Safety Data Sheet

Issue Date: 09-Feb-2012 **Revision Date:** 04-Sep-2014 **Version** 1

1. IDENTIFICATION

Product Identifier
Product Name Ammonium Chloride

Other means of identification
SDS # EE-001
Product Code 212
UN/ID No UN3077

Recommended use of the chemical and restrictions on use
Recommended Use Plant Nutrients.

Details of the supplier of the safety data sheet
Supplier Address
Great Plains Fertilizer, LLC
25055 W. Valley Parkway
Suite 106
Olathe, Kansas 66061

Emergency Telephone Number
Company Phone Number (913) 764-7766
Emergency Telephone (24 hr) INFOTRAC 1-352-323-3500 (International)
1-800-535-5053 (North America)

2. HAZARDS IDENTIFICATION

Appearance White crystalline solid **Physical State** Solid (Crystalline) **Odor** Odorless

Classification

Acute toxicity - Oral	Category 4
Serious eye damage/eye irritation	Category 2

Signal Word
Warning

Hazard Statements
Harmful if swallowed
Causes serious eye irritation

Precautionary Statements - Prevention
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Wear eye/face protection

Precautionary Statements - Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Seek immediate medical attention/advice
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
Rinse mouth

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
Ammonium chloride	12125-02-9	97-99

If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST-AID MEASURES

First Aid Measures

Eye Contact IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek immediate medical attention/advice.

Skin Contact Remove contaminated clothing and shoes. Wash thoroughly with soap and water (15-30 minutes) until no traces of the chemical remain. Get medical attention.

Inhalation Remove to fresh air. If breathing has stopped, give artificial respiration. Keep patient warm and at rest. Get medical attention immediately.

Ingestion IF SWALLOWED: call a poison control center or physician immediately. Rinse mouth. If the victim is conscious, immediately give 2 to 4 glasses of water.

Most important symptoms and effects

Symptoms Causes serious eye irritation. Acute skin exposure may cause redness and irritation. Chronic skin exposure may cause irritation. Ingestion may produce nausea, vomiting, and gastric irritation. Large doses (more than six grams) may also cause systemic ammonia toxicity. Symptoms may include heavy breathing, blue skin, dullness, restlessness, convulsions, and coma. Inhalation of some ammonium salts may cause irritation of the mouth, nose, and throat. Severe exposure may cause wheezing, chest pain, and delayed pulmonary edema. Chronic, repeated exposure may cause irritation.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Dry chemical. Carbon dioxide (CO2). Water spray (fog). Foam. For large fires, use water spray/fog or alcohol foam.

Unsuitable Extinguishing Media Not determined.

Specific Hazards Arising from the Chemical

Negligible fire hazard.

Hazardous Combustion Products If solids are overheated (above 500-550°F), HCl and NH_3 may be evolved.

Protective equipment and precautions for firefighters

Move containers from fire area if possible. Do not scatter spilled material with more water than needed for fire control. Dike fire control water for later disposal. Positive pressure self-contained breathing apparatus (SCBA) should be used when there is a potential for inhalation of vapors and/or fumes. Extinguish with agents indicated. Avoid breathing hazardous vapors. Keep upwind.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions Use personal protective equipment as required.

Environmental Precautions Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information. See Section 13: DISPOSAL CONSIDERATIONS.

Methods and material for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for Clean-Up For small spills, absorb with sand, clay, or other inert absorbent. Place in appropriate containers for disposal. For soil spills, sweep or shovel material into containment and reuse in process if possible. Wash contaminated area with water, if approved by local, state, and federal environmental agencies. For water spills, add suitable agent to neutralize spilled material to pH of 7. Use activated carbon to absorb spilled substance that is dissolved. Use mechanical dredges or lifts to extract immobilized masses of pollution and precipitates.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on Safe Handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Use personal protection recommended in Section 8. Wash face, hands, and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed and store in a cool, dry and well-ventilated place.

Incompatible Materials Acids (ammonia is released), alkalis (hydrogen chloride is released), and their associated carbons. Ammonium chloride reacts with lead and silver salts to form a fulminating compound. Ammonium chloride reacts with ammonium compounds, bromine pentaflouride, bromine triflouride, hydrogen cyanide, iodine heptaflouride, nitrates (potentially explosive combinations may be formed), and potassium chlorate. Ammonium perchlorate in combination with potassium chlorate.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Ammonium chloride 12125-02-9	STEL: 20 mg/m^3 fume TWA: 10 mg/m^3 fume	(vacated) TWA: 10 mg/m^3 fume (vacated) STEL: 20 mg/m^3 fume	TWA: 10 mg/m^3 fume STEL: 20 mg/m^3 fume

Appropriate engineering controls

Engineering Controls Ensure adequate ventilation, especially in confined areas. Eyewash stations. Showers.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Splash proof chemical safety goggles. Face shield.

