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# Safety Data Sheet

## Ammonium sulfate special grade

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(30042199/SDS\_GEN\_US/EN)

### 1. Identification

**Product identifier used on the label**

**Ammonium sulfate special grade**

**Recommended use of the chemical and restriction on use**

Recommended use\*: Chemical

Recommended use\*: fertilizers; Chemical; Intermediate; process chemical; Fire extinguishing compounds; Laboratory chemicals

\* The "Recommended use" identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

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

Company:

BASF CORPORATION  
100 Park Avenue  
Florham Park, NJ 07932, USA

Telephone: +1 973 245-6000

**Emergency telephone number**

24 Hour Emergency Response Information

CHEMTREC: 1-800-424-9300

BASF HOTLINE: 1-800-832-HELP (4357)

**Other means of identification**

Synonyms: Ammonium sulphate - crystalline

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### 2. Hazards Identification

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

**Classification of the product**

Aquatic Acute

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Hazardous to the aquatic environment - acute

**Label elements**

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Hazard Statement:  
H402 Harmful to aquatic life.

Precautionary Statements (Prevention):  
P273 Avoid release to the environment.

Precautionary Statements (Disposal):  
P501 Dispose of contents and container to hazardous or special waste collection point.

### Hazards not otherwise classified

No specific dangers known, if the regulations/notes for storage and handling are considered.

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## 3. Composition / Information on Ingredients

### According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Ammonium sulphate  
CAS Number: 7783-20-2  
Content (W/W):  $\geq 75.0$  -  $\leq 100.0\%$   
Synonym: Ammonium sulfate

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## 4. First-Aid Measures

### Description of first aid measures

**General advice:**  
Remove contaminated clothing.

**If inhaled:**  
After inhalation of dust. Fresh air. If difficulties occur: Seek medical attention. After inhalation of decomposition products: Keep patient calm, remove to fresh air, seek medical attention.

**If on skin:**  
Wash thoroughly with soap and water

**If in eyes:**  
Wash affected eyes for at least 15 minutes under running water with eyelids held open. Seek medical attention.

**If swallowed:**  
Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

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

Symptoms: (Further) symptoms and / or effects are not known so far  
Hazards: After inhalation of decomposition products: Risk of pulmonary edema. Symptoms can appear later.

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

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### Note to physician

Treatment: After inhalation of decomposition products: Pulmonary odema prophylaxis.

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## 5. Fire-Fighting Measures

### Extinguishing media

Suitable extinguishing media:  
carbon dioxide, water spray

### Special hazards arising from the substance or mixture

Hazards during fire-fighting:  
See SDS section 7 - Handling and storage.

ammonia, can be emitted at 235 °C

nitrogen oxides, sulfur oxides

The substances/groups of substances mentioned can be released in case of fire.

### Advice for fire-fighters

Protective equipment for fire-fighting:  
Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

### Further information:

Product itself is non-combustible; fire extinguishing method of surrounding areas must be considered. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

### Impact Sensitivity:

Remarks: Based on the chemical structure there is no shock-sensitivity.

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## 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Do not get in eyes, on skin, or on clothing. Take appropriate protective measures.

### Environmental precautions

Do not discharge into drains/surface waters/groundwater. Retain and dispose of contaminated wash water.

### Methods and material for containment and cleaning up

For large amounts: Sweep/shovel up.  
For residues: Sweep/shovel up. Rinse away with water.

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## 7. Handling and Storage

### Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practice.

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Protection against fire and explosion:  
The substance/product is non-combustible.

### Conditions for safe storage, including any incompatibilities

Segregate from alkalis and alkalizing substances. Segregate from nitrites and alkaline substances.

Suitable materials for containers: Stainless steel 1.4401, Stainless steel 1.4301 (V2), Aluminium, Polyester resin, glass reinforced (Palatal A410), High density polyethylene (HDPE), glass, Low density polyethylene (LDPE)

Further information on storage conditions: Protect against moisture. The substance/product may cake under the influence of moisture.

Storage stability:  
Storage temperature: 20 °C  
Storage duration: 24 Months

## 8. Exposure Controls/Personal Protection

No substance specific occupational exposure limits known.

**Advice on system design:**  
Ensure adequate ventilation.

### Personal protective equipment

#### **Respiratory protection:**

Breathing protection if breathable aerosols/dust are formed. Wear a NIOSH-certified (or equivalent) particulate respirator.

