



NFPA 	HCS Risk Phrases HCS CLASS: Harmful if swallowed. Irritating to eyes.	Protective Clothing 
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Section I. Chemical Product and Company Identification

Common Name/ Trade Name	AMMONIUM CHLORIDE	Revision Date: 10-18-06
Supplier	FRITZ INDUSTRIES, INC. 500 SAM HOUSTON ROAD MESQUITE, TX 75149 (972) 285-5471 (800) 955-1323	In Case of Emergency. (800) 424-9300 Week Days: (972) 285-5471 (800) 955-1323

Chemical Family Inorganic salt

Section II. Composition and Information on Ingredients

Name	CAS #	% by Weight	TLV/PEL	LC ₅₀ /LD ₅₀
Ammonium Chloride	12125-02-9	≥99	10 mg/m ³	N/A

Section III. Hazards Identification

Emergency overview	Causes irritation to skin, eyes, and respiratory tract. Harmful if swallowed or inhaled.
Eye contact	Causes irritation, redness, and pain.
Skin	Causes irritation to skin. Symptoms include redness, itching, and pain.
Inhalation	Causes irritation to the respiratory tract. Symptoms may include coughing and shortness of breath.
Ingestion	Causes irritation to the gastrointestinal tract. Symptoms may include nausea, vomiting, and diarrhea. May affect central nervous system, cardiovascular system, eyes, and respiration. May cause serious acidosis with hypokalemia.

Section IV. First Aid Measures

Eye Contact	Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Seek medical attention immediately.
Skin Contact	Immediately flush skin with plenty of soap and water for at least 15 minutes. Remove contaminated clothing and shoes. Get medical attention if irritation persists. Wash clothing and thoroughly clean shoes before reuse.
Inhalation	Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
Ingestion	Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.




Section V. Fire and Explosion Data

Fire	This material is not considered to be a fire hazard. However, at fire temperatures, ammonium chloride begins to corrode metals and may dissociate into ammonia and hydrogen chloride. Mixtures of about 16% to 25% (by volume) ammonia gas in air are flammable.
Explosion	Not considered to be an explosion hazard.
Fire Fighting Media and Instructions	Use any means suitable for extinguishing surrounding fire.
Special Information	In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode.

Section VI. Accidental Release Measures

Leak/Spill	Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: sweep up and containerize for reclamation or disposal. Vacuuming or wet sweeping may be used to avoid dust dispersal. US Regulations (CERCLA) require reporting spills and releases to soil, water, and air in excess of reportable quantities. The toll free number for the US Coast Guard National Response Center is (800) 424-8802.
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AMMONIUM CHLORIDE

Section VII. Handling and Storage																
Handling	Avoid contact with eyes, skin, or clothing. Do not ingest. Do not breathe dust. Wash hands after use. Observe all warnings and precautions listed for the product.															
Storage	Keep in a tightly closed container. Protect from physical damage. Store in a cool, dry, ventilated area away from sources of heat, moisture, and incompatibilities. Containers of this material may be hazardous when empty since they retain product residues.															
Section VIII. Exposure Controls/Personal Protection																
Ventilation System	Provide local exhaust ventilation where dust or mist may be generated.															
Personal Protection	Wear chemical safety goggles and/or full face shield where dusting or splashing of solutions is possible. Maintain eyewash fountain and quick-drench facilities in work area. Wear appropriate protective clothing to prevent skin contact. Wear a NIOSH-approved respirator.															
Section IX. Physical and Chemical Properties																
Physical state and Appearance	Powder Odor: Odorless Color: White															
Specific Gravity	1.53 Boiling Point 520°C (968°F)															
Solubility	29.7g/100g water @ 0°C (32°F) Melting Point 338°C (640°F) Sublimes															
pH	5.5 (1% aq. sol.); 5.1 (3% aq. sol.); 5.0 (10% aq. sol.)															
Vapor Density	1.9															
Vapor Pressure (mm Hg)	1.0 @ 160°C (320°F)															
Section X. Stability and Reactivity Data																
Stability	Stable under ordinary conditions of use and storage															
Incompatibilities	Concentrated acids, strong bases, silver salts, potassium chlorate, ammonium nitrate, bromine trifluoride and iodine heptafluoride. Ammonium chloride reacts explosively with potassium chlorate or bromine trifluoride, and violently with bromine pentafluoride, ammonium compounds, nitrates, and iodine heptafluoride. Explosive nitrogen trichloride may result from reaction of ammonium chloride and hydrogen cyanide.															
Hazardous decomposition products	Involvement in a fire causes decomposition to form hydrogen chloride and ammonia.															
Conditions to Avoid	Heat, moisture, incompatibles															
Section XI. Toxicological Information																
Routes of Entry	Inhalation and ingestion.															
Toxic Effects on Humans	Harmful if swallowed. Irritant in case of eye contact.															
Carcinogenicity	Not listed by IARC, USA NTP, OR ACGIH															
Mutagenicity	Cytogenetic analysis: hamster fibroblast, 400 mg/L															
Teratogenicity	Not known to cause birth defects															
Target Organs	No information is available.															
Special Remarks on other Toxic Effects on Humans	Not known to cause allergic reactions.															
Section XIV. Transport Information																
DOT Classification	Not regulated under the Transport of Dangerous Goods Act.															
Section XV. Other Regulatory Information and Pictograms																
Other Classifications	WHMIS (Canada) Canadian DSL Inventory Status Classification: Not controlled This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.															
HMIS (U.S.A.)	<table border="0"> <tr> <td style="background-color: #0000FF; color: white; padding: 2px;">2</td> <td style="background-color: #0000FF; color: white; padding: 2px;">HEALTH</td> <td rowspan="4" style="vertical-align: middle; padding: 0 10px;">National Fire Protection Association (U.S.A.)</td> <td rowspan="4" style="vertical-align: middle; padding: 0 10px;">Health</td> <td rowspan="4" style="text-align: center;">  </td> <td style="padding: 2px;">Fire Hazard</td> </tr> <tr> <td style="background-color: #FF0000; color: white; padding: 2px;">0</td> <td style="background-color: #FF0000; color: white; padding: 2px;">FLAMMABILITY</td> <td style="padding: 2px;">Reactivity</td> </tr> <tr> <td style="background-color: #FFFF00; color: black; padding: 2px;">0</td> <td style="background-color: #FFFF00; color: black; padding: 2px;">REACTIVITY</td> <td style="padding: 2px;">Specific Hazard</td> </tr> <tr> <td style="background-color: #FFFFFF; color: black; padding: 2px;">e</td> <td style="background-color: #FFFFFF; color: black; padding: 2px;">PROTECTIVE EQUIPMENT</td> <td></td> </tr> </table>	2	HEALTH	National Fire Protection Association (U.S.A.)	Health		Fire Hazard	0	FLAMMABILITY	Reactivity	0	REACTIVITY	Specific Hazard	e	PROTECTIVE EQUIPMENT	
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