



1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifiers

Product name : Ammonium chloride

CAS-No. : 12125-02-9

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

Identified uses : Laboratory chemicals, Manufacture of substances

1.3 Details of the supplier of the safety data sheet

Company : Cater Chemicals Corporation
30 Monaco Drive
Roselle, IL 60172

Telephone : +1 630-980-2300
Fax : +1 630-980-2323

1.4 Emergency telephone number

Emergency Phone # : CHEMTREK: (800)-424-9300

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Acute toxicity, Oral (Category 4), H302
Eye irritation (Category 2A), H319
Acute aquatic toxicity (Category 2), H401
Chronic aquatic toxicity (Category 2), H411

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

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal word

Warning

Hazard statement(s)

H302
H319
H411

Harmful if swallowed.
Causes serious eye irritation.
Toxic to aquatic life with long lasting effects.

Precautionary statement(s)

P264
P270
P273
P280
P301 + P312 + P330

Wash skin thoroughly after handling.
Do not eat, drink or smoke when using this product.
Avoid release to the environment.
Wear eye protection/ face protection.
IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth.

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.
 P391 Collect spillage.
 P501 Dispose of contents/ container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Synonyms : Salmiac
 Formula : H₄CIN
 Molecular weight : 53.49 g/mol
 CAS-No. : 12125-02-9
 EC-No. : 235-186-4
 Index-No. : 017-014-00-8

Hazardous components

| Component | Classification | Concentration |
|--------------------------|---|---------------|
| Ammonium chloride | | |
| | Acute Tox. 4; Eye Irrit. 2A; Aquatic Acute 2; Aquatic Chronic 2; H302, H319, H411 | <= 100 % |

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

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. Move out of dangerous area.

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

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

No data available

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

No data available

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. 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.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs.

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

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

Hygroscopic.

Storage class (TRGS 510): Non Combustible Solids

7.3 Specific end use(s)

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

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters

| Component | CAS-No. | Value | Control parameters | Basis |
|-------------------|------------|--|--------------------|---|
| Ammonium chloride | 12125-02-9 | TWA | 10.000000 mg/m3 | USA. ACGIH Threshold Limit Values (TLV) |
| | Remarks | Eye & Upper Respiratory Tract irritation | | |
| | | STEL | 20.000000 mg/m3 | USA. ACGIH Threshold Limit Values (TLV) |
| | | Eye & Upper Respiratory Tract irritation | | |
| | | TWA | 10.000000 mg/m3 | USA. NIOSH Recommended Exposure Limits |
| | | ST | 20.000000 mg/m3 | USA. NIOSH Recommended Exposure Limits |
| | | TWA | 10.000000 mg/m3 | USA. ACGIH Threshold Limit Values (TLV) |
| | | Upper Respiratory Tract irritation Eye irritation | | |
| | | STEL | 20.000000 mg/m3 | USA. ACGIH Threshold Limit Values (TLV) |
| | | Upper Respiratory Tract irritation Eye irritation | | |

| | | | | |
|--|--|-----|--------------------|---|
| | | TWA | 10.000000 mg/m3 | USA. NIOSH Recommended Exposure Limits |
| | | ST | 20.000000 mg/m3 | USA. NIOSH Recommended Exposure Limits |

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

Safety glasses with side-shields conforming to EN166 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.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

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

For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. 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.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

- | | |
|---------------------------------|--|
| a) Appearance | Form: Crystalline powder |
| b) Odour | No data available |
| c) Odour Threshold | No data available |
| d) pH | 4.5 - 5.5 at 50.00000 g/l at 20.0 °C (68.0 °F) |
| e) Melting point/freezing point | 340.0 °C (644.0 °F) |
| f) Initial boiling point and | No data available |

| | | |
|----|--|---|
| | boiling range | |
| g) | Flash point | Not applicable |
| 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 | 1.3 hPa (1.0 mmHg) at 160.4 °C (320.7 °F) |
| l) | Vapour density | No data available |
| m) | Relative density | No data available |
| n) | Water solubility | soluble |
| o) | Partition coefficient: n-octanol/water | No data available |
| p) | Auto-ignition temperature | No data available |
| q) | Decomposition temperature | No data available |
| r) | Viscosity | No data available |
| s) | Explosive properties | No data available |
| t) | Oxidizing properties | No data available |

9.2 Other safety information

| | |
|--------------|-----------------------|
| Bulk density | 500 kg/m ³ |
|--------------|-----------------------|

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

Exposure to moisture may affect product quality.

10.5 Incompatible materials

Strong acids, Strong bases, Strong oxidizing agents

10.6 Hazardous decomposition products

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

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - 1,650 mg/kg

Inhalation: No data available

Dermal: No data available

No data available

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Toxic to aquatic life with long lasting effects.

No data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)

UN number: 3077 Class: 9 Packing group: III
Proper shipping name: Environmentally hazardous substances, solid, n.o.s. (Ammonium chloride)
Reportable Quantity (RQ): 5000 lbs

Poison Inhalation Hazard: No

IMDG

Not dangerous goods

IATA

Not dangerous goods

15. REGULATORY INFORMATION

SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Acute Health Hazard

Massachusetts Right To Know Components

| | CAS-No. | Revision Date |
|-------------------|------------|---------------|
| Ammonium chloride | 12125-02-9 | 1994-04-01 |

Pennsylvania Right To Know Components

| | CAS-No. | Revision Date |
|-------------------|------------|---------------|
| Ammonium chloride | 12125-02-9 | 1994-04-01 |

New Jersey Right To Know Components

| | CAS-No. | Revision Date |
|-------------------|------------|---------------|
| Ammonium chloride | 12125-02-9 | 1994-04-01 |

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3.

| | |
|-----------------|--------------------------------|
| Acute Tox. | Acute toxicity |
| Aquatic Acute | Acute aquatic toxicity |
| Aquatic Chronic | Chronic aquatic toxicity |
| Eye Irrit. | Eye irritation |
| H302 | Harmful if swallowed. |
| H319 | Causes serious eye irritation. |
| H401 | Toxic to aquatic life. |

HMIS Rating

| | |
|------------------------|---|
| Health hazard: | 2 |
| Chronic Health Hazard: | |
| Flammability: | 0 |
| Physical Hazard | 0 |

NFPA Rating

| | |
|--------------------|---|
| Health hazard: | 2 |
| Fire Hazard: | 0 |
| Reactivity Hazard: | 0 |

Disclaimer:

Cater Chemicals Corp.provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.