



<b>Hydroxylamine Hydrochloride CAS No 5470-11-1</b>	<b>MATERIAL SAFETY DATA SHEET SDS/MSDS</b>
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**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

**1.1 Product identifiers**

Product name : **Hydroxylamine Hydrochloride**

CAS-No. : 5470-11-1

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

Identified uses : Laboratory chemicals, Industrial & for professional use only.

**1.3 Details of the supplier of the safety data sheet**

Company : Central Drug House (P) Ltd  
7/28 Vardaan House  
New Delhi-10002  
INDIA

Telephone : +91 11 49404040  
Email : [care@cdhfinechemical.com](mailto:care@cdhfinechemical.com)

**1.4 Emergency telephone number**

Emergency Phone # : +91 11 49404040 (9:00am - 6:00 pm) [Office hours]

**SECTION 2: Hazards identification**

**2.1 Classification of the substance or mixture**

**Classification according to Regulation (EC) No 1272/2008**

- Corrosive to metals (Category 1), H290
- Acute toxicity, Oral (Category 4), H302
- Acute toxicity, Dermal (Category 4), H312
- Skin irritation (Category 2), H315
- Eye irritation (Category 2), H319
- Skin sensitisation (Category 1), H317
- Carcinogenicity (Category 2), H351
- Specific target organ toxicity - repeated exposure (Category 2), H373
- Acute aquatic toxicity (Category 1), H400
- Chronic aquatic toxicity (Category 1), H410

For the full text of the H-Statements mentioned in this Section, see Section 16.

**Classification according to EU Directives 67/548/EEC or 1999/45/EC**

E	Explosive	R 2 R40
Xn	Harmful	R21/22, R48/22
Xi	Irritant	R36/38 R43
N	Dangerous for the	R50

environment

For the full text of the R-phrases mentioned in this Section, see Section 16.

## 2.2 Label elements

### Labelling according Regulation (EC) No 1272/2008

Pictogram



Signal word	Warning
Hazard statement(s)	
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.
H410	Very toxic to aquatic life with long lasting effects.
Precautionary statement(s)	
P273	Avoid release to the environment.
P280	Wear protective gloves/ protective clothing.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P501	Dispose of contents/ container to an approved waste disposal plant.
Supplemental Hazard Statements	none

## 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Synonyms	:	Hydroxylammonium chloride
Formula	:	H <sub>3</sub> NO · HCl
Molecular weight	:	69,49 g/mol
CAS-No.	:	5470-11-1
EC-No.	:	226-798-2
Index-No.	:	612-123-00-2

#### Hazardous ingredients according to Regulation (EC) No 1272/2008

Component	Classification	Concentration
<b>Hydroxylamine hydrochloride</b>		
CAS-No.	5470-11-1	Met. Corr. 1; Acute Tox. 4; Skin Irrit. 2; Eye Irrit. 2; Skin Sens. 1; Carc. 2; STOT RE 2; Aquatic Acute 1; Aquatic Chronic 1; H290, H302 + H312, H315, H317, H319, H351, H373, H410
EC-No.	226-798-2	
Index-No.	612-123-00-2	

#### Hazardous ingredients according to Directive 1999/45/EC

Component	Classification	Concentration
<b>Hydroxylamine hydrochloride</b>		
CAS-No.	5470-11-1	E, Xn, N, Carc.Cat.3, R 2 -
		<= 100 %

EC-No.  
Index-No.

226-798-2  
612-123-00-2

R21/22 - R36/38 - R40 - R43 -  
R48/22 - R50

For the full text of the H-Statements and R-Phrases mentioned in this Section, see Section 16

#### **SECTION 4: First aid measures**

##### **4.1 Description of first aid measures**

###### **General advice**

Consult a physician. Show this safety data sheet to the doctor in attendance.

###### **If inhaled**

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

###### **In case of skin contact**

Wash off with soap and plenty of water. Consult a physician.

