SAFETY DATA SHEET
SUPERIOR AMMONIUM CHLORIDE
DATE REVISED: June 23, 2017

Product Name/Part Number: Superior Ammonium Chloride
Manufacturer: Superior Flux & Mfg. Co. 6615 Parkland Blvd. Cleveland OH, 44139
Emergency Phone Number: 1-800-424-9300 (CHEMTREC)
Other Information Calls: (440) 349-3000

SECTION 1 -- IDENTIFICATION
Common Name: Ammonium Chloride, Sal ammoniac, Salmiac
CAS Number: 12125-02-9
Chemical Name: Ammonium Chloride
Formula: NH₄Cl

SECTION 2 – HAZARDS IDENTIFICATION
Classification of Substance or Mixture:

GHS Classification:
Acute toxicity, Oral (Category 4), H302
Eye irritation (Category 2A), H319
Acute aquatic toxicity (Category 2), H400
Chronic aquatic toxicity (Category 2), H410

See section XVI for full text description of H-Statements

Hazard Statement(s)
H302 Harmful if swallowed
H319 Causes serious eye irritation
H400 Very toxic to aquatic life
H410 Very toxic to aquatic life with long lasting effects

Precautionary statement(s)
P264 Wash skin thoroughly after handling
P270 Do not eat, drink or smoke when using this product
P273 Avoid release to the environment
P280 Wear protective gloves/protection clothing/eye protection/face protection
P301+P312+P330 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 If eye irritation persists, get medical advice/attention
P391 Collect spillage
P501 Dispose of contents and/or container to an approved waste disposal plant

Hazards not otherwise classified or not covered by GHS: None
SECTION 3 – COMPOSITION INFORMATION

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium chloride</td>
<td>12125-02-9</td>
<td>98-100</td>
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None of the materials in this product are listed in NTP, IARC, or OSHA as carcinogens.

SECTION 4 – FIRST AID MEASURES

Description of first aid measures

**General advice:** Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

**Inhalation:** Remove to fresh air. Consult a physician.

**Eyes:** Flush with water for fifteen (15) Minutes. Remove contacts if present and easy to do so. Call physician.

**Skin:** Wash off with plenty of soap and water. Consult a physician.

**Ingestion:** Rinse mouth with water. Never give anything by mouth to an unconscious person. Consult a physician.

Most Important Symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in section 2 (labeling)

**Medical Conditions Generally Aggravated by Exposure:** Any weakness of the lungs, kidneys or liver will be aggravated.

**OSHA Permissible Exposure Limit (PEL):** 10 mg/m³

**ACGIH Threshold Limit Value (TLV):** 10 mg/m³

SECTION 5 – FIREFIGHTING MEASURES

**Extinguishing Media:** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide

**Special Hazards:** No data available

**Advice for firefighters:** Wear self-contained breathing apparatus for firefighting if necessary

SECTION 6 - ACCIDENTAL RELEASE MEASURES

**Personal Precautions and Equipment:** Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, dust, mist or gas. Ensure adequate ventilation. See section 8 for personal protection.

**Environmental Precautions:** Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

**In Case Material is spilled:** Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

SECTION 7 - HANDLING AND STORAGE

**Storage Requirements:** Store in tightly closed, plastic containers. Keep containers in a dry and well-ventilated place. Hygroscopic. Keep in a dry place.

**Handling Precautions:** Avoid contact with skin and eyes. Avoid aerosol and dust formation. Provide appropriate and adequate ventilation for dust and/or fumes.

For precautions see Section 2
SECTION 8 - CONTROL MEASURES

Respiratory Protection: For nuisance exposures use type P95 (US) particle respirator. For higher level protection use type OV/AG/P99 respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Ventilation: Yes  Mechanical (General): Yes  Local Exhaust: Yes

Protective Gloves: Yes – Nitrile rubber, at least 0.11mm thick. Use equipment tested and approved under NIOSH standards.

Eye Protection: Safety glasses conforming to EN166. Use equipment tested and approved under NIOSH standards.

Other Protective Clothing or Equipment: Rubber apron

These recommendations are advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of the anticipated use. It should not be construed as offering an approval for any specific use scenario.

SECTION 9 - PHYSICAL AND CHEMICAL CHARACTERISTICS

Appearance: Powder
Odor: No data available
pH: 4.5-5.5 (5% solution) at 20°C/68°F
Melting/Freezing Point: 340°C/644°F
Boiling Point/Range: No data available
Flash Point: Not applicable
Evaporation Rate: No data available
Flammability (solid/gas): No data available
Upper/lower flammability or explosive limits No data available
Vapor Pressure 1.0mmHg at 160.4°C/320.7°F
Vapor Density No data available
Relative Density No data available
Bulk Density 500 kg/m³
Water Solubility Soluble
Partition coefficient: Soluble
n-octonol/water No data available
Auto-ignition Temperature No data available
Decomposition Temperature No data available
Viscosity No data available
Explosive Properties No data available
Oxidizing Properties No data available

SECTION 10 - STABILITY AND REACTIVITY

Reactivity: No data available
Stability: Product is stable under recommended storage conditions
Possibility of hazardous reactions: No data available
Conditions to Avoid: Exposure to moisture may affect product quality.
Incompatibility: Strong acids, strong bases, strong oxidizing agents
Hazardous Decomposition Products Under fire conditions: Nitrogen oxides (NOₓ), Hydrogen chloride gas
In the event of fire: See Section 5
SECTION 11 - TOXICOLOGICAL INFORMATION

Acute Toxicity Data
1) Oral: LD-50 (rat): 1,650 mg/kg
2) Inhalation: No data available
3) Dermal: No data available

Skin Corrosion/Irritation: Rabbit- no skin irritation
Serious eye damage/eye irritation Rabbit – Eye irritation

SECTION 12 - ECOLOGICAL INFORMATION

Toxicity to fish
- LC50 - Cyprinus carpio (Carp) - 209.00 mg/l - 96 h
- LC50 - Oncorhynchus mykiss (rainbow trout) - 3.98 mg/l - 96 h
- NOEC - Oncorhynchus mykiss (rainbow trout) - 57 mg/l - 96 h

Toxicity to daphnia and other aquatic invertebrates
- LC50 - Daphnia magna (Water flea) - 161 mg/l - 48 h
- Growth inhibition NOEC - Daphnia magna (Water flea) - 0.1 mg/l – 216 h

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste Disposal Method: Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material

SECTION 14 - TRANSPORTATION

D.O.T. Proper Shipping Name: Environmentally hazardous substances, solid, N.O.S. (Ammonium chloride)
Identification Number: UN 3077 Hazard Class: 9
Packing Group: III

SECTION 15 - REGULATORY INFORMATION

Carcinogenicity Classification (Components Present at 0.1% or More): Non-carcinogenic
- International Agency for Research on Cancer (IARC): Not listed
- American Conference of Governmental Industrial Hygienists (ACGIH): Not listed
- National Toxicology Program (NTP): Not listed
- Occupational Safety and Health Administration (OSHA): Not listed

None of the components of this product are listed on the U.S. toxic substances control act inventory or otherwise comply with TSCA pre-manufacture notification requirements.

SECTION 16 - OTHER INFORMATION

Full text of H-Statements and P-Statements referred to in Section II and/or III.

H302 Harmful if swallowed
H319 Causes serious eye irritation
H400 Very toxic to aquatic life
H410 Very toxic to aquatic life with long lasting effects

HMIS Rating
Health 2
Flammability 0
Reactivity 0

Further information:
Judgments as to the suitability of information herein or the purchaser's purposes are necessarily the purchaser's responsibility. The above information does not represent any guarantee of the properties of the product. It is believed to be correct, but does not purport to be all inclusive and should be used only as a guide. Reasonable care has been taken in the preparation of this material, and is based on the present state of our knowledge.

Superior Flux & Mfg. Co. shall not be held liable for any damage resulting from handling or from contact with the above product.

Preparation information
Superior Flux & Mfg. Co.
440-349-3000

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