

Ammonium Sulfate 21-0-0 Safety Data Sheet

Section 1. Identification

Product name : Ammonium Sulfate 21-0-0
Product type : Mixture

Uses

Area of application : Professional applications
Material uses : Fertilizers

Supplier

Supplier's details : Greenway Biotech, Inc.

Address

Street : 10632 Painter Ave.
Postal code : 90670
City : Santa Fe Springs
Country : USA

Telephone number : +1 562 351 5168
e-mail address of person responsible for this SDS : sales@greenwaybiotech.com
Emergency telephone number (with hours of operation) : Chemtrec 24-hour Emergency Response: 800 424 9300

National advisory body/Poison Center

Name : The National Poisons Emergency
Telephone number : 800 222 1222

Section 2. Hazards identification

OSHA/HCS status : This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Classification and labelling have been performed following the guidelines and recommendation of GHS and the intended use.

Classification of the substance or mixture : Not classified.

GHS label elements

Signal word : No signal word.

Hazard statements : Not applicable.

Precautionary statements

General : Not applicable.

Hazards not otherwise classified : Product forms slippery surface when combined with water.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

CAS number/other identifiers

Other means of identification : Ammonium Sulfate
CAS number : 7783-20-2

Product / ingredient name	CAS number	%	GHS-US Classification
Urea	CAS: 7783-20-2		Not classified
Anti-caking agent			Not classified

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact	:	Rinse with plenty of running water. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Inhalation	:	If inhaled, remove to fresh air. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Skin contact	:	Wash with soap and water. Get medical attention if irritation Develops.
Ingestion	:	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if adverse health effects persist or are severe.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact	:	No known significant effects or critical hazards.
Inhalation	:	Exposure to decomposition products may cause a health hazard. Serious effect may be delayed following exposure.
Skin contact	:	No known significant effects or critical hazards.
Ingestion	:	No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact	:	No specific data.
Inhalation	:	No specific data.
Skin contact	:	No specific data.
Ingestion	:	No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician	:	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Specific treatments	:	No specific treatment.
Protection of first-aiders	:	No action shall be takes involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media	:	Foam. Dry powder. Carbon dioxide. Water spray. Sand.
-------------------------------------	---	--

Unsuitable extinguishing media	:	Do not use a heavy water stream.
Specific hazards arising from the chemical	:	No specific fire or explosion hazard.
Special protective actions for Exercise fire-fighters	:	Use water spray or fog for cooling exposed containers. Caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
Special protective equipment for fire-fighters	:	Do not enter fire area without proper protective equipment, including respiratory protection.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	:	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
For emergency responders	:	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel."
Environmental precautions	:	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and material for containment and cleaning up

Small spill	:	Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.
Large spill	:	Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures	:	Put on appropriate personal protective equipment (see Section 8).
Advise on general occupational hygiene	:	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
Conditions for safe storage, including Any incompatibilities	:	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and Well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready to use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

No additional information available.

Individual protection measures

Hygiene measures

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Wash contaminated clothing before reusing. A washing facility or water for eye and skin cleaning purposes should be present.

Eye/face protection

: Safety eyewear complying with an approved standard should be used when a risk assessment indicated this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.

Skin protection

Hand protection

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Body protection

: Personal protective equipment for the body should be selected based on the task being performed and the risks involved.

Other skin protection

: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection

: Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and chemical properties

Appearance

Physical state

: Solid.

Color

: White.

Odor

: Odorless.

Odor threshold

: Not determined.

pH

: 5.5 – 6

Melting/freezing point

: \geq °C

Boiling/condensation point

: Not determined.

Sublimation temperature

: Not determined.

Flash point

: Not applicable.

Evaporation rate

: Not determined.

Flammability

: Non-flammable.

Lower and upper explosive (flammable) limits

: **Lower:** Not determined.

Upper: Not determined.

Vapor pressure

: Not determined.

Vapor density

: Not determined.

Bulk density

: Not determined.

Density

: 66 – 69 lbs/ft³

Relative density

: Not determined.

