
Safety Data Sheet

Product Name	<u>Ammonium chloride</u>
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Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identification:**Product Description:** Ammonium chloride**Synonyms:** Ammonium Chloratum; Ammonium Chloridum; Ammonium Muriate**CAS-No:** 12125-02-9**EC-No.:** 235-186-4**Molecular Formula:** NH₄Cl**REACH Registration No:** A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the Registration is envisaged for a later registration deadline.**1.2. Relevant identified uses of the substance or mixture and uses advised against:****Recommended Use:** Laboratory chemicals, Manufacture of substances**1.3 Details of the supplier of the safety data sheet:**

- Company** **Finar Limited**
184-186/P, Chacharwadi Vasna,
Sarkhej-Bavla Highway,
Ta.: Sanand, Dist.: Ahmedabad,
Email: info@finarchemicals.com
Web: www.finarchemicals.com
- E-Mail Address** safety.finar@aceto.com; info.finar@aceto.com

1.4 Emergency Telephone Number:

- For Emergency contact on: +91 - 2717 - 616 717

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SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture:

Classification Regulation (EC) No 1272/2008

Acute toxicity, Oral (Category 4), H302

Eye irritation (Category 2), H319

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

2.2. Label Elements:

Labeling according Regulation (EC) No 1272/2008

Pictogram



Signal word Warning

Hazard statement(s)

H302 Harmful if swallowed.

H319 Causes serious eye irritation.

Precautionary statement(s)

P264 Wash skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P280 Wear eye protection/ face protection.

P301 + P312 IF SWALLOWED: 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.

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

Supplemental Hazard Statements:

None

Reduced Labeling (<= 125 ml)

Pictogram



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Signal word Warning

Hazard statement(s)

None

Precautionary statement(s)

None

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: Ammonium chloride

3.2. Mixtures:

Component	CAS-No	EC-No.	Weight %
Ammonium chloride	12125-02-9	235-186-4	>95 %

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures:

- **General advice**

Immediate medical attention is required. 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.

- **If Contact with skin**

Take off immediately all contaminated clothing. Rinse skin with water/ shower.

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- **In case of eye contact**

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

- **If swallowed**

Immediately make victim drink water (two glasses at most). 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 information available

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media:

Suitable Extinguishing Media- Use extinguishing measures that are appropriate to local Circumstances and the surrounding environment.

Unsuitable extinguishing media- For this substance/mixture no limitations of extinguishing agents are given.

5.2. Special hazards arising from the substance or mixture:

Nitrogen oxides (NO_x)

Hydrogen chloride gas

Not combustible.

Ambient fire may liberate hazardous vapours.

5.3. Advice for firefighters:

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further Information:

Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

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SECTION 6: ACCIDENTAL RELEASE MEASURES**6.1. Personal precautions, protective equipment and emergency procedures:**

Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact.

Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

6.2. Environmental precautions:

Do not let product enter drains. See Section 12 for additional Ecological Information.

6.3. Methods and material for containment and cleaning up:

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dust.

6.4. Reference to other sections:

For disposal see section 13.

SECTION 7: HANDLING AND STORAGE**7.1. Precautions for safe handling:**

Wear personal protective equipment/face protection. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation. Avoid dust formation.

7.2. Conditions for safe storage, including any incompatibilities:

Keep containers tightly closed in a dry and well-ventilated place. Incompatible Materials. Strong oxidizing agents.

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.

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Ensure that eyewash stations and safety showers are close to the workstation location.

Ensure adequate ventilation, especially in confined areas.

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 OSHA, NIOSH (US) or EN 166(EU)

Hand Protection -

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under Conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g., KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm

Break through time: 480 min

Material tested: KCL 741 Dermatril® L

This recommendation applies only to the product stated in the safety data sheet supplied by us and for the designated use. When dissolving in or mixing with other substances and under Conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g., KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm

Break through time: 480 min

Material tested:KCL 741 Dermatril® L

- Other Protective equipment-

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-

Required when dust is generated.

Our recommendations on filtering respiratory protection are based on the following standards:

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DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Recommended Filter type: Filter type P2

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

Environmental Exposure Controls-

Do not let product enter drains.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**9.1. Information on basic physical and chemical properties:**

- **Appearance:** White
- **Physical State:** Solid
- **Odor:** Odorless
- **Odor Threshold:** Not applicable
- **pH:** 5.0 at 25 °C
- **Melting Point:** 340 °C
- **Critical Temperature:** No data available
- **Vapor Pressure:** 1.3 hPa at 160,4 °C
- **Autoignition Temperature:** > 400 °C - Relative self-ignition temperature for solids does not ignite
- **Volatility:** No data available
- **Bulk Density:** ca.600 - 900 kg/m³
- **Viscosity, dynamic:** No data available
- **Water/Oil Dist. Co eff.:** Not applicable for inorganic substances
- **Ionicity (in Water):** No data available
- **Lower Explosion Limit:** No data available
- **Upper Explosion Limit:** No data available
- **Boiling Point/Range:** Not available
- **Flash Point:** Not applicable
- **Specific Gravity:** No data available

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- **Water Solubility:** Soluble in water (372 g/l at 20 °C)

9.2. Other information:

- **Molecular Formula:** NH₄Cl
- **Molecular Weight:** 53.49 g/mol

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity:

See section 10.3

10.2. Chemical stability:

The product is chemically stable under standard ambient conditions.

