

Sovchem[®] HAHC

1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION	
Manufacturer: Sovereign Chemical Company 4040 Embassy Parkway, Suite 190 Akron, OH 44333	Emergency Contact: Chemtrec: 1-800-424-9300 (continental USA) (1)703-527-3887 (outside continental USA)
Trade Name(s): Sovchem [®] HAHC	Synonyms: Oxammonium hydrochloride; hydroxylammonium chloride
Chemical Name: Hydroxylamine Hydrochloride	CAS Number: 5470-11-1
Relevant identified uses of the substance or mixture and uses advised against: No further relevant information available.	Application of the substance/the preparation: Auxiliary.
Issued By: Sovereign Chemical Company According to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and GHS	SDS Number: 1879 Date of Issue: September 25, 2014 Revision Number: 2 (Supersedes: July 9, 2013) Change(s): Update transportation class.

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008



GHS08 Health Hazard
 Carc.2 H351 Suspected of causing cancer.
 STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.



GHS05 Corrosion
 Met. Corr 1 H290 May be corrosive to metals.



GHS09 Environment
 Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.



GHS07
 Acute Tox. 3 H301 Toxic if swallowed.
 Acute Tox. 4 H312 Harmful in contact with skin.
 Skin Irrit.2 H315 Causes skin irritation.
 Eye Irrit. 2A H319 Causes serious eye irritation.
 Skin Sens.1 H317 May cause an allergic skin reaction.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC



Xn; Harmful
 R21/22-40-48/22 Harmful in contact with skin and if swallowed. Limited evidence of a carcinogenic effect.
 Harmful: danger of serious damage to health by prolonged exposure if swallowed.



Xi; Irritant
 R36/38 Irritating to eyes and skin



Xi; Sensitizing
R43 May cause sensitization by skin contact.



E; Explosive
R2 Risk of explosion by shock, friction, fire or other sources of ignition.



N; Dangerous for the environment
R50 : Very toxic to aquatic organisms.

Information concerning particular hazards for human and environment: Not applicable

2.2 Label elements

Labeling according to Regulation (EC) No 1272/2008

The substance is classified and labeled according to the CLP regulation.

Hazard pictograms



This pictogram only applicable for EU regulations. Not for use in the United States (OSHA GHS).



GHS07



GHS08



GHS05



GHS09

Signal word: Danger

Hazard-determining components of labeling: hydroxylammonium chloride

Hazard statements

The following Hazard Statements are applicable only to the EU regulations and not the US GHS regulation:

H400.

H290	May be corrosive to metals
H301	Toxic if swallowed.
H312	Harmful in contact with skin
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H317	May cause an allergic skin reaction.
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 statements

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P234	Keep only in original container.
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P264	Wash skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves/eye protection/face protection.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P302 + P352	IF ON SKIN; Wash with plenty of soap and 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.

P308 + P313 If exposed or concerned: Get medical advice/attention.

P322 Specific measures (see supplemental first aid instructions on this label).

P330 Rinse mouth.

P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.

P337 + P313 If eye irritation persists: Get medical advice attention

P362 Take off contaminated clothing and wash before reuse.

P390 Absorb spillage to prevent material damage.

P391 Collect spillage.

P405 Store locked up.

P406 Store in corrosive resistant stainless-steel container with a resistant inner liner.

P501 Dispose of contents/container to an approved waste disposal plant.

Hazard description

WHMIS-symbols



D1B –Toxic material causing immediate and serious toxic effects.
 D2A – Very toxic material causing other toxic effects.
 E – Corrosive material

NFPA ratings (scale 0-4)



Health = 3
 Fire = 0
 Reactivity = 0

HMIS ratings (scale 0-4)



Health = *3
 Fire = 0
 Reactivity = 1

*- Indicates a long-term health hazard from repeated or prolonged exposures.
 HMIS Long Term Health Hazard Substances: Substance is not listed.

2.3 Other hazards

Results of PBT and vPvB assessment
 PBT: Not applicable.
 vPvB: Not applicable.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

CAS No., Description: 5470-11-1, hydroxylammonium chloride
 Identification number(s)
 EC number: 226-798-2
 Index number: 612-123-00-2

4. FIRST AID MEASURES

4.1 Description of first aid measures

General information
 Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore, medical observation for at least 48 hours after the accident.

After inhalation: Supply fresh air; consult doctor in case of complaints.

After skin contact

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

After eye contact

Remove contact lenses if worn.

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

After swallowing

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; call for medical help immediately.

4.2 Most important symptoms and effects, both acute and delayed

Allergic reactions

Coughing

Dizziness

Breathing difficulty

Disorientation

Cramp

Nausea

Hazards: No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

Treat skin and mucous membrane with antihistamine and corticoid preparations.

