

Safety data sheet

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BASF Safety data sheet according to Regulation (EC) No. 1907/2006 as amended from time to time.

Date / Revised: 09.01.2023 Version: 2.0

Date previous version: 10.10.2017 Previous version: 1.2

Date / First version: 23.01.2017

Product: Ammonium sulfate special grade bulk

(ID no. 30042228/SDS_GEN_UA/EN)

Date of print 23.10.2025

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Ammonium sulfate special grade bulk

Chemical name: Ammonium sulphate

CAS Number: 7783-20-2

1.2. Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses: Chemical

Recommended use: fertilizers, Chemical, Intermediate, process chemical, Fire extinguishing

compounds, Laboratory chemicals

1.3. Details of the supplier of the safety data sheet

Company:
«BASF T.O.V.» LLC
139, Velyka Vasylkivska str
Kyiv
UKRAINE
03150

Telephone: +38 044 591 55 95 (96) E-mail address: basf.ukraine@basf.com

1.4. Emergency telephone number

Telephone: +49 180 22 73 11 20

0 800 30 72 72 (valid from Ukraine only !!)

Telefax number: +38 044 591 55 97

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SECTION 2: Hazards Identification

2.1. Classification of the substance or mixture

According to Regulation (EC) No 1272/2008 [CLP]

No need for classification according to GHS criteria for this product.

2.2. Label elements

According to Regulation (EC) No 1272/2008 [CLP]

The product does not require a hazard warning label in accordance with GHS criteria.

2.3. Other hazards

According to Regulation (EC) No 1272/2008 [CLP]

No specific dangers known, if the regulations/notes for storage and handling are considered. The product does not contain a substance above legal limits fulfilling the PBT (persistent/bioaccumulative/toxic) criteria or the vPvB (very persistent/very bioaccumulative) criteria. Product does not contain a substance above legal limits included in the list established in accordance with Article 59(1) of Regulation (EC) No 1907/2006 for having endocrine disrupting properties or is identified to have endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

SECTION 3: Composition/Information on Ingredients

3.1. Substances

Chemical nature

Ammonium sulphate

CAS Number: 7783-20-2 EC-Number: 231-984-1

caprolactam

Content (W/W): < 0,5 % Acute Tox. 4 (Inhalation - dust)

CAS Number: 105-60-2 Acute Tox. 4 (oral) EC-Number: 203-313-2 Skin Corr./Irrit. 2 INDEX-Number: 613-069-00-2 Eye Dam./Irrit. 2

STOT SE 3 (irr. to respiratory syst.) H319, H315, H335, H302 + H332

For the classifications not written out in full in this section, including the hazard classes and the hazard statements, the full text is listed in section 16.

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3.2. Mixtures

Not applicable

SECTION 4: First-Aid Measures

4.1. Description of first aid measures

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.

On skin contact:

Wash thoroughly with soap and water

On contact with eyes:

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

On ingestion:

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

4.2. 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.

4.3. Indication of any immediate medical attention and special treatment needed

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

SECTION 5: Fire-Fighting Measures

5.1. Extinguishing media

Suitable extinguishing media: water spray, foam, dry powder

5.2. Special hazards arising from the substance or mixture

Advice: See SDS section 7 - Handling and storage.

Temperature limit: 235 °C

Endangering substances: ammonia, anhydrous

Endangering substances: nitrogen oxides, sulfur oxides

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

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5.3. Advice for fire-fighters

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.

SECTION 6: Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures

Handle in accordance with good industrial hygiene and safety practice. Information regarding personal protective measures, see section 8.

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

For large amounts: Sweep/shovel up.

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

6.4. Reference to other sections

Information regarding exposure controls/personal protection and disposal considerations can be found in section 8 and 13.

SECTION 7: Handling and Storage

7.1. Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Segregate from alkalies 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

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Protect from temperatures below:-10 °C Protect from temperatures above:30 °C

7.3. Specific end use(s)

For the relevant identified use(s) listed in Section 1 the advice mentioned in this section 7 is to be observed.