10.3. Possibility of hazardous reactions:

Violent reactions possible with: alkali hydroxides, acids

Risk of ignition or formation of inflammable gases or vapours with:
halogen-halogen compounds, alkalines, alkaline substances

Risk of explosion with: nitrates, chlorates, Heavy metal salts, nitrites, Hydrogen cyanide
(hydrocyanic acid), Chlorine, silver salt, Strong oxidizing agents

10.4. Conditions to avoid:

Exposure to moisture may affect product quality.

No information available

10.5. Incompatible materials:

Aluminum, Lead, Iron, Copper, copper compounds

10.6. Hazardous decomposition products:

In the event of fire: see section 5

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:

Acute Oral toxicity:

LD50 Oral - Rat - male and female - 1.410 mg/kg

(OECD Test Guideline 401)

Symptoms: Irritations of mucous membranes in the mouth, pharynx, esophagus and

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gastrointestinal tract.

Symptoms: Possible damages: mucosal irritations

LD50 Dermal – Rat - male and female - > 2.000 mg/kg

Remarks: (ECHA)

Skin corrosion/irritation:

Skin - Rabbit

Result: No skin irritation - 24 h

(Draize Test)

Serious eye damage/eye irritation:

Eyes - Rabbit

Result: Eye irritation

Remarks: (ECHA)

Respiratory or skin sensitization:

Maximization Test - Guinea pig

Result: negative

(OECD Test Guideline 406)

Germ cell mutagenicity:

Test Type: Ames test

Test system: Escherichia coli/Salmonella typhimurium

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 471

Result: negative

Test Type: Mutagenicity (mammal cell test): chromosome aberration.

Test system: Chinese hamster lung cells

Metabolic activation: without metabolic activation

Method: OECD Test Guideline 473

Result: Positive

Test Type: Micronucleus test

Species: Mouse

Cell type: Bone marrow

Application Route: Intraperitoneal injection

Method: OECD Test Guideline 474

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Result: negative

Carcinogenicity:

No data available

Reproductive toxicity:

No data available

Teratogenicity:

No data available

Specific target organ toxicity - single exposure:

No data available.

Specific target organ toxicity - repeated exposure:

No data available

Aspiration hazard:

No data available

11.2 Further Information:

Repeated dose toxicity - Rat - male and female - Oral - 90 d - NOAEL (No observed adverse effect level) - 1.695,7 mg/kg Remarks: Subchronic toxicity

RTECS: BP4550000

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

The following applies to ammonium salts in general: after swallowing: local irritation symptoms, nausea, vomiting, diarrhea. Systemic effect: after the uptake of very large quantities: drop in blood pressure, collapse, CNS disorders, spasms, narcotic conditions, respiratory paralysis, hemolysis.

Other dangerous properties can not be excluded.

Handle in accordance with good industrial hygiene and safety practice.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity:

Toxicity to fish Semi-static test LC50 - *Cyprinus carpio* (Carp) - 209,00 mg/l - 96 h
 Remarks: (ECHA)

Toxicity to daphnia Static test EC50 - *Daphnia magna* (Water flea) - 101 mg/l - 48 h

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and other aquatic Invertebrates	Remarks: (ECHA)
Toxicity to algae	Static test ErC50-Chlorella vulgaris (Fresh water algae) - 1.300 Mg/l 5d Remarks: (ECHA)
Toxicity to bacteria	Static test EC50 - activated sludge - 1.310 mg/l - 0,5 h (OECD Test Guideline 209)

12.2 Persistence and degradability:

The methods for determining the biological degradability are not applicable to inorganic substances.

12.3 Bioaccumulate 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:

No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods:

Product

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

Contaminated packaging

Dispose of as unused product.

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SECTION 14: Transport information

	Land transport (ADR/RID)	Air transport (IATA)	Sea transport (IMDG)
14.1 UN number	Not dangerous goods		
14.2 Proper shipping name	Not dangerous goods		
14.3 Class	Not dangerous goods		
14.4 Packing group	Not dangerous goods		
14.5 Environmentally hazardous	No		
14.6 Special precautions for user	No data available		
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not Relevant		

SECTION 15: Regulatory information

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

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

National legislation

Seveso III: Directive 2012/18/EU of the European: Not applicable

Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out.

SECTION 16: Other information

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

H302	Harmful if swallowed.
H319	Causes serious eye irritation.

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Training advice:

Provide adequate information, instruction and training for operators.

References: Not available

Created: 03/03/2022

Disclaimer:

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