



SAFETY DATA SHEET

Name of Product:

AMMONIUM SULFATE

Product #: See Section 1
Revision Date: August 14, 2015

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Ammonium Sulfate
SYNONYMS: Sulfuric acid diammonium salt; mascagnite
PRODUCT CODES: I000056, I000088, I000106, I000109, I000128

MANUFACTURER: NACHURS ALPINE SOLUTIONS
DIVISION: Marion
ADDRESS: 421 Leader Street, Marion, OH43302, United States

PHONE: 800-622-4877 (USA)
800-265-2268 (CANADA)

EMERGENCY PHONE: United States: Chemtrec: 800-424-9300
Canada: CANUTEC: 1-613-996-6666
I TECH 877-324-4402

CHEMICAL NAME: 20-42% Ammonium Sulfate Solution
CHEMICAL FAMILY:
CHEMICAL FORMULA: $(\text{NH}_4)_2\text{SO}_4$

PRODUCT USE: Fertilizer, fire retardant, calcium or iron binder,

SECTION 2: HAZARDS IDENTIFICATION

GHS ELEMENTS:

Hazard Classification: Skin Irritation (Category 2).
Eye Irritation (Category 2A).
Acute Aquatic Toxicity (Category 3).
Chronic Aquatic Toxicity (Category 3).

Pictogram:



Signal Word: Warning

Hazard Statements: Causes skin irritation.
Causes serious eye irritation.
Harmful to aquatic life with long lasting effects.

Precautionary Statements: Wash skin thoroughly after handling. Wear protective gloves, clothing, eye and face protection.
If swallowed, rinse mouth. Do NOT induce vomiting.
If on hair or skin, remove all contaminated clothing and rinse skin with water.
If inhaled, remove victim to fresh air and keep at rest in a position comfortable for breathing.
If in eyes, rinse carefully with water for several minutes. Remove contactlenses, if able and continue rinsing.
See First Aid instruction for specific treatment.
If skin irritation occurs, get medical attention.
If eye irritation persists, get medical attention.
Wash contaminated clothing before reuse.
Absorb spillage to prevent material damage.
Avoid release to the environment.

POTENTIAL HEALTH EFFECTS

EYES: May cause moderate irritation, redness, and discomfort.
SKIN: May cause mild irritation and discomfort.
INGESTION: May cause mild discomfort.
INHALATION: May cause moderate irritation, redness, and discomfort.

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ACUTE HEALTH HAZARDS: May cause moderate irritation, redness and discomfort to the eyes and respiratory system. May cause mild irritation or discomfort to the skin and digestive system.

CHRONIC HEALTH HAZARDS: N/A

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: N/A

CARCINOGENICITY:

OSHA: N/A
ACGIH: N/A
NTP: N/A
IARC: N/A
OTHER: N/A

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT:	Ammonium Sulfate	20-42%	CAS# 7783-20-2
	Water	58-80%	CAS# 7732-18-5

SARA 313 REPORTABLE: N/A

OSHA PEL-TWA: N/A
OSHA PEL STEL: N/A
OSHA PEL CEILING: N/A

ACGIH TLV-TWA: N/A
ACGIH TLV STEL: N/A
ACGIH TLV CEILING: N/A

SECTION 4: FIRST AID MEASURES

EYES: Flush with water immediately and thoroughly for 15 minutes. Seek medical attention.
SKIN: Remove contaminated clothing and shoes. Wash skin with mild soap and water. If irritation persists, seek medical attention.
INGESTION: If conscious, induce vomiting as directed by medical personnel. Seek immediate medical attention.
INHALATION: If inhaled, remove to fresh air. Provide assisted respiration if breathing has stopped. Turn patients head to side to prevent aspiration of vomit. Seek medical attention.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: N/A

SECTION 5: FIRE-FIGHTING MEASURES

FLAMMABILITY: Not flammable

FLAMMABLE LIMITS IN AIR:
(% BY VOLUME) UPPER: N/A
LOWER: N/A

FLASH POINT:
F°: N/A
C°: N/A

METHOD USED: N/A

AUTOIGNITION TEMPERATURE:
F°: N/A
C°: N/A

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NFPA HAZARD CLASSIFICATION:

HEALTH: 1
FLAMMABILITY: 0
REACTIVITY: 0
OTHER: 0

HMIS HAZARD CLASSIFICATION

HEALTH: 1
FLAMMABILITY: 0
REACTIVITY: 0
PROTECTION: B

EXTINGUISHING MEDIA: Water or media suitable for surrounding material. Ammonium sulfate solutions are non flammable.

SPECIAL FIRE FIGHTING PROCEDURES: If heated in a fire, use full protective equipment including self contained breathing apparatus.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Decomposition can occur at elevated temperatures with production of ammonia or oxides of sulfur.

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of sulfur can be toxic. Ammonia is an inhalation hazard.

SECTION 6: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES: Confine the spill to a diked area or sump, if possible, and recover as much of the product as possible. Place in suitable containers.

SECTION 7: HANDLING AND STORAGE

HANDLING AND STORAGE: Store in suitable containers made of plastic. Protect from freezing. Avoid formation of dusts (dry product) or mists.

