



MATERIAL SAFETY DATA SHEET

PRODUCT NAME: HYDROXYLAMINE HYDROCHLORIDE

CAS Number: 5470-11-1

1. IDENTIFICATION:

Product Code : 90428, 90173, 98951

Company Name : ADVENT CHEMBIO PRIVATE LIMITED

Address : W-279, MIDC, TTC INDUSTRIAL AREA, THANE-BELAPUR ROAD, RABALE,
NAVI MUMBAI - 400 701, MAHARASHTRA, INDIA.

E-mail : sales@adventchembio.com

WEBSITE : www.adventchembio.com

Company Phone Number : +91 77770 84837

2. HAZARDS IDENTIFICATION:

Hazard classification

Physical hazards

Corrosive to metals : Category 1

Health hazards

Acute toxicity : Category 4

Acute toxicity : Category 4

Skin irritation : Category 2

Eye irritation : Category 2

Skin sensitisation : Category 1

Carcinogenicity : Category 2

Specific target organ
toxicity - repeated exposure : Category 2

Short-term (acute) aquatic
hazard : Category 1

Long-term (chronic) aquatic
hazard : Category 2

Labels elements :

Hazard symbol : 

Signal word : Danger

Hazard statement : May be corrosive to metals.
Harmful if swallowed or in contact with skin.
: Causes skin irritation.
May cause an allergic skin reaction.
Causes serious eye irritation.



MATERIAL SAFETY DATA SHEET

Version :02

PRODUCT NAME: HYDROXYLAMINE HYDROCHLORIDE

CAS Number: 5470-11-1

Suspected of causing cancer.
May cause damage to organs (spleen) through prolonged or repeated exposure.
Very toxic to aquatic life with long lasting effects.

Precautionary statement**Prevention**

- : Obtain special instructions before use.
- Do not breathe dust/ fume/ gas/ mist/ vapors/ spray. Do not handle until all safety precautions have been read and understood.
- Wear protective gloves/ protective clothing/ eye protection/ face protection.
- Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.
- Keep container tightly closed. Ground/ bond container and receiving equipment.
- Use explosion-proof electrical/ ventilating/ lighting/ equipment.
- Use only non-sparking tools. Take precautionary measures against static discharge.

Response

- : IF exposed or concerned: Get medical advice/ attention.
- IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

Storage

- : Store in a dry & well-ventilated place. Keep container tightly closed. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Disposal

- : Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Other hazards which do not result in GHS classification

- : Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapor. May cause flash fire or explosion.

3. COMPOSITION/ INFORMATION ON INGREDIENTS:

Ingredient	CAS Number	Percent	Hazardous
Hydroxylamine Hydrochloride	5470-11-1	NLT 99.0%	Yes

4. FIRST AID MEASURES:**General information**

- : Get medical advice/attention if you feel unwell. Show this safety data sheet to the doctor in attendance.

Ingestion

- Call a physician or poison control center immediately. Rinse mouth. Do NOT induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

Inhalation

- Move to fresh air. Call a physician or poison control center immediately. If breathing stops, provide artificial respiration. If breathing is difficult, give oxygen.
- Get medical attention if symptoms persist.

Skin contact

- : Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention.

Eye contact

- : Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention.

Most important symptoms/effects, acute

- : Toxic if inhaled. Irritating to eyes, respiratory system and skin.



MATERIAL SAFETY DATA SHEET

Version :02

PRODUCT NAME: HYDROXYLAMINE HYDROCHLORIDE

CAS Number: 5470-11-1

and delayed

Indication of immediate medical attention and special treatment needed : Symptoms may be delayed. Treat symptomatically.

5. FIRE FIGHTING MEASURES:

General information : No data available

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Foam, dry powder or carbon dioxide.

Unsuitable extinguishing media : For this substance/mixture no limitations of extinguishing agents are given.

Special protective equipment and precautions for firefighters

Special firefighting procedures : Fight fire from a protected location. Move containers from fire area if you can do so without risk.

Special protective equipment for fire-fighters : Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

6. ACCIDENTAL RELEASE MEASURES:

Personal precautions, protective equipment and emergency procedures : ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Avoid breathing mists or vapors. Keep upwind. Ventilate closed spaces before entering them. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away.

Methods and material for containment and cleaning up : Eliminate all ignition sources if safe to do so. Use only non-sparking tools. Take precautionary measures against static discharges. Stop leak if possible without any risk. Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Clean surface thoroughly to remove residual contamination. Dike far ahead of larger spill for later recovery and disposal.

Notification Procedures : Prevent entry into waterways, sewer, basements or confined areas. Inform authorities if large amounts are involved.

