetyand/orfirstaid.

I) RoleofSiteMain Controller:

- Site Main controller relieves the incident Controller of the responsibilities of overallemergency control as soon as he arrives at the site and takes stock of the situation
  andthereafterwillpositionhimselfintheEmergencyControlCentreandgivedirectionsfromh ere.
- Ensures the medical aid is promptly provided to the causalities and their relatives areinformed.

- Organize evacuation and transportation of personnel from the assembly points to a safelocationoutside.
- If external help is needed, co-ordinate with outside emergency services like fire brigadeofthe nearest town,ambulanceetc.
- Ensures that affected personnel are transported to external medical centres and keepconstant liaison with these medical centres during the course of the emergency throughthe medical officer.
- Keeps concerned Government Agencies informed of the emergency and if necessary,arrangesinformationto the outsidehabitantsthroughpolice.
- Decidestocall off theemergencywheneverything is OK

II) RoleofIncidentController:

- Incident Controller on reaching the site of the incident relieves the in-charge of theresponsibilitiesofdirectingtheemergencyoperationsandassumestotalcontrolofemergencyoperations inthe affectedarea.
- Determines theadequacyofthe emergencyservices.
- Direct emergency operation from the incident site to localize emergency, keeping inmindtheprioritiesforsafetyofpersonnel,leastdamagetothepropertyandenvironment &minimumloss ofmaterials.
- ProvideadviceandinformationtotheFireandSecurityPersonnelandLocalFireServices as andwhentheyare called.
- Continuouslyreviews thesituationwith thesite Main Controller.

III) Roleof Manager(safety)/Executive(Fireand Safety)

- Proceeds to the emergency control centre, establishes contact with firemen and incidentcontrollerandsupplementseffortsinfirefightingincaseoffireandothersuchemergencies involvingpeople.
- Assistnurseinprovidingfirstaid tothosewho are injured.
- Mobilizepersonalprotectiveequipmentandsafetyappliancesandassistspersonnelhandlingemergencyin usingthem.
- Collectandpreserveevidencetofacilitate future inquiry.

IV) RoleofSecurityIn-charge:

- AssumeschargeofallexternalcommunicationinconsultationwithSiteMainController.
- Takescharge ofEPABX (ElectronicPrivateAutomatic Branch Exchange, ifavailable)Board and deputes a trained person (e.g. security guard) to man the board when regulartelephone operatorisoffdutyand restrict theunnecessarycalls.
- AssumestotalcontrolofthestoragefacilityunderthedirectionoftheSiteMainController.

- Controlstrafficmovementremovestruckandtankerdriversoutsidethesiteandprevents entryofallnon-essentialpersonnel.
- Cordons off theincidentsiteandkeepsthesiteclearoffobservers.

V) Firefightingstaff:

The firefighting staff consists of the persons trained in firefighting and rescue operations.These people should be fully trained in operations of the firefighting equipment's readilyavailable atsite e.g.fireextinguishers,CO2extinguishers, water hosesEtc.

- Firefightingteammust bealertif thereis any caseofemergency.
- Thefirefightingteamshouldusetheequipment'sandmeansavailableatsite,untilexternal helpcomesin.
- Directthe external agenciesin fightingfire and helpthemasneeded.

VI) TrainedFirstAider:

- Firstaiderortheteamshallrushtoemergencycontrolpointandgetthefeedbackfromthe site controllerabouttheemergency.
- As pertheinstruction, they must rushtotheareaofemergencyand assess thesituation.
- Approach emergency sitequicklywith BA set and First AidBox Kit.
- Diagnosesthesituationanddecideswhethertheaffectedpersonsshallbemovedtothesafe area.
- Theinjuredpersonnelaremovedtothesafeplaceandgivenfirstaidasrequiredbythesituation.
- FollowinstructionsofincidentController.
- Move/Transportthecausalitiestotheambulance/nearmedicalcentrefornecessarymedicala ssistance.

Emergency Control Centre. An Emergency Control Centre (ECC) is the primary area or a roomfrom where emergencies are handled. An ECC should contain various items as listed. The siteoffice or security control room can serve as emergency control centre if a special ECC is notcreated. The emergency control centre should have the following facilities to help tackle theemergencies.

