Safety Data Sheet according to Regulation 1907/2006/EC

Date of issue: **17.09.2012** **Last update: 30.09.2026**
Version No.: 5.8, replaces version No.: 5.7

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

1.1 Product identifier

Trade name: **SOLIST WG, Netzschwefel Stulln 80 % WG**

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

Relevant identified uses: Fungicide, Acaricide

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.
	P501	Dispose of contents/container according to national regulations

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.
- The mixture itself or any substance contained in this mixture does not meet the criteria for vPvB and PBT according to Regulation (EC) No 1907/2006, Annex XIII.
- The mixture itself or any substance contained in this mixture is not identified as having endocrine disrupting properties according to Regulation (EU) 2017/2100.

Section 3 Composition/information on ingredients

3.2 Mixtures

Description of the mixture:

Active ingredient	Sulfur, 80% w/w
Other components	Dispersing agent: Lignosulfonate Anti-caking agent: Mineral rock meal
Hazardous ingredients	Sulfur

Information on the a.i. Sulfur:

CAS No	EC No	Index No.	% [weight]	Substance name	Classification acc. to Reg. (EC) 1278/2008 (CLP)	SCL, M-factor, ATE
7704-34-9	231-722-6	016-094-00-1	**80**	**Sulfur**	**Skin Irrit.2 H315**	**none**

For full text of H-statements, see SECTION 16.

REACH Registration: As active substance 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.

There are no additional ingredients present in this mixture which, within the current knowledge of the supplier, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or nanoparticles, or have been assigned a workplace exposure limit and hence require reporting in this section.

Section 4 First aid measures

4.1 Description of first aid measures

General information	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).
Following inhalation	Remove casualty to fresh air and keep warm and at rest.
Following skin contact	Wash immediately with soap and plenty of water. In case of skin irritation, consult a physician.
Following eye contact	Rinse immediately carefully and thoroughly with eye-bath or water, Consult an ophthalmologist.
Following ingestion	Let water be drunken in little sips (dilution effect). Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Seek medical assistance.
Self-protection of the first aider	No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms:
Swallowing of the product can cause flatulence and diarrhoea.

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.

Section 5 Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: Water mist, foam, powder, water-spray, CO_2
Unsuitable extinguishing media: Do not use compact water jet (risk of steam explosion)

5.2 Special hazards arising from the substance or mixture

May form explosible dust-air mixture if small particles are generated during processing, handling, or by other means.
Hazardous combustion products:
Burning material forms highly toxic and irritant sulfur dioxide.
In case of fire and/or explosion do not breathe fumes.

5.3 Advice for firefighters

Special protective actions for fire-fighters: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without. suitable training.

Protective clothing: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

Section 6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel
Protective equipment: refer to section 8.2
Emergency procedures:
Remove ignition sources, provide sufficient ventilation and control dust development.
For emergency responders
As above, no additional information.

6.2 Environmental precautions

Do not allow to enter 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 mesasures 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 rsp. biological occupational exposure limits requiring monitoring: none

8.2 Exposure controls

8.2.1 Appropriate engineering controls:
Ensure adequate ventilation, especially in confined areas
Organisational measures to prevent exposure:
Handle in accordance with good industrial hygiene and safety practice. When using, do not eat, drink or smoke. Avoid contact with skin, eyes and clothing. Keep away from food and drink. Wash hands before breaks and after work. Take off all contaminated clothing immediately.

8.2.2 Personal protective equipment:

a) Eye/face protection
Use safety goggles with side protection. Safety glasses with side-shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

b) Skin protection

- Hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. 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. The times are approximate values from measurements at 22 ° C and permanent contact. Increased temperatures due to heated substances, body heat etc. and a reduction of the effective layer thickness by stretching can lead to a considerable reduction of the breakthrough time. If in doubt, contact manufacturer. At an approx. 1.5 times.larger / smaller layer thickness, the respective breakthrough time is doubled / halved. The data apply only to the pure substance. When transferred to substance mixtures, they may only be considered as a guide.
• type of material
NBR (Nitrile rubber)
• material thickness
>0,11 mm
• breakthrough times of the glove material
>480 minutes (permeation: level 6)

- Body Protection

Use impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended.

c) Respiratory protection
Respiratory protection necessary at: Dust formation. Particulate filter device (EN 143). P2 (filters at least 94 % of airborne particles, colour code: White). For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges.
Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

8.2.3 Environmental exposure control
Do not allow to enter 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)	Physical state	Solid (microgranules)
b)	Colour	Brown
c)	Odour	Ligneous-sweet
	Odour threshold	Not determined

d)	Melting Point	Not determined for the mixture, Melting point of Sulfur: 114-116 °C (Meth.: CIPAC MT 2)
e)	Boiling point	Not determined for the mixture, Boiling point of molten Sulfur: 445 °C (Literature data)
f)	Flammability	Not highly flammable (Meth.: EU A.10)
g)	Upper/lower explosion limits	Not applicable (solid preparation)
h)	Flash point	Not applicable (solid preparation)
i)	Auto-ignition temperature	Not applicable (solid preparation)
j)	Decomposition temperature	Not determined
k)	pH value (1% in H_2O at 20°C)	4 - 7
l)	Kinematic viscosity	Not applicable (solid preparation)
m)	Solubility	Dispersible in water
n)	N-octanol water partition coefficient	Not determined for the mixture (Log P_{ow} Sulfur: 5.68 (20°C))
o)	Vapour pressure	Not applicable (solid preparation)
p)	Density	900 ± 50 g/L (CIPAC MT 186 “pour density”)
q)	Relative vapour density	Not applicable (solid preparation)
r)	Particle characteristics	Particle size distribution: 0.063 mm < 96% < 1.0 mm Nanoforms: none

9.2 Other information

Miscibility	Not miscible with products containing oil
Formation of explosible dust/air mixtures	The build-up of fine dust can lead to a risk of dust explosion.

