

SAFETY DATA SHEET

Acc. to Regulation (EC) No. 1907/2006 and Regulation (EU) No. 2020/878 for

DOMOGRAN®

Prepared

2011-02-04

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

Updated

2022-12-11

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

1.1 Product identifier

Chemical Name: **Ammonium Sulphate**
Trade name: DOMOGRAN®
Other Names: Diammonium sulphate, sulfuric acid diammonium salt
EC No. (EINECS): 231-984-1
Form: no nanoform
UFI- Code: not applicable

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

Identified uses

- EU-fertilising products
- Additive for fertilising products

Uses advised against

Do not use in pharmacy sector.

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

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*country specific emergency telephone numbers in section 16

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

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

2.2 Label elements

Product is not subject to the labelling requirements (acc. to Regulation (EC) No. 1272/2008).

Safety precautions

P220	Keep/Store away from alkaline earth. Incompatible materials to be indicated by manufacturer/supplier.
P270	Do not eat, drink or smoke when using this product.
P262	Do not get in eyes, on skin or on 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 release to the environment. (If not in accordance with the intended purpose.)
P260	Do not breathe dust/fume/gas/mist/vapours/spray.

2.3 Other hazards

The product does not contain dangerous substances.

The product may have irritant effects in case of contact with the eyes.

The product may cause slight irritations in case of contact with the skin.

The product may have irritant effects on the mucous membranes if swallowed.

Decomposition products have irritating effects on 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.

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

Ammonium sulphate

CAS No.:

7783-20-2

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EC No. (EINECS): 231-984-1
Harmonized system code: 31022100
REACH Registration No.: 01-2119455044-46-0006
Formula: $(\text{NH}_4)_2\text{SO}_4$

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

Provide fresh air. In case of troubles, call a physician.

After skin contact

Flush with water.

After eye contact

Flush eyes thoroughly with water. Hold the eyelids wide open. Consult a physician.

After swallowing

Drink water. If trouble persists, consult doctor.

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.

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

Carbon dioxide, water.

Extinguish larger fires using spray water.

Extinguishing media which must not be used for safety reasons
none

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5.2 Special hazards arising from substance or mixture

The product is not flammable. In the event of fire irritant gases, e. g. ammonium, sulphur trioxide, may be formed due to decomposition. Smoke and fog formation is very likely in case of fire. When ammonia is released, dangerous situations may occur. Developing ammonia gas forms explosive mixtures with air, particularly in containers - less dangerous in the open air.

5.3 Advice for firefighters

Wear self-contained breathing apparatus.

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

No special requirements.

It is recommended that safety glasses, gloves and protective clothing are worn.

6.2 Environmental precautions

Avoid major volumes of water since product is well soluble in water.

Do not allow the product to enter sewerage system/surface waters/ground water.

6.3 Methods and material for containment and cleaning up

Take-up mechanically/dry.

Additional information

Although the product itself is not combustible, irritant gases, such as ammonia and sulphur trioxide, may be released in case of fire due to decomposition. Smoke and fog formation is very likely in case of fire. When ammonia is released, dangerous situations may occur. Developing ammonia gas forms explosive mixtures with air, particularly in containers - less dangerous in the open air. The aqueous solution of the product reacts with lyes forming gaseous ammonia.

6.4 Reference to other sections

Not applicable

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

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

Environmental protection measures

Avoid major volumes of water since product is well soluble in water.

Do not allow the product to enter sewerage system/surface waters/ground water.

Specific requirements or handling procedures

Handle in accordance with good industrial hygiene and safety practice.

Precautions against fire and explosion

No particular measures necessary. The product itself is not combustible.

Although the product itself is not combustible, irritant gases may be released in case of fire, such as ammonia, sulphur trioxide. Smoke and fog formation is very likely in case of fire. When ammonia is released, dangerous situations may occur. Developing ammonia gas forms explosive mixtures with air, particularly in containers - less dangerous in the open air.

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

Keep the product dry. Avoid humidity.

Store protected against influences of weather and contaminations.

Keep closed (relative humidity < 80 %).

Open containers only immediately prior to use in order to avoid contaminations.

Storeroom and container requirements

Do not store loose, unpacked product together with calcareous products or provide for sufficient separation in case of storing them together. For this purpose, a separation wall or a distance of 2.5 m between the products is regarded sufficient.

Hints on joint storage

Store/stow/load separately from food and beverages as well as fodder.

Do not store loose, unpacked product together with calcareous products or provide for sufficient separation in case of storing them together. For this purpose, a separation wall or a distance of 2.5 m between the products is regarded sufficient.

If in contact with alkaline earth composites ammonia may form.

Hints on joint storage of the aqueous solution

Forms ammonium if in contact with lyes. Therefore prevent aqueous solution from getting into contact with alkalis and basifying substances.

Do not store aqueous solution together with nitrites.

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7.3 Specific end use(s)

See point 1.2

SECTION 8: *Exposure controls/personal protection*

8.1 Control parameters

Workplace exposure limits

Acc. to article 14.4 and Annex XI, section 3 of Regulation No. 1907/2006 there are no obligatory exposure scenarios for this substance. Therefore, no specific exposure limits were derived.

8.2 Exposure controls

General Protection and Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.
Avoid contact with the eyes, skin and clothing.
Clean and cream skin after work.

Hand protection

It is recommended that rubber gloves are worn.
Good experience has been gained with "SCORPIO 8-352/8-354" gloves of "Ansell Edmont".

Eye protection

It is recommended that safety glasses be worn.

Body protection

It is recommended that closed work clothing be worn.

Further Notes

It is recommended that at least an eye wash bottle containing pure water be kept ready.

SECTION 9: *Physical and chemical properties*

9.1 Information on basic physical and chemical properties

Appearance

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

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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/cm ³ (25 °C)
Relative vapour density (air):	not applicable
Particle characteristics:	crystalline; no nanoform

9.2 Other informationBulk 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

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.

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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

The aqueous solution of the product reacts with lyes forming ammonia.
Therefore prevent from getting into contact with alkalis and basifying substances.
Do not store together with nitrites. Hazardous reaction of the aqueous solution with nitrites.

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

Practical experience

If handled correctly and according to its intended 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.

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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.

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

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	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 (according to package type)

Disposal

Do not dispose of product waste with household waste.

Do not allow to enter drains.

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

SECTION 14: Transport information

No hazardous good according to ADR/RID/IMDG

ICAO/IATA and ADN: not tested.

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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

Storage class (according to TRGS 510): 13 (non-flammable solids)

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EU-Regulations

Classification referred to regulation (EU) 2019/1009 (Fertilising Products Regulations):

Solid Inorganic Macronutrient Fertiliser - PFC1(C)(I)(a)(i)

15.2 Chemical safety assessment

Not relevant.

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

See item 2

Data sources

REACH Registration Dossier Ammonium Sulphate

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.

The contents of the German version of this material safety data sheet are binding. No warranty is given for the correctness of the information in other languages.

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)

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Greece	+30 21 1198 3182
Portugal	+351 30880 4750
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

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