

Ammonium Chloride P.A. Material Safety Data Sheet

Name:	Ammonium Chloride P.A. Material Safety Data Sheet
Synonym:	Ammonium Chloratum; Ammonium Chloridum; Ammonium Muriate; Sal Ammonia; Salmiac
	12125-02-9

Section 1 - Chemical Product

MSDS Name: Ammonium Chloride P.A.

Synonym: Ammonium Chloratum; Ammonium Chloridum; Ammonium Muriate; Sal Ammonia; Salmiac.

Section 2 - COMPOSITION, INFORMATION ON INGREDIENTS

CAS#	Chemical Name	content	EINECS#
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Section 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Harmful if swallowed. Irritating to eyes.

Potential Health Effects

Eye:

Causes eye irritation.

Skin:

May cause skin irritation.

Ingestion:

May cause irritation of the digestive tract. May cause systemic toxicity with acidosis. May be harmful if swallowed.

Inhalation:



If heated, dust or fume may cause respiratory tract irritation.

Chronic:

Prolonged or repeated skin contact may cause dermatitis.

🔦 Section 4 - FIRST AID MEASURES

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

Skin:

Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists. Wash clothing before reuse.

Ingestion:

Call a poison control center. If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical aid.

Inhalation:

Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Get medical aid.

Notes to Physician:



🔦 Section 5 - FIRE FIGHTING MEASURES

General Information:

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use water spray to keep fire-exposed containers cool. Substance is noncombustible. Containers may explode in the heat of a fire. May polymerize explosively when involved in a fire.

Extinguishing Media:

For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam. Substance is noncombustible; use agent most appropriate to extinguish surrounding fire. For large fires, use water spray, fog or alcohol-resistant foam. Cool containers with flooding quantities of water until well after fire is out.

🔦 Section 6 - ACCIDENTAL RELEASE MEASURES

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating

dusty conditions.
Provide ventilation.

🔸 **Section 7 - HANDLING and STORAGE**

Handling:

Wash thoroughly after handling. Use with adequate ventilation.
Minimize dust generation and accumulation. Do not get in eyes, on skin, or on clothing.
Keep container tightly closed. Avoid ingestion and inhalation.

Storage:

Store in a cool, dry, well-ventilated area away from incompatible substances. Store below 40°C.

🔸 **Section 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION**

Engineering Controls:

Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Personal Protective Equipment Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin:

Wear impervious gloves.

Clothing:

Wear appropriate protective clothing to prevent skin exposure.

Respirators:

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

🔸 **Section 9 - PHYSICAL AND CHEMICAL PROPERTIES**

Physical State: Solid

Color: colorless or white

Odor: odorless

pH: 5.0 (10% sol at 25C)

Vapor Pressure: 1 mm Hg @ 160.4C

Viscosity: Not available.

Boiling Point: 520 deg C(sublimes)

Freezing/Melting Point: 328 deg C

Autoignition Temperature: Not available.



Flash Point: Not available.
Explosion Limits, lower: Not available.
Explosion Limits, upper: Not available.
Decomposition Temperature: Not available.
Solubility in water: 39.6% at 176F.
Specific Gravity/Density: 1.53 (Water=1)
Molecular Formula: NH₄Cl
Molecular Weight: 53.4877



🔍 **Section 10 - STABILITY AND REACTIVITY**

Chemical Stability:

Stable at room temperature in closed containers under normal storage and handling conditions.

Conditions to Avoid:

Incompatible materials, excess heat.

Incompatibilities with Other Materials:

Boron trifluoride, iodine heptafluoride, potassium chlorates, acids, alkalies, silver salts, lead salts.

Hazardous Decomposition Products:

Irritating and toxic fumes and gases, ammonia and hydrochloric acid fumes.

Hazardous Polymerization: May occur.

🔍 **Section 11 - TOXICOLOGICAL INFORMATION**

RTECS#:

CAS# 12125-02-9: BP4550000 LD50/LC50:

CAS# 12125-02-9: Draize test, rabbit, eye: 500 mg/24H Mild; Draize test, rabbit, eye: 100 mg Severe; Oral, mouse: LD50 = 1300 mg/kg; Oral, rat: LD50 = 1650 mg/kg.

Carcinogenicity:

Ammonium chloride - Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

Other:

See actual entry in RTECS for complete information.

🔍 **Section 12 - ECOLOGICAL INFORMATION**

Ecotoxicity:

Fish: LC50 = 109.0 mg/L; 48 Hr.; Static conditions Sunfish (fresh water) TLM=6 ppm/96H

🔍 **Section 13 - DISPOSAL CONSIDERATIONS**

Dispose of in a manner consistent with federal, state, and local regulations.

🌀 Section 14 - TRANSPORT INFORMATION

IATA

Not regulated as a hazardous material.

IMO

Not regulated as a hazardous material.

RID/ADR

Not regulated as a hazardous material.



🌀 Section 15 - REGULATORY INFORMATION

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: XN

Risk Phrases:

R 22 Harmful if swallowed.

R 36 Irritating to eyes.

Safety Phrases:

S 22 Do not breathe dust.

WGK (Water Danger/Protection)

CAS# 12125-02-9: 1

United Kingdom Occupational Exposure Limits

United Kingdom Maximum Exposure Limits

Canada

None of the chemicals in this product are listed on the DSL/NDSL list.

CAS# 12125-02-9 is not listed on Canada's Ingredient Disclosure List.

Exposure Limits

CAS# 12125-02-9: OEL-ARAB Republic of Egypt:TWA 10 mg/m³ (fume)

OEL-AUSTRALIA:TWA 10 mg/m³;STEL 20 mg/m³ (fume)

OEL-BELGIUM:TWA 10 mg/m³;STEL 20 mg/m³ (fume)

OEL-DENMARK:TWA 10 mg/m³ (fume)

OEL-FRANCE:TWA 10 mg/m³ (fume)

OEL-THE NETHERLANDS:TWA 10 mg/m³ (fume)

OEL-RUSSIA:STEL 10 mg/m³ (fume)

OEL-SWITZERLAND:TWA 6 mg/m³ (fume)

OEL-UNITED KINGDOM:TWA 10 mg/m³;STEL 20 mg/m³ (fume)

OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA check ACGIH TLV

**OEL IN NEW ZEALAND, SINGAPORE, VIETNAM check ACGI TLV
US FEDERAL
TSCA**

**CAS# 12125-02-9 is not listed on the TSCA inventory.
It is for research and development use only.**

Section 16. Other Information

Last Updated: 8/11/2014

NFPA Ratings: Health: 2 Flammability: 0 Reactivity: 0

Label Precautions:

Avoid contact with eyes, skin and clothing.

Avoid breathing dust.

Wash thoroughly after handling.

Keep container closed.

Use only with adequate ventilation.

Label First Aid:

In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. If swallowed, induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. In all cases, get medical attention.

Product Use:

Laboratory Reagent.

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