Forcommunication:

- Siren
- Telephone directory (with all mobile phone numbers), and emergency numbers likepolice, Ambulance, nearby Hospitals, medical doctor, and any other number useful inemergency.
- Site Directory(ifapplicable)
- List ofimportant &Emergencyphone numbers

Documentsforreadyreference:

- Site planorcurrentoperationplan.
- Layoutplanwithhazardzones,assemblypointsmarkedandlocationofsiren,safety/firesystemshown(Display)
- Thelayout plan should showthestoragearea of hazardousandflammablechemicals.
- StocklistofFireextinguishers.
- Stocklistofsafetyappliances.
- Fire-watersystemandadditional sourcesofwater(ifapplicable)
- Theexistingwaterstorageandwaterpumpingsystemcanbeeasilyconvertedintofirewatersystem.
- EmergencyResponse PlanandLayoutPlan, Flip chart.
- Copyof FirstAidprocedures
- CopyofMSDSofthechemicalsstored,handledatsite.E.g.Diesel,solvents,toxicchemicaletc.
- MutualAid Memberslist
- Listofemployees andtheiraddresses and phonesnumbers.

WallDisplay:

- Siteplan
- Layoutplan
- EmergencyOrganization.
- Firefightingsystemlayout andadditional sourceofwater.
- Site entrance, roadway andemergencyexist.
- Storagearea ofhazardousmaterials. (explosives&diesel,LPG cylinders)
- Assemblypoints.
- Storageofsafetyequipment

Other:

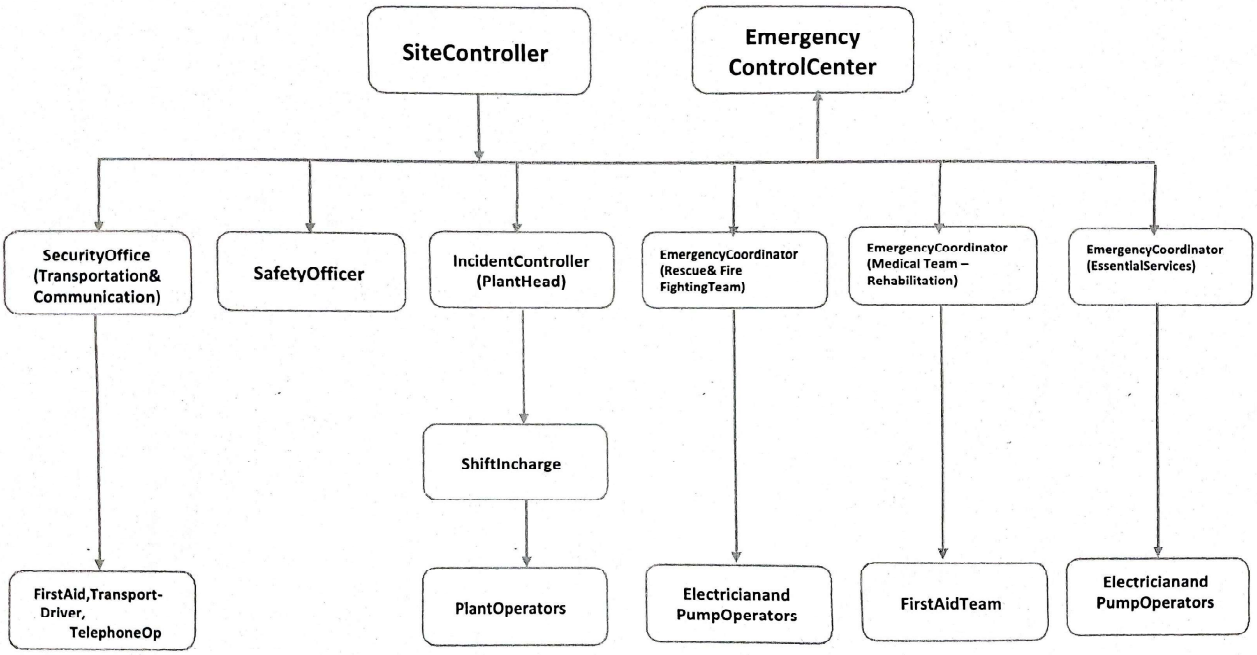
- Stationary.
- RecordingSystem
- UtilityItems (Torchesandumbrellas.)
- First aidbox& commonantidotes

EmergencyControl:

- Shutdownofoperations:Raisingthealarmorsirenfollowedbyimmediatesafeshutdownofthe powersupply,andisolationofaffected areas.
- Treatmentofinjured:Firstaidandhospitalization ofinjuredpersons
- Protectionofenvironmentandproperty:Duringmitigation,effortsshouldbemadetopreventimpactsonenvironment andpropertyto the extentpossible.

