

## SAFETY DATA SHEET

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Revision Date 01/08/2020

Version 1.5

**SECTION 1. Identification****Product identifier**

Product number	AX1385
Product name	Ammonium Sulfate GR ACS
CAS-No.	7783-20-2

**Relevant identified uses of the substance or mixture and uses advised against**

Identified uses	Reagent for analysis
-----------------	----------------------

**Details of the supplier of the safety data sheet**

Company	EMD Millipore Corporation   400 Summit Drive   Burlington   Massachusetts 01803   United States of America   General Inquiries: +1 800-645-5476   Monday to Friday, 9:00 AM to 4:00 PM Eastern Time (GMT-5) MilliporeSigma is a business of Merck KGaA, Darmstadt, Germany.
---------	--

<b>Emergency telephone</b>	800-424-9300 CHEMTREC (USA) +1-703-527-3887 CHEMTREC (International) 24 Hours/day; 7 Days/week
----------------------------	--

**SECTION 2. Hazards identification****GHS-Labeling**

Not a dangerous substance according to GHS.

**Other hazards**

None known.

**SECTION 3. Composition/information on ingredients**

Formula	(NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub>	H <sub>8</sub> N <sub>2</sub> O <sub>4</sub> S (Hill)
Molar mass	132.14 g/mol	

# SAFETY DATA SHEET

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number	AX1385	Version 1.5
Product name	Ammonium Sulfate GR ACS	

---

Remarks	No hazardous ingredients according to the OSHA Hazard Communication Standard 29 CFR 1910.1200.
---------	--

---

## SECTION 4. First aid measures

### Description of first-aid measures

#### *Inhalation*

After inhalation: fresh air.

#### *Skin contact*

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

#### *Eye contact*

After eye contact: rinse out with plenty of water. Remove contact lenses.

#### *Ingestion*

After swallowing: make victim drink water (two glasses at most). Consult doctor if feeling unwell.

Never give anything by mouth to an unconscious person.

### Most important symptoms and effects, both acute and delayed

The following applies to ammonium salts in general: after swallowing: local irritation symptoms, nausea, vomiting, diarrhea. Systemic effect: after the uptake of very large quantities: drop in blood pressure, collapse, CNS disorders, spasms, narcotic conditions, respiratory paralysis, hemolysis.

### Indication of any immediate medical attention and special treatment needed

No information available.

---

## SECTION 5. Fire-fighting measures

### Extinguishing media

#### *Suitable extinguishing media*

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

#### *Unsuitable extinguishing media*

For this substance/mixture no limitations of extinguishing agents are given.

### Special hazards arising from the substance or mixture

Not combustible.

Ambient fire may liberate hazardous vapors.

Fire may cause evolution of:  
nitrogen oxides, Sulfur oxides

---

# SAFETY DATA SHEET

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number

AX1385

Version 1.5

Product name

Ammonium Sulfate GR ACS

---

## Advice for firefighters

*Special protective equipment for fire-fighters*

In the event of fire, wear self-contained breathing apparatus.

*Further information*

Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

---

## SECTION 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid inhalation of dusts. Evacuate the danger area, observe emergency procedures, consult an expert.

Advice for emergency responders:

Protective equipment see section 8.

### Environmental precautions

Do not let product enter drains.

### Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

---

## SECTION 7. Handling and storage

### Precautions for safe handling

Observe label precautions.

### Conditions for safe storage, including any incompatibilities

Tightly closed. Dry.

Store at room temperature.

---

## SECTION 8. Exposure controls/personal protection

### Exposure limit(s)

Contains no substances with occupational exposure limit values.

### Engineering measures

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

### Individual protection measures

Protective clothing should be selected specifically for the workplace, depending on concentration and quantity of the hazardous substances handled. The chemical resistance of the protective equipment should be inquired at the respective supplier.

---

# SAFETY DATA SHEET

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number AX1385  
Product name Ammonium Sulfate GR ACS

Version 1.5

## *Hygiene measures*

Change contaminated clothing. Wash hands after working with substance.

