



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Material name	AMMONIUM SULFATE
Version #	02
Revision date	01-18-2012
CAS #	7783-20-2
Product Codes	J.T.Baker: 0792, 0793, 0795, 0797, 0798, 0800, 4027 Macron: 3496, 3512, 7725, IM0798
Synonym(s)	Diammonium sulfate; sulfuric acid, diammonium salt; Actamaster; Dolamin; mascagnite
Manufacturer	Avantor Performance Materials, Inc.
Address	3477 Corporate Parkway Suite #200 Center Valley, PA 18034 US
Customer Service	855-282-6867
24 Hour Emergency	908-859-2151
Chemtrec	800-424-9300

2. Hazards Identification

Emergency overview	WARNING Product dust may be irritating to eyes, skin and respiratory system. May cause central nervous system effects.
OSHA regulatory status	This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).
Potential health effects	
Routes of exposure	Inhalation. Skin contact. Eye contact. Ingestion.
Eyes	Dust or powder may irritate eye tissue. If irritation should occur, it is expected to be transient.
Skin	Dust or powder may irritate the skin.
Inhalation	Inhalation of dusts may cause respiratory irritation.
Ingestion	May be harmful if swallowed. May cause temporary irritation of the throat, stomach, and gastrointestinal tract. May cause central nervous system effects.
Target organs	Central nervous system.
Chronic effects	None known.
Potential environmental effects	Harmful to aquatic organisms.

3. Composition / Information on Ingredients

Components	CAS #	Percent
AMMONIUM SULFATE	7783-20-2	99 - 100

4. First Aid Measures

First aid procedures	
Eye contact	Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. Get medical attention if irritation develops and persists.
Skin contact	Wash off with soap and water. Get medical attention if irritation develops and persists.
Inhalation	Move to fresh air. Treat symptomatically. Get medical attention if symptoms persist.
Ingestion	Call a physician or poison control center immediately. Only induce vomiting at the instruction of medical personnel. Never give anything by mouth to an unconscious person.

Notes to physician	Treat symptomatically.
General advice	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

5. Fire Fighting Measures

Flammable properties	This product is not flammable.
Extinguishing media	
Suitable extinguishing media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	None known.
Protection of firefighters	
Protective equipment and precautions for firefighters	Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask. Wear self-contained breathing apparatus with a full facepiece operated in the positive pressure demand mode when fighting fires.
Specific methods	In the event of fire and/or explosion do not breathe fumes. Use water spray to cool unopened containers.
Hazardous combustion products	Carbon monoxide and carbon dioxide. Sulfur oxides.

6. Accidental Release Measures

Personal precautions	Keep unnecessary personnel away. Keep upwind. Ventilate the area. Avoid inhalation of dust from the spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not discharge into drains, water courses or onto the ground.
Methods for containment	If sweeping of a contaminated area is necessary use a dust suppressant agent which does not react with the product. Prevent entry into waterways, sewer, basements or confined areas.
Methods for cleaning up	Avoid dust formation. Small Spills: Sweep up or vacuum up spillage and collect in suitable container for disposal. Large Spills: Collect dust or particulates using a vacuum cleaner with a HEPA filter. Reduce airborne dust and prevent scattering by moistening with water. Never return spills in original containers for re-use. Clean contaminated surface thoroughly. Clean up in accordance with all applicable regulations.

7. Handling and Storage

Handling	Keep formation of airborne dusts to a minimum. Avoid breathing dust. Avoid contact with eyes, skin, and clothing. Do not taste or swallow. Do not eat, drink or smoke when using the product. Use only with adequate ventilation. Wash thoroughly after handling. See Section 8 of the MSDS for Personal Protective Equipment.
Storage	Keep container tightly closed. Store in a well-ventilated place.

8. Exposure Controls / Personal Protection

Engineering controls	Ventilation should be sufficient to effectively remove and prevent buildup of any dusts or fumes that may be generated during handling or thermal processing. If engineering measures are not sufficient to maintain concentrations of dust particulates below the OEL, suitable respiratory protection must be worn.
Personal protective equipment	
Eye / face protection	Use tight fitting goggles if dust is generated.
Skin protection	Wear appropriate clothing to prevent repeated or prolonged skin contact.
Respiratory protection	Wear respirator if there is dust formation.