SECTION 8: Exposure Controls/Personal Protection

8.1. Control parameters

Components with occupational exposure limits

No substance specific occupational exposure limits known.

PNEC

freshwater: 0,312 mg/l

marine water: 0,0312 mg/l

intermittent release: 0,53 mg/l

STP: 16,18 mg/l

sediment (freshwater): 0,063 mg/kg

soil: 62,6 mg/kg

DNEL

worker:

Long-term exposure- systemic effects, dermal: 42,67 mg/kg bw/day

worker:

Long-term exposure- systemic effects, Inhalation: 11,17 mg/m3

consumer:

Long-term exposure- systemic effects, oral: 6,4 mg/kg bw/day

consumer:

Long-term exposure- systemic effects, Inhalation: 1,67 mg/m3

consumer:

Long-term exposure- systemic effects, dermal: 12,8 mg/kg bw/day

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8.2. Exposure controls

Personal protective equipment

Respiratory protection:

Breathing protection if breathable aerosols/dust are formed. Particle filter with low efficiency for solid particles (e.g. EN 143 or 149, Type P1or FFP1)

Hand protection:

Chemical resistant protective gloves (EN ISO 374-1)

e.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), polyvinylchloride (0.7 mm) and other Manufacturer's directions for use should be observed because of great diversity of types.

Eve protection:

Safety glasses with side-shields (frame goggles) (e.g. EN 166)

Body protection:

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

General safety and hygiene measures

Handle in accordance with good industrial hygiene and safety practice. At the end of the shift the skin should be cleaned and skin-care agents applied.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

State of matter: solid
Form: crystalline
Colour: white
Odour: odourless

Odour threshold:

No data available.

melting point (decomposition): approx. 350 °C (other)

The substance / product

decomposes.

onset of boiling: (other)

The substance / product decomposes therefore not

determined.

Flammability: not flammable (other)

Lower explosion limit:

not applicable

Upper explosion limit:

not applicable

Flash point: (other)

The substance/product is non-

combustible.

Auto-ignition temperature:

not applicable

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Self-ignition temperature: Test type: Self-ignition at high

temperatures. (Method: other)

The value has not be determined because of the low risk of self-ignition

in consequence of the high flash-point.

Thermal decomposition: > 235 °C (internal method)

To avoid thermal decomposition, do not overheat.

pH value: approx. 5 (pH Meter)

(100 g/l, 20 °C)

Viscosity, kinematic:

not applicable, the product is a solid

Viscosity, dynamic:

not applicable

Solubility in water: (internal method)

764 g/l (20 °C)

(internal method)

843 g/l (50 °C)

Partitioning coefficient n-octanol/water (log Kow):

not applicable

Vapour pressure: 0,0000001 hPa

(measured)

(25 °C)

Literature data.

Relative density: 1,77 (other)

(25 °C, 1.013 hPa)

Literature data.

Density: 1,766 g/cm3 (OECD Guideline 109)

(20 °C)

Relative vapour density (air):

not applicable, The product is a non-

volatile solid.

Particle characteristics

Particle size distribution: 560 µm (D50, calculated)

9.2. Other information

Information with regard to physical hazard classes

Explosives

Explosion hazard: Based on the chemical structure (other)

there is no indication of explosive

properties.

Impact sensitivity: not shock-sensitive

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

Oxidizing properties

Fire promoting properties: Based on its structural properties (other)

the product is not classified as

oxidizing.

Pyrophoric properties

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Self-ignition temperature: Test type: Spontaneous self-

ignition at room-temperature.

(Method: other)

not self-igniting

Self-heating substances and mixtures

Self heating ability: It is not a substance capable of

spontaneous heating.

Substances and mixtures, which emit flammable gases in contact with water

Formation of flammable gases:

Forms no flammable gases in the presence of water.

Other safety characteristics

Bulk density: 1.000 kg/m3 (other)

(20 °C)

Adsorption:

Study scientifically not justified.

Surface tension: (other)

Based on chemical structure, surface

activity is not to be expected.