## *Eye/face protection*

Safety glasses

## *Hand protection*

full contact:

Glove material: Nitrile rubber  
Glove thickness: 0.11 mm  
Break through time: > 480 min

splash contact:

Glove material: Nitrile rubber  
Glove thickness: 0.11 mm  
Break through time: > 480 min

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374, for example KCL 741 Dermatril® L (full contact), KCL 741 Dermatril® L (splash contact).

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types.

This recommendation applies only to the product stated in the safety data sheet and supplied by us as well as to the purpose specified by us. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

## *Respiratory protection*

required when dusts are generated.

Recommended Filter type: Filter P 1 (acc. to DIN 3181) for solid particles of inert substances

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are performed according to the instructions of the producer.

These measures have to be properly documented.

---

## **SECTION 9. Physical and chemical properties**

Physical state	solid
Color	colorless
Odor	odorless
Odor Threshold	Not applicable
pH	No information available.

Page 4 of 11

# SAFETY DATA SHEET

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number	AX1385	Version 1.5
Product name	Ammonium Sulfate GR ACS	

---

Melting point	(decomposition), Not applicable
Boiling point/boiling range	Not applicable
Flash point	does not flash
Evaporation rate	No information available.
Flammability (solid, gas)	No information available.
Lower explosion limit	Not applicable
Upper explosion limit	Not applicable
Vapor pressure	< 1 Pa at 77 °F (25 °C)
Relative vapor density	Not applicable
Density	1.77 g/cm <sup>3</sup> at 68 °F (20 °C)
Relative density	No information available.
Solubility(ies)	Solvent: ethanol insoluble Solvent: Acetone insoluble
Water solubility	754 - 764 g/l at 68 °F (20 °C)
Partition coefficient: n-octanol/water	Not applicable for inorganic substances
Autoignition temperature	No information available.
Decomposition temperature	> 455 °F (> 235 °C)
Viscosity, dynamic	No information available.
Explosive properties	Not classified as explosive.
Oxidizing properties	none

## SAFETY DATA SHEET

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number	AX1385	Version 1.5
Product name	Ammonium Sulfate GR ACS	

---

Ignition temperature Not applicable

Bulk density ca.850 kg/m<sup>3</sup>

---

### SECTION 10. Stability and reactivity

#### Reactivity

See below

#### Chemical stability

hygroscopic

#### Possibility of hazardous reactions

Exothermic reaction with:

chlorates, with, heat

nitrates, with, Heat.

Risk of explosion with:

chlorates, with, Acids

nitrates, with, Potassium

nitrates, with, Acids

nitrites, sodium hypochlorite

Generates dangerous gases or fumes in contact with:

alkalines, Possible formation of:, Ammonia

#### Conditions to avoid

Strong heating (decomposition).

#### Incompatible materials

no information available

#### Hazardous decomposition products

in the event of fire: See section 5.

---

### SECTION 11. Toxicological information

#### Information on toxicological effects

*Likely route of exposure*

Eye contact, Skin contact, Ingestion

# SAFETY DATA SHEET

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number AX1385  
Product name Ammonium Sulfate GR ACS

Version 1.5

## *Acute oral toxicity*

LD50 Rat: 4,250 mg/kg  
OECD Test Guideline 401

## *Acute dermal toxicity*

LD50 Rat: > 2,000 mg/kg  
OECD Test Guideline 434

## *Skin irritation*

Rabbit  
Result: No irritation  
(IUCLID)

## *Eye irritation*

Rabbit  
Result: No eye irritation  
(IUCLID)

## *Genotoxicity in vitro*

Ames test  
Result: negative  
Method: OECD Test Guideline 471

Mutagenicity (mammal cell test): chromosome aberration.

Result: negative  
(IUCLID)

## *Specific target organ systemic toxicity - single exposure*

The substance or mixture is not classified as specific target organ toxicant, single exposure.

## *Specific target organ systemic toxicity - repeated exposure*

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

## *Aspiration hazard*

Regarding the available data the classification criteria are not fulfilled.

