

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 Reference number: 04128

Issue date: 18-05-2022 Revision date: 18-05-2022 Supersedes version of: 09-04-2015 Version: 1.0

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

1.1. Product identifier

Product form : Substance

Trade name : HYDROXYLAMINE HYDROCHLORIDE FOR SYNTHESIS

 EC Index-No.
 : 612-123-00-2

 EC-No.
 : 226-798-2

 CAS-No.
 : 5470-11-1

 Product code
 : 04128

 Formula
 : NH4OCI

Chemical structure :

H H CI-

Synonyms : Hydroxylammonium chloride, Oxammonium hydrochloride

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Use of the substance/mixture : Industrial. For professional use only

Use of the substance/mixture : Laboratory chemicals

Manufacture of substances

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

LOBA CHEMIE PVT.LTD.

107 Wode House Road, Jehangir Villa, Colaba

400005 Mumbai - INDIA

T +91 22 6663 6663 - F +91 22 6663 6699

info@lobachemie.com - www.lobachemie.com

1.4. Emergency telephone number

Emergency number : + 91 22 6663 6663 (9:00am - 6:00 pm)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Corrosive to metals, Category 1 H290 Acute toxicity (oral), Category 4 H302 Acute toxicity (dermal), Category 4 H312 Skin corrosion/irritation, Category 2 H315 Serious eye damage/eye irritation, Category 2 H319 Skin sensitisation, Category 1 H317 Carcinogenicity, Category 2 H351 Specific target organ toxicity — Repeated exposure, Category 2 H373 Hazardous to the aquatic environment — Acute Hazard, Category 1 H400

Full text of H-statements: see section 16

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Adverse physicochemical, human health and environmental effects

May be corrosive to metals. Suspected of causing cancer. May cause damage to organs through prolonged or repeated exposure. Harmful in contact with skin. Harmful if swallowed. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Very toxic to aquatic life.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



Signal word (CLP) : Warning

Hazard statements (CLP) : H290 - May be corrosive to metals.

H302+H312 - Harmful if swallowed or in contact with skin.

H315 - Causes skin irritation.

H317 - May cause an allergic skin reaction. H319 - Causes serious eye irritation. H351 - Suspected of causing cancer.

H373 - May cause damage to organs through prolonged or repeated exposure.

H400 - Very toxic to aquatic life.

Precautionary statements (CLP) : P273 - Avoid release to the environment.

P280 - Wear eye protection, protective clothing, protective gloves, protective clothing, eye

protection, face protection.

P301+P312 - IF SWALLOWED: Call a POISON CENTRE or doctor if you feel unwell.

P302+P352 - IF ON SKIN: Wash with plenty of water.

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove

contact lenses, if present and easy to do. Continue rinsing. P337+P313 - If eye irritation persists: Get medical advice/attention.

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Substance type : Mono-constituent

Name : HYDROXYLAMINE HYDROCHLORIDE

CAS-No. : 5470-11-1 EC-No. : 226-798-2 EC Index-No. : 612-123-00-2

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : IF exposed or concerned: Get medical advice/attention. Call a poison center or a doctor if

you feel unwell.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Give oxygen or artificial

respiration if necessary. If you feel unwell, seek medical advice.

First-aid measures after skin contact : Immediately call a POISON CENTER/doctor. Specific measures (see Call a physician

immediately on this label). Wash with plenty of water/... Wash contaminated clothing before reuse. Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or

rash occurs: Get medical advice/attention.

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First-aid measures after eye contact : Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with

water for several minutes. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion : Rinse mouth. Call a POISON CENTER/doctor if you feel unwell. Call a poison center or a

doctor if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after skin contact : Repeated exposure to this material can result in absorption through skin causing significant

health hazard. Harmful in contact with skin. Irritation. May cause an allergic skin reaction.

Symptoms/effects after eye contact : Eye irritation.

Symptoms/effects after ingestion : Swallowing a small quantity of this material will result in serious health hazard.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Water spray. Dry powder. Foam.

Unsuitable extinguishing media : dry chemical powder. Foam. Carbon dioxide (CO2). Water.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained

breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Evacuate unnecessary personnel. Do not breathe dust, fume, gas,

mist, spray, vapours. Avoid contact with skin, eyes and clothing.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. Use personal protective

equipment as required. For further information refer to section 8: "Exposure

controls/personal protection".