Evaporation rate:

not applicable, The product is a non-

volatile solid.

SECTION 10: Stability and Reactivity

10.1. Reactivity

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

Formation of Remarks: Forms no flammable gases in the

flammable gases: presence of water.

10.2. Chemical stability

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

10.3. Possibility of hazardous reactions

Evolution of ammonia under influence of alkalies. Reacts with alkalis and nitrites.

10.4. Conditions to avoid

See SDS section 7 - Handling and storage.

10.5. Incompatible materials

Substances to avoid:

alkaline reactive substances, nitrites

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10.6. Hazardous decomposition products

Hazardous decomposition products: ammonia, anhydrous

SECTION 11: Toxicological Information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Assessment of acute toxicity:

Of low toxicity after single ingestion. Of low toxicity after short-term skin contact.

Experimental/calculated data:

LD50 rat (oral): 4.250 mg/kg (BASF-Test)

(by inhalation):Study does not need to be conducted.

LD50 rat (dermal): > 2.000 mg/kg

Literature data.

Information on: Ammonium sulphate

Assessment of acute toxicity:

Of low toxicity after single ingestion. Of low toxicity after short-term skin contact.

Irritation

Assessment of irritating effects:

Not irritating to the skin. Not irritating to the eyes.

Experimental/calculated data:

Skin corrosion/irritation

rabbit: non-irritant (BASF-Test)

Serious eye damage/irritation rabbit: non-irritant (BASF-Test)

Respiratory/Skin sensitization

Assessment of sensitization:

Skin sensitizing effects were not observed in animal studies.

Experimental/calculated data:

Guinea pig maximization test guinea pig: Non-sensitizing. (other)

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

Germ cell mutagenicity

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.

Experimental/calculated data:

Ames-test

negative (OECD Guideline 471)

Cytogenetic assay negative (OECD Guideline 473) Literature data.

HGPRT assay

CHO cells: negative (OECD Guideline 476)

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.

Developmental toxicity

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.

Specific target organ toxicity (single exposure)

Assessment of STOT single:

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

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Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity:

No substance-specific organtoxicity was observed after repeated administration to animals.

Aspiration hazard

not applicable

Interactive effects

No data available.

11.2. Information on other hazards

Endocrine disrupting properties

The substance is not identified to have endocrine disrupting properties according to Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 nor is included in the Candidate List of substances of very high concern according to EU REACh Article 59 for having endocrine disrupting properties.

Other information

Other relevant toxicity information

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

SECTION 12: Ecological Information

12.1. 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. 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:

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

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.

Microorganisms/Effect on activated sludge:

EC20 (0,5 h) approx. 1.050 mg/l, activated sludge (OECD Guideline 209, aquatic)

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

Chronic toxicity to aquatic invertebrates:

EC10 (70 d) 3,12 mg/l (semistatic)

Soil living 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.

12.2. 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.

12.3. Bioaccumulative potential

Assessment bioaccumulation potential:

Accumulation in organisms is not to be expected.

Bioaccumulation potential:

Study scientifically not justified.

12.4. Mobility in soil

Assessment transport between environmental compartments:

Adsorption in soil: Adsorption to solid soil phase is not expected.

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12.5. Results of PBT and vPvB assessment

According to Annex XIII of Regulation (EC) No.1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH): The product does not fulfill the criteria for PBT (Persistent/bioaccumulative/toxic) and vPvB (very persistent/very bioaccumulative).

12.6. Endocrine disrupting properties

The substance is not identified to have endocrine disrupting properties according to Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 nor is included in the Candidate List of substances of very high concern according to EU REACh Article 59 for having endocrine disrupting properties.

12.7. Other adverse effects

The substance is not listed in Regulation (EC) 1005/2009 on substances that deplete the ozone layer.

SECTION 13: Disposal Considerations

13.1. Waste treatment methods

Test for use in agriculture. Contact manufacturer.