General hygiene considerations

Provide eyewash station and safety shower. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical & Chemical Properties

Appearance	Crystalline.
Color	White.
Odor	Ammoniacal.
Odor threshold	Not available.
Physical state	Solid.
Form	Granular. Crystals.
pH	5.5 (0.1 M Solution)
Melting point	455 °F (235 °C) Decomposes.
Freezing point	Not available.
Boiling point	Not applicable.
Flash point	Not available.
Evaporation rate	Not available.
Flammability limits in air, upper, % by volume	Not available.
Flammability limits in air, lower, % by volume	Not available.
Vapor density	Not available.
Specific gravity	1.769
Relative density	Not available.
Solubility (water)	Appreciable.
Partition coefficient (n-octanol/water)	Not available
Auto-ignition temperature	Not available.
Molecular weight	132.14 g/mol
Molecular formula	H8-N2-O4-S

10. Chemical Stability & Reactivity Information

Chemical stability	Stable under normal temperature conditions.
Conditions to avoid	Excessive heat.
Incompatible materials	Strong oxidizing agents. Potassium. Nitrates.
Hazardous decomposition products	Ammonia. Nitrogen oxides (NOx). Sulfur oxides.
Possibility of hazardous reactions	Hazardous polymerization does not occur.

11. Toxicological Information

Sensitization	Not a skin sensitizer.
Acute effects	May be harmful if swallowed. May cause central nervous system effects.
Local effects	May cause eye irritation. May cause skin irritation. May cause irritation to the respiratory system.
Chronic effects	None known.
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
Skin corrosion/irritation	May irritate and cause redness and pain.
Epidemiology	No epidemiological data is available for this product.

Mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Neurological effects	None known.
Reproductive effects	Contains no ingredient listed as toxic to reproduction
Teratogenicity	No data available to indicate product or any components present at greater than 0.1% may cause birth defects.
Symptoms and target organs	Irritant effects. Shortness of breath.

12. Ecological Information

Ecotoxicological data

Product	Test Results
AMMONIUM SULFATE (7783-20-2)	EC50 Water flea (Ceriodaphnia dubia): 52 mg/l 48.00 hours

Ecotoxicity	Harmful to aquatic life.
Persistence and degradability	Expected to be readily biodegradable.
Partition coefficient (n-octanol/water)	Not available

13. Disposal Considerations

Disposal instructions	Dispose of contents/container in accordance with local/regional/national/international regulations. Incinerate the material under controlled conditions in an approved incinerator.
Contaminated packaging	Offer rinsed packaging material to local recycling facilities. Since emptied containers retain product residue, follow label warnings even after container is emptied.

14. Transport Information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

15. Regulatory Information

US federal regulations	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. All components are on the U.S. EPA TSCA Inventory List.
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US EPCRA (SARA Title III) Section 313 - Toxic Chemical: De minimis concentration

AMMONIUM SULFATE (CAS 7783-20-2)	1.0 %
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US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance

AMMONIUM SULFATE (CAS 7783-20-2)	Listed.
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CERCLA (Superfund) reportable quantity

None

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories	Immediate Hazard - Yes Delayed Hazard - No Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No
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Section 311 hazardous chemical	Yes
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Food and Drug Administration (FDA)
Total food additive
Direct food additive
GRAS food additive

Inventory status

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 that all components of this product comply with the inventory requirements administered by the governing country(s)

State regulations This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

US - Pennsylvania RTK - Hazardous Substances: Listed substance

AMMONIUM SULFATE (CAS 7783-20-2) Listed.

Saf-T-Data
Health: 1 - Slight
Flammability: 0 - None
Reactivity: 1 - Slight
Contact: 2 - Moderate
Lab Protective Equip: C - GOGGLES; LAB COAT; PROPER GLOVES
Storage Color Code: G - Green (General Storage)

16. Labeling Info

Label Hazard Warning WARNING
Product dust may be irritating to eyes, skin and respiratory system. May cause central nervous system effects.

Label Precautions Avoid breathing dust. Avoid contact with eyes, skin, and clothing. Do not taste or swallow. Use only with adequate ventilation. Wash thoroughly after handling. Keep container closed.

Label First Aid Immediately flush eyes with plenty of water for at least 15 minutes. Flush skin thoroughly with water. If gas/fume/vapor/dust/mist from the material is inhaled, remove the affected person immediately to fresh air. Get medical attention if symptoms persist. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

17. Other Information

NFPA ratings
Health: 2
Flammability: 0
Instability: 0

Disclaimer

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