



Safety Data Sheet
According to the (US) Hazard Communication Standard (29 CFR 1910.1200)

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name Ammonium Chloride, ACS
NCL Catalog Number A-17
Product Description Laboratory chemical
Manufacturer EMD Chemicals Inc. PO Box 70, 480 Democrat Road
Gibbstown, NJ 08027
Supplier NCL of Wisconsin, Inc. PO Box 8, Birnamwood, WI 54414
Telephone: 1-800-648-7836 Fax: 715-449-2454
Email: nclabs@nclabs.com Emergency Contact: 1-800-424-9300 (Chemtrec)

SECTION 2: HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

GHS Classification

Acute Toxicity Oral Category 4
Eye Irritation Category 2A



Signal Word

Warning

Hazard Statements

H302 Harmful if swallowed.
H319 Causes serious eye irritation.

Precautionary Statements

P264 Wash exposed 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 or doctor if you feel unwell.
P330 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.
P501 Dispose of contents/container to comply with local, state and federal regulations.

Other Hazards Not Contributing to the Classification

No additional information.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Formula NH₄Cl

Substance

Name	CAS #	Approximate %
Ammonium Chloride	12125-02-9	100

SECTION 4: FIRST AID MEASURES

Description of First Aid Measures

General First Aid Measures	Never give anything by mouth to an unconscious person. Seek medical advice if you feel unwell.
If Inhaled	Remove person to fresh air and keep comfortable for breathing. Seek medical attention if you feel unwell.
In Case of Skin Contact	Remove all contaminated clothing. Rinse skin with water/shower. Seek medical attention if you feel unwell.
In Case of Eye Contact	Rinse carefully with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation persists.
If Swallowed	Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor.

Most Important Symptoms/Effects Acute and Delayed

Symptoms/Injuries After Inhalation	Coughing. Irritation of the respiratory tract. Irritation of the nasal mucous membranes. Respiratory difficulties.
Symptoms/Injuries After Skin Contact	Redness of the skin.
Symptoms/Injuries After Eye Contact	Redness of the eye tissue. Irritation of the eye tissue.
Symptoms/Injuries After Ingestion	After absorption of high quantities: Change in the haemogramme/blood composition. Headache. Nausea. Vomiting. Mental confusion.
Chronic Symptoms	Skin rash/inflammation. Redness of the skin. Dry skin. Itching. Respiratory difficulties.

Indication of Immediate Medical Attention and Special Treatment Needed

Seek medical attention if exposed.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media	Alcohol resistant foam. Dry powder. Water spray. Carbon dioxide.
Unsuitable Extinguishing Media	None known.

Special Hazards Arising from the Chemical

Reacts violently with strong oxidizers, some halogen compounds, acids to release toxic/corrosive gases (hydrogen chloride), and bases to release corrosive gases (ammonia).

Special Protective Actions for Fire-Fighters

Wear self-contained breathing apparatus and protective clothing. Keep containers cool with water spray.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Personal Precautions	Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. See section 8 for personal protection.
Environmental Precautions	Prevent entry to sewers and public waters.
Methods and Materials for Containment and Cleaning Up	Collect spillage with inert absorbent material. Store away from other materials. Wash clothing/equipment after handling. Ensure compliance with local, state and federal regulations.

SECTION 7: HANDLING AND STORAGE

Handling and Storage

Precautions for Safe Handling	Avoid contact with eyes and skin. Avoid breathing dust. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of dust.
Conditions for Safe Storage Including any Incompatibilities	Keep in a tightly closed container, stored in a cool, dry, ventilated area.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Ammonium Chloride (12125-02-9)		
USA ACGIH	ACGIH TWA (mg/m ³)	10 mg/m ³
USA ACGIH	ACGIH STEL (mg/m ³)	20 mg/m ³

Appropriate Engineering Controls

Material should be handled or transferred in a fume hood or with equivalent ventilation. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Individual Protection Measures

Avoid all unnecessary exposure.

Skin Protection

Resistant gloves and additional protection including impervious boots, apron, or coveralls, as needed in areas of unusual exposure to prevent skin contact.

Eye Protection

Use chemical safety goggles and/or a full face shield where splashing is possible. Contact lenses should not be worn when working with this material. Maintain eye-wash fountain and quick-drench facilities in work area.

