



BASP CHEMICAL PRODUCTS LTD.

MATERIAL SAFETY DATA SHEET

AMMONIUM CHLORIDE – MSDS

Chemical Product and Company Identification

Product Name : Ammonium Chloride
Synonym : Ammonium Chloratum, Ammonium Chloridum, Ammonium Muriate, Sal Ammonia, Salmiac
Chemical Name : Ammonium Chloride
Chemical Formula : HN_4CL
Distributor : **BASP Chemical Products Limited**
Address : 105/106 Parshwa Chamber, 17/21 Issaji Street, Vadgadi, Mumbai – 400 003, INDIA
Telephone : (+91)-22-23449557,66312930
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Composition and information of Ingredients

COMPOSITION		
Name	CAS #	% by Weight
Ammonium Chloride	12125-02-9	100
Toxicological Data on Ingredients: Ammonium Chloride: ORAL(LD50)		

Hazardous Identification

Potential Acute Health Effects: Hazardous in case of eye contact (irritant). Slightly hazardous in case of skin contact (irritant, sensitizer), of ingestion, of inhalation.

Potential Chronic Health Effects:

CARCINOGENIC EFFECTS :Not available.



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MUTAGENIC EFFECTS :Not available.

TERATOGENIC EFFECTS :Not available.

DEVELOPMENTAL TOXICITY :Not available.

Repeated or prolonged exposure is not known to aggravate medical condition.

First Aid Measures

Eye Contact:

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention.

Skin Contact:

In case of skin contact, immediately flush skin with plenty of water. Cover the irate skin with an emollient. Remove contaminated clothing and shoes. Cold water may be used, washing clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

Serious Skin Contact:

Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

Inhalation:

If inhaled by mistake, get some fresh air immediately. If the person is not able to breath, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

Ingestion:

Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantity of material is swallowed, call a physician immediately

Fire and Explosion Data

Flammability of the Product	:Non-Flammable
Auto – Ignition Temperature	:Not Applicable
Flash Points	:Not Applicable
Flammable Limits	:Not Applicable
Products of Combistion	:Not Available
Fire Hazards in Presence of Various Substances	:Not Applicable

Explosion Hazards in Presence of Various Substances: Risks of explosion of the product in



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presence of mechanical impact: Not Available. Risks of explosion of the product in presence of static discharge, Not Available.

Fire Fighting Media and Instrustion :Not Applicable.

Special Remarks on Fire Hazards: Reaction between Ammonium Chloride and Bromine Pentafluoride at ambient or slightly elevated temperature is violent and ignition often occurs.

Special Remarks on Explosion Hazards: Explosive reaction between bromine Trifluoride and Ammonium Halides.

Accidental Release Measures

Small Spill:

Use appropriate tools to put the spilled in a convenient waste disposal container. Finish cleaning By spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

Large Spill

Use a shovel to put the material into a convenient waste disposal container. Be careful that the product is not present at a concentration level TLV. Check TLV on the MSDS and with local Authorities.

Handling and Storage

Precautions: Do not ingest. Do not breath dust. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents, acids and alkalies.

Storage: Keep container tightly closed. Keep container in a cool and well-ventilated area.

Exposure Control / Personal Protection

Engineering Controls: Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. I f user operations generate dust, fume or mist use ventilation to keep exposure to airborne contaminants below the exposure limit.



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Personal Protection: Splash goggles. Lab coat. Dust respirator. Be sure to use an approved / certified respirator or equivalent. Gloves.

Personal Protection in case of large Spill: Splash goggles, Full suit, Dust respirator, Boots, Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient, consult a specialist before handling this product.

