

SAFETY DATA SHEET

according to Regulations (EC) No. 1907/2006 and (EU) No. 2020/878 for

AMMONIUMSULPHATE INDUSTRIAL GRADE

DOMO Caproleuna GmbH
Bau 3101 – Am Haupttor
D-06237 Leuna

Prepared

2011-02-04

Updated

2022-12-12

Rev. 10

Page 1 of 13

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

Chemical name: **Ammonium sulphate**
Trade name: Ammonium sulphate Industrial grade
Other names: Ammonium sulphate, Ammon sulphate
EC No. (EINECS): 231-984-1
REACH Registration No.: 01-2119455044-46-0006
Form: no nanoform
UFI- Code: not applicable

1.2 Relevant identified uses of the substance or mixture and uses advised againstIdentified uses

- Flame-proofing of paper, wood and textile equipment
- Additive for the chipboard industry
- Additive for the pulp industry
- Additive for the insulation materials industry
- Decalcifier in the leather goods industry
- Nitrate supplier for yeast cultures and microorganisms
- Additive for fire extinguishing agents
- Additive for fertilizer
- Laboratory chemical
- pH regulator
- Intermediate for syntheses
- Additional use: insecticides, herbicides, fungicides

1.3 Details of the supplier of the safety data sheet

Manufacturer/supplier: DOMO Caproleuna GmbH
Bau 3101 – Am Haupttor
D-06237 Leuna
Tel. + 49 34 61 43-22 42
Fax + 49 34 61 43-22 20
E-mail sds@domo.org

1.4 Emergency telephone number

Europe +44 1235 239670 [Carechem 24]

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Updated

2022-12-12

Rev. 10

Page 2 of 13

Middle East/Africa	+44 1235 239671	[Carechem 24]
North/South America	+1 215 207 0061	[Carechem 24]
East/South East Asia	+65 3158 1195	[Carechem 24]

*country specific emergency telephone numbers in section 16

SECTION 2: Hazards identification**2.1 Classification of the substance or mixture**

The product was not classified according to Regulation (EC) No. 1272/2008 (CLP).

2.2 Label elements

According to Regulation (EC) No. 1272/2008, no labelling is required for the product.

Safety precautions

P220	Keep/store away from alkaline earths. Incompatible materials must be stated by the manufacturer/supplier.
P270	When using the product, do not eat, drink or smoke.
P262	Do not allow contact with eyes, skin or clothing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do! Continue rinsing.
P313	Get medical advice/attention.
P273	Avoid accidental release into the environment. (-if not in accordance with use)
P260	Do not inhale dust/fume/gas/mist/vapours/sprays.

2.3 Other hazards

The product does not contain hazardous substances.
The product may be irritating in case of contact with eyes.
The product may cause minor irritation in case of skin contact.
The product may be irritating to the mucous membranes if swallowed.
Decomposition products can be irritating to the mucous membranes if inhaled.

PBT/vPvB Assessment

The product does not fulfil the PBT (persistent, bioaccumulative, toxic) or vPvB (very persistent, very bioaccumulative) criteria.

Endocrine disruptor information

This product does not contain any known or suspected endocrine disruptors.

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DOMO Caproleuna GmbH
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2011-02-04

Updated

2022-12-12

Rev. 10

Page 3 of 13

SECTION 3: Composition/information on ingredients**3.1 Substances**Chemical Characterisation

Ammonium sulphate

CAS Number: 7783-20-2
EC No. (EINECS): 231-984-1
Harmonized System Code: 31022100
REACH Registration No.: 01-2119455044-46-0006
Formula: $(\text{NH}_4)_2\text{SO}_4$
Molecular Weight: 132.14 g/mol

The product contains a maximum of 0.05 Ma.-% of releasing agent and up to 0.2 Ma.-% water (moisture).

SECTION 4: First-aid measures**4.1 Description of first-aid measures**After inhalation of decomposition products

Move victim to fresh air. Seek medical advice in case of discomfort.

After skin contact

Use water to wash the chemical off.

After eye contact

Immediately flush eyes with plenty of flowing water holding eyelids apart. Seek medical advice.

After swallowing

Drink water. Seek medical advice if symptoms persist.

4.2 Most important symptoms and effects, both acute and delayed

No data available.

4.3 Indication of any immediate medical attention and special treatment needed

No data available.

SAFETY DATA SHEET

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DOMO Caproleuna GmbH
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D-06237 Leuna

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2011-02-04

Updated

2022-12-12

Rev. 10

Page 4 of 13

SECTION 5: Firefighting measures**5.1 Extinguishing media**Suitable extinguishing media

Carbon dioxide, water. Fight larger fires with water spray.

Extinguishing media which must not be used for safety reasons
none

5.2 Special hazards arising from substance or mixture

The product is not flammable. In case of fire, irritant gas such as ammonia or sulphur trioxide may be liberated. The formation of smoke and fog is very likely in this case. If ammonia is liberated, a potential hazard is present. Ammonia gas in combination with air forms an explosive mix, in particular in boxes, less unlikely outdoors.

5.3 Advice for firefighters

Wear a self-contained breathing apparatus.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

No special requirements.

We recommend wearing safety goggles, protective gloves and protective clothing.

6.2 Environmental precautions

Do not use large amounts of water as the product is easily soluble in water.

Do not allow to enter drains, surface or ground water.

6.3 Methods and material for containment and cleaning up

Absorb product mechanically/when dry.

Additional information

Even though the product itself is not flammable, irritant gas such as ammonia or sulphur trioxide may be formed as a result of decomposition in case of fire. The formation of smoke and fog is very likely in this case. If ammonia is liberated, a potential hazard is present. Ammonia gas in combination with air forms an explosive mix, in particular in boxes, less unlikely outdoors. The aqueous solution of the product reacts with bases and forms gaseous ammonia.

SAFETY DATA SHEET

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2011-02-04

Updated

2022-12-12

Rev. 10

Page 5 of 13

6.4 Reference to other sections

Not applicable

SECTION 7: Handling and storage**7.1 Precautions for safe handling**Handling and storage of aqueous solution

All parts in contact with the product must be free from copper, zinc and their alloys.

Environmental protection

Do not use large amounts of water as the product is easily soluble in water.

Do not allow to enter drains, surface or ground water.

Special requirements and handling instructions

Please follow the general safety precautions for handling chemicals.

Precautions against fire and explosion

No special precautions are necessary. The product is not flammable.

Even though the product itself is not flammable, irritant gas such as ammonia or sulphur trioxide may be formed as a result of decomposition in case of fire. The formation of smoke and fog is very likely in this case. If ammonia is liberated, a potential hazard is present. Ammonia gas in combination with air forms an explosive mix, in particular in boxes, less unlikely outdoors.

7.2 Conditions for safe storage, including any incompatibilitiesTechnical measures and storage conditions

Store the product in a dry place and avoid humidity.

Protect against climatic influence and contaminations.

Keep container tightly (relative humidity < 80 %).

Open the packaging just before use to prevent contaminations.

Storage space and container requirements

Do not store the loose, unpacked product together with calcareous products. If you want to store both products, ensure for a sufficient separation with a separating wall or a minimum distance of 2.50 m between the two products.

Hints on joint storage

Do not keep/store/ship together with food and feeding stuff or drinks and tobacco.

Do not store the loose, unpacked product together with calcareous products. If you want to store both products, ensure for a sufficient separation with a separating wall or a minimum distance of 2.50 m between the two products.

On contact with alkaline earth compounds, ammonia may be formed.

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DOMO Caproleuna GmbH
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D-06237 Leuna

Prepared

2011-02-04

Updated

2022-12-12

Rev. 10

Page 6 of 13

Hints on joint storage for the aqueous solution

Ammonia may be formed on contact of the aqueous solution and bases. For this reason, protect the aqueous solution from alkalis and base-forming substances.

Do not store the aqueous solution together with nitrites.

7.3 Specific end use(s)

See point 1.2

SECTION 8: *Exposure controls/personal protection***8.1 Control parameters**Workplace exposure limits

According to Article 14.4 and Annex XI, Section 3 of Regulation No. 1907/2006, no exposure scenarios are required for this chemical. Consequently, no specific exposure limits are defined.

8.2 Exposure controlsGeneral protection and hygiene measures

Please follow the general safety precautions for handling chemicals.

Avoid contact with eyes, skin and clothing.

Wash hands and use skin care after end of work.

Hand protection

We recommend the use of rubber gloves.

Good results were achieved with the "SCORPIO 8-352/8-354" gloves provided by the company "Ansell Edmont".

Eye protection

We recommend wearing safety goggles.

Body protection

We recommend wearing sealed work clothing.

Additional notes

We recommend having an eye wash bottle with clean water ready at work place.

