

Material Safety Data Sheet(MSDS/CSDS/SDS)

AMMONIUM CHLORIDE

SECTION ONE PRODUCT & COMPANY IDENTIFICATION

Product name:	AMMONIUM CHLORIDE
Synonyms:	Sal ammoniac; Ammonium muriate
Formula:	NH ₄ Cl
Molecular Weight:	53.49
Cas No.:	12125-02-9
<i>Supplier' Name, Address, Tel. No., Fax No. and E-mail are as per the top line of each page.</i>	

SECTION TWO COMPOSITION/INFORMATION ON INGREDIENTS

SUBSTANCE <input checked="" type="checkbox"/> PREPARATION <input type="checkbox"/>			
INGREDIENTS	CAS NUMBER	%(BY WEIGHT)	CLASSIFICATION
AMMONIUM CHLORIDE	12125-02-9	99 - 100% As(NH ₄ Cl)	Not regulated China GB 12268-2005

SECTION THREE HAZARD IDENTIFICATION

Hazard Class:	Not classified/regulated as dangerous goods (China GB 12268-2005)
Routes of Entry:	Not significant health effect anticipated.
Health Hazards:	Not significant health effect anticipated.
Environment Hazards:	Not regulated;
Fire/Explosion Hazards:	Not classified as fire and explosion hazards.

SECTION FOUR FIRST-AID MEASURES

EYES:	Flush eyes with plenty of water. Seek medical attention if symptoms persist.
SKIN:	Flush skin with plenty of water.
INGESTION:	Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.
INHALATION:	Remove to fresh air. Get medical attention for any breathing difficulty.

SECTION FIVE FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA:	Use any means suitable for extinguishing surrounding fire. Water spray may be used to keep fire exposed containers cool.
FIRE:	Not considered to be a fire hazard. Fire temperatures ammonium chloride begins to corrode metals and may dissociate into ammonia and hydrogen chloride. Mixtures of about 16% to 25% (by volume) ammonia gas in air are flammable.
EXPLOSION:	Not considered to be an explosion hazard.
SPECIAL INFORMATION:	In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

SECTION SIX ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS:	Wear protective equipment to prevent skin and eye contamination and inhalation of dust.
DISPOSAL METHODS:	Use appropriate tools to put the spilled material into a sealed container and hold for reuse or later disposal
ENVIRONMENTAL PRECAUTIONS:	Prevent entry into sewers or streams and other water bodies;

SECTION SEVEN HANDLING AND STORAGE

HANDLING:	Avoid breathing dust. Avoid contacting skin, eyes and clothing. Use with adequate ventilation. No smoking, eating and drinking water at workplace. Avoid prolonged or repeated exposure.
STORAGE:	Keep in a tightly closed container. Protect from physical damage. Store in a dry area away from sources of heat, moisture and incompatibilities. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.
PRECAUTIONS:	Please pay attention to SECTION 10 CONDITIONS TO AVOID and MATERIAL TO AVOID.

SECTION EIGHT EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE LIMITS: China GBZ 2-2002: No data for ammonium chloride
ACGIH Threshold Limit Value (TLV):10 mg/m³ (TWA); 20 mg/m³ (STEL) Fume

ENGINEERING CONTROLS: Use adequate exhaust ventilation to keep airborne concentrations below the allowable exposure limits.

EYE & HAND PROTECTION: Safety glasses.Goggles; Protective gloves.

SKIN & BODY PROTETION: Resistant protective clothing.

RESPIRATORY PROTETION:Dustproof respirators.

HYGIENE PRECAUTIONS: No smoking,eating and drinking water at workplace. Washing hands before eating. Taking bath after work.

SECTION NINE PHYSICAL AND CHEMICAL PROPERTIES

Appearance: White powder.

Odor: Odorless.

Solubility: 29.7g/100g water @ ⁰C (32F)

Specific Gravity: 1.53

PH: 5.5 (1% aq.sol.); 5.1 (3% aq.sol.); 5.0 (10% aq.sol.)

% Volatiles by volume @ 21C (70F): 0

Boiling Point: 520C (968F)

Melting Point: 338⁰C (640F) Sublimes.

Vapor Density (Air=1): 1.9

Vapor Pressure (mm Hg): 1.0 @ 160⁰C (320F)

Evaporation Rate (BuAc=1): No information found.

SECTION TEN STABILITY AND REACTIVITY INFORMATION

CHEMICAL STABILITY:	Stable under normal temperatures and pressures.
INCOMPATIBILITY (MATERIALS TO AVOID):	Concentrated acids, strong bases, silver salts, potassium chlorate, ammonium nitrate, bromine trifluoride and iodine heptafluoride. Ammonium chloride reacts explosively with potassium chlorate or bromine trifluoride, and violently with bromine pentafluoride, ammonium compounds, nitrates, and iodine heptafluoride. Explosive nitrogen trichloride may result from reaction of ammonium chloride and hydrogen cyanide..
CONDITIONS TO AVOID:	Heat, moisture, incompatible.
HAZARDOUS DECOMPOSITION PRODUCTS:	Involvement in a fire causes decomposition to form hydrogen chloride and ammonia
HAZARDOUS POLYMERIZATION:	Will not occur.

SECTION ELEVEN TOXICOLOGICAL INFORMATION

Oral rat LD50 :	1650 mg/kg Investigated as a mutagen.
CHRONIC EXPOSURE:	No significant health effect anticipated. Avoid extremely large ingestion.
MUTAGENICITY:	N/A
REPRODUCTIVE TOXICITY:	N/A.
TERATOGENICITY:	N/A
CARCINOGENICITY:	Not listed as a suspected / confirmed carcinogen by IARC.NTP.

SECTION TWELVE ECOLOGICAL INFORMATION

Environmental Fate:	No information found.
Environmental Toxicity:	No information found.

SECTION THIRTEEN DISPOSAL CONSIDERATIONS

METHODS OF DISPOSAL: Dispose of according to all applicable governments' regulations;
CONTAMINATED PACKAGING: Empty packaging should be recycled or disposed of through an approved waste management facility.

SECTION FOURTEEN TRANSPORT INFORMATION

PROPER SHIPPING NAME: Ammonium Chloride
UN NO.: N/A;
HAZARD CLASS(IMDG): N/A;
PACKING GROUP: N/A;
MARINE POLLUTANT: N/A.;

SECTION FIFTEEN REGULATORY INFORMATION

China: Not listed as dangerous goods in (China GB12268-2005)
International: Please pay attention to any applicable national regulations as to the hazard and safety information of this product.

SECTION SIXTEEN OTHER INFORMATION

N/A