

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Trade name : Ammonium sulphate 21%N+24%S
Chemical name : ammonium sulphate
EC no : 231-984-1
CAS No : 7783-20-2
REACH registration No : 01-2119455044-46-xxxx

1.2. Relevant identified uses of the substance or mixture and uses advised against**1.2.1. Relevant identified uses**

Use of the substance/mixture : Fertilizer

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet**Supplier**

EuroChem Agro GmbH
Reichskanzler-Müller-Str. 23
68165 Mannheim - Deutschland
T +49 621 87209-0 - F +49 621 87209-101
info.europe@eurochemgroup.com

Email competent person

sds@kft.de

1.4. Emergency telephone number

Emergency number : National Response Center (international)
TUIS-Emergency number: +49 1802 273112

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Classification according to Regulation (EC) No. 1272/2008 [CLP]**

Not classified

Adverse physicochemical, human health and environmental effects

To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

2.2. Label elements**Labelling according to Regulation (EC) No. 1272/2008 [CLP]**

No labelling applicable

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients**3.1. Substance**

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
ammonium sulphate	(CAS No) 7783-20-2 (EC no) 231-984-1 (REACH-no) 01-2119455044-46-xxxx	> 99	Not classified

Full text of H-statements: see section 16

3.2. Mixture

Not applicable

Ammonium sulphate 21%N+24%S

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. If you feel unwell, seek medical advice.
- First-aid measures after skin contact : Wash skin with plenty of water. Get medical advice if skin irritation persists.
- First-aid measures after eye contact : Rinse eyes with water as a precaution. If eye irritation persists: Get medical advice/attention.
- First-aid measures after ingestion : Rinse mouth. Drink plenty of water. Call a poison center or a doctor if you feel unwell.

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

No additional information available

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Water spray. Dry powder. Foam.
- Unsuitable extinguishing media : No information available.

5.2. Special hazards arising from the substance or mixture

- Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Advice for firefighters

- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
- Other information : Non combustible. Do not allow run-off from fire fighting to enter drains or water courses. Dispose of in accordance with relevant local regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- Protective equipment : Wear personal protective equipment.
- Emergency procedures : Ventilate spillage area. Avoid dust formation.
- Measures in case of dust release : Do not breathe dust.

6.1.2. For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Mechanically recover the product. Wash away remainder with plenty of water.
- Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

See Heading 8. See Heading 7. For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment.
- Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Store in a well-ventilated place. Store in a dry place. Keep cool.
- Incompatible materials : alkalis. Nitrites.
- Storage area : Protect from moisture. Store away from heat.

7.3. Specific end use(s)

No additional information available

Ammonium sulphate 21%N+24%S

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

ammonium sulphate (7783-20-2)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	42.67 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	11.17 mg/m ³
DNEL/DMEL (General population)	
Long-term - systemic effects, oral	6.4 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	1.67 mg/m ³
Long-term - systemic effects, dermal	12.8 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	0.312 mg/l
PNEC aqua (marine water)	0.0312 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	0.063 mg/kg dwt
PNEC (Soil)	
PNEC soil	62.6 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	16.18 mg/l

8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station. Do not eat, drink or smoke in areas where product is used. Avoid dust formation. Wash hands before break and at end of works.

Hand protection:

Chemically resistant protective gloves. EN 374. Please follow the instructions related to the permeability and the penetration time provided by the manufacturer. Choosing the proper glove is a decision that depends not only on the type of material, but also on other quality features, which differ for each manufacturer

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
	Nitrile rubber (NBR)		0,4		
	Chloroprene rubber (CR)		0,5		
	Polyvinylchloride (PVC)		0,7		

Eye protection:

Chemical goggles

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. Breathing apparatus with filter. P1. Breathing equipment is only to be used in order to handle the residual risk of short term jobs if all other risk minimizing measures have been carried out e.g. retention and/or local exhaust

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Crystals. Granulate.
Colour	: white.
Odour	: odourless.
Odour threshold	: No data available
pH	: 5
pH solution	: 100 g/l
Relative evaporation rate (butylacetate=1)	: No data available

Ammonium sulphate 21%N+24%S

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Melting point	: 350 °C
Freezing point	: Not applicable
Boiling point	: No data available
Flash point	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: > 235 °C
Flammability (solid, gas)	: Not flammable Non flammable
Vapour pressure	: No data available
Relative vapour density at 20 °C	: Not applicable
Relative density	: 1.77
Density	: 1.766 g/cm ³
Solubility	: Water: 764 g/l (20°)
Log Pow	: No data available
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: No data available
Explosive properties	: Product is not explosive.
Oxidising properties	: Non oxidizing.
Explosive limits	: Not applicable

9.2. Other information

Bulk density : 1000 kg/m³ (20°)

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

alkalis. Nitrites.

10.6. Hazardous decomposition products

Ammonia. Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

ammonium sulphate (7783-20-2)

LD50 oral rat	4250 mg/kg
---------------	------------

LD50 dermal rat	> 2000 mg/kg
-----------------	--------------

Skin corrosion/irritation	: Not irritating to rabbits on cutaneous application pH: 5
Additional information	: Skin irritation test (rabbit): no irritation
Serious eye damage/irritation	: rabbit. Not irritating pH: 5
Additional information	: Skin irritation test (rabbit): no irritation
Respiratory or skin sensitisation	: No sensitizing effect known
Germ cell mutagenicity	: Not classified Mutagenicity (mammalian cell test): chromosomes aberration negative
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)
Specific target organ toxicity (single exposure)	: Not classified (Based on available data, the classification criteria are not met)

Ammonium sulphate 21%N+24%S

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Specific target organ toxicity (repeated exposure) : Not classified (Based on available data, the classification criteria are not met)

Aspiration hazard : Not classified (Not specifically applicable)

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

ammonium sulphate (7783-20-2)

LC50 fish 1 53 mg/l (96h; Oncorhynchus mykiss (Rainbow trout))

EC50 Daphnia 1 169 mg/l (48h; EC50 (Daphnia Magna))

12.2. Persistence and degradability

ammonium sulphate (7783-20-2)

Persistence and degradability Product is practically not biodegradable.

12.3. Bioaccumulative potential

ammonium sulphate (7783-20-2)

Bioaccumulative potential not bioaccumulable.

12.4. Mobility in soil

ammonium sulphate (7783-20-2)

Ecology - soil Not applicable.

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Disposal must be done according to official regulations.

Additional information : Product is used as a fertilizer. Check the possibility for agricultural use before landfilling.

European List of Waste (LoW) code : 06 03 14 - solid salts and solutions other than those mentioned in 06 03 11 and 06 03 13

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.2. UN proper shipping name				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards				
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No	Dangerous for the environment : No	Dangerous for the environment : No
No supplementary information available				

14.6. Special precautions for user

- Overland transport

No data available

- Transport by sea

No data available

Ammonium sulphate 21%N+24%S

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

- Air transport

No data available

- Inland waterway transport

No data available

- Rail transport

No data available

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

ammonium sulphate is not on the REACH Candidate List

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
DNEL	Derived-No Effect Level
EC50	Median effective concentration
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
STP	Sewage treatment plant
vPvB	Very Persistent and Very Bioaccumulative

Data sources : MSDS of the supplier.

Department issuing data specification sheet: : KFT Chemieservice GmbH
Im Leuschnerpark. 3 64347 Griesheim
Postfach 1451 64345 Griesheim
Germany

Phone: +49 6155-8981-400 Fax: +49 6155 8981-500

Safety Data Sheet Service: +49 6155 8981-522

Contact person : Barbara Stark

KFT SDS EU (O)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product