SAFETY DATA SHEET

according to Regulations (EC) No. 1907/2006 and (EU) No. 2020/878 for

AMMONIUMSULPHATE INDUSTRIAL GRADE

DOMO Caproleuna GmbH
Bau 3101 – Am Haupttor
D-06237 Leuna

Prepared

2011-02-04

Updated

2022-12-12

Rev. 10

Page 7 of 13

SECTION 9: *Physical and chemical properties***9.1 Information on basic physical and chemical properties**Appearance

Physical state: solid, crystalline
Colour: white
Odour: odourless

Physical and chemical properties

Melting point: not applicable
Initial boiling point: not applicable
Flammability: not flammable
Lower explosion limit: not applicable
Upper explosion limit: not applicable
Flash point: not applicable
Ignition temperature: not applicable
Thermal decomposition: > 280°C liberation of ammonia
> 450°C liberation of ammonia and sulfur trioxide
pH 4-5 (20°C)
Kinematic viscosity: not applicable
Water solubility: 76,7g / 100g at 20°C
Partition coefficient
n-octanol/water (log Kow): not applicable
Vapour pressure: 0,000000004053 hPa (25°C)
Evaporation Rate: not applicable
Relative Density: 1.77 g/cm³ (25 °C)
Relative vapour density (air): not applicable
Particle characteristics: crystalline; no nanoform

9.2 Other information

Bulk density: 0,95 - 1,1 g/cm³

9.2.1 Information with regard to physical hazard classes

Self-ignition: not pyrophoric
Explosion risk: no risk of explosion
Fire promotion: not fire-promoting
Oxidizing properties: non-oxidizing

9.2.2 Other safety characteristics

No information available

SAFETY DATA SHEET

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DOMO Caproleuna GmbH
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D-06237 Leuna

Prepared

2011-02-04

Updated

2022-12-12

Rev. 10

Page 8 of 13

SECTION 10: Stability and reactivity**10.1 Reactivity**

No decomposition when used according to its intended use.

10.2 Chemical stability

If used for the purpose intended no decomposition.

10.3 Possibility of hazardous reactions

If used for the purpose intended no dangerous reactions.

10.4 Conditions to avoid

Temperatures above 280 °C.

10.5 Incompatible materials

On contact with bases, the aqueous solution forms ammonia. For this reason, protect the product from alkalis and base-forming substances.

Do not store together with nitrites. On contact with nitrites, a hazardous reaction with the aqueous solution may occur.

10.6 Hazardous decomposition products

Thermal decomposition starting at 280 °C: liberation of ammonia.
starting at 450 °C: liberation of ammonia and sulphur trioxide.

SECTION 11: Toxicological information**11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**Acute toxicity

Toxicity	Effective dose	Species	Remark
oral	LD ₅₀ 4250 mg/kg body weight	rat	Experimental determination
dermal	LD ₅₀ 2000 mg/kg body weight	rat/mouse	Experimental determination
inhalative	LC ₅₀ 1000 mg/m ³	rat	Experimental determination

SAFETY DATA SHEET

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D-06237 Leuna

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2011-02-04

Updated

2022-12-12

Rev. 10

Page 9 of 13

Practical experience

If handled correctly and according to its indented use, the product, according to experience, is not harmful to health.

Skin corrosion/irritation

Skin irritation (rabbit): no irritating effect

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

Serious eye damage/irritation

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

Respiratory or skin sensitisation

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

Germ cell mutagenicity

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

Carcinogenicity

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

Reproductive toxicity

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

STOT SE

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

STOT RE

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

Aspiration hazard

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

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

No information available. See section 2.3

11.2.2. Other information

No information available.

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D-06237 Leuna

Prepared

2011-02-04

Updated

2022-12-12

Rev. 10

Page 10 of 13

SECTION 12: Ecological information**12.1 Toxicity**

Acute and chronic ecotoxicity

Aquatic toxicity	Species	Effective dose
Fish toxicity	Oncorhynchus mykiss	LC ₅₀ 53 mg/l
	Lepomis macrochirus	EC ₁₀ 5.29 mg/l (chronic)
	Prosopium williamsoni	LC ₅₀ 57.2 mg/l
Daphnia toxicity	Daphnia magna	EC ₅₀ 169 mg/l
	Hyalella azteca	EC ₁₀ 3.12 mg/l (chronic)
	Ceriodaphnia acanthina	EC ₅₀ 121.7 mg/l

12.2 Persistence and degradability

Not tested.