- Preservingallevidencesandrecords:Thisshouldbedonetoenableathoroughinvestigationof the true causesof the emergency.
- Ensuringsafetyofpersonnelpriortorestartingofoperations:Effortsrequiredtobemadeto ensure that workenvironment is safe prior to restartingthework.

FIGURE:7.1–ONSITESITEEMERGENCYORGANIZATIONCHART



OFFSITE EMERGENCY PLAN

- **Off-siteEmergency ResponsePlan**

If the accident is such that its effects inside the factory are uncontrollable and it may spreadoutsidethefactorypremises, it iscalledas**Off-siteEmergency.**

An emergency may affect areas offsite (outside) of the works as for example, an explosion canscatterdebrisoverwideareasandtheeffectsofblastcancoverconsiderabledistances,windcan spread the fire to new areas.The toxic gas release can affect the neighborhood substantially(ashappenedinBhopalgastragedy).Manychemicalshandledinthefacilityarenotonlyfl ammable, but they emit highly toxic fumes during fire, hence in such a situation the onsiteemergency can quickly turn into offsite emergency. It will be necessary to prepare in advancesimple charts or tables relating the likely spread of the vapours cloud taking into account itsexpected buoyancy, the local topography and all possible weather conditions during the time ofrelease.

- **Linkingof On-site,Off-sitewiththe DistrictAuthority**

A District crisis and State crisis group shall be formed as per the chemical accident's rules 1996.Since the facility of M/s AVENTUS CROPSCIENCES is a accident hazard unit, the onsite emergencyplan is linked with district crisis management group.All the possible hazards and MSDS of thechemicals will be informed to district crisis group.The District Crisis Group shall meet everyforty-five days and send a report to the State Crisis Group. The Local Crisis Group shall meeteverymonthand forwarda copy of the proceedingstothe District Crisis Group.

In case of fire and other off-site emergencies, the District authoritiesand Site Main controllercanbe informed, andnecessaryhelp could be takenfollowingthe emergencysuchas:

- Informingthesurroundingindustriesabouttheincidentandgettingavailablehelpfromthem.
- Callingthehelpnearbyfirefightingauthoritiestocontrolthesituationfrom KarnalMunicipalc orp. Fire department.
- Necessaryfirst aidmeasuresif requiredfromthenearbyhospitalsand first aidcentres..
- ProvidingMSDSofallchemicalsandotherinformationto districtauthority.

- **Functionsof theDistrictCrisisGroup**

TheDistrict CrisisGroupshall–

- Assistthe preparationofthedistrict off-siteemergency plan.
- Review all the on-siteemergency plansprepared by the occupier ofMajor AccidentHazards installation for the preparation of the district off-site emergency plan; Assist thedistrictadministration in themanagement of chemicalaccidentsatasite lying withinthe district.
- Continuouslymonitoreverychemicalaccident.

- Ensurecontinuousinformationflowfrom thedistricttotheCentreandStateCrisisGroup regardingaccidentsituationandmitigation efforts.
- Forwardareportofthechemicalaccidentwithinfifteendaystothe StateCrisisGroup.and
- Conductatleastonefullscalemock-drillofachemicalaccidentatasiteeachyearandforwarda reportofthestrength and the weaknessof theplanto the StateCrisis Group.