#### **Hand protection:**

Wear chemical resistant protective gloves., e.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), polyvinylchloride (0.7 mm) and other, Consult with glove manufacturer for testing data.

#### **Eye protection:**

Safety glasses with side-shields. Tightly fitting safety goggles (chemical goggles).

#### **Body protection:**

Body protection must be chosen based on level of activity and exposure.

#### **General safety and hygiene measures:**

At the end of the shift the skin should be cleaned and skin-care agents applied.

## 9. Physical and Chemical Properties

|                  |                                |            |
|------------------|--------------------------------|------------|
| Form:            | crystalline                    |            |
| Odour:           | odourless                      |            |
| Odour threshold: | No data available.             |            |
| Colour:          | white                          |            |
| pH value:        | approx. 5<br>( 100 g/l, 20 °C) | (pH Meter) |

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|   |  |                      |
|---|--|----------------------|
| melting point<br>(decomposition):                   | approx. 350 °C The substance / product decomposes.   | (other)              |
| Freezing point:                                     | No data available.   |                      |
| onset of boiling:                                   | The substance / product decomposes therefore not determined.   | (other)              |
| Sublimation point:                                  | No applicable information available.   |                      |
| Flash point:  | The substance/product is non-combustible.  | (other)              |
| Flammability:                                       | not flammable  | (other)              |
| Lower explosion limit:                              | not applicable   |                      |
| Upper explosion limit:                              | not applicable   |                      |
| Autoignition:                                       | not applicable   |                      |
| Vapour pressure:                                    | 0.0000001 hPa<br>( 25 °C)  | (measured)           |
| Density:  | Literature data.<br>1.766 g/cm3<br>( 20 °C)  | (OECD Guideline 109) |
| Relative density:                                   | 1.77<br>( 25 °C, 1,013 hPa)  | (other)              |
| Bulk density:                                       | Literature data.<br>1,000 kg/m3<br>( 20 °C)  | (other)              |
| Vapour density:                                     | not applicable, The product is a non-volatile solid.   |                      |
| Partitioning coefficient n-octanol/water (log Pow): | not applicable   |                      |
| Self-ignition temperature:                          | not self-igniting  | (other)              |
|   | The value has not be determined because of the low risk of self-ignition in consequence of the high flash-point. | (other)              |
| Thermal decomposition:                              | > 235 °C (internal method)<br>To avoid thermal decomposition, do not overheat.                                   |                      |
| Viscosity, dynamic:                                 | not applicable, the product is a solid   |                      |
| Viscosity, kinematic:                               | not applicable, the product is a solid   |                      |
| Particle size:                                      | D50 560 µm   | (calculated)         |
| Solubility in water:                                | 764 g/l<br>( 20 °C)<br>843 g/l<br>( 50 °C)   |                      |
| Evaporation rate:                                   | not applicable, The product is a non-volatile solid.   |                      |

## 10. Stability and Reactivity

### Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

Oxidizing properties:

Based on its structural properties the product is not classified as oxidizing. (other)

### Chemical stability

The product is stable if stored and handled as prescribed/indicated.

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### Possibility of hazardous reactions

Generation of ammonia upon exposure to alkaline substances. Reacts with alkalis and nitrites.

### Conditions to avoid

Protect from atmospheric humidity.

### Incompatible materials

alkaline reactive substances, nitrites

### Hazardous decomposition products

Decomposition products:

Hazardous decomposition products: ammonia

No applicable information available.

Thermal decomposition:

> 235 °C (internal method)

To avoid thermal decomposition, do not overheat.

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## 11. Toxicological information

### Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

### Acute Toxicity/Effects

#### Acute toxicity

Assessment of acute toxicity: Of low toxicity after single ingestion. Of low toxicity after short-term skin contact.

#### Oral

Type of value: LD50

Species: rat (male/female)

Value: 4,250 mg/kg (BASF-Test)

#### Inhalation

Study does not need to be conducted.

#### Dermal

Type of value: LD50

Species: rat (male/female)

Value: > 2,000 mg/kg

Literature data.

#### Assessment other acute effects

Assessment of STOT single:

The available information is not sufficient for the evaluation of specific target organ toxicity.

#### Irritation / corrosion

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Assessment of irritating effects: Not irritating to the skin. Not irritating to the eyes.