Skin and Body Protection Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Respiratory Protection Supplied-air respirator or dust/mist respirator to meet published exposure limits.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State	Solid (Crystalline)		
Appearance	White crystalline solid	**Odor**	Odorless
Color	White	**Odor Threshold**	Not determined

Property	**Values**	**Remarks • Method**
pH	4.0 - 7.0	
Melting Point/Freezing Point	340 °C / 644 °F	
Boiling Point/Boiling Range	Not determined	
Flash Point	None	
Evaporation Rate	Not determined	
Flammability (Solid, Gas)	Not determined	
Upper Flammability Limits	Not determined	
Lower Flammability Limit	Not determined	
Vapor Pressure	Not Applicable	
Vapor Density	Not Applicable	
Specific Gravity	0.7368 @ 68°F (20°C)	
Water Solubility	26% @ 15°C	
Solubility in other solvents	Not determined	
Partition Coefficient	Not determined	
Auto-ignition Temperature	Not determined	
Decomposition Temperature	Not determined	
Kinematic Viscosity	Not determined	
Dynamic Viscosity	Not determined	
Explosive Properties	Not determined	
Oxidizing Properties	Not determined	

10. STABILITY AND REACTIVITY

Reactivity
Not reactive under normal conditions.

Chemical Stability
Stable under recommended storage conditions.

Possibility of Hazardous Reactions
None under normal processing.

Hazardous Polymerization Hazardous polymerization does not occur.

Conditions to Avoid
Avoid heating above melting point where sublimation occurs. Keep separated from incompatible substances. Keep out of reach of children.

Incompatible Materials
Acids (ammonia is released), alkalis (hydrogen chloride is released), and their associated carbons. Ammonium chloride reacts with lead and silver salts to form a fulminating compound. Ammonium chloride reacts with ammonium compounds, bromine pentaflouride, bromine triflouride, hydrogen cyanide, iodine heptaflouride, nitrates (potentially explosive combinations may be formed), and potassium chlorate. Ammonium perchlorate in combination with potassium chlorate.

Hazardous Decomposition Products
Ammonia. Hydrogen chloride gas. Violent decomposition of ammonium nitrate in presence of ammonium chloride.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Eye Contact Causes serious eye irritation.

Skin Contact Avoid contact with skin.

Inhalation Avoid inhalation of dust.

Ingestion Harmful if swallowed.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Ammonium chloride 12125-02-9	= 1410 mg/kg (Rat)	-	-

Information on physical, chemical and toxicological effects

Symptoms Please see section 4 of this SDS for symptoms.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Carcinogenicity This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

Numerical measures of toxicity
Not determined

12. ECOLOGICAL INFORMATION

Ecotoxicity
The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Component Information

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Ammonium chloride 12125-02-9		725: 24 h Lepomis macrochirus mg/L LC50 209: 96 h Cyprinus carpio mg/L LC50 static		202: 24 h Daphnia magna mg/L LC50

Persistence/Degradability
Not determined.

Bioaccumulation
Not determined.

Mobility
Not determined

Other Adverse Effects
Not determined

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes Wherever possible, recycle or reclaim as much as possible. Under Federal RCRA, it is the responsibility of the user of the product to determine at the time of disposal whether the product falls under the RCRA as a hazardous waste. Final disposal must be in accordance with local, state, and federal environmental regulations.

Contaminated Packaging Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. TRANSPORT INFORMATION

Note Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

DOT

UN/ID No	UN3077
Proper Shipping Name	Environmentally hazardous substance, solid, n.o.s. (Ammonium Chloride)
Hazard Class	9
Packing Group	III
Reportable Quantity (RQ)	5000 lb

IATA Not regulated

IMDG Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA	Listed
DSL	Listed
NDSL	Listed

Legend:
TSCA *- United States Toxic Substances Control Act Section 8(b) Inventory*
DSL/NDSL *- Canadian Domestic Substances List/Non-Domestic Substances List*

US Federal Regulations

CERCLA

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Ammonium chloride 12125-02-9	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

SARA 313

Chemical Name	CAS No	Weight-%	SARA 313 - Threshold Values %
Ammonium chloride - 12125-02-9	12125-02-9	97-99	1.0

CWA (Clean Water Act)

Component	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Ammonium chloride 12125-02-9 (97-99)	5000 lb			X

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Ammonium chloride 12125-02-9	X	X	X

16. OTHER INFORMATION

NFPA	**Health Hazards**	**Flammability**	**Instability**	**Special Hazards**
	Not determined	Not determined	Not determined	Not determined
HMIS	**Health Hazards**	**Flammability**	**Physical Hazards**	**Personal Protection**
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Revision Note: New format

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet