



## Safety Data Sheet

### SECTION 1: IDENTIFICATION

#### Product Identifier

**Product Name:** Ammonium Chloride Treated and Untreated

#### Recommended Use of the Chemical and Restrictions on Use

**Product Use:** Food, Feed, Pharma, Metallurgy

**Uses Advised Against:** None identified

#### Supplier Information

Skyhawk Chemicals, Inc.  
701 N. Post Oak Rd., Ste. 540  
Houston, TX 77024

**Information Phone:** 713-957-2200/800-535-2847

**Fax:** 713-957-0345

**Email:** order@skyhawkchemicals.com

#### Emergency Telephone Number

**Emergency Information:** CHEMTREC USA 800-424-9300  
ACCT #: CCN721839

**SDS Date of Preparation:** March 17, 2015

### SECTION 2: HAZARDS IDENTIFICATION

#### GHS Classification:

Acute Toxicity Category 4 (Oral)

Eye Irritation Category 2B

#### Label Elements:



#### WARNING!

Harmful if swallowed.

Causes eye irritation.

#### Prevention

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

#### Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical attention.

IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.

Rinse mouth.

**Disposal**

Dispose in accordance with national and local regulations.

**Other Hazards:** None

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	CAS#	EINECS#	GHS Classification	%
Ammonium Chloride	12125-02-9	235-186-4	Acute Toxicity Category 4 Eye Irritation Category 2A	99
Anti -Caking Agents May contain the following: Hydrogenated tallow alkyl amine acetate	61790-59-8	263-149-2	Skin Irritation Category 2 Eye Damage Category 1	0-<1
Octadecanamine acetate	2190-04-7	218-583-7	Not hazardous	
Tricalcium phosphate	7758-87-4	231-840-8	Not hazardous	
Pectin	9000-69-5	232-553-0	Not hazardous	
Sodium alginate	9005-38-3	Not available	Not hazardous	

See Section 16 for further information on GHS Classification if applicable.

**SECTION 4: FIRST AID MEASURES**

**Description of First Aid Measures**

**Eye:** Flush with plenty of water for several minutes, holding eyelids open to assure thorough flushing. If contact lenses are present, remove them after the first 5 minutes if easy to do and continue flushing. Obtain medical attention if irritation persists.

**Skin:** Wash with soap and water. Remove any contaminated clothing and wash it before reuse. Get medical attention if irritation develops.

**Inhalation:** If irritation develops, remove person to fresh air. Get medical attention if irritation persists.

**Ingestion:** Do not induce vomiting unless directed to do so by medical personnel. If person is alert, have them rinse their mouth with water. Get medical attention.

**Most Important symptoms and effects, both acute and delayed:**

Causes eye irritation. May cause mild skin and respiratory irritation. Harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting, thirst, headaches, hyperventilation and drowsiness.

**Indication of any immediate medical attention and special treatment needed:** No immediate medical attention is required.

**SECTION 5: FIRE FIGHTING MEASURES**

**Extinguishing Media:**

Use media appropriate for the surrounding fire.

**Specific Hazards Arising from the Chemical**

**Unusual Fire and Explosion Hazards:** This material is not combustible but will decompose under fire conditions.

**Hazardous Combustion Products:** When heated to decomposition, nitrogen oxide, hydrogen chloride gas and ammonia gas will be produced.

**Special Protective Equipment and Precautions for Fire-Fighters:**

Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing.

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

**Personal Precautions, Protective Equipment and Emergency Procedures:**

Wear appropriate protective equipment. Evacuate area. Avoid creating and breathing dust. Avoid contact with eyes, skin and clothing.

**Environmental Precautions:**

Avoid release to the environment. Report releases as required by local and national authorities.

**Methods and Material for Containment and Cleaning Up:**

Sweep spilled material and place in a suitable container for disposal or reuse. Clean up residual material by washing with water.

**Reference to Other Sections:**

Refer to Section 8 for protective equipment. Refer to Section 13 for disposal guidance.

**SECTION 7: HANDLING AND STORAGE**

**Precautions for Safe Handling:**

Avoid contact with the eyes. Avoid prolonged contact with skin and clothing. Avoid creating and breathing dust. Do not swallow. Use with adequate ventilation. Wash thoroughly with soap and water after handling. Remove contaminated clothing and launder before reuse. Do not smoke while handling.

Do not reuse containers. Empty containers retain product residues can be hazardous. Follow all SDS precautions when handling empty containers.

**Conditions for Safe Storage, Including any Incompatibilities**

Store in tightly closed containers. Store away oxidizing agents and other incompatible materials.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Exposure Limits:**

Chemical Name	Exposure Limits
Ammonium Chloride	10mg/m3 TWA ACGIH TLV (as fume)
Anticaking agent	None Established

Refer to local regulations for specific requirements.

**Exposure Controls:**

**Engineering Controls:** Use with adequate general or local ventilation to maintain exposure levels below the exposure limits.

**Eye and Face:** Chemical safety goggles recommended to avoid eye contact.

**Skin:** Impervious gloves such as nitrile or polyvinylchloride (PVC).

**Respiratory:** If the exposure levels are excessive, a local authority approved respirator should be worn. Respirator selection and use should be based on contaminant type, form and concentration. Follow OSHA 1910.134 and ANSI Z88.2 or other applicable regulations and standards and good Industrial Hygiene practice.

**Protective Clothing:** Wear protective clothing if needed to avoid skin contact and contamination of personal clothing.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical State:</b> Solid	<b>Appearance:</b> White, crystalline solid
<b>Odor:</b> Odorless	<b>Odor Threshold:</b> Not applicable
<b>pH:</b> 4.3-5.5 (5% aqueous solution)	<b>Relative Density:</b> 900 g/L
<b>Boiling Point:</b> Not applicable	<b>Melting Point:</b> 642° F (399° C)
<b>Vapor Pressure:</b> Not applicable	<b>Water Solubility:</b> 37g / 100g saturated solution @ 20°C
<b>Vapor Density:</b> Not applicable	<b>Evaporation Rate:</b> Not applicable
<b>Viscosity:</b> Not applicable	<b>Pour Point:</b> Not applicable
<b>Flash Point:</b> None	<b>Flammable Limits: LEL:</b> None
<b>Autoignition Temperature:</b> None	<b>Flammable Limits: UEL:</b> None
<b>Percent Volatile:</b> 0%	<b>Flammability (solid/gas):</b> None
<b>Partition Coefficient: n-octanol/water:</b> Not applicable	<b>Decomposition Temperature:</b> 968°F (520°C)
<b>Explosive Properties:</b> None	<b>Oxidizing Properties:</b> None

## SECTION 10: STABILITY AND REACTIVITY

**Reactivity:** Reacts to produce ammonia and hydrogen chloride.

**Chemical Stability:** Stable under normal conditions.

**Possibility of Hazardous Reactions:** Reacts with alkalis to release ammonia. Reacts with acids to release hydrogen chloride.

**Conditions to Avoid:** Heating to decomposition may produce nitrogen oxides, hydrogen chloride and ammonia gas.

**Incompatible Materials:** Avoid strong oxidizing agents, alkalis, acids and nitrates. Corrodes most metals at high temperatures.

**Hazardous Decomposition Products:** Thermal decomposition may generate nitrogen oxides, hydrogen chloride and ammonia gas.

## SECTION 11: TOXICOLOGICAL INFORMATION

### Information on Toxicological Effects:

**Eye:** Causes irritation with redness, tearing and pain.

**Skin:** May cause mild skin irritation.

**Skin Absorption:** No evidence of adverse effects from available information.

**Ingestion:** May cause gastrointestinal irritation, nausea, vomiting, thirst, headaches, hyperventilation and drowsiness. Large amounts may cause severe metabolic acidosis with symptoms such as headache, drowsiness, vomiting, confusion, thirst and hyperventilation.

**Inhalation:** May cause irritation of the nose, throat and upper respiratory tract with sneezing, coughing and sore throat.

**Chronic Toxicity:** None known.

### Acute Toxicity Data:

Acute Toxicity Estimate: Oral 1410-1566 mg/kg, Dermal >2000

Ammonium Chloride: Oral rat LD50 1410 mg/kg, Dermal rabbit LD50 >2000 mg/kg

**Skin corrosion/irritation:** Ammonium chloride is not irritating to rabbit skin.

**Eye damage/ irritation:** Ammonium chloride is irritating to rabbit eyes (fully reversible with 7 days).

**Skin Sensitization:** Ammonium chloride did not cause sensitization in a guinea pig maximization test.

**Respiratory Sensitization:** No data available. Not expected to be a respiratory sensitizer based on human experience.

**Germ Cell Mutagenicity:** Ammonium chloride was negative in an in vitro mammalian cell gene mutation assay and positive in an in vitro mammalian chromosome aberration test without metabolic activation. Ammonium chloride was negative in an in vivo chromosome aberration micronucleus assay.