- **FunctionsoftheLocalCrisisGroup**

The Local CrisisGroupshall–

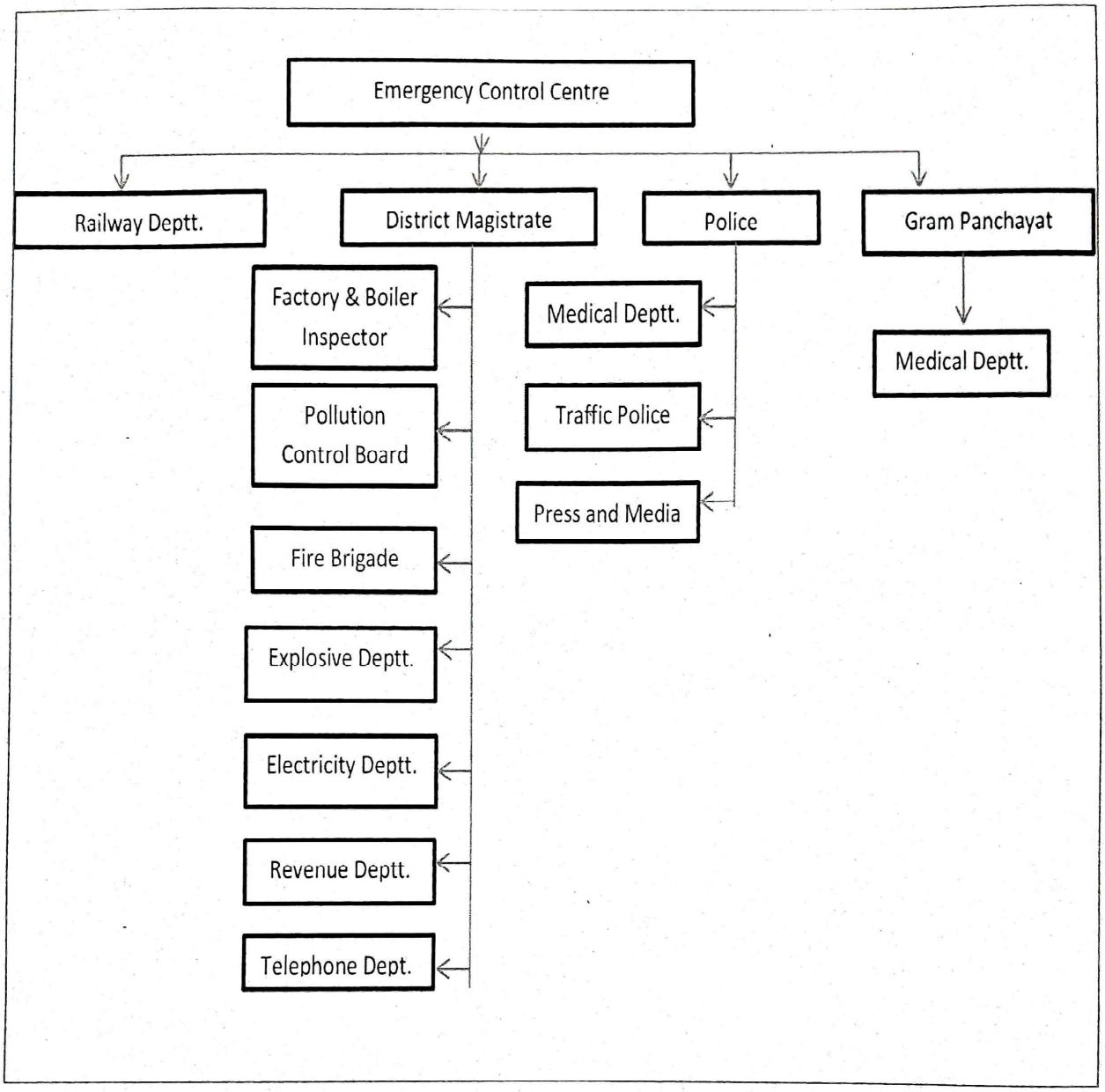
i. Preparelocal emergencyplanfor theindustrial pocket,
ii. Ensuredetailing of thelocalemergencyplan with thedistrict off-site emergencyplan.
iii. Trainpersonnelinvolvedinchemicalaccident management.
iv. Educatethepopulationlikelytobeaffectedinachemicalaccidentabouttheremediesand existing preparedness in the area.
v. Conductatleastonefullscalemock-drillofachemicalaccidentatasiteeverysixmonthsandforward areportto the District Crisis Group. and
vi. Respondtoallpublicinquirieson thesubject

- **The District Off-site Emergency Plan** for the district shall be prepared by the DistrictMagistrate in consultation with the factory management and Govt. agencies. The plan containsup-to-date details of outside emergency services and resources such as Fire Services, Hospitalsand Police etc. with telephone number. The following district authorities are to be included inthe emergency plan.

a. PoliceDepartment.
b. RevenueDepartment.
c. FireBrigade.
d. MedicalDepartment.
e. Municipality.
f. GramPanchayat
g. RailwayDepartment.
h. Telephone Department.
i. FactoryDepartment. (Inspector of factories)
j. ElectricityDepartment.
k. PollutionControlDepartment.
l. ExplosiveDepartment.
m. Press and Media.

MockexercisesonOff-site planshouldbecarriedoutatleastonce ina yearto traintheemployees, to updatetheplan&to observeand rectifydeficiencies.

Offsite Emergency Organization Chart



FOR NEXA CHEMICALS PVT. LTD.

Anil Kumar

DIRECTOR

Annexure-10

Photographs taken during Inspection on 07/10/2025 and 09/10/2025

Photograph 1: ETP installed at Site

Photograph 2: Recirculation Tank provided with Scrubber

Photograph 3: Mechanical flow meter installed at bore-well