5. FIRE FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing agents

Alcohol resistant foam

Foam

Fire-extinguishing powder

Gaseous extinguishing agents

Water haze or fog

Water spray

For safety reasons, unsuitable extinguishing agents: None.

5.2 Special hazards arising from the substance or mixture: Formation of toxic gases is possible during heating or in case of fire.

5.3 Advice for firefighters

Protective equipment

Wear self-contained respiratory protective device.

Wear fully protective suit.

Additional information

Eliminate all ignition sources if safe to do so.

Use large quantities of foam as it is partially destroyed by the product.

Cool endangered receptacles with water spray.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Use respiratory protective device against the effects of fumes/dust/aerosol.
Remove persons from danger area.
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
Protect from heat.

6.2 Environmental precautions

Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.

6.3 Methods and material for containment and cleaning up

Pick up mechanically.
Send for recovery or disposal in suitable receptacles.
Do not flush with water or aqueous cleansing agents
Dispose contaminated material as waste according to item 13.

6.4 Reference to other sections

See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Open and handle receptacle with care.
Any unavoidable deposit of dust must be regularly removed.
Ensure good ventilation/exhaustion at the workplace.

Information about fire and explosion protection

Protect from heat.
Prevent impact and friction.
Emergency cooling must be available in case of nearby fire.
Keep respiratory protective device available.
Dust can combine with air to form an explosive mixture.

7.2 Conditions for safe storage, including any incompatibilities

Storage

Requirements to be met by storerooms and receptacles

Avoid storage near extreme heat, ignition sources or open flame.
Provide ventilation for receptacles.
Store in a cool location.

Unsuitable material for receptacle: aluminum.

Unsuitable material for receptacle: steel.

Information about storage in one common storage facility

Store away from foodstuffs.
Store away from oxidizing agents.
Do not store together with acids.

Do not store together with alkalis (caustic solutions).

Store away from metals.

Further information about storage conditions

Store in cool, dry conditions in well-sealed receptacles.

Store receptacle in a well-ventilated area.

Storage Temperatures: <120 °F / <49 °C.

Keep container tightly sealed.

Protect from heat and direct sunlight.

7.3 Specific end use(s): No further relevant information available.

8. EXPOSURE CONTROLS - PERSONAL PROTECTION

Additional information about design of technical facilities: No further data; see item 7.

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace: Not required.

DNELs No further relevant information available.

PNECs No further relevant information available.

Additional information: The lists valid during the making were used as basis.

8.2 Exposure controls

Personal protective equipment

General protective and hygienic measures

The usual precautionary measures are to be adhered to when handling chemicals.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

Respiratory protection

Use suitable respiratory protective device in case of insufficient ventilation.

Use suitable respiratory protective device when aerosol or mist is formed.

For spills, respiratory protection may be advisable.

Protection of hands



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests, no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

For the permanent contact gloves made of the following materials are suitable

Butyl rubber, BR

Neoprene gloves
Eye protection



Safety glasses

Body protection: Protective work clothing

Limitation and supervision of exposure into the environment: No further relevant information available.

Risk management measures

See Section 7 for additional information.

No further relevant information available.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

General Information

Appearance Form: Solid. Color: Not determined.	Change in Condition Melting Point/Melting Range: 311-315 ° F / 155-157 °C. Boiling Point/Boiling Range: Undetermined.
Odor: Characteristic.	Octanol/Water Partition Coefficient: Not determined.
Odor threshold: Not determined.	pH 20 °C: 3.2 (0.2 M Solution.)
Vapor pressure: Not applicable.	Flash point: Not applicable.
Density at 20 °C: 1.67 g/cm ³	Flammability (solid, gaseous): Product is not flammable.
Relative density: Not determined.	Ignition temperature: Not determined.
Vapor density: Not applicable.	Decomposition temperature: Not determined.
Evaporation rate: Not applicable.	Self-igniting: Not determined.
Solubility in / Miscibility with water at 17 °C: 830 g/l (Slowly Decomposes)	Danger of explosion: Risk of explosion by shock, friction, fire or other sources of ignition.
Viscosity Dynamic: Not applicable. Kinematic: Not applicable.	Explosion limits Lower: Not determined. Upper: Not determined.

9.2 Other information No further relevant information available.

10. STABILITY AND REACTIVITY

10.1 Reactivity

10.2 Chemical stability

Thermal decomposition / conditions to be avoided: No decomposition if used and stored according to specifications.

10.3 Possibility of hazardous reactions

Temperatures above 212 °F / 100 °C may result in hazardous reactions.

Risk of dust explosion if enriched with fine dust in the presence of air.

Reacts with oxidizing agents.

Reacts with alkali (lyes).

Reacts with strong acids.

Toxic fumes may be released if heated above the decomposition point.

As the product is supplied it is not capable of dust explosion; however, enrichment with fine dust causes risk of dust explosion.

