

Common Name: **AMMONIUM CHLORIDE**

Synonym: Ammonium Muriate

CAS No: 12125-02-9

Molecular Formula: NH<sub>4</sub>Cl

RTK Substance No: 0093

Description: White powder or finely divided airborne particle.

### HAZARD DATA

Hazard Rating	Firefighting	Reactivity
<p><b>2 - Health</b></p> <p><b>0 - Fire</b></p> <p><b>0 - Reactivity</b></p> <p><b>DOT#:</b> UN 3077</p> <p><b>ERG Guide #:</b> 171</p> <p><b>Hazard Class:</b> 9 (Environmentally Hazardous Substance)</p>	<ul style="list-style-type: none"> <li>- Extinguish fire using an agent suitable for type of surrounding fire. <b>Ammonium Chloride</b> itself does not burn.</li> <li>- POISONOUS GASES ARE PRODUCED IN FIRE, including <i>Nitrogen Oxides, Hydrogen Chloride</i> and <i>Ammonia</i>.</li> <li>- CONTAINERS MAY EXPLODE IN FIRE.</li> </ul>	<ul style="list-style-type: none"> <li>- Reacts violently with AMMONIUM NITRATE; POTASSIUM CHLORATE; BROMINE TRIFLUORIDE; and BROMINE PENTAFLUORIDE causing fire and explosion.</li> <li>- Incompatible with ALKALIES and their CARBONATES; LEAD SALTS; SILVER SALTS; OXIDIZING AGENTS (such as PERCHLORATES, PEROXIDES, PERMANGANATES, CHLORATES, NITRATES, CHLORINE, BROMINE and FLUORINE); and STRONG ACIDS (such as HYDROCHLORIC, SULFURIC and NITRIC).</li> <li>- Reacts with HYDROGEN CYANIDE to form explosive <i>Nitrogen Trichloride</i>.</li> </ul>

### SPILL/LEAKS

**Isolation Distance:** 10 to 25 meters (30 to 80 feet)

- Sweep spilled substance into containers.
- Keep out of waterways as this substance is toxic to aquatic organisms.

### PHYSICAL PROPERTIES

<b>Odor Threshold:</b>	Odorless
<b>Flash Point:</b>	Noncombustible
<b>LEL:</b>	N/A
<b>UEL:</b>	N/A
<b>Vapor Density:</b>	<b>1.9 (air = 1)</b>
<b>Vapor Pressure:</b>	1 mm Hg at 321°F (161°C)
<b>Water Solubility:</b>	Soluble
<b>Boiling Point:</b>	968°F (520°C)
<b>Melting Point:</b>	640°F (338°C) (decomposes)

### EXPOSURE LIMITS

**ACGIH:** 10 mg/m<sup>3</sup> 8-hr TWA, 20 mg/m<sup>3</sup> STEL

**NIOSH:** 10 mg/m<sup>3</sup> 10-hr TWA, 20 mg/m<sup>3</sup> STEL

**IDLH LEVEL:** No Information

(All the above are for *Ammonium Chloride fume*)

**PAC:** PAC-1 = 20 ppm; PAC-2 = 110 ppm;

PAC-3 = 330 ppm

### PROTECTIVE EQUIPMENT

<b>Gloves:</b>	Natural Rubber, Neoprene, Nitrile, 4H® (for <i>Inorganic Salts</i> )
<b>Coverall:</b>	Dupont Tychem® CPF3
<b>Boot:</b>	Rubber or Neoprene
<b>Respirator:</b>	>10 mg/m <sup>3</sup> N95 or N95 plus Ammonia Cartridge if a liquid >100 mg/m <sup>3</sup> SA

### HEALTH EFFECTS

<b>Eyes:</b>	Irritation and possible eye damage
<b>Skin:</b>	Irritation
<b>Acute:</b>	Nose, throat and lung irritation, headache, drowsiness and confusion
<b>Chronic:</b>	Cancer - Not tested. Asthma-like allergy. May affect the kidneys.

### FIRST AID AND DECONTAMINATION

- Remove person from exposure.
- Flush eyes with large amounts of water for at least 15 minutes. Remove contact lenses if worn.
- Remove contaminated clothing and wash contaminated skin with soap and water.
- Begin artificial respiration if breathing has stopped and CPR if necessary.
- Transfer to a medical facility.