OTHER PRECAUTIONS: General safety and industrial hygienic practices should always be followed.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: N/A

VENTILATION: Provide adequate ventilation for local areas. If hazardous decomposition products are present use explosion proof mechanical ventilation.

RESPIRATORY PROTECTION: Respiratory protection is not required under normal circumstances. If heated to evolve decomposition products, use self contained breathing apparatus. If misted by agitation or spray use NIOSH approved mist respirator.

EYE PROTECTION: Safety glasses/goggles and full face shield.

SKIN PROTECTION: Chemical resistant gloves.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Long sleeved, resistant clothing to prevent skin contact. Rubber boots.

WORK HYGIENIC PRACTICES: Always follow good safety and industrial hygienic practices when handling this product.

EXPOSURE GUIDELINES: See section 3.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Translucent, nearly colorless liquid.

ODOR: No apparent odor and/or mild ammonia.

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ODOR THRESHOLD:	No data available.
PHYSICAL STATE:	Liquid.
pH AS SUPPLIED:	3.0-6.5
BOILING POINT:	F°: >212 C°: >100
MELTING POINT:	F°: N/A C°: N/A
FREEZING POINT:	F°: N/A C°: N/A
SALT-OUT TEMPERATURE:	Concentration Dependent.
FLASH POINT:	F°: N/A C°: N/A
METHOD USED:	N/A
EVAPORATION RATE:	N/A
FLAMABILITY:	Not flammable.
FLAMMABLE LIMITS IN AIR: (% BY VOLUME)	UPPER: N/A LOWER: N/A
VAPOR PRESSURE (mmHg)	N/A
VAPOR DENSITY (AIR = 1)	N/A
SPECIFIC GRAVITY (H ₂ O = 1)	1.10-1.25
DENSITY, LBS/GAL:	9.2-10.4
SOLUBILITY IN WATER:	Complete
PARTITION COEFFICIENT:	n-octanol/water – N/A
PERCENT SOLIDS BY WEIGHT:	N/A
PERCENT VOLATILE:	N/A
VOLATILE ORGANIC COMPOUNDS (VOC):	None
AUTOIGNITION TEMPERATURE:	N/A
THERMON DECOMPOSITIONS:	N/A
MOLECULAR WEIGHT:	132.14
VISCOSITY:	N/A

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SECTION 10: STABILITY AND REACTIVITY

	STABLE	UNSTABLE
STABILITY:	x	
CONDITIONS TO AVOID (STABILITY):	When heated at elevated temperatures/fire may decompose to toxic and flammable gases.	
INCOMPATIBILITY (MATERIAL TO AVOID):	N/A	
HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:	Oxides of sulfur can be toxic. Ammonia is an inhalation hazard.	
HAZARDOUS POLYMERIZATION:	Not reported.	
CONDITIONS TO AVOID (POLYMERIZATION):	N/A	

SECTION 11: TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION:	
Skin corrosion/irritation:	Skin – rabbit: No irritation. Skin – human: Mild skin irritation.
Serious eye damage/eye irritation:	Eyes – rabbit: No eye irritation. Eyes – human: Mild eye irritation.

SECTION 12: ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION: Do not allow into drinking water.

Toxicity to fish:	LC50 – <i>Oncorhynchus mykiss</i> (rainbow trout) – 36.7 mg/L (96h, 100% basis)
Toxicity to daphnia and other aquatic invertebrates:	LC50 – <i>Daphnia magna</i> (Water flea) - 433 mg/L (50h, 100% basis)

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD:	Users of this product should review their operations in terms of applicable federal, state, and local laws and regulations, then consult with appropriate regulatory agencies before discharging or disposing. May be used at appropriate rates as a fertilizer, consult local, state and federal regulations.
RCRA HAZARD CLASS:	N/A

SECTION 14: TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION:

PROPER SHIPPING NAME:	Ammonium Sulfate Solution		
HAZARD CLASS:	N/A		
ID NUMBER:	N/A		
PACKING GROUP:	N/A		
LABEL STATEMENT:	N/A		
Health: 1	Flammability: 0	Reactivity: 0	Specific: None

WATER TRANSPORTATION:

PROPER SHIPPING NAME:	Ammonium Sulfate Solution
HAZARD CLASS:	N/A
ID NUMBER:	N/A
PACKING GROUP:	N/A
LABEL STATEMENTS:	N/A

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Health: 1 Flammability: 0 Reactivity: 0 Specific: None

AIR TRANSPORTATION

PROPER SHIPPING NAME: Ammonium Sulfate Solution

HAZARD CLASS: N/A

ID NUMBER: N/A

PACKING GROUP: N/A

LABEL STATEMENTS: N/A

Health: 1 Flammability: 0 Reactivity: 0 Specific: None

OTHER AGENCIES:

SECTION 15: REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS:

TSCA (TOXIC SUBSTANCE CONTROL ACT): Yes

CERCLA (COMPREHENSIVE RESPONSE COMPENSATION, AND LIABILITY ACT): No

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT): N/A

311/312 HAZARD CATEGORIES: N/A

313 REPORTABLE INGREDIENTS: N/A

STATE REGULATIONS: N/A

INTERNATIONAL REGULATIONS: N/A

SECTION 16: OTHER INFORMATION

OTHER INFORMATION:

PREPARATION INFORMATION: *Technical Services*

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