Emergency procedures : Stop release.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Collect spillage.

Methods for cleaning up : Mechanically recover the product. Clear up rapidly by scoop or vacuum. Notify authorities if

product enters sewers or public waters.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling

: Ensure good ventilation of the work station. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment. Do not breathe dust, fume, gas, mist, vapours, spray. Do not get in eyes, on skin, or on clothing.

Hygiene measures

Do not eat, drink or smoke when using this product. Wash hands, forearms and face thoroughly after handling. Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions

Store in original container. Keep container tightly closed. Keep in fireproof place. Store in a dry place. Store in corrosive resistant container with a resistant inner liner. Keep only in original container. Store locked up. Store in a well-ventilated place. Keep cool.
 Metals.

Incompatible materials

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. National occupational exposure and biological limit values

No additional information available

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

Personal protective equipment symbol(s):







8.2.2.1. Eye and face protection

Eye protection:

Safety glasses

8.2.2.2. Skin protection

Hand protection:

Protective gloves

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8.2.2.3. Respiratory protection

Respiratory protection:

Wear appropriate mask

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Solid

Appearance : Crystalline powder.

Molecular mass : 69.49 g/mol
Colour : White. Colourless.

Odour : Odourless.

Odour threshold : No data available

pH : 2.5 – 3.5 (5% aqueous solution)

Relative evaporation rate (butylacetate=1) : No data available : 155 - 157 °C Melting point Freezing point : Not applicable : 305.6 °C Boiling point : Not applicable Flash point Auto-ignition temperature : Not applicable Decomposition temperature : No data available Flammability (solid, gas) : Non flammable. Vapour pressure : No data available Relative vapour density at 20 °C : No data available

Relative density : No data available Density : 1.67 g/cm³

Solubility : Water: 95 g/100ml - Soluble in water

Partition coefficient n-octanol/water (Log Pow) : No data available Viscosity, kinematic : Not applicable Viscosity, dynamic : No data available Explosive properties : No data available Oxidising properties : No data available Explosive limits : Not applicable

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Direct sunlight. Air contact. Moisture.

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10.5. Incompatible materials

metals.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Harmful if swallowed.

Acute toxicity (dermal) : Harmful in contact with skin.

Acute toxicity (inhalation) : Not classified

Skin corrosion/irritation : Causes skin irritation.

pH: 2.5 – 3.5 (5% aqueous solution)

Serious eye damage/irritation : Causes serious eye irritation.

pH: 2.5 – 3.5 (5% aqueous solution)

Respiratory or skin sensitisation : May cause an allergic skin reaction.

Germ cell mutagenicity : Not classified

Carcinogenicity : Suspected of causing cancer.

Reproductive toxicity : Not classified STOT-single exposure : Not classified

STOT-repeated exposure : May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard : Not classified

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Viscosity, kinematic Not applicable

Potential adverse human health effects and : Harmful if swallowed, Harmful in contact with skin.

symptoms

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Very toxic to aquatic life.

Ecology - water : Very toxic to aquatic life.

Hazardous to the aquatic environment, short-term : Very toxic to aquatic life.

(acute)

Hazardous to the aquatic environment, long-term

(chronic)

: Not classified

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

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SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods

Product/Packaging disposal recommendations

- : Dispose of contents/container in accordance with licensed collector's sorting instructions.
- Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as nonhazardous waste.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

14.1. UN number

UN-No. (ADR) : UN 2923 UN-No. (IMDG) : UN 2923 UN-No. (IATA) UN 2923 UN-No. (ADN) UN 2923 UN-No. (RID) : UN 2923

14.2. UN proper shipping name

: CORROSIVE SOLID, TOXIC, N.O.S. Proper Shipping Name (ADR) CORROSIVE SOLID, TOXIC, N.O.S. Proper Shipping Name (IMDG) Proper Shipping Name (IATA) Corrosive solid, toxic, n.o.s.

CORROSIVE SOLID, TOXIC, N.O.S. Proper Shipping Name (ADN) CORROSIVE SOLID, TOXIC, N.O.S. Proper Shipping Name (RID)

Transport document description (ADR) UN 2923 CORROSIVE SOLID, TOXIC, N.O.S. (Hydroxylamine hydrochloride), 8 (6.1), III,

(E). ENVIRONMENTALLY HAZARDOUS

Transport document description (IMDG) : UN 2923 CORROSIVE SOLID, TOXIC, N.O.S. (Hydroxylamine hydrochloride), 8 (6.1), III,

MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS

Transport document description (IATA) UN 2923 Corrosive solid, toxic, n.o.s. (Hydroxylamine hydrochloride), 8 (6.1), III,

ENVIRONMENTALLY HAZARDOUS : UN 2923 CORROSIVE SOLID, TOXIC, N.O.S. (Hydroxylamine hydrochloride), 8 (6.1), III,

ENVIRONMENTALLY HAZARDOUS

Transport document description (RID) : UN 2923 CORROSIVE SOLID, TOXIC, N.O.S. (Hydroxylamine hydrochloride), 8 (6.1), III,

ENVIRONMENTALLY HAZARDOUS

14.3. Transport hazard class(es)

Transport document description (ADN)

ADR

Transport hazard class(es) (ADR) : 8 (6.1) Danger labels (ADR) : 8, 6.1



IMDG

Transport hazard class(es) (IMDG) : 8 (6.1) Danger labels (IMDG) 8, 6.1



IATA

Transport hazard class(es) (IATA) : 8 (6.1)

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Danger labels (IATA) : 8.6.1





ADN

Transport hazard class(es) (ADN) : 8 (6.1) Danger labels (ADN) : 8, 6.1







RID

Transport hazard class(es) (RID) : 8 (6.1) Danger labels (RID) 8, 6.1







14.4. Packing group

Packing group (ADR) Ш Packing group (IMDG) Ш Packing group (IATA) Ш Packing group (ADN) Ш Packing group (RID) Ш

14.5. Environmental hazards

Dangerous for the environment : Yes Marine pollutant : Yes

Other information : No supplementary information available

14.6. Special precautions for user

Overland transport

Classification code (ADR) : CT2 Special provisions (ADR) : 274 Limited quantities (ADR) : 5kg Excepted quantities (ADR) : E1

Packing instructions (ADR) : P002, IBC08, R001

Special packing provisions (ADR) : B3 Mixed packing provisions (ADR) : MP10 Portable tank and bulk container instructions (ADR) : T1 Portable tank and bulk container special provisions : TP33

(ADR)

Tank code (ADR) : SGAV, L4BN

: AT Vehicle for tank carriage Transport category (ADR) : 3

Special provisions for carriage - Bulk (ADR) : VC1, VC2, AP7 Special provisions for carriage - Loading, unloading : CV13, CV28

and handling (ADR)

Hazard identification number (Kemler No.) : 86

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Orange plates : **86**

2923

Tunnel restriction code (ADR) : E EAC code : 2X

Transport by sea

: 223, 274 Special provisions (IMDG) Limited quantities (IMDG) : 5 kg Excepted quantities (IMDG) : E1 Packing instructions (IMDG) : P002 : IBC08 IBC packing instructions (IMDG) IBC special provisions (IMDG) : B3 Tank instructions (IMDG) : T1 Tank special provisions (IMDG) : TP33 EmS-No. (Fire) : F-A EmS-No. (Spillage) : S-B Stowage category (IMDG) : B Stowage and handling (IMDG) : SW2

Properties and observations (IMDG) : Causes burns to skin, eyes and mucous membranes. Toxic if swallowed, by skin contact or

by inhalation.

MFAG-No : 154

Air transport

PCA Excepted quantities (IATA) : E1 PCA Limited quantities (IATA) : Y845 PCA limited quantity max net quantity (IATA) : 5kg PCA packing instructions (IATA) : 860 PCA max net quantity (IATA) : 25kg CAO packing instructions (IATA) : 864 CAO max net quantity (IATA) : 100kg Special provisions (IATA) : A3, A803 · 8P ERG code (IATA)

Inland waterway transport

Classification code (ADN) : CT2
Special provisions (ADN) : 274, 802
Limited quantities (ADN) : 5 kg
Excepted quantities (ADN) : E1
Equipment required (ADN) : PP, EP
Number of blue cones/lights (ADN) : 0

Rail transport

Classification code (RID) : CT2
Special provisions (RID) : 274
Limited quantities (RID) : 5kg
Excepted quantities (RID) : E1