###### **In case of eye contact**

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

###### **If swallowed**

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

##### **4.2 Most important symptoms and effects, both acute and delayed**

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

##### **4.3 Indication of any immediate medical attention and special treatment needed**

No data available

#### **SECTION 5: Firefighting measures**

##### **5.1 Extinguishing media**

###### **Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

##### **5.2 Special hazards arising from the substance or mixture**

Nitrogen oxides (NO<sub>x</sub>), Hydrogen chloride gas  
Container explosion may occur under fire conditions.

##### **5.3 Advice for firefighters**

Wear self-contained breathing apparatus for firefighting if necessary.

##### **5.4 Further information**

May explode when heated.

#### **SECTION 6: Accidental release measures**

##### **6.1 Personal precautions, protective equipment and emergency procedures**

Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.  
For personal protection see section 8.

##### **6.2 Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

##### **6.3 Methods and materials for containment and cleaning up**

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

##### **6.4 Reference to other sections**

For disposal see section 13.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.

### 7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

Air and moisture sensitive.

Storage class (TRGS 510): Other explosive hazardous materials

### 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Components with workplace control parameters

### 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

##### Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

##### Skin protection

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 and good laboratory practices. Wash and dry hands.

##### Body Protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

##### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

##### Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

- |  |   |
|--|---|
| a) Appearance                              | Form: Crystalline powder, Chunks<br>Colour: white |
| b) Odour                                   | No data available                                 |
| c) Odour Threshold                         | No data available                                 |
| d) pH                                      | 2,5 - 3,5 at 50 g/l at 20 °C                      |
| e) Melting point/freezing point            | Melting point/range: 155 - 157 °C - dec.          |
| f) Initial boiling point and boiling range | No data available                                 |

g) Flash point	No data available
h) Evaporation rate	No data available
i) Flammability (solid, gas)	No data available
j) Upper/lower flammability or explosive limits	No data available
k) Vapour pressure	No data available
l) Vapour density	No data available
m) Relative density	1,67 g/cm <sup>3</sup> at 25 °C
n) Water solubility	soluble
o) Partition coefficient: n-octanol/water	No data available
p) Auto-ignition temperature	No data available
q) Decomposition temperature	> 150 °C - Heating may cause an explosion.
r) Viscosity	No data available
s) Explosive properties	No data available
t) Oxidizing properties	No data available

## 9.2 Other safety information

No data available

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No data available

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

No data available

### 10.4 Conditions to avoid

Air Exposure to moisture. May be unstable at temperatures above: 75° C

### 10.5 Incompatible materials

Strong oxidizing agents, phosphorous pentachloride, Calcium, Anhydrous copper(II) sulfate

### 10.6 Hazardous decomposition products

Other decomposition products - No data available  
In the event of fire: see section 5

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

LD50 Oral - Rat - 600 mg/kg

Dermal: No data available

#### Skin corrosion/irritation

No data available

#### Serious eye damage/eye irritation

No data available

#### Respiratory or skin sensitisation

#### Germ cell mutagenicity

Rat

Embryo

Morphological transformation.

Hamster

Lungs

Sister chromatid exchange

### **Carcinogenicity**

Suspected human carcinogens

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

### **Reproductive toxicity**

No data available

### **Specific target organ toxicity - single exposure**

No data available

### **Specific target organ toxicity - repeated exposure**

May cause damage to organs through prolonged or repeated exposure.

### **Aspiration hazard**

No data available

### **Additional Information**

RTECS: NC3675000

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Liver - Irregularities - Based on Human Evidence

## **SECTION 12: Ecological information**

### **12.1 Toxicity**

Toxicity to fish LC50 - Leuciscus idus (Golden orfe) - 1 - 10 mg/l - 48,0 h

### **12.2 Persistence and degradability**

No data available

### **12.3 Bioaccumulative potential**

No data available

### **12.4 Mobility in soil**

No data available

### **12.5 Results of PBT and vPvB assessment**

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

### **12.6 Other adverse effects**

Very toxic to aquatic life with long lasting effects.

## **SECTION 13: Disposal considerations**

### **13.1 Waste treatment methods**

#### **Product**

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company.

#### **Contaminated packaging**

Dispose of as unused product.

## **SECTION 14: Transport information**

### **14.1 UN number**

ADR/RID: 2923

IMDG: 2923

IATA: 2923

