


SAFETY DATA SHEET

HYDROXYLAMINE HYDROCHLORIDE

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

1.1 Product identifier:	
CAS Number:	5470-11-1
EC number:	226-798-2
1.2 SYNONYMS:	<ul style="list-style-type: none"> • hydroxylammonium chloride • Hydroxylamine chloride • Hydroxylamine chlorohydrate • Hydroxyamine hydrochloride

SECTION 2: Hazards identification:

2.1 Classification of the substance or mixture:	Classification according to Regulation (EC) No 1272/2008 The substance is classified according to the CLP regulation.
2.2 Label elements:	<p>Labelling according to Regulation (EC) No 1272/2008</p> <p>Corrosive to Metals, (Category 1)</p> <p>Acute toxicity, oral (Category 4)</p> <p>Acute toxicity, dermal (Category 4)</p> <p>Skin irritation, (Category 2)</p> <p>Eye irritation, (Category 2)</p> <p>Skin sensitization, (Category 1)</p> <p>Carcinogenicity, (Category 2)</p> <p>Specific target organ toxicity - repeated exposure, (Category 2), spleen</p> <p>Short-term (acute) aquatic hazard, (Category 1)</p> <p>Long-term (chronic) aquatic hazard, (Category 2)</p>
Hazard Pictograms:	
Signal Word:	Danger

Hazard statements:	<p>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 (spleen) through prolonged or repeated exposure if swallowed. H410: Very toxic to aquatic life with long lasting effects.</p>
Precautionary Statements:	<p>P273: Avoid release to the environment. P280: Wear protective gloves/ protective clothing/ eye protection/ face protection. P301 + P312: IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. P302 + P352 + P312: IF ON SKIN: Wash with plenty of water. Call a POISON CENTER/ doctor if you feel unwell. P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P308 + P313: IF exposed or concerned: Get medical advice/ attention. P405: Store locked up. P501: Dispose of contents/ container to an approved waste disposal plant.</p>
2.3 Other hazards:	
Inhalation:	<p>can cause respiratory irritation, coughing, shortness of breath, and in severe cases, damage to the respiratory tract.</p>

Ingestion:	can cause nausea, vomiting, abdominal pain, and may lead to severe damage to the gastrointestinal tract.
Skin Contact:	can cause irritation, redness, and chemical burns, particularly with prolonged exposure.
Eye contact:	can cause severe irritation, redness, pain, and potential damage to the cornea.
Chronic Exposure:	can lead to respiratory problems, skin sensitization, and potential damage to the liver and kidneys.
Aggravation of pre-existing conditions:	can aggravate pre-existing respiratory conditions, such as asthma or bronchitis, and may worsen skin conditions like dermatitis.

SECTION 3: Composition/information on ingredients

3.1 Chemical characterisation:	Substances
CAS No:	Description: 5470-11-1 HYDROXYLAMINE HYDROCHLORIDE
Identification number(s):	EC number: 226-798-2

SECTION 4: First aid measures

4.1 Description of first aid measures	
General information:	
After inhalation:	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

After skin contact:	Remove contaminated clothing immediately. Wash with plenty of water. Consult a physician.
After eye contact:	Immediately flush eyes with plenty of water for at least 15 minutes. consult a physician.
After swallowing:	Rinse mouth with water. Immediately after ingestion Never give anything by mouth to an unconscious person. Do not induce vomiting. Consult a physician.
4.2 Most important symptoms and effects, both acute and delayed:	Acute exposure can cause respiratory irritation, gastrointestinal distress, and skin or eye burns, while delayed effects may include persistent lung damage, skin sensitization, or organ toxicity with prolonged exposure.
4.3 Indication of any immediate medical attention and special treatment needed:	Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media:	Water, Carbon dioxide dry powder
5.2 Special hazards arising from the substance or mixture:	Nitrogen oxides, hydrogen chloride gas.
5.3 Advice for firefighters:	Wear fully protective suit, safety glasses and respiratory device. Cool tanks/drums with water spray/remove them into safety.
5.4 further information:	no data available

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:	Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Avoid dust accumulation. Seek medical attention.
6.2 Environmental precautions:	Do not enter this chemical into drains.
6.3 Methods and material for containment and cleaning up:	Take up spill into absorbent material, e.g.: sand, earth, vermiculite, powdered limestone. Scoop absorbed substance into closing containers. Spill must not return in its original container. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling

SECTION 7: Handling and storage

7.1 Precautions for safe handling:	For use in are with adequate ventilation. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not use in confined spaces. Electrostatic discharge protection. Minimize dust generation and accumulation. Avoid ingestion and inhalation.
7.2 Conditions for safe storage, including any incompatibilities:	Store in original containers. Keep containers securely sealed Store in a cool, dry, well-ventilated area. Store away from incompatible materials and foodstuff containers.

