

Safety Data Sheet according to Regulation 1907/2006/EC

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Section 1 Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name: **SULFOLAC 80 WG**
Netzschwefel Stulln

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

Relevant identified uses: Fungicide, Acaricide
Sector of Use: SU 1 Agriculture, forestry, fishery

1.3 Details of the Supplier of the Safety Data Sheet

Manufacturer: agrostulln GmbH,
Werksweg 2, D-92551 Stulln, Germany,
Ph.: +49 9435/3069-0; Fax: +49 9435/3069-14;
e-mail: info@agrostulln.de

1.4 Emergency telephone number

Germany: agrostulln GmbH: +49 9435/3069-0 (8:00 – 16:00)
Poison Emergency Munich: +49 89 19240

Section 2 Hazards identification

2.1 Classification of the substance or mixture

This product does not meet the criteria for classification in any hazard class according to Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures. However, a safety data sheet is being supplied for it on request.

2.2 Label elements

Pictogram	none	
Signal Words	none	
Hazard Statements	none	
Additional Hazard Statements	EUH401	To avoid risks to human health and the environment, comply with the instructions for use.
Precautionary Statements	P102	Keep out of reach of children.
	P270	Do not eat, drink or smoke when using this product.
	SP1	Do not contaminate water with the product or its container (Do not clean application equipment near surface water/ Avoid contamination via drains from farmyards and roads).

2.3 Other hazards

The product is not a dust-explosion risk as supplied, however the build-up of fine dust can lead to a risk of dust explosion.

Section 3 Composition/information on ingredients

3.2 Mixtures

Description of the mixture:
Active ingredient Sulfur, 80% w/w
Other components Lignosulfonate, Anti-caking agent

<p>Hazardous ingredients</p> <p>Further information on the active ingredient Sulfur:</p> <p>Classification according to Regulation (EC) No 1272/2008 (CLP): Skin Irrit. 2, H315</p> <p>EU-Index: 016-094-00-1 CAS-No.: 7704-34-9 EINECS-No.: 231-722-6</p> <p>REACH Registration: As active ingredient of a plant protection product, sulfur is regarded as being registered according to article 15 of regulation 1907/2006/EC, and further registration under REACH is not required.</p>	<p>Sulfur</p>
Section 4 First aid measures	
<p>4.1 Description of first aid measures</p> <p><u>General information</u> Remove contaminated, saturated clothing immediately. In case of accident or unwellness, seek medical advice immediately (show directions of use or safety data sheet if possible).</p> <p><u>Following inhalation</u> Remove casualty to fresh air and keep warm and at rest.</p> <p><u>Following skin contact</u> Wash immediately with soap and plenty of water. In case of skin irritation, consult a physician.</p> <p><u>Following eye contact</u> Rinse immediately carefully and thoroughly with eye-bath or water, Consult an ophthalmologist.</p> <p><u>Following ingestion</u> Let water be drunken in little sips (dilution effect). Do not induce vomiting. Seek medical assistance at once.</p> <p><u>Self-protection of the first aider</u> Pay attention to self protection!</p> <p>4.2 Most important symptoms and effects, both acute and delayed Swallowing of the product can cause flatulence and diarrhoea.</p> <p>4.3 Indication of any immediate medical attention and special treatment needed Specific treatment: First aid, decontamination, treatment of symptoms. Notes for the doctor: Treat symptomatically.</p>	
Section 5 Firefighting measures	
<p>5.1 Extinguishing media <u>Suitable extinguishing media:</u> Water mist, foam, powder, water-spray, CO₂ <u>Unsuitable extinguishing media:</u> Do not use compact water jet (risk of steam explosion)</p> <p>5.2 Special hazards arising from the substance or mixture <u>Hazardous combustion products:</u> Burning material forms highly toxic and irritant sulfur dioxide. In case of fire and/or explosion do not inhale fumes.</p> <p>5.3 Advice for firefighters <u>Protective clothing:</u> Wear self-contained respiratory equipment and a full protective suit.</p>	
Section 6 Accidental release measures	
<p>6.1 Personal precautions, protective equipment and emergency procedures <u>For non-emergency personnel</u> Protective equipment: refer to section 8.2 Emergency procedures: Remove ignition sources, provide sufficient ventilation and control dust development. <u>For emergency responders</u> As above, no additional information.</p>	

6.2 Environmental precautions

Do not allow to enter into drains or sewer, soil or open water (streams, ponds etc.).