10.4 Conditions to avoid

Store away from oxidizing agents.
Keep away from heat and direct sunlight.

10.5 Incompatible materials: No further relevant information available.

10.6 Hazardous decomposition products

Nitrogen oxides
Hydrogen chloride (HCl)
Chlorine

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

LD/LC50 values relevant for classification

5470-11-1 hydroxylammonium chloride Oral LD50 408 mg/kg (mouse)

Primary irritant effect

on the skin: Irritant to skin and mucous membranes.
on the eye: Irritant effect.

Sensitization: Sensitization possible through skin contact.

Additional toxicological information

Toxic and/or corrosive effects may be delayed up to 24 hours.

Danger through skin adsorption.

Repeated dose toxicity

May cause damage to organs through prolonged or repeated exposure.

Repeated exposures may result in skin and/or respiratory sensitivity.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction): Carc. 2

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Aquatic toxicity: Toxic for aquatic organisms.

12.2 Persistence and degradability: No further relevant information available.

12.3 Bioaccumulative potential: No further relevant information available.

12.4 Mobility in soil: No further relevant information available.

Ecotoxicological effects

Remark

Very toxic for fish

After neutralization, a reduction of the harming action may be recognized

The product is oxygen-consuming. The declared action may be partly caused by lack of oxygen.

Additional ecological information

General notes

Avoid transfer into the environment.

Due to available data on eliminability/decomposition and bioaccumulation potential a prolonged damage of the environment is unlikely.

Water hazard class 3 (German Regulation) (Self-assessment): extremely hazardous for water

Do not allow product to reach ground water, water course or sewage system, even in small quantities.

Danger to drinking water if even extremely small quantities leak into the ground.

Also, poisonous for fish and plankton in water bodies.

Very toxic for aquatic organisms

12.5 Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

12.6 Other adverse effects: No further relevant information available.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

After prior treatment product has to be disposed of in an incinerator for hazardous waste adhering to the regulations pertaining to the disposal of particularly hazardous waste.

Uncleaned packaging

Recommendation: Disposal must be made according to official regulations.

14. TRANSPORTATION INFORMATION

14.1 UN-Number

DOT, ADR, IMDG, IATA UN2923

14.2 UN proper shipping name

DOT Corrosive solid, toxic, n.o.s. (hydroxylamine hydrochloride)
ADR 2923 CORROSIVE SOLID, N.O. S(hydroxylamine hydrochloride), ENVIRONMENTALLY HAZARDOUS
IMDG, IATA CORROSIVE SOLID, TOXIC, N.O.S. (hydroxylamine hydrochloride)

14.3 Transport hazard class(es)

DOT



Class 8 (6.1) Corrosive substances.
Label 8
ADR



Class 8 (C10) Corrosive substances.
Label 8

IMDG, IATA



Class 8 (6.1) Corrosive substances.
 Label 8

14.4 Packing group III
 DOT, ADR, IMDG, IATA

14.5 Environmental hazards
 Marine pollutant No
 Special marking (ADR) Symbol (fish and tree)

14.6 Special precautions for user Warning: Corrosive substances.
 Danger code (Kemler) 80
 EMS Number F-A,S-B

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.

Transport/Additional information:

ADR
 Limited quantities (LQ) 1 kg
 Transport category 2
 Tunnel restriction code E
 UN "Model Regulation" UN2923, CORROSIVE SOLID, N.O.S. ((hydroxylamine hydrochloride), ENVIRONMENTALLY HAZARDOUS, 8 (6.1), III

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
 United States (USA)

SARA Section 355 (extremely hazardous substances)	Substance is not listed.
SARA Section 313 (Specific toxic chemical listings)	Substance is not listed.
TSCA (Toxic Substances Control Act)	Substance is listed.
Proposition 65 (California)	
Chemicals known to cause cancer	Substance is not listed.
Chemicals known to cause reproductive toxicity for females	Substance is not listed.
Chemicals known to cause reproductive toxicity for males	Substance is not listed.
Chemicals known to cause developmental toxicity	Substance is not listed.
Carcinogenic Categories	
EPA (Environmental Protection Agency)	Substance is not listed.
IARC (International Agency for Research on Cancer)	Substance is not listed.
TLV (Threshold Limit Value established by ACGIH)	Substance is not listed.
NIOSH-Ca (National Institute for Occupational Safety and Health)	Substance is not listed.
OSHA-Ca (Occupational Safety & Health Administration)	Substance is not listed.
Canada	

Canadian Domestic Substances List (DSL)	Substance is listed.
Canadian Ingredient Disclosure list (limit 0.1%)	Substance is not listed.
Canadian Ingredient Disclosure list (limit 1%)	Substance is not listed.

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16. OTHER INFORMATION

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labeling of Chemicals

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

WHMIS: Workplace Hazardous Materials Information System (Canada)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent