

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Ammonium sulfate pure

Revision date: 06.08.2021

Product code: 06132

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

1.1. Product identifier

Ammonium sulfate pure

REACH Registration Number: 01-2119455044-46-XXXX
CAS No: 7783-20-2
EC No: 231-984-1

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

Use of the substance/mixture

Laboratory chemicals

Industrial uses: Uses of substances as such or in preparations at industrial sites

Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Uses advised against

Do not use for private purposes (household).

1.3. Details of the supplier of the safety data sheet

Company name: Fa. Bernd Kraft GmbH
Street: Stempelstraße 6
Place: D-47167 Duisburg
Telephone: 0203/5194-0
Telefax: 0203/5194-290
e-mail: info@berndkraft.de
Contact person: Abteilung Produktsicherheit
Telephone: 0203/5194-107/117
e-mail: produktsicherheit@berndkraft.de
Internet: www.berndkraft.de
Responsible Department: Abteilung Produktsicherheit

1.4. Emergency telephone number:

For Hazardous Materials [or Dangerous Goods] Incidents Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 Outside USA and Canada: +1 703-741-5970 (collect calls accepted)

Further Information

No data available

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

This substance is not classified as hazardous in accordance with Regulation (EC) No 1272/2008.

2.2. Label elements

2.3. Other hazards

No data available

SECTION 3: Composition/information on ingredients

3.1. Substances

Sum formula: $(\text{NH}_4)_2\text{SO}_4$
Molecular weight: 132,14 g/mol

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Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
7783-20-2	ammonium sulphate			100 %
	231-984-1		01-2119455044-46-XXXX	

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
	Specific Conc. Limits, M-factors and ATE		
7783-20-2	231-984-1	ammonium sulphate	100 %
	dermal: LD50 = > 2000 mg/kg; oral: LD50 = 4250 mg/kg		

Further Information

This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of = 0.1 % (w/w).

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

No data available

After inhalation

Provide fresh air.

After contact with skin

Wash immediately with: Water

Take off immediately all contaminated clothing and wash it before reuse.

After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water.

Remove contact lenses, if present and easy to do. Continue rinsing.

After ingestion

Rinse mouth immediately and drink plenty of water.

Call a doctor if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

Irritant

Vomiting

Gastrointestinal complaints

Circulatory collapse

Blood pressure drop

Spasms

Narcotic effects

Respiratory complaints

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

No data available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings.

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Unsuitable extinguishing media

no restriction

5.2. Special hazards arising from the substance or mixture

Non-combustible solids

Hazardous combustion products

In case of fire may be liberated:

Nitrogen oxides (NO_x)

Sulphur oxides

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

Additional information

Suppress gases/vapours/mists with water spray jet.

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Provide adequate ventilation.

Use personal protection equipment.

Avoid contact with skin, eyes and clothes.

Remove persons to safety.

Emergency procedures

Do not breathe dust/fume/gas/mist/vapours/spray.

For emergency responders

Precautionary statements For emergency responders : Personal protection equipment: see section 8

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

For containment

Cover drains.

Prevent spread over a wide area (e.g. by containment or oil barriers).

Collect in closed and suitable containers for disposal.

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

For cleaning up

Clean contaminated articles and floor according to the environmental legislation.

Other information

Provide adequate ventilation.

Do not breathe dust/fume/gas/mist/vapours/spray.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Handle and open container with care.

Provide adequate ventilation.

Avoid dust formation.

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Do not breathe dust.

Advice on protection against fire and explosion

Usual measures for fire prevention.

Advice on general occupational hygiene

Make available sufficient washing facilities
Do not breathe dust. Avoid dust formation.

Further information on handling

Wash hands before breaks and after work.
Take off contaminated clothing.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed.

Hints on joint storage

No data available

Further information on storage conditions

Store in a dry place.
storage temperature +5°C - +30°C

7.3. Specific end use(s)

Laboratory chemicals

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

DNEL/DMEL values

CAS No	Substance		
DNEL type	Exposure route	Effect	Value
7783-20-2	ammonium sulphate		
Worker DNEL, long-term	inhalation	systemic	11,167 mg/m ³
Worker DNEL, long-term	dermal	systemic	42,667 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic	1,667 mg/m ³
Consumer DNEL, long-term	dermal	systemic	12,8 mg/kg bw/day
Consumer DNEL, long-term	oral	systemic	6,4 mg/kg bw/day

PNEC values

CAS No	Substance	
Environmental compartment	Value	
7783-20-2	ammonium sulphate	
Freshwater	0,312 mg/l	
Freshwater (intermittent releases)	0,53 mg/l	
Marine water	0,031 mg/l	
Freshwater sediment	0,063 mg/kg	
Micro-organisms in sewage treatment plants (STP)	16,18 mg/l	
Soil	62,6 mg/kg	

8.2. Exposure controls

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Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment.

Individual protection measures, such as personal protective equipment

Eye/face protection

goggles

Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Protective gloves are recommended Company KCL GmbH, D-36124 Eichenzell, email: vertrieb@kcl.de With specification (test according to EN374):

By long-term hand contact

Trade name/designation KCL 741 Dermatril® L

Suitable material: NBR (Nitrile rubber) 0,11 mm

Wearing time with permanent contact: > 480 min

By short-term hand contact

Trade name/designation KCL 741 Dermatril® L

Suitable material: NBR (Nitrile rubber) 0,11 mm

Wearing time with occasional contact (splashes): > 480 min

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<(>, <)> supplied by us and for the designated use. 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).

Skin protection

Wear suitable protective clothing.

Take off immediately all contaminated clothing.

Wash hands before breaks and after work.

Respiratory protection

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

Filtering device with filter or ventilator filtering device of type: P1

Environmental exposure controls

Do not allow to enter into surface water or drains.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	solid
Colour:	colourless
Odour:	odourless

Changes in the physical state

Melting point/freezing point:	No data available
Boiling point or initial boiling point and boiling range:	No data available
Sublimation point:	No data available

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Softening point: No data available

Pour point: No data available

No data available:

Flash point: No data available

Flammability

Solid/liquid: No data available

Gas: No data available

Explosive properties

No data available

Lower explosion limits: No data available

Upper explosion limits: No data available

Auto-ignition temperature: No data available

Self-ignition temperature

Solid: No data available

Gas: No data available

Decomposition temperature: >235 °C

pH-Value: ~5 (100 g/l)

Viscosity / dynamic: No data available

Viscosity / kinematic: No data available

Flow time: No data available

Water solubility:
(at 20 °C) 754 g/L

Solubility in other solvents

No data available

Partition coefficient n-octanol/water: No data available

Vapour pressure: No data available

Vapour pressure: No data available

Density (at 20 °C): 1,77 g/cm³

Bulk density: 850 kg/m³

Relative vapour density: No data available

9.2. Other information

Information with regard to physical hazard classes

Sustaining combustion: No data available

Oxidizing properties

No data available

Other safety characteristics

Solvent separation test: No data available

Solvent content: 0

Solid content: 0

Evaporation rate: No data available

Further Information

No data available

SECTION 10: Stability and reactivity

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10.1. Reactivity

No data available

10.2. Chemical stability

Protect against: Humidity

10.3. Possibility of hazardous reactions

Alkali (lye)
NO2
NO3
ClO3

10.4. Conditions to avoid

Humidity
Heat

10.5. Incompatible materials

No data available

10.6. Hazardous decomposition products

In case of fire may be liberated:
SECTION 5: Firefighting measures

Further information

No data available

SECTION 11: Toxicological information

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

Toxicokinetics, metabolism and distribution

No data available

Acute toxicity

Based on available data, the classification criteria are not met.