Packing instructions (RID) : P002, IBC08, R001

Special packing provisions (RID) : B3

Mixed packing provisions (RID) : MP10

Portable tank and bulk container instructions (RID) : T1

Portable tank and bulk container special provisions : TP33

(RID)

Tank codes for RID tanks (RID) : SGAV, L4BN

Transport category (RID) : 3

Special provisions for carriage – Bulk (RID) : VC1, VC2, AP7 Special provisions for carriage - Loading, unloading : CW13, CW28

and handling (RID)

Colis express (express parcels) (RID) : CE11
Hazard identification number (RID) : 86

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14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

HYDROXYLAMINE HYDROCHLORIDE FOR SYNTHESIS is not on the REACH Candidate List

HYDROXYLAMINE HYDROCHLORIDE FOR SYNTHESIS is not on the REACH Annex XIV List

HYDROXYLAMINE HYDROCHLORIDE FOR SYNTHESIS is not subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 july 2012 concerning the export and import of hazardous chemicals.

HYDROXYLAMINE HYDROCHLORIDE FOR SYNTHESIS is not subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

15.1.2. National regulations

Germany

Water hazard class (WGK)

Hazardous Incident Ordinance (12. BImSchV)

V)

: WGK 3, Highly hazardous to water (Classification according to AwSV; ID No. 2937)

: Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

Netherlands

SZW-lijst van kankerverwekkende stoffen

SZW-lijst van mutagene stoffen

NIET-limitatieve lijst van voor de voortplanting

giftige stoffen – Borstvoeding

NIET-limitatieve lijst van voor de voortplanting

giftige stoffen - Vruchtbaarheid

NIET-limitatieve lijst van voor de voortplanting

giftige stoffen – Ontwikkeling

: The substance is not listed

Denmark

Danish National Regulations

: Young people below the age of 18 years are not allowed to use the product Pregnant/breastfeeding women working with the product must not be in direct contact with the product

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms		
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways	
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road	
ATE	Acute Toxicity Estimate	
BCF	Bioconcentration factor	
BLV	Biological limit value	
BOD	Biochemical oxygen demand (BOD)	
COD	Chemical oxygen demand (COD)	
DMEL	Derived Minimal Effect level	
DNEL	Derived-No Effect Level	
EC-No.	European Community number	
EC50	Median effective concentration	
EN	European Standard	

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Abbreviations and acronyms		
IARC	International Agency for Research on Cancer	
IATA	International Air Transport Association	
IMDG	International Maritime Dangerous Goods	
LC50	Median lethal concentration	
LD50	Median lethal dose	
LOAEL	Lowest Observed Adverse Effect Level	
NOAEC	No-Observed Adverse Effect Concentration	
NOAEL	No-Observed Adverse Effect Level	
NOEC	No-Observed Effect Concentration	
OECD	Organisation for Economic Co-operation and Development	
OEL	Occupational Exposure Limit	
PBT	Persistent Bioaccumulative Toxic	
PNEC	Predicted No-Effect Concentration	
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail	
SDS	Safety Data Sheet	
STP	Sewage treatment plant	
ThOD	Theoretical oxygen demand (ThOD)	
TLM	Median Tolerance Limit	
VOC	Volatile Organic Compounds	
CAS-No.	Chemical Abstract Service number	
N.O.S.	Not Otherwise Specified	
vPvB	Very Persistent and Very Bioaccumulative	
ED	Endocrine disrupting properties	

Full text of H- and EUH-statements		
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4	
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4	
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1	
Carc. 2	Carcinogenicity, Category 2	
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2	
Met. Corr. 1	Corrosive to metals, Category 1	
Skin Irrit. 2	Skin corrosion/irritation, Category 2	
Skin Sens. 1	Skin sensitisation, Category 1	
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2	
H290	May be corrosive to metals.	
H302	Harmful if swallowed.	
H312	Harmful in contact with skin.	
H315	Causes skin irritation.	
H317	May cause an allergic skin reaction.	

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Full text of H- and EUH-statements		
H319	Causes serious eye irritation.	
H351	Suspected of causing cancer.	
H373	May cause damage to organs through prolonged or repeated exposure.	
H400	Very toxic to aquatic life.	

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.