## **Carcinogenicity**

IARC	No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
OSHA	No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.
NTP	No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
ACGIH	No ingredient of this product present at levels greater

Page 7 of 11

## SAFETY DATA SHEET

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number AX1385  
Product name Ammonium Sulfate GR ACS

---

Version 1.5

than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

### Further information

The following applies to ammonium salts in general: after swallowing: local irritation symptoms, nausea, vomiting, diarrhea. Systemic effect: after the uptake of very large quantities: drop in blood pressure, collapse, CNS disorders, spasms, narcotic conditions, respiratory paralysis, hemolysis.

However, when the product is handled appropriately, hazardous effects are unlikely to occur.

Handle in accordance with good industrial hygiene and safety practice.

---

## SECTION 12. Ecological information

### Ecotoxicity

#### *Toxicity to fish*

LC50 *Oncorhynchus mykiss* (rainbow trout): 53 mg/l; 96 h

Analytical monitoring: yes(ECHA)

#### *Toxicity to daphnia and other aquatic invertebrates*

static test EC50 *Ceriodaphnia* (water flea): 121.7 mg/l; 48 h

#### *Toxicity to algae*

Growth rate ErC50 *Chlorella vulgaris* (Fresh water algae): 2,700 mg/l; 18 h

#### *Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)*

semi-static test EC10 *Daphnia*: 3.12 mg/l; 70 d

### Persistence and degradability

No information available.

### Bioaccumulative potential

*Partition coefficient: n-octanol/water*

Not applicable for inorganic substances

### Mobility in soil

No information available.

#### *Additional ecological information*

Biological effects:

Fertilizing effect possible.

Discharge into the environment must be avoided.



# SAFETY DATA SHEET

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number

AX1385

Version 1.5

Product name

Ammonium Sulfate GR ACS

---

---

## SECTION 13. Disposal considerations

The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

---

## SECTION 14. Transport information

### Land transport (DOT)

Not classified as dangerous in the meaning of transport regulations.

### Air transport (IATA)

Not classified as dangerous in the meaning of transport regulations.

### Sea transport (IMDG)

Not classified as dangerous in the meaning of transport regulations.

---

## SECTION 15. Regulatory information

### United States of America

#### SARA 313

The following components are subject to reporting levels established by SARA Title III, Section 313:

#### Components

ammonium sulphate	7783-20-2	100 %
-------------------	-----------	-------

#### SARA 302

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

# SAFETY DATA SHEET

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number

AX1385

Version 1.5

Product name

Ammonium Sulfate GR ACS

---

## Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

## DEA List I

Not listed

## DEA List II

Not listed

## US State Regulations

### Massachusetts Right To Know

*Components*

ammonium sulphate

### Pennsylvania Right To Know

*Components*

ammonium sulphate

### California Prop 65 Components

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

## Notification status

TSCA: All components of the product are listed in the TSCA-inventory.

DSL: All components of this product are on the Canadian DSL

---

## SECTION 16. Other information

### Training advice

Provide adequate information, instruction and training for operators.

### Key or legend to abbreviations and acronyms used in the safety data sheet

Used abbreviations and acronyms can be looked up at [www.wikipedia.org](http://www.wikipedia.org).

Revision Date 01/08/2020

The branding on the header and/or footer of this document may temporarily not visually match the product purchased as we transition our branding. However, all of the information in the document regarding the product remains unchanged and matches the product ordered. For further information please contact [mlsbranding@sial.com](mailto:mlsbranding@sial.com).

---

# SAFETY DATA SHEET

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number

AX1385

Version 1.5

Product name

Ammonium Sulfate GR ACS

---

The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to appropriate safety precautions. It does not represent a warranty of any product properties and we assume no liability for any loss or injury which may result from the use of this information. Users should conduct their own investigations to determine the suitability of the information.

**All rights reserved. Millipore and the "M" Mark are registered trademarks of Merck KGaA, Darmstadt, Germany.**