Contaminated packaging:

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

SECTION 14: Transport Information

Land transport

ADR

Not classified as a dangerous good under transport regulations

Not applicable UN number or ID number: Not applicable UN proper shipping name: Transport hazard class(es): Not applicable Packing group: Not applicable Environmental hazards: Not applicable Special precautions for

user

None known

RID

Not classified as a dangerous good under transport regulations

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UN number or ID number:
UN proper shipping name:
Transport hazard class(es):
Packing group:
Environmental hazards:
Special precautions for

Not applicable
Not applicable
Not applicable
Not applicable
Not applicable
Not applicable

user

Inland waterway transport

ADN

Not classified as a dangerous good under transport regulations

UN number or ID number:
UN proper shipping name:
Transport hazard class(es):
Packing group:
Environmental hazards:
Special precautions for

Not applicable
Not applicable
Not applicable
Not applicable
Not applicable

user:

Transport in inland waterway vessel

Not classified as a dangerous good under transport regulations

UN number or ID number:
UN proper shipping name:
Transport hazard class(es):
Packing group:
Not applicable
Not applicable
Not applicable
Not applicable
Not applicable

Sea transport

IMDG

Not classified as a dangerous good under transport regulations

UN number or ID number:
UN proper shipping name:
Transport hazard class(es):
Packing group:
Environmental hazards:
Special precautions for

Not applicable
Not applicable
Not applicable
Not applicable
Not applicable
Not applicable

user

Air transport

IATA/ICAO

Not classified as a dangerous good under transport regulations

UN number or ID number: Not applicable

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UN proper shipping name:
Transport hazard class(es):
Packing group:
Environmental hazards:
Special precautions for

Not applicable
Not applicable
Not applicable
Not applicable
Not applicable

user

14.1. UN number or ID number

See corresponding entries for "UN number or ID number" for the respective regulations in the tables above.

14.2. UN proper shipping name

See corresponding entries for "UN proper shipping name" for the respective regulations in the tables above.

14.3. Transport hazard class(es)

See corresponding entries for "Transport hazard class(es)" for the respective regulations in the tables above.

14.4. Packing group

See corresponding entries for "Packing group" for the respective regulations in the tables above.

14.5. Environmental hazards

See corresponding entries for "Environmental hazards" for the respective regulations in the tables above.

14.6. Special precautions for user

See corresponding entries for "Special precautions for user" for the respective regulations in the tables above.

14.7. Maritime transport in bulk according to IMO instruments

Maritime transport in bulk is not intended.

SECTION 15: Regulatory Information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.

SECTION 16: Other Information

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

Aquatic Acute 3

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Acute Tox. 5 (oral)

Abbreviations

ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road. ADN = The European Agreement concerning the International Carriage of Dangerous Goods by Inland waterways. ATE = Acute Toxicity Estimates. CAO = Cargo Aircraft Only. CAS = Chemical Abstract Service. CLP = Classification, Labelling and Packaging of substances and mixtures. DIN = German national organization for standardization. DNEL = Derived No Effect Level. EC50 = Effective concentration median for 50% of the population. EC = European Community. EN = European Standards. IARC = International Agency for Research on Cancer. IATA = International Air Transport Association. IBC-Code = Intermediate Bulk Container code. IMDG = International Maritime Dangerous Goods Code. ISO = International Organization for Standardization. STEL = Short-Term Exposure Limit. LC50 = Lethal concentration median for 50% of the population. LD50 = Lethal dose median for 50% of the population. TLV = Threshold Limit Value. MARPOL = The International Convention for the Prevention of Pollution from Ships. NEN = Dutch Norm. NOEC = No Observed Effect Concentration. OEL = Occupational Exposure Limit. OECD = Organization for Economic Cooperation and Development. PBT = Persistent, Bioaccumulative and Toxic. PNEC = Predicted No Effect Level. PPM = Parts per million. RID = The European Agreement concerning the International Carriage of Dangerous Goods by Rail. TWA = Time Weight Average. UN-number = UN number at transport. vPvB = very Persistent and very Bioaccumulative.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

Vertical lines in the left hand margin indicate an amendment from the previous version.