Solubility

: Water: Solubility in water of component(s) of the mixture:

Partition coefficient: n-octanol/water	:	Ammonium sulfate (7783-20-2): 77 g/100ml
Auto-ignition temperature	:	Not determined.
Decomposition temperature	:	Not determined.
Viscosity	:	Dynamic: Not determined.
	:	Kinematic: Not determined.
Explosive properties	:	None.
Oxidizing properties	:	None.

Section 10. Stability and reactivity

Reactivity	:	No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	:	The product is stable.
Possibility of hazardous reactions	:	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	:	Direct sunlight. Extremely high or low temperatures.
Incompatible materials	:	Oxidizers. Strong acids. Strong bases.
Hazardous decomposition products release dioxide	:	The product may reach melting point and decompose to NH ₃ , Sox, Pox, or CN. fume. Carbon monoxide. Carbon

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity : Not classified.

Ammonium Sulfate 21-0-0	
LD50 oral rat	640 – 4250 mg/kg
LD50 dermal rat	>2000 mg/kg
ATE US (oral)	640.000 mg/kg bodyweight

Ammonium Sulfate 21-0-0 (7783-20-2)	
LD50 oral rat	2840 mg/kg (Rat)
LD50 dermal rat	>2000 mg/kg
ATE US (oral)	2840.000 mg/kg bodyweight

Skin corrosion/irritation	:	Not classified pH: 5.5 – 6
Serious eye damage/irritation	:	Not classified pH: 5.5 – 6
Respiratory or skin sensitization	:	Not classified
Germ cell mutagenicity met	:	Not classified Based on available data, the classification criteria are not
Carcinogenicity	:	Not classified
Reproductive toxicity	:	Not classified
Specific target organ toxicity (single exposure)	:	Not classified
Specific target organ toxicity (repeated exposure)	:	Not classified
Aspiration hazard	:	Not classified
Potential adverse human health effects and symptoms	:	Not classified

Section 12. Ecological information

Toxicity

Ammonium Sulfate 21-0-0	
LC50 fish 1	126 mg/l (96 h; Poecilia reticulata)
EC50 Daphnia 1	202 mg/l (96 h; Daphnia magna)
LC50 fish 2	250 – 480 mg/l (96 h; Brachydanio rerio)
EC50 Daphnia 2	433 mg/l (50 h; Daphnia magna)
TLM fish 1	1290 ppm (96 h; Gambusia affinis)

Persistence/degradability

Ammonium Sulfate 21-0-0	
Persistence and degradability	Not established.

Anti-caking agent	
Persistence and degradability	Not established.

Ammonium Sulfate (7782-20-2)	
Persistence and degradability	Biodegradability in water: no data available. Not established.

Bioaccumulative potential

Ammonium Sulfate 21-0-0	
Bioaccumulative potential	Not established.

Anti-caking agent	
Bioaccumulative potential	Not established.

Ammonium Sulfate (7782-20-2)	
Log Pow	-5.1
Bioaccumulative potential	Bioaccumulative: not applicable. Not established.

Mobility in soil

- Soil/water partition coefficient (KOC)** : Not available.
- Mobility** : This product may move with surface or groundwater flows because its water solubility is: high
- Other adverse effects** : No known significant effects or critical hazards.

Section 13. Disposal considerations

Waste treatment methods

- Waste disposal recommendations** : Dispose in a safe manner in accordance with local/national regulations.
- Ecology – waste materials** : Avoid release to the environment.

Section 14. Transport information

Regulation: UN Class	
14.1 UN number	Not regulated.
14.2 UN proper shipping name	
14.3 Transport hazard class(es)	
14.4 packing group	
14.5 Environmental hazards	No.
14.6 Additional information	No.