Respiratory Protection

Wear appropriate mask.

Other Information

Do not eat, drink or smoke during use.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Solid, crystalline
Color	White
Molecular Mass	53.5 g/mol
Odor	Odorless
Odor Threshold	Not determined
pH	Not determined
Melting Point/Freezing Point	Sublimation temperature: 337.55°C (639.6°F)
Initial Boiling Point and Boiling Range	Not determined
Flash Point	Not determined
Evaporation Rate	Not determined
Flammability (Solid, Gas)	Not determined
Upper/Lower Flammability/Explosive Limits	Not determined
Vapor Pressure	Not determined
Vapor Density	1.80 at 20°C
Relative Density	1.53
Solubility	Soluble in water
Partition Coefficient: n-octanol/water	Not determined
Auto-Ignition Temperature	Not determined
Decomposition Temperature	Not determined
Viscosity	Not determined

SECTION 10: STABILITY AND REACTIVITY

Reactivity	Reacts with incompatible materials to release toxic and corrosive gases/vapors.
Chemical Stability	Stable under ordinary conditions of use and storage.
Possibility of Hazardous Reactions	Contact with acids releases toxic gas.
Conditions to Avoid	Extremely high temperatures.
Incompatible Materials	Reaction with hydrogen cyanide can produce explosive nitrogen trichloride. Explosive reaction occurs with potassium chlorate or bromine trifluoride. Violent reaction occurs with bromine pentafluoride, NO ₃ , and IF ₇
Hazardous Decomposition Products	When heated to decomposition, can emit toxic gases.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute Toxicity	Harmful if swallowed.
Ammonium Chloride (12125-02-9)	
LD50 oral rat	1650 mg/kg
Skin Corrosion/Irritation	No data available.
Serious Eye Damage/Irritation	Causes serious eye irritation.
Respiratory or Skin Sensitization	No data available.
Germ Cell Mutagenicity	No data available.
Carcinogenicity	Not classified.
Reproductive Toxicity	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.
Symptoms/Injuries After Inhalation	Coughing. Irritation of the respiratory tract. Irritation of the nasal mucous membranes. Respiratory difficulties after inhalation of fumes.
Symptoms/Injuries After Skin Contact	Redness of the skin.
Symptoms/Injuries After Eye Contact	Redness of the eye tissue. Irritation of the eye tissue.
Symptoms/Injuries After Ingestion	Change in the haemogramme/blood composition. Headache. Nausea. Vomiting. Mental confusion.
Potential Adverse Human Health Effects and Symptoms	No data available
Other Information	Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin. Coughing, shortness of breath, headache, and nausea may occur.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity	Not applicable
Persistence and Degradability	Not applicable
Bioaccumulative Potential	Not applicable
Mobility in Soil	Not applicable
Other Adverse Effects	Not applicable

SECTION 13: DISPOSAL CONSIDERATIONS

Methods of Disposal

Disposal Recommendations	Dispose of contents/containers in accordance with local, state and federal regulations.
Ecology-Waste Materials	Avoid release to the surrounding environment.

SECTION 14: TRANSPORT INFORMATION

UN Number	Not applicable
UN Shipping Name	Not applicable
Transport Hazard Class(es)	Not applicable
Packing Group	Not applicable
Environmental Hazards	Not applicable
Transport in Bulk	Not applicable
Special Precautions	Not applicable

SECTION 15: REGULATORY INFORMATION

Ammonium Chloride (12125-02-9)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Reportable Quantity	5000 lb

SECTION 16: OTHER INFORMATION

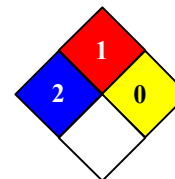
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NFPA Hazards

Health Hazard 2: Intense or prolonged exposure may cause incapacitation; residual injury may occur if not treated.

Fire Hazard 1: Must be preheated for ignition; flashpoint above 200°F (93°C).

Reactivity/Instability 0: Stable.



HMIS III Rating

Health 2: Temporary or minor injury may occur.

Flammability 1: Materials that must be preheated before ignition will occur.

Physical Hazard 0: Materials that are normally stable, even under fire conditions, and will not react with water.

Personal Protection B

A-17	
Health	2
Flammability	1
Physical Hazard	0
Personal Protection	B

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END OF SAFETY DATA SHEET