Physical and Chemical Properties

Physical State and appearance:	Solid (Solid crystalline powder)
Odor:	Odorless (Slight)
Taste:	Cooling, Saline
Molecular Weight:	53.49 g/mole
Color:	White
pH (1% soln/water):	5.5 [Acidic]
Boiling Point:	520°C (968°F)
Melting Point: Decomposition temperature:	338°C (640.4°F)
Critical Temperature:	Not available
Specific Gravity:	1.53 (Water = 1)
Vapor Pressure:	Not applicable.
Vapor Density:	Not applicable.
Volatility:	Not applicable.
Odor Threshold:	Not applicable.
Water / Oil Dist. Coeff.:	Not applicable.
Dispersion Properties:	See solubility in water, methanol.
Solubility:	Soluble in cold water, hot water, methanol. Insoluble in diethyl ether, acetone. Almost insoluble in ethyl acetate. Very slightly soluble in Ethanol; Solubility in Ethanol: 0.6 g/100 ml water at 19 deg. C. Solubility in Water: 29.7 g/100ml water at 0 deg. C 75.8 g/100 ml water at 100 deg. C 37.8 lbs./100 lbs. water at 70 deg. F 28.3% (w/w) in water at 25 deg. C Soluble in liquid ammonia.

Stability and Reactivity Data

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Incompatible materials, moisture.

Incompatibility with various substances: Reactive with oxidizing agents, acids, alkalis.



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Corrosivity:

Extremely corrosive in presence of copper. Corrosive in presence of steel, of stainless steel(304). Slightly corrosive in presence of aluminum, of stainless steel(316).

Special Remarks on Reactivity:

Incompatible with lead and silver salts. It can react violently with ammonium nitrate and potassium chlorate. Also incompatible with bromine trifluoride, ammonium halides, bromine pentafluoride, alkalis and their carbonates. At fire temperature, ammonium chloride may dissociate into ammonia and hydrogen chloride. Hygroscopic; keep container tightly closed.

Special Remarks on Corrosivity: Severe corrosive effect on brass and bronze.

Polymerization: Will not occur.

Toxicological Information

Routes of Entry: Inhalation. Ingestion.

Chronic Effects on Humans: Not available.

Other Toxic Effects on Humans: Slightly hazardous in case of skin contact (irritant, sensitizer), of ingestion, of inhalation.

Special Remarks on Toxicity to Animals:

Lowest Published Lethal Dose: LDL [Human Infant] - Route: Oral; Dose: 2000 mg/kg

Special Remarks on Chronic Effects on Humans: May affect genetic material (mutagenic) Animal: passes through the placental barrier.

Special Remarks on other Toxic Effects on Humans:

Acute Potential Health Effects: Skin: It can cause skin irritation which is usually mild. Eyes: Causes moderate eye irritation. It may cause Salt Cataract, increased ocular pressure, and degeneration of the retina Inhalation: It can cause respiratory tract and mucous membrane irritation which is usually mild. Ingestion: May be harmful if swallowed. May cause digestive tract irritation with nausea and vomiting, and thirst. May affect behavior/central nervous system (headache, somnolence, confusion, drowsiness, tremor, convulsions, coma), eyes (Mydriasis), cardiovascular system (bradycardia), respiration (respiratory stimulation, apnea, hyperventilation, pulmonary edema). May cause serious metabolic acidosis with hypokalemia. Transient hyperglycemia and glycosuria may also occur. Chronic Potential Health Effects: Skin: Prolonged or repeated contact may cause dermatitis, an allergic reaction. Inhalation: Prolonged or repeated inhalation may affect the kidneys. Ingestion: Prolonged or repeated ingestion may affect metabolism (anorexia, metabolic acidosis) and urinary system (enlargement of kidneys). Inhalation: Prolonged or repeated inhalation may cause bronchospasm (asthma).



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Ecological Information

Products of Biodegradation:

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The products of degradation are less toxic than the product itself.

Special Remarks on the Products of Biodegradation: Not available.

Disposal Consideration

Waste Disposal:

Waste must be disposed of in accordance with state and local environmental control regulations.

Transport Information

DOT Classification: Not a DOT controlled material.

Identification: : Not available.

Special Provisions for Transport: Not applicable

Protective Equipment:

Gloves, Lab coat, Dust respirator. Be sure to use an approved /certified respirator or equivalent.
Splash goggles

Other Information

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 **BASP Chemical Products Limited** 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 **BASP Chemical Products Limited** has been advised of the possibility of such damages