6.3 Methods and material for containment and cleaning up

Soak up spilt substance mechanically and collect in suitable, sealed containers. A vacuum cleaner may only be used, if it is explosion-proof.

6.4 Reference to other sections

Refer to section 8 for information to suitable personal protective equipment
Refer to section 13 for more information to treatment of waste.

Section 7 Handling and storage

7.1 Precautions for safe handling

Protective measures

Dust explosion possible. Keep away from electrical appliances, open flames, any source of heat and sparks. No smoking or welding in the working area.

Advice on general occupational hygiene

Do not eat, drink and smoke in work areas; wash hands after use; and remove contaminated clothing and protective equipment before entering eating areas.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

Store in a cool, dry place, protect from moisture and direct sunlight.

Materials for packaging

Moisture resistant material, no special requirements.

Conditions for storage rooms and containers

Do not store together with food, feedstuff, and beverage. Keep away from children.

Further information related to storage

Storage class: **11**

7.3 Specific end use(s)

The product is used for plant protection with the common spraying or atomising equipment, according to good agricultural practice. See label for further information.

Section 8 Exposure controls / personal protection

8.1 Control parameters

Components with occupational exposure limits resp. biological occupational exposure limits requiring monitoring: none

8.2 Exposure controls

Appropriate engineering control

Ensure adequate ventilation, especially in confined areas.

Individual protection measures, such as personal protective equipment

Eye protection: Eye glasses with side protection

Skin protection:

- Hand protection: Rubber gloves acc. to DIN/EN 374
Material: Nitrile Rubber, Thickness ≥ 0.11 mm,
Level of protection in accordance with DIN EN 374/1: ≥ 6

- Suitable protective clothing: Overall (natural fibres, e.g. cotton wool),

Respiratory protection: Avoid inhalation of dust. Where required, wear protective particle filter mask (Filter type P2)

Thermal hazards : No specific measures

Environmental exposure control

Do not allow to enter into drains or sewers, soil or open water.
Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.
To avoid risks for the environment, apply only according to the instructions on the label.

Section 9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Appearance	brown microgranules
Bulk density	850 - 950 g/l
Particle size distribution	0.063 mm < 96% < 1.0 mm
b) Odour	ligneous-sweet
c) Odour threshold	not determined
d) pH value (1% in H ₂ O at 20°C)	4 - 7
e) Melting Point (active ingredient)	Ca. 112 - 119 °C
f) Boiling point	not applicable (solid preparation)
g) Flash point	not applicable (solid preparation)
h) Evaporation rate	not applicable (solid preparation)
i) Flammability	not highly flammable (Meth.: EEC A.10)
j) Upper/lower flammability or explosive limits	not applicable for granules
k) Vapour pressure	not applicable (solid preparation)
l) Vapour density	not applicable (solid preparation)
m) Relative density	not applicable (solid preparation)
n) Solubility	dispersible in water
o) Octanol water partition coefficient	not determined
p) Auto-ignition temperature	not determinable up to 420 °C (Meth.: EEC A.16)
q) Decomposition temperature	not determined
r) Viscosity	not applicable (solid preparation)
s) Explosive properties	not explosive (Meth. EEC A.14)
t) Oxidising properties	not oxidizing (Meth. EEC A.17)

9.2 Other information

Miscibility not miscible with products containing oil

Section 10 Stability and reactivity

10.1 Reactivity

No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability

The product is stable under appropriate storage conditions and ambient temperature as indicated in section 7.2.

10.3 Possibility of hazardous reactions

When stored and handled according to the instructions, no hazardous reactions are to be expected. Dust explosion possible. See chapter 7 for further information.

10.4 Conditions to avoid

Avoid dust development. Keep away from electrical appliances, open flames, any source of heat and sparks.

10.5 Incompatible materials

With chlorates, nitrates, perchlorates and permanganates, product forms explosive mixtures extremely susceptible to shock.

Unstable in contact with strong oxidising agents, copper and copper oxides.

10.6 Hazardous decomposition products

Does not decompose when used for intended uses.