### Sensitization

Assessment of sensitization: Skin sensitizing effects were not observed in animal studies. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

### Aspiration Hazard

not applicable

## **Chronic Toxicity/Effects**

### Repeated dose toxicity

Assessment of repeated dose toxicity: No substance-specific organotoxicity was observed after repeated administration to animals.

### Genetic toxicity

Assessment of mutagenicity: The substance was not mutagenic in bacteria. The substance was not mutagenic in mammalian cell culture. The substance was not mutagenic in studies with mammals.

Genetic toxicity in vitro: OECD Guideline 471 Ames-test with and without metabolic activation negative

OECD Guideline 473 Cytogenetic assay without metabolic activation negative

Literature data.

OECD Guideline 476 HGPRT assay CHO cells:with and without metabolic activation negative

### Carcinogenicity

Assessment of carcinogenicity: In long-term animal studies in which the substance was given in high concentrations by feed, a carcinogenic effect was not observed.

### Reproductive toxicity

Assessment of reproduction toxicity: The results of animal studies gave no indication of a fertility impairing effect. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

### Teratogenicity

Assessment of teratogenicity: No indications of a developmental toxic / teratogenic effect were seen in animal studies. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

### Other Information

The product has not been tested. The statement has been derived from the properties of the individual components.

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## **12. Ecological Information**

### **Toxicity**

#### Aquatic toxicity

Assessment of aquatic toxicity:

The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations. Acutely harmful for aquatic organisms.

#### Toxicity to fish

LC50 (96 h) 53 mg/l, Oncorhynchus mykiss (Fish test acute)

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### Aquatic invertebrates

EC50 (48 h) 121.7 mg/l, Ceriodaphnia sp. (Daphnia test acute, static)

### Aquatic plants

EC50 (18 d) 2,700 mg/l (growth rate), Chlorella vulgaris (other)  
The details of the toxic effect relate to the nominal concentration.

### Chronic toxicity to aquatic invertebrates

EC10 (70 d) 3.12 mg/l (semistatic)

### Soil living organisms

Toxicity to soil dwelling organisms:

LC50 (14 d) 201 mg/kg, Eisenia foetida (artificial soil)

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

### Other terrestrial non-mammals

Study scientifically not justified.

## Microorganisms/Effect on activated sludge

### Toxicity to microorganisms

OECD Guideline 209 aquatic

activated sludge/EC20 (0.5 h): approx. 1,050 mg/l

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

## Persistence and degradability

### Assessment biodegradation and elimination (H2O)

Inorganic product which cannot be eliminated from water by biological purification processes. Can be oxidized to nitrate, or be reduced to nitrogen, by microorganisms.

### Elimination information

Study scientifically not justified.

## Bioaccumulative potential

### Assessment bioaccumulation potential

Accumulation in organisms is not to be expected.

### Bioaccumulation potential

Study scientifically not justified.

## Mobility in soil

### Assessment transport between environmental compartments

Adsorption to solid soil phase is not expected.

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## 13. Disposal considerations

### **Waste disposal of substance:**

Dispose of in accordance with national, state and local regulations.



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### Container disposal:

Contaminated packaging should be emptied as far as possible; then it can be passed on for recycling after being thoroughly cleaned.

## 14. Transport Information

### Land transport USDOT

Not classified as a dangerous good under transport regulations

### Sea transport IMDG

Not classified as a dangerous good under transport regulations

### Air transport IATA/ICAO

Not classified as a dangerous good under transport regulations

## 15. Regulatory Information

### Federal Regulations

#### Registration status:

Chemical TSCA, US

All substances are TSCA listed and active.

**EPCRA 311/312 (Hazard categories):** Refer to SDS section 2 for GHS hazard classes applicable for this product.

### State regulations

#### State RTK

PA

#### CAS Number

7783-20-2

#### Chemical name

Ammonium sulphate

#### NFPA Hazard codes:

Health: 1 Fire: 0 Reactivity: 0 Special:

### Assessment of the hazard classes according to UN GHS criteria (most recent version):

Aquatic Acute  
Acute Tox.

3  
5 (oral)

Hazardous to the aquatic environment - acute  
Acute toxicity

## 16. Other Information

### SDS Prepared by:

BASF NA Product Regulations  
SDS Prepared on: 2024/11/12

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