



Section 1 - Chemical Product and Company Identification

MSDS Name: Ammonium chloride

Catalog Numbers: AC123340000, AC123340010, AC123340250, AC199970000, AC199970010, AC199975000 AC199975000, AC423280000, AC423280010, AC9470862, S70609, S706091, S706092, S706093, S93118, A649-3, A649-500, A64910KG, A661-10, A661-3, A661-500, A687-10, A687-100, A687-212, A687-500, NC9483471, NC9483488, NC9528216, NC9570959, XXA649EP10KG

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

Company Identification:

Fisher Scientific
One Reagent Lane
Fair Lawn, NJ 07410

For information in the US, call:

201-796-7100
201-796-7100

Emergency Number US:

800-424-9300

Section 2 - Composition, Information on Ingredients

CAS#: 12125-02-9

Chemical Name: Ammonium chloride

%: >99

EINECS#: 235-186-4

Hazard Symbols: XN



Risk Phrases: 22 36

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Warning! Causes eye irritation. Hygroscopic (absorbs moisture from the air). May be harmful if swallowed. May cause skin and respiratory tract irritation. Target Organs: Eyes.

Potential Health Effects

Eye: Causes eye irritation.

Skin: May cause skin irritation. May be harmful if absorbed through the skin.

Ingestion: May cause irritation of the digestive tract. May cause systemic toxicity with acidosis.
Inhalation: If heated, dust or fume may cause respiratory tract irritation. May be harmful if inhaled.
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 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 and move 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: Substance is noncombustible; use agent most appropriate to extinguish surrounding fire.
Autoignition Temperature: Not available.
Flash Point: Not available
Explosion Limits: Lower: Not available
Explosion Limits: Upper: Not available
NFPA Rating: health: 2; flammability: 0; instability: 0;

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 protected from moisture. Store below 40°C.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Exposure Limits

Personal Protective Equipment

Eyes: Wear chemical splash goggles.

Skin: Wear appropriate gloves to prevent skin exposure.

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. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State: Crystalline powder

Color: colorless or white

Odor: odorless

pH: 5.0 (10% sol at 25C)

Vapor Pressure: 1 mm Hg @ 160.4C

Vapor Density: Not available

Evaporation Rate: Negligible.

Viscosity: Not available

Boiling Point: 520 deg C (968.00°F)

Freezing/Melting Point: 328 deg C (622.40°F)

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. Hygroscopic: absorbs moisture or water from the air. Hygroscopic: absorbs moisture or water from the air.

Conditions to Avoid: Excess heat, exposure to moist air or water.

Incompatibilities with Other Materials Acids, bases, bromine trifluoride, nitrates, potassium chlorates, silver salts, carbonates, bromine pentafluoride, lead salts.

Hazardous Decomposition Products Ammonia and hydrochloric acid fumes.

Hazardous Polymerization May occur.

Section 11 - Toxicological Information

RTECS#: CAS# 12125-02-9: BP4550000 BP4570000

LD50/LC50: RTECS:

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 as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

Other: See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Not available

Section 13 - Disposal Considerations

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

Section 14 - Transport Information

US DOT

Shipping Name: Not Regulated

Hazard Class:

UN Number:

Packing Group:

Canada TDG

Shipping Name: Not regulated as a hazardous material

Hazard Class:

UN Number:

Packing Group:

USA RQ: CAS# 12125-02-9: 5000 lb final RQ; 2270 kg final RQ

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

Canada

CAS# 12125-02-9 is listed on Canada's DSL List

Canadian WHMIS Classifications: D2B

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

CAS# 12125-02-9 is listed on Canada's Ingredient Disclosure List

US Federal

TSCA

CAS# 12125-02-9 is listed on the TSCA Inventory.

Section 16 - Other Information

MSDS Creation Date: 6/15/1999

Revision #7 Date: 3/08/2007

Revisions were made in Sections: 8, 14

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.