Section 11 Toxicological information

11.1 Information on toxicological effects

Sulfur 80 WG

	<u>Method</u>	<u>Species</u>	<u>Exposure time</u>	<u>Result/ Classification*</u>
a) Acute toxicity				
Oral	OECD no. 401	Rat		LD ₅₀ : > 5000 mg/kg *
Dermal	OECD no. 402	Rat		LD ₅₀ : > 2000 mg/kg *
Inhalation	OECD no. 403	Rat	4 h	LC ₅₀ : 5434 mg/m ³ * max. attainable concentration with a MMAD in the target range (1-4 µm)
b) skin corrosion/irritation				
	OECD no. 404	Rabbit	4 h	No skin irritation *
c) serious eye damage/irritation				
	OECD no. 405	Rabbit	24 h	No eye irritation*
d) respiratory or skin sensitisation				
	OECD no. 406	Guinea Pig	25 d	No skin sensitisation observed*
* a) – d): Based on available data, the classification criteria are not met				
e) germ cell mutagenicity				
The product has not been tested. but from the properties of the individual components it can be concluded that it has no genotoxic potential.				
f) carcinogenicity				
The product has not been tested, but the properties of the individual components show no indication of a carcinogenic effect.				
g) reproductive toxicity				
The product has not been tested. but the properties of the individual components show no indication of a fertility impairing effect.				
h) STOT-single exposure				
The product has not been tested, but from the properties of the individual components it can be concluded that, based on the available information, there is no specific target organ toxicity to be expected after a single exposure.				
i) STOT-repeated exposure				
The product has not been tested, but from the properties of the individual components it can be concluded that, based on the available information, there is no specific target organ toxicity to be expected after repeated exposure.				
j) Aspiration hazard				
The product has not been tested, but from the properties of the individual components it can be concluded that there is no aspiration hazard to be expected.				

Active ingredient sulfur, as far as data are available:

	<u>Method</u>	<u>Species</u>	<u>Exposure time</u>	<u>Result/ Classification*</u>
a) Acute toxicity				
Oral	OECD no. 401	Rat		LD ₅₀ : > 2000 mg/kg *
Dermal	OECD no. 402	Rat		LD ₅₀ : > 2000 mg/kg *
Inhalation	OECD no. 403	Rat	4 h	LC ₅₀ : 5430 mg/m ³ * max. attainable concentration with a MMAD in the target range (1-4 µm)
b) skin corrosion/irritation				
	OECD no. 404	Rabbit	4 h	Irritating (Skin Irrit.2, H315)
c) serious eye damage/irritation				
	OECD no. 405	Rabbit	24 h	No eye irritation*
d) respiratory or skin sensitisation				
	OECD no. 406	Guinea Pig	25 d	No skin sensitisation observed*