**Carcinogenicity:** None of the components is listed as a carcinogen or suspected carcinogen by ACGIH, IARC, NTP or OSHA. Studies in rats and mice with ammonium chloride were conducted for carcinogenicity or the potential of carcinogenicity by acidification of the urinary tract. The decrease of urine pH was observed, however the incidences of bladder tumor, hyperplasia and calculi were not increased. These studies showed negative results on carcinogenicity in rats and mice.

**Developmental / Reproductive Toxicity:** Rats were administered 1 mL/kg of a solution of ammonium chloride at 8.9 mg/kg by gavage on days 7 to 10 of gestation. Neither maternal toxicity nor developmental toxicity including teratogenicity was found.

**Specific Target Organ Toxicity (Single Exposure):** No data available.

**Specific Target Organ Toxicity (Repeated Exposure):** In an oral repeat dose study, rats were administered ammonium chloride in their feed at 684 mg/kg for 70 days. No treatment related effects were seen. The NOAEL for oral repeated dose toxicity is considered to be 684 mg/kg.

## SECTION 12: ECOLOGICAL INFORMATION

### Toxicity:

Ammonium Chloride: 96 hr LC50 prosopium williamsoni 46.27 mg/L, 48 hr EC50 daphnia magna 136.6 mg/L, 5 d EC50 chlorella vulgaris 1300 mg/L (calculated)

### Persistence and Degradability:

Biodegradation is not applicable for inorganic substances such as ammonium chloride.

### Bioaccumulative Potential:

Not expected to bioaccumulate.

### Mobility in Soil:

No mobility in soil is expected. Ammonium chloride is highly soluble and dissociates into ammonia and chloride ions.

**Other Adverse Effects:** None known

## SECTION 13: DISPOSAL INFORMATION

### Waste Treatment Methods

**Disposal Method:** This material when discarded is not a hazardous waste as that term is defined by the Resource, Conservation and Recovery Act (RCRA), 40 CFR 261. Dry material may be landfilled or recycled in accordance with local, state and federal regulations. Dispose in accordance with all local, state and federal regulations.

**Empty Container:** No special handling or disposal is required.

generated to determine if the waste meets the definition of hazardous waste. The product uses, transformations, synthesis, mixtures, etc., may render the resulting end product subject to regulation.

<b>SECTION 14: TRANSPORT INFORMATION</b>
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	UN Number	UN Proper Shipping Name	Transport Hazard Class(s)	Packing Group	Environmental Hazards
<b>US DOT</b>	None	Not regulated in packages weighing less than 5000 lbs.	None	None	RQ=5000 lbs
<b>EU ADR/RID</b>	None	Not regulated	None	None	Not applicable
<b>IMDG</b>	None	Not regulated	None	None	Not applicable

**Special Precautions for User:** None

<b>SECTION 15: REGULATORY INFORMATION</b>
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**Safety, Health and Environment Regulations:**

**US Regulations:**

**EPA SARA 311/312 Hazard Classification:** Acute Health

**EPA SARA 313:** This Product Contains the Following Chemicals Subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372): None

**Protection Of Stratospheric Ozone:** This product is not known to contain or to have been manufactured with ozone depleting substances as defined in 40 CFR Part 82, Appendix A to Subpart A.

**CERCLA Section 103:** This product has a reportable quantity of 5000 lbs. Release of more than 5,000 pounds of this product to the environment in a 24-hour period requires notification to the National Response Center (800-424-8802 or 202-426-2675). Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

**California Proposition 65:** This product is not known to contain chemicals regulated under Proposition 65.

**Canadian Regulations:**

**Canadian WHMIS:** Class D-2-B.

This product has been classified in accordance with the hazard criteria in the CPR and the MSDS contains all the information required by the CPR.

**Chemical Inventories:**

**US TSCA** All of the components of this material are listed on the Toxic Substances Control Act (TSCA) Chemical Substances Inventory or are exempt.

**Canadian CEPA:** All of the components are listed on the Canadian DSL or are exempt.

<b>SECTION 16: OTHER INFORMATION</b>
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**GHS/CLP Hazard Classes and Statements for Reference (See Sections 2 and 3):**

None

**SDS Date of Preparation/Revision:** March 17, 2015

**Revision History:** Conversion to GHS format. Changes in all Sections.

**References:**

- A. NLM ChemID Plus Database
- B. REACH Registration for Ammonium Chloride
- C. NLM Hazardous Substances Databank
- D. OECD SIDS Ammonium Chloride

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