Environmental precautions : Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

7. HANDLING AND STORAGE:

Precautions for safe handling : Do not handle until all safety precautions have been read and understood. DO NOT handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Take precautionary measures against static discharges. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools. Wear protective gloves/protective clothing/eye protection/ face protection. Avoid contact with eyes, skin, and clothing. Do not breathe mist or vapor. Use only with adequate ventilation. Wash hands thoroughly after handling.

Conditions for safe storage, including any incompatibilities : Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition.



MATERIAL SAFETY DATA SHEET

Version :02

PRODUCT NAME: HYDROXYLAMINE HYDROCHLORIDE

CAS Number: 5470-11-1

8. EXPOSURE CONTROLS PERSONAL PROTECTION:**Control parameters****Appropriate engineering****controls** : No data available**Individual protection measures, such as personal protective equipment**

General information	:	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. An eye wash and safety shower must be available in the immediate work area. Use explosion-proof ventilation equipment.
Eye/face protection	:	Wear safety glasses with side shields (or goggles).
Hand protection	:	Chemical resistant gloves.
Other	:	Wear suitable protective clothing.
Respiratory protection	:	In case of inadequate ventilation use suitable respirator. Chemical respirator with organic vapor cartridge.
Hygiene measures	:	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Provide eyewash station and safety shower. Avoid contact with eyes, skin, and clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES:

Appearance	:	Colourless hygroscopic crystals or crystalline powder.
Odor	:	No data available
Solubility	:	No data available
Formula	:	HONH ₂ .HCl
Molecular Weight	:	69.49 g/mol
Specific Gravity	:	1.67 g/cm ³ (25 °C)
pH	:	2.5 – 3.5 (20 °C)
% Volatiles by volume @ 21C (70F)	:	No data available
Boiling Point	:	No data available
Melting Point	:	155 - 157 °C
Flash Point	:	No data available
Vapor Density (Air=1)	:	No data available
Vapor Pressure (mm Hg)	:	No data available
Evaporation Rate (BuAc=1)	:	No data available



MATERIAL SAFETY DATA SHEET

Version :02

PRODUCT NAME: HYDROXYLAMINE HYDROCHLORIDE

CAS Number: 5470-11-1

10. STABILITY AND REACTIVITY:

Reactivity	: Risk of dust explosion.
Chemical stability	: Material is stable under ambient conditions..
Possibility of hazardous reactions	: Hazardous reactions : Violent reactions possible with: alkaline substances Possible formation of: hydroxylamine Risk of explosion with: fire-promoting substances Oxidizing agents.
Conditions to avoid	: Air Exposure to moisture May be unstable at temperatures above: 75° C.
Incompatible materials	: No data available
Hazardous decomposition products	: In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION:**Information on toxicological effects****Acute toxicity (list all possible routes of exposure)**

Inhalation Product	: LD50 Oral - Rat - male and female - 642 mg/kg (OECD Test Guideline 401) Acute toxicity estimate Oral - 642 mg/kg (ATE value derived from LD50/LC50 value) Inhalation: No data available Acute toxicity estimate Dermal - 1.100,1 mg/kg (Expert judgement) Remarks: (Regulation (EC) No 1272/2008, Annex VI)
Repeated dose toxicity Product	: No data available.
Skin corrosion/irritation Product	: Skin - In vitro study Result: Irritating to skin. - 42 min (OECD Test Guideline 439)
Serious eye damage/eye irritation Product	: Eyes - In vitro study Result: Eye irritation - 6 h Remarks: (ECHA)
Respiratory or skin sensitization Product	: Maximisation Test - Guinea pig Result: positive (OECD Test Guideline 406)
Carcinogenicity Product	: Suspected of causing cancer.
IARC Monographs on the Evaluation of Carcinogenic Risks to Humans	: No data available
US. National Toxicology Program (NTP) Report on Carcinogens	: No data available
US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)	: No data available.
Germ cell mutagenicity	: Test Type: Ames test

MATERIAL SAFETY DATA SHEET

Version :02

PRODUCT NAME: HYDROXYLAMINE HYDROCHLORIDE

CAS Number: 5470-11-1

Test system: S. typhimurium
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative
Test Type: In vitro mammalian cell gene mutation test
Test system: mouse lymphoma cells
Metabolic activation: with and without metabolic activation
Result: negative
Remarks: (ECHA)
Test Type: Rat
Test system: Embryo
Remarks: Morphological transformation.
Test Type: Hamster
Test system: Lungs
Remarks: Sister chromatid exchange
Test Type: Mutagenicity (mammal cell test): micronucleus.
Species: Mouse
Cell type: Red blood cells (erythrocytes)
Application Route: Oral
Method: OECD Test Guideline 474
Result: negative

In vitro Product : No data available

Reproductive toxicity Product : No data available

Specific target organ toxicity - single exposure Product : No data available

Specific target organ toxicity - repeated exposure Product : May cause damage to organs through prolonged or repeated exposure. - spleen Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Aspiration hazard Product : No data available.

