MATERIAL SAFETY DATA SHEET

SECTION I  NAME                      24 HOUR EMERGENCY ASSISTANCE

Product: Ammonium Chloride

Chemical Synonyms: Sal Ammoniac

Formula: \( \text{NH}_4\text{Cl} \)

Unit Size: up to 2.5 Kg.

C.A.S. No.: 12125-02-9

SECTION II  INGREDIENTS OF MIXTURES

Principal Component(s)  %  TLV Units
Ammonium chloride  100%  TWA: 10 mg/m³

WARNING! MAY BE HARMFUL IF SWALLOWED. CAUSES SKIN AND EYE IRRITATION.

SECTION III  PHYSICAL DATA

Melting Point (°F)  520°C (988°F).

Boiling Point (°F)  Sublimes 340°C (644°F).

Vapor Pressure (mm Hg)  Negligible as solid.

Vapor Density (Air=1)  N/A

Solubility in Water  Very soluble.

Appearance & Odor  White crystals, granular or powder; odorless.

SECTION IV  FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used)  Non-flammable solid.

Flammable Limits in Air  Low
as \( \text{NH}_4\text{Cl} \)

Lower  15

Upper  28

Extinguisher Media  Use any media suitable for extinguishing supporting fire.

SECTION V  HEALTH HAZARD DATA

Threshold Limited Value  TWA: 10 mg/m³ as fume. STEL 20 mg/m³. (ACGIH 2001).

Effects of Overexposure

INHALATION: Dust or fume from heating may cause upper respiratory tract irritation, coughing and choking sensation. SKIN: Causes irritation, dermatitis. EYES: Causes irritation, visual impairment. INGESTION: Large doses cause nausea, vomiting, acidosis, irritation of the mouth, esophagus and gastric system. Ingestion may result in low grade toxicity. Target organs: None known.

Emergency and First Aid Procedures

INGESTION: Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person. EYES: Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention. SKIN: Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention. INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

SECTION VI  REACTIVITY DATA

Stability  Unstable

Conditions to Avoid  Oxidizing agents, acids, bases, lead and silver salts.

Incompatibility (Materials to Avoid)  Thermal decomposition will emit ammonia and hydrogen chloride.

Hazardous Polymerization

May Occur  Will Not Occur  X

Hazardous Decomposition Products

Conditions to Avoid  Not applicable.

SECTION VII  SPILL OR LEAK PROCEDURES

Steps to be taken in case material is released or spilled

Sweep up and place in a suitable container for proper disposal. Wash spill area with soap and large amounts of water.

SECTION VIII  SPECIAL PROTECTION INFORMATION

Respiration Protection (Specify Type)  None needed in normal laboratory handling. Work in fume hood or wear a NIOSH/MSHA-approved dust mask.

Ventilation  Local Exhaust Recommended. Special No.

Mechanical (General)  Recommended. Other No.

Protective Equipment

Goggles, smock, apron, proper gloves, eye wash station, ventilation hood.

SECTION IX  SPECIAL PRECAUTIONS

Precautions to be Taken in Handling & Storing

Keep container tightly closed when not in use. Store in a cool, dry place. Avoid contact with eyes and skin. Wash thoroughly after handling.

Other Precautions

Ammonium chloride solutions have a tendency to attack ferrous metal and other metal surfaces, especially those of copper, brass and bronze. Remove and wash contaminated clothing.

Revision No. 9  Date 01/01/07  Approved James A. Bertsch  Chemical Safety Coordinator JAB

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