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
7783-20-2	ammonium sulphate				
	oral	LD50 mg/kg 4250	Rat	Study report (1969)	OECD Guideline 401
	dermal	LD50 mg/kg > 2000	Rat	Arch Toxicol 64:262-268. (1990)	OECD Guideline 434

Irritation and corrosivity

Based on available data, the classification criteria are not met.

Sensitising effects

Based on available data, the classification criteria are not met.

Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

Information on likely routes of exposure

No data available

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Specific effects in experiment on an animal

No data available

Additional information on tests

No data available

Practical experience

No data available

11.2. Information on other hazards

Endocrine disrupting properties

No data available

Other information

No data available

Further information

Irritant
Vomiting
Gastrointestinal complaints
Circulatory collapse
Blood pressure drop
Spasms
Narcotic effects
Respiratory complaints
Liver and kidney damage

SECTION 12: Ecological information

12.1. Toxicity

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
7783-20-2	ammonium sulphate					
	Acute fish toxicity	LC50 53 mg/l	96 h	Oncorhynchus mykiss	EPA-822-R-99-014 (1999)	lowest SMAV for salmonoid species among
	Acute crustacea toxicity	EC50 121,7 mg/l	48 h	Ceriodaphnia acanthina	unpublished data (2009)	lowest SMAV as given in U.S. EPA
	Fish toxicity	NOEC 0,38 mg/l	72 d	Oncorhynchus mykiss	Rapp. P.-v. Reun. Cons. int. Explor. Mer	Early life stage test starting 1 day aft
	Acute bacteria toxicity	(EC50 1618 mg/l)	0,5 h	activated sludge, domestic	Study report (1988)	OECD Guideline 209

12.2. Persistence and degradability

No data available

12.3. Bioaccumulative potential

No data available

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
7783-20-2	ammonium sulphate	0,48

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.
No data available

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12.6. Endocrine disrupting properties

This substance does not have endocrine disrupting properties with respect to non-target organisms.

No data available

12.7. Other adverse effects

No data available

Further information

Do not allow to enter into surface water or drains.

Discharge into the environment must be avoided.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

Dispose of waste according to applicable legislation.

Do not allow to enter into surface water or drains.

Contaminated packaging

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number or ID number:

No dangerous good in sense of this transport regulation.

14.2. UN proper shipping name:

No dangerous good in sense of this transport regulation.

14.3. Transport hazard class(es):

No dangerous good in sense of this transport regulation.

14.4. Packing group:

No dangerous good in sense of this transport regulation.

Inland waterways transport (ADN)

14.1. UN number or ID number:

No dangerous good in sense of this transport regulation.

14.2. UN proper shipping name:

No dangerous good in sense of this transport regulation.

14.3. Transport hazard class(es):

No dangerous good in sense of this transport regulation.

14.4. Packing group:

No dangerous good in sense of this transport regulation.

Marine transport (IMDG)

14.1. UN number or ID number:

No dangerous good in sense of this transport regulation.

14.2. UN proper shipping name:

No dangerous good in sense of this transport regulation.

14.3. Transport hazard class(es):

No dangerous good in sense of this transport regulation.

14.4. Packing group:

No dangerous good in sense of this transport regulation.

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number:

No dangerous good in sense of this transport regulation.

14.2. UN proper shipping name:

No dangerous good in sense of this transport regulation.

14.3. Transport hazard class(es):

No dangerous good in sense of this transport regulation.

14.4. Packing group:

No dangerous good in sense of this transport regulation.

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

No dangerous good in sense of this transport regulation.

14.7. Maritime transport in bulk according to IMO instruments

No dangerous good in sense of this transport regulation.

SECTION 15: Regulatory information

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

National regulatory information

Water hazard class (D): 1 - slightly hazardous to water

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 1,4,8,11,12.

Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material. The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights.

The receiver of our product is singularly responsible for adhering to existing laws and regulations.