



# SAFETY DATA SHEET

## 1. Identification

<b>Product identifier</b>	<b>AMMONIUM SULFATE, REAGENT (ACS)</b>		
<b>Other means of identification</b>			
<b>Product code</b>	647		
<b>Recommended use</b>	professional, scientific and technical activities: other professional, scientific and technical activities		
<b>Recommended restrictions</b>	None known.		
<b>Manufacturer/Importer/Supplier/Distributor information</b>			
<b>Company name</b>	GFS Chemicals, Inc.		
<b>Address</b>	P.O. Box 245 Powell OH 43065 US		
<b>Telephone</b>	Phone	740-881-5501	
	Toll Free	800-858-9682	
	Fax	740-881-5989	
<b>Website</b>	www.gfschemicals.com		
<b>E-mail</b>	service@gfschemicals.com		
<b>Emergency phone number</b>	Emergency Assistance	Chemtrec 800-424-9300	

## 2. Hazard(s) identification

<b>Physical hazards</b>	Not classified.		
<b>Health hazards</b>	Not classified.		
<b>OSHA hazard(s)</b>	Not classified.		
<b>Label elements</b>			
<b>Hazard symbol</b>	No symbol.		
<b>Signal word</b>	Not available.		
<b>Hazard statement</b>	Harmful to aquatic life. Harmful to aquatic life with long lasting effects.		
<b>Precautionary statement</b>			
<b>Prevention</b>	Not available.		
<b>Response</b>	Not available.		
<b>Storage</b>	Keep container tightly closed.		
<b>Disposal</b>	Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.		
<b>Hazard(s) not otherwise classified (HNOC)</b>	Not classified.		
<b>Environmental hazards</b>	Hazardous to the aquatic environment, acute hazard	Category 3	
	Hazardous to the aquatic environment, long-term hazard	Category 3	
<b>Supplemental information</b>			
<b>Precautionary statement</b>			
<b>Prevention</b>	Avoid release to the environment.		
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.		

## 3. Composition/information on ingredients

### Substances

<b>Hazardous components</b>			
<b>Chemical name</b>	<b>Common name and synonyms</b>	<b>CAS number</b>	<b>%</b>
AMMONIUM SULFATE		7783-20-2	100

\*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

#### 4. First-aid measures

<b>Inhalation</b>	Move to fresh air. Call a physician if symptoms develop or persist.
<b>Skin contact</b>	Rinse skin with water/shower. Get medical attention if irritation develops and persists.
<b>Eye contact</b>	Rinse with water. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	Get medical advice/attention if you feel unwell.
<b>Most important symptoms/effects, acute and delayed</b>	Not available.
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically.

#### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Use extinguishing agent suitable for type of surrounding fire. Water.
<b>Unsuitable extinguishing media</b>	None known.
<b>Specific hazards arising from the chemical</b>	None known.
<b>Special protective equipment and precautions for firefighters</b>	Wear suitable protective equipment.
<b>Fire-fighting equipment/instructions</b>	In the event of fire, cool tanks with water spray. Water runoff can cause environmental damage.
<b>Specific methods</b>	Cool containers exposed to flames with water until well after the fire is out.

#### 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. Local authorities should be advised if significant spillages cannot be contained. Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Wear appropriate personal protective equipment.
<b>Methods and materials for containment and cleaning up</b>	Refer to attached safety data sheets and/or instructions for use. Should not be released into the environment. This product is miscible in water. Stop the flow of material, if this is without risk. Collect spillage. Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation. Following product recovery, flush area with water. This material is classified as a water pollutant under the Clean Water Act and should be prevented from contaminating soil or from entering sewage and drainage systems which lead to waterways. For waste disposal, see section 13 of the MSDS.
<b>Environmental precautions</b>	Contact local authorities in case of spillage to drain/aquatic environment. Avoid discharge into drains, water courses or onto the ground. Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water.

#### 7. Handling and storage

<b>Precautions for safe handling</b>	Avoid release to the environment. Do not empty into drains.
<b>Conditions for safe storage, including any incompatibilities</b>	Keep containers tightly closed. Store in a cool, dry place out of direct sunlight.

#### 8. Exposure controls/personal protection

<b>Occupational exposure limits</b>	No exposure limits noted for ingredient(s).
<b>Biological limit values</b>	No biological exposure limits noted for the ingredient(s).
<b>Appropriate engineering controls</b>	General ventilation normally adequate.
<b>Individual protection measures, such as personal protective equipment</b>	
<b>Eye/face protection</b>	Wear chemical goggles.
<b>Skin protection</b>	
<b>Hand protection</b>	Wear protective gloves.
<b>Other</b>	Normal work clothing (long sleeved shirts and long pants) is recommended.
<b>Respiratory protection</b>	No personal respiratory protective equipment normally required.
<b>Thermal hazards</b>	Not available.

**General hygiene considerations**

Wash hands before breaks and immediately after handling the product. Handle in accordance with good industrial hygiene and safety practice.