Other effects : None known.

12. ECOLOGICAL INFORMATION:
Ecotoxicity
Acute hazards to the aquatic environment

Fish Product LC50 (Oncorhynchus mykiss (rainbow trout)): 1,78 mg/l
End point: mortality
Exposure time: 96 h
: Test Type: semi-static test
Analytical monitoring: yes
Method: OECD Test Guideline 203
GLP: yes
Aquatic invertebrates Product EC50 (Daphnia magna (Water flea)): 1,1 mg/l
: End point: Immobilization
Exposure time: 48 h



MATERIAL SAFETY DATA SHEET

Version :02

PRODUCT NAME: HYDROXYLAMINE HYDROCHLORIDE

CAS Number: 5470-11-1

Test Type: semi-static test
Analytical monitoring: yes
Method: OECD Test Guideline 202
GLP: yes

Chronic hazards to the aquatic environment

Fish Product : Toxic to aquatic life with long lasting effects.

Aquatic invertebrates Product : No data available.

Toxicity to Aquatic Plants Product: ErC50 (Pseudokirchneriella subcapitata): 0,21 mg/l
Exposure time: 72 h
Test Type: static test
Analytical monitoring: yes
Method: OECD Test Guideline 201
GLP: yes
: EC10 (Raphidocelis subcapitata (freshwater green alga)): 0,075 mg/l
End point: Growth inhibition
Exposure time: 72 h
Test Type: static test
Analytical monitoring: yes
Method: OECD Test Guideline 201
GLP: yes

Persistence and degradability

Biodegradation Product : No data available.

BOD/COD ratio Product : No data available.

Bioaccumulative potential

Bioconcentration factor (BCF) Product : No data available.

Partition coefficient n-octanol / water (log Kow) Product : No data available.

Mobility in soil : No data available

Other adverse effects : Discharge into the environment must be avoided.

13. DISPOSAL CONSIDERATION:

Disposal instructions : Discharge, treatment, or disposal may be subject to national, state, or local laws. Disposal recommendations are based on uncontaminated material.

Contaminated packaging : Since emptied containers retain product residue, follow label warnings even after container is emptied.



MATERIAL SAFETY DATA SHEET

Version :02

PRODUCT NAME: HYDROXYLAMINE HYDROCHLORIDE

CAS Number: 5470-11-1

14. TRANSPORT INFORMATION:

	UN No.	UN proper shipping name	Hazard Class(es)	Packaging group	Marine Pollutant
DOT	UN 3260	Hydroxylamine Hydrochloride	8	III	Yes
IMDG	UN 3260	Hydroxylamine Hydrochloride	8	III	Yes
IATA	UN 3260	Hydroxylamine Hydrochloride	8	III	No

15. REGULATORY INFORMATION:

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

Safety, health and environmental regulations/legislation specific for the substance or mixture

No Data Available.

MATERIAL SAFETY DATA SHEET

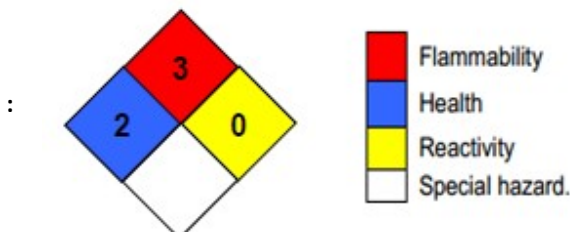
Version :02

PRODUCT NAME: HYDROXYLAMINE HYDROCHLORIDE

CAS Number: 5470-11-1

16. OTHER INFORMATION:

NFPA Hazard ID



Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe

Issue Date : 28/05/2026

Version : 02

Disclaimer: This Material Safety Data Sheet (MSDS) is for guidance and is based upon information and tests believed to be reliable. ADVENT CHEMBIO PRIVATE LIMITED makes no guarantee of the accuracy or completeness of the data and shall not be liable for any damages relating thereto. The data is offered solely for your consideration, investigation, and verification. The data should not be confused with local, state, federal or insurance mandates, regulations, or requirements and CONSTITUTE NO WARRANTY. Any use of this data and information must be determined by the technical instructor in accordance with applicable local, state or federal laws and regulations. The conditions or methods of handling, storage, use and disposal of the product(s) described are beyond the control of ADVENT CHEMBIO PRIVATE LIMITED and may be beyond our knowledge. FOR THIS AND OTHER REASONS, WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THIS PRODUCT(S).