	Protect containers against physical damage and check regularly for leaks. Store in a dry and dark area. Keep away from moisture.
Requirements to be met by storerooms and receptacles:	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
7.3 Specific end uses:	no data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters	
Additional information about design of technical facilities:	A system of local and general exhaust is recommended.
8.2 Exposure controls	
Appropriate engineering controls	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
Personal protective equipment:	Dust respirator, protective masks, wearing anti chemical gloves, rubber gloves, etc.
General protective and hygienic measures:	Eyes, body and hand protection, maintain indoor air unobstructed. Wear protective equipment.
	Respiratory protection: Required.
Protection of hands:	Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws. Wash and dry hands.
	Eye protection: Required

Protection of Body:	Complete suit protecting against chemicals, Flame retardant antistatic protective clothing.
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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties	
General Information	
Appearance: Form:	Crystalline powder
Colour:	White to off white
Odour:	Slight ammonia like odor
pH-value:	6
Melting point/Melting range:	170°C
Boiling point/Boiling range:	200°C
Flammability (solid, gaseous):	Flammable when heated
Ignition temperature:	400°C
Decomposition temperature:	170°C
Self-igniting:	None
Flash point:	Not applicable
Danger of explosion:	Yes under certain conditions.
Explosion limits: Lower:	Not determined
Explosion limits: Upper:	Not determined
Vapour pressure:	Not determined
Density at 20 °C:	1.32 g/cm ³
Relative density:	1.32
Vapour density:	Not applicable
Evaporation rate:	Not determined
Solubility in / Miscibility with- -water at 20 °C:	Soluble
Partition coefficient:(n- octanol/water)	Not determined
Viscosity:	Not applicable

SECTION 10: Stability and reactivity

10.1 Reactivity	Highly reactive when heated to decomposition
10.2 Chemical stability	This chemical is unstable under storage conditions, do not kept under incompatible environments for a long time.
10.3 Possibility of hazardous reactions	Decomposes violently when exposed to heat, strong acids or oxidizing agents.
10.4 Conditions to avoid	Heat, moisture, direct sunlight, shocks.
10.5 Incompatible materials	Strong oxidizing agents, strong acids, strong bases, metals such as iron, zinc and copper.
10.6 Hazardous decomposition products	Nitrogen oxides, ammonia, hydrogen gas.

SECTION 11: Toxicological information

11.1 Information on toxicological effects	
Acute Toxicity:	LD50 (Oral, Rat): 642 mg/kg LD50 (Dermal, Rabbit): 1.100 mg/kg LC50 (Inhalation Rat): no data available
Skin corrosion/Irritation:	Causes serious skin irritation
Serious eye damage/irritation:	Causes serious eye irritation
Respiratory damage/irritation:	No data available
Ingestion:	No data available
Germ cell mutagenicity:	No data available
Carcinogenicity:	Suspected of causing cancer
Reproductive toxicity:	No data available
Specific target organ toxicity - single exposure:	No data available
Specific target organ toxicity - repeated exposure:	May cause damage to spleen through repeated exposure.
Aspiration hazard:	No data available
Signs and Symptoms of Exposure:	Refer section 2.3

11.2 Additional toxicological information	
Biodegradability:	Not determined

SECTION 12: Ecological information

12.1 Toxicity Aquatic toxicity:	LC50(fish): 1.78 mg/l (96hr) EC50(daphnia): 1.1 mg/l (48 hr) ErC50(algae): 0.21 mg/l (72 hr)
12.2 Persistence and degradability:	Not determined
12.3 Bioaccumulative potential:	Not bioaccumulative
12.4 Mobility in soil:	Low mobility
12.5 Other adverse effects:	No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods	
Uncleaned packaging Recommendation:	dispose of in accordance with local hazardous waste regulations
Recommended cleansing agents:	Water with mild detergent, sodium bicarbonate.

SECTION 14: Transport information

14.1 UN-Number · ADR, ADN, IMDG, IATA:	3026
14.2 UN proper shipping name · ADR, ADN, IMDG, IATA:	HYDROXYLAMINE HYDROCHLORIDE
14.3 Transport hazard class(es) · ADR, ADN, IMDG, IATA :	8
14.4 Packing group · ADR, IMDG, IATA:	3
14.5 Environmental hazards:	Yes, harmful for aquatic life.
14.6 Special precautions for user:	Handle responsibly.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture Directive 2012/18/EU	Directive 2012/18/EU, under that this substance is classified in listed substances as toxic and environmentally hazardous substances.
Named dangerous substances:	This substance is listed in the annex 1 to the directive.
15.2 Chemical safety assessment:	Chemical assessment has not been carried out.

SECTION 16: Other information

The data included was derived from international authoritative database and provided by the enterprise. Other information was based on the present state of our knowledge. We try to ensure the correctness of all information.

However, due to the diversity of information sources and limitations of our knowledge, this document is only for reference. Users should make their independent judgment suitability of this information for their particular purposes. We do not assume responsibility for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.

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