* a), c), d): Based on available data, the classification criteria are not met

Section 12 Ecological information				
12.1 Toxicity				
Acute aquatic Toxicity	<u>Method</u>	<u>Species</u>	<u>Exposure time</u>	<u>Result</u>
Fish		<i>Oncorhynchus mykiss</i>	96 h	LC ₅₀ > 5000 mg/l
Daphnia	OECD 202	<i>Daphnia magna</i>	48 h	EC ₅₀ > 1000 mg/l
Algae	OECD 201	<i>Ankistrodesmus bibraianus</i>	72 h	EC ₅₀ > 290 mg/l
Chronic aquatic toxicity:				
Fish	OECD 204	<i>Oncorhynchus mykiss</i>	28 d	LC ₅₀ > 100 mg/l
Daphnia	OECD 202	<i>Daphnia magna</i>	21 d	EC ₅₀ > 1000 mg/l
Toxicity for other organisms:				
Toxicity to bees	Dose response	<i>Apis mellifera</i>	24 h	LD ₅₀ > 100 µg /bee Not toxic
Toxicity to earthworms	OECD 207	<i>Eisenia fetida</i>	14 d	LD ₅₀ > 2000 mg /kg soil -Not toxic
<u>Information on environmental hazard effects of the decomposition products</u> Sulfur dioxide and sulfurous acid: 1 mg/l lethal for fish				
12.2 Persistence and degradability (active ingredient)				
<u>Physical and photo-chemical elimination:</u> Elemental sulphur dissociates in artificial sunlight (DT50 = 3-4 Std.)				
<u>Biodegradation:</u> Oxidation to sulfate which occurs naturally in soils and ground water (DT50 = 28 d)				
12.3 Bioaccumulative potential (active ingredient)				
Octanol water partition coefficient of sulfur: Log P _{ow} 5.68 (20°C)				
12.4 Mobility in soil (active ingredient)				
Sulfur is not water-soluble and for this reason has low mobility in soils.				
12.5 Results of PBT and vPvB assessment				
This mixture does not contain any substances that are assessed to be a PBT or a vPvB.				
12.6 Other adverse effects				
Do not flush into surface water or sanitary sewer system.				
Section 13 Disposal considerations				
13.1 Waste treatment methods				
To be disposed of in accordance with local regulations. Waste should not be disposed of by release to sewers. Combustion possible in suitable incineration plants (flue gas desulfurisation). <u>European Waste Catalogue:</u> EWC-Number 06 06 99 <u>Waste description:</u> wastes from the manufacture, formulation, supply and use of sulfur chemicals, sulfur chemical processes and desulfurisation processes, otherwise not specified.				
Section 14 Transport information				
Not classified as dangerous goods according to national and international regulations.				
14.1 UN number	none			
14.2 UN proper shipping name	not applicable			
14.3 Transport hazard class(es)	none			
14.4 Packing group	not applicable			

14.5 Environmental hazards	none
14.6 Special precautions for user	avoid development of dust
14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Transport in bulk is not intended
Section 15 Regulatory Information	
15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture	<p><u>EU Regulations:</u> Classification and labelling acc. to EU-regulation 1272/2008, as amended by regulation 790/2009/EC.</p> <p><u>REACH Registration status:</u> The active substance Sulfur is regarded as being registered acc. to Art. 15 of REACH (1907/2006/EC). All other components of the mixture are exempted from registration acc. to Art. 2 paragraphs 7 and 9 of 1907/2006/EC.</p> <p><u>Other EU Regulations:</u> Registered according to Plant protection Products Regulation (1107/2009/EC)</p> <p><u>National regulations (Germany):</u> Pflanzenschutzgesetz of 6. Februar 2012 (PflSchG) Water hazard class: Class 1, slightly hazardous to waters (Self classification according VwVwS, Annex 4, 17.05.1999)</p>
15.2 Chemical Safety Assessment	No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.
Section 16 Other information	
<p><u>Indication of changes:</u> This Safety data sheet has been amended fundamentally according to Annex II of the REACH regulation (1907/2006/EC) and regulation 2015/830 of 28 May 2015. Furthermore, it has been adapted to Regulation (EC) No 1272/2008 (CLP).</p> <p><u>Abbreviations and acronyms:</u></p> <p>CAS = Chemical Abstracts Service CLP = Classification, Labelling and Packaging DT50 = dissipation time (half life) EINECS = European Inventory of Existing Commercial Chemical Substances EC = Effect Concentration EU = European Union LD = Lethal Dose LC = Lethal Concentration MMAD = Mass Median Aerodynamic Diameter OECD = Organisation for Economic Co-operation and Development PBT = Persistent, Bioaccumulative, Toxic REACH = Registration, Evaluation, and Authorisation of Chemicals SU = Sector of Use vPvB = very Persistent and very Bioaccumulative VwVwS = Verwaltungsvorschrift wassergefährdende Stoffe</p> <p><u>Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:</u> Classification according to Regulation (EC) Nr. 1272/2008: none Classification procedure: not applicable, as toxicological data on the mixture are available.</p> <p><u>Relevant R-phrases and/or H-statements (number and full text):</u> For the mixture: no classification Additional hazard statement (EU): (EUH 401) To avoid risks to human health and the environment, comply with the instructions for use</p>	

For the active Ingredient Sulfur:

Classification according to Regulation (EC) No 1272/2008 (CLP): **H 315:** Causes skin irritation

Further information:

The information contained in this document relates solely to the safety requirements of this product and is accurate to the best of our knowledge and belief at the date of publication. Nothing herein is to be construed as a warranty with the meaning of liability or guarantee provisions.

Data sheet compiled

agrostulln GmbH