**9. Physical and chemical properties**

<b>Appearance</b>	Crystalline.
<b>Physical state</b>	Solid.
<b>Form</b>	Solid.
<b>Color</b>	White.
<b>Odor</b>	Odorless.
<b>Odor threshold</b>	Not available.
<b>pH</b>	5.5 0.1 molar aqueous solution
<b>Melting point/freezing point</b>	Not available.
<b>Initial boiling point and boiling range</b>	Not available.
<b>Flash point</b>	Not available.
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not available.
<b>Flammability limit - upper (%)</b>	Not available.
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor density</b>	Not available.
<b>Relative density</b>	Not available.
<b>Solubility(ies)</b>	430 g/l at 20 °C
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	446 °F (230 °C)
<b>Viscosity</b>	Not available.
<b>Other information</b>	
<b>Density</b>	1.77 g/cm <sup>3</sup>
<b>Molecular formula</b>	(NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub>
<b>Molecular weight</b>	132.14 g/mol
<b>Specific gravity</b>	1.769 at 50 °C

**10. Stability and reactivity**

<b>Reactivity</b>	Not available.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	Hazardous polymerization does not occur.
<b>Conditions to avoid</b>	None known.
<b>Incompatible materials</b>	Alkaline metals.
<b>Hazardous decomposition products</b>	Nitrogen oxides (NO <sub>x</sub> ). Sulfur oxides. Ammonia May include oxides of nitrogen.

**11. Toxicological information****Information on likely routes of exposure**

<b>Ingestion</b>	Not available.
<b>Inhalation</b>	Due to lack of data the classification is not possible.
<b>Skin contact</b>	Due to lack of data the classification is not possible.
<b>Eye contact</b>	Due to lack of data the classification is not possible.

**Symptoms related to the physical, chemical and toxicological characteristics** Not available.

### Information on toxicological effects

#### Acute toxicity

Product	Species	Test Results
AMMONIUM SULFATE (CAS 7783-20-2)		
<b>Acute</b>		
<i>Oral</i>		
LD50	Rat	3060 mg/kg

\* Estimates for product may be based on additional component data not shown.

**Skin corrosion/irritation** Due to lack of data the classification is not possible. May be irritating to the skin.

**Serious eye damage/eye irritation** May irritate eyes. Due to lack of data the classification is not possible.

**Respiratory sensitization** Due to lack of data the classification is not possible.

**Skin sensitization** Due to lack of data the classification is not possible.

**Germ cell mutagenicity** Due to lack of data the classification is not possible.

**Carcinogenicity** This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

**Reproductive toxicity** Due to lack of data the classification is not possible.

**Specific target organ toxicity - single exposure** Due to lack of data the classification is not possible.

**Specific target organ toxicity - repeated exposure** Due to lack of data the classification is not possible.

**Aspiration hazard** Due to lack of data the classification is not possible.

## 12. Ecological information

**Ecotoxicity** Harmful to aquatic life with long lasting effects. Accumulation in aquatic organisms is expected. Contains a substance which causes risk of hazardous effects to the environment.

Product	Species	Test Results
AMMONIUM SULFATE (CAS 7783-20-2)		
<b>Aquatic</b>		
Crustacea	EC50	Water flea (Ceriodaphnia dubia) 52 - 67 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas) > 20 mg/l, 96 hours

\* Estimates for product may be based on additional component data not shown.

**Persistence and degradability** None known.

**Bioaccumulative potential** Not available.

**Mobility in soil** Not available.

**Other adverse effects** Not available.

## 13. Disposal considerations

**Disposal instructions** Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

**Local disposal regulations** Not available.

**Hazardous waste code** Not regulated.

**Waste from residues / unused products** Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

**Contaminated packaging** Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

## 14. Transport information

### DOT

Not regulated as a hazardous material by DOT.

**IATA**

Not regulated as a dangerous good.

**IMDG**

Not regulated as a dangerous good.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** No information available.

**15. Regulatory information**

**US federal regulations** CERCLA/SARA Hazardous Substances - Not applicable.

All components are on the U.S. EPA TSCA Inventory List.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not on regulatory list.

**CERCLA Hazardous Substance List (40 CFR 302.4)**

Not listed.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories** Immediate Hazard - No  
Delayed Hazard - No  
Fire Hazard - No  
Pressure Hazard - No  
Reactivity Hazard - No

**SARA 302 Extremely hazardous substance** No

**SARA 311/312 Hazardous chemical** No

**Other federal regulations****Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**Safe Drinking Water Act (SDWA)** Not regulated.

**Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number**

Not listed.

**Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))**

Not regulated.

**DEA Exempt Chemical Mixtures Code Number**

Not regulated.

**Food and Drug Administration (FDA)** Total food additive  
Direct food additive  
GRAS food additive

**US state regulations** California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

**US. Massachusetts RTK - Substance List**

AMMONIUM SULFATE (CAS 7783-20-2)

**US. New Jersey Worker and Community Right-to-Know Act**

Not regulated.

**US. Pennsylvania RTK - Hazardous Substances**

AMMONIUM SULFATE (CAS 7783-20-2)

**US. Rhode Island RTK**

Not regulated.

**US. California Proposition 65****US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance**

Not listed.

## International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s)

## 16. Other information, including date of preparation or last revision

**Issue date** August-05-2014

**Version #** 01

**Further information** Not available.

**Disclaimer** The information in the sheet was written based on the best knowledge and experience currently available. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**Revision Information** Product and Company Identification: Alternate Trade Names  
Composition / Information on Ingredients: Disclosure Overrides  
Physical & Chemical Properties: Multiple Properties  
Toxicological Information: Toxicological Data  
Transport Information: Material Transportation Information  
Regulatory Information: United States  
HazReg Data: North America