12.3 Bioaccumulative potential

Not tested.

12.4 Mobility in soil

Not tested.

12.5 Results of PBT and vPvB assessment

The product does not fulfil the PBT/vPvB criteria acc. to REACH, Annex XIII.

12.6 Endocrine disrupting properties

No information available. See section 2.3

12.7 Other adverse effects

None

SECTION 13: Disposal considerations**13.1 Waste treatment methods**

Waste key number

For unused product: 061099

For uncleaned packaging: 150101 to 150107 (depending on type of packaging)

Disposal

Product waste must not be disposed of together with domestic waste.

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2011-02-04

Updated

2022-12-12

Rev. 10

Page 11 of 13

Do not allow to enter drains.

Disposal in accordance with applicable legal regulations observing national and regional regulations

SECTION 14: Transport information

Product is no hazardous material acc. to ADR/RID/IMDG codes.
ICAO/IATA and ADN: Not tested.

14.1 UN Number or ID number

Not applicable

14.2 UN proper shipping name

Not applicable

14.3 Transport hazard classes

Not applicable

14.4 Packaging group

Not applicable

14.5 Environmental hazards

Not applicable

14.6 Special precautions for the user

Not applicable

14.7 Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**National regulations (Germany)

Water hazard class (acc. to AwSV)
WGK 1 = slightly hazardous to water

TA Luft (Technical instructions on air quality control)
Numbers 5.2.1 and 5.2.3

SAFETY DATA SHEET

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Prepared 2011-02-04

Updated 2022-12-12

Rev. 10

Page 12 of 13

Storage class (accord. TRGS 510): 13 (non-flammable solids)

15.2 Chemical safety assessment

Not relevant.

SECTION 16: Other information**Wording of P and H phrases (number and complete text)**

see Item 2

Additional information

This material safety data sheet contains data in accordance with German legislation, e. g. indicated limit values.

The recipient alone is responsible for ascertaining the relevant national limit values.

The above details are based on our present status of know-how. The information is intended to describe our product in terms of safety requirements and thus shall not guarantee certain properties. It does not justify a contractual legal relationship.

All information given herein is based on the material safety data sheet in German. We are not liable for the correctness in other languages.

Data sources

REACH Registration Dossier Ammonium sulphate

Emergency telephone numbers (country specific)

Global/english speaking countries	+44 1865 407333
Country	Emergency telephone number
France	+33 1 72 11 00 03
Germany	+49 89 220 61012 0800 000 7801 (toll-free, access from Germany only)
Spain	+34 91 114 2520
Italy	800 699 792 (toll-free)
Netherlands	+31 10 713 8195
Turkey	0800 621 2139 (toll-free)
Norway	+47 2103 4452
Greece	+30 21 1198 3182

SAFETY DATA SHEET

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Prepared 2011-02-04

Updated 2022-12-12

Rev. 10

Page 13 of 13

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Denmark	+45 8988 2286
Sweden	+46 8 566 42573
Poland	+48 22 307 3690
Czech Republic	+420 228 882 830
Finland	+358 9 7479 0199
Bahrain/Middle East	+973 1619 8321
Africa/South Africa	+27 21 300 2732
United States	+1 866 928 0789 (toll-free)
Canada	+1 800 579 7421 (toll-free)
United States and Canada	+1 202 464 2554
Mexico	+52 55 5004 8763
Brazil	+55 11 3197 5891
Chile	+56 2 2582 9336
Colombia	+57 1 508 7337
Argentina	+54 11 5984 3690
Sri Lanka	+65 3158 1195
Taiwan	+886 2 8793 3212
Japan	0120 015 230 (toll-free)
Indonesia	007 803 011 0293 (toll-free; access only from Indonesia)
Malaysia	+60 3 6207 4347
Thailand	001 800 120 666 751 (toll-free; access only from Thailand)
India	+65 3158 1198
	000 800 100 7479 (toll-free; access only from India)
Pakistan	+65 3158 1329
Bangladesh	+65 3158 1200
Philippines	+63 2 8231 2149
Vietnam	+84 28 4458 2388
South Korea	+82 2 3479 8401
Singapore	+65 3165 2217
Australia	+61 2 8014 4558
	18000 74234 (toll-free; access only from Australia)
New Zealand	+64 9 929 1483
	0800 446 881 (toll-free; access only from New Zealand)

General revision

Revision according to regulation (EC) 2020/878.