Environmental hazards	
------------------------------	--

Regulation: IMDG	
14.1 UN number	Not regulated.
14.2 UN proper shipping name	
14.3 Transport hazard class(es)	
14.4 Packing group	
14.5 Environmental hazards	
14.6 Additional information	

Regulation: IATA	
14.1 UN number	Not regulated.
14.2 UN proper shipping name	
14.3 Transport hazard class(es)	
14.4 Packing group	
14.5 Environmental hazards	
14.6 Additional information	

Regulation: DOT Classification	
14.1 UN number	Not regulated.
14.2 UN proper shipping name	
14.3 Transport hazard class(es)	
14.4 packing group	
14.5 Environmental hazards	No.
14.6 Additional information <u>Environmental hazards</u>	No.

Regulation: TDG Class	
14.1 UN number	Not regulated.
14.2 UN proper shipping name	
14.3 Transport hazard class(es)	
14.4 packing group	
14.5 Environmental hazards	No.
14.6 Additional information <u>Environmental hazards</u>	No.

Special precautions for user : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Section 15. Regulatory information

United States

U.S. Federal regulations : **United States – TSCA 12(b) – Chemical export notification:** None of the components are listed.
United States – TSCA 4(a) – Final Test Rules: Not listed
United States – TSCA 4(e) – ITC Priority list: Not listed
United States – TSCA 4(a) – Proposed test rules: Not listed
United States – TSCA 4(f) – Priority risk review: Not listed

United States – TSCA 5(a)2 – Final significant new use rules: Not listed
United States – TSCA 5(a)2 – Proposed significant new use rules: Not listed
United States – TSCA 5(e) – Substances consent order: Not listed
United States – TSCA 6 – Final risk management: Not listed
United States – TSCA 6 – Proposed risk management: Not listed
United States – TSCA 8(a) – Comprehensive assessment report (CAIR): Not listed
United States – TSCA 8(a) – Chemical risk rules: Not listed
United States – TSCA 8(a) – Dioxin/Furane precursor: Not listed
United States – TSCA 8(a) – Chemical Data Reporting (CDR): Not determined
United State – TSCA 8(a) – Preliminary assessment report (PAIR): Not listed
United States – TSCA 8(c) – Significant adverse reaction (SAR): Not listed
United States – TSCA 8(d) – Health and safety studies: Not listed
United States – EPA Clean water act (CWA) section 307 – Priority pollutants: Not listed
United States – EPA Clean water act (CWA) section 311 – Hazardous substances: Not listed
United States – EPA Clean air act (CAA) section 112 – Accidental release prevention – Flammable substances: Not listed
United States – EPA Clean air act (CAA) section 112 – Accidental release prevention – Toxic substances: Not listed
United States – Department of commerce – Precursor chemical: Not listed

Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs) : Not listed
Clean Air Act Section 602 Class I Substances : Not listed
Clean Air Act Section 602 Class II Substances : Not listed
DEA List I Chemicals (Precursor Chemicals) : Not listed
DEA List I Chemicals (Essential Chemicals) : Not listed

SARA 302/304
 Not applicable.

SARA 304 RQ : Not applicable.

SARA 311/312
Classification : Not applicable.

State regulations

Massachusetts : None of the components are listed.
New York : None of the components are listed.
New Jersey : None of the components are listed.
Pennsylvania : None of the components are listed.

International lists

Philippines inventory (PICCS): All components are listed or exempted.

New Zealand Inventory of Chemicals (NZIoC): All components are listed or exempted.

Korea inventory: All components are listed or exempted.

Japan inventory: All components are listed or exempted.

China inventory (IECSC): All components are listed or exempted.

Australia inventory (AICS): All components are listed or exempted.

Canada inventory (DSL and NDSL): All components are listed or exempted.

United States inventory (TSCA 8b): All components are listed or exempted.

EC INVENTORY (EINECS/ELINCS): All components are listed or exempted.

Safety, health and environmental regulations specific for the product : No known other specific national and/or regional regulations applicable to this product (including its ingredients).

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health	-	0
Flammability		0
Physical hazards		0

Caution: HMIS ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks although MIS ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS is a registered mark of the National Paint & Coatings Association (NPCA). HMIS materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

Chronic toxicity:

- : No data available.

* : Carcinogen, Target organs, Reproductive effects, Sensitizer to lungs

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-name supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.