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 hazard classes as defined in Regulation (EC) No 1272/2008

	Sulfur 80 WG	Method	Species	Exposure time	Result/ Classification*
a)	**Acute toxicity**				
	Oral	OECD 401	Rat		LD_{50}: > 5000 mg/kg *
	Dermal	OECD 402	Rat		LD_{50}: > 2000 mg/kg *
	Inhalation	OECD 403	Rat	4 h	LC_{50}: 5434 mg/m³ * max. attainable concentration with a MMAD in the target range (1-4 µm)
b)	**skin corrosion/irritation**	OECD 404	Rabbit	4 h	No skin irritation *
c)	**serious eye damage/irritation**	OECD 405	Rabbit	24 h	No eye irritation*

d)	**respiratory or skin sensitisation**	OECD 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** — No data available
f) **carcinogenicity** — No data available
g) **reproductive toxicity** — No data available
h) **STOT-single exposure** — No data available
i) **STOT-repeated exposure** — No data available
j) **Aspiration hazard** — No data available

Active substance sulfur, as far as data are available:

		Method	Species	Exposure time	Result/ Classification*
a)	Acute toxicity				
	Oral	OECD 401	Rat		LD_{50}: > 2000 mg/kg *
	Dermal	OECD 402	Rat		LD_{50}: > 2000 mg/kg *
	Inhalation	OECD 403	Rat	4 h	LC_{50}: 5430 mg/m³ * max. attainable concentration with a MMAD in the target range (1-4 µm)
b)	skin corrosion/irritation	OECD 404	Rabbit	4 h	Irritating (Skin Irrit.2, H315)
c)	serious eye damage/irritation	OECD 405	Rabbit	24 h	No eye irritation*
d)	respiratory or skin sensitisation	OECD 406	Guinea Pig	25 d	No skin sensitisation observed*

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

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties (active substance sulfur)
For the active substance sulfur, no endocrine disrupting properties were derived from application of the assessment criteria laid down in the corresponding Regulations ((EC) No 1907/2006, (EU) 2017/2100, (EU) 2018/605), that is relevant to assess endocrine disrupting properties for human health.

11.2.2 Other information
Swallowing of the product can cause flatulence and diarrhoea.
No other relevant adverse health effects have been reported.

Section 12 Ecological information

12.1 Toxicity

Acute aquatic Toxicity

	Method	Species	Exposure time	Result
Fish	OECD 203	*Oncorhynchus mykiss*	96 h	LC_{50}> 5000 mg/l
Daphnia	OECD 202	*Daphnia magna*	48 h	EC_{50}> 1000 mg/l
Algae	OECD 201	*Ankistrodesmus bibr.*	72 h	EC_{50}> 290 mg/l
Chronic aquatic toxicity:				
Fish	OECD 204	*Oncorhynchus mykiss*	28 d	LC_{50}> 100 mg/l
Daphnia	OECD 202	*Daphnia magna*	21 d	EC_{50}> 1000 mg/l
Toxicity for other organisms:				
Toxicity to bees	Dose resp.	*Apis mellifera*	24 h	LD_{50}> 100 µg /bee Not toxic
Toxicity to earthworms	OECD 207	*Eisenia fetida*	14 d	LD_{50}> 2000 mg /kg soil -Not toxic

Information on environmental hazard effects of the decomposition products
Sulfur dioxide and sulfurous acid: 1 mg/l lethal for fish

12.2 Persistance and degradability (active substance)

Physical and photo-chemical elimination:
Elemental sulphur dissociates in artificial sunlight (DT50 = 3-4 Std.)
Biodegradation: Oxidation to sulfate which occurs naturally in soils and ground water (DT50 = 28 d)

12.3 Bioaccumulative potential (active substance)

Octanol water partition coefficient of sulfur: Log P_{ow} 5.68 (20°C)

12.4 Mobility in soil (active substance)
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 Endocrine disrupting properties
This mixture does not have endocrine disrupting properties with respect to non-target organisms as it does not meet the criteria set out in section B of Regulation (EU) No 2017/2100."

12.7 Other adverse effects
No known significant effects or critical hazards.
Contamination of surface water or sanitary sewer system should be avoided.

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).
European Waste Catalogue: EWC-Number 06 06 99
Waste description: 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.

		Land transport (ADR/RID)	Inland water-way craft (ADN)	Sea transport (IMDG)	Air Transport (ICAO-TI /IATA-DGR)
14.1	**UN number**	not relevant	not relevant	not relevant	not relevant
14.2	**UN proper shipping name**	not relevant	not relevant	not relevant	not relevant
14.3	**Transport hazard class(es)**	not relevant	not relevant	not relevant	not relevant
14.4	**Packing group**	not relevant	not relevant	not relevant	not relevant
14.5	**Environmental hazards**	not relevant	not relevant	not relevant	not relevant

14.6 Special precautions for user Avoid dust formation.
14.7 Maritime transport in bulk according to IMO instruments Transport in bulk is not intended

Section 15 Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific to the substance or mixture
EU Regulations: Classification and labelling acc. to EU regulation 1272/2008 (CLP), as amended by Commission Delegated Regulation (EU) 2024/2564 (22.ATP).
REACH Registration status:
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.
Other EU Regulations:
Registered according to Plant protection Products Regulation (1107/2009/EC)
National regulations (Germany):
Pflanzenschutzgesetz of 6. Februar 2012 (PflSchG)
Water hazard class: Class 1, slightly hazardous to waters (Self classification according AwSV of 18.04.2017)

15.2 Chemical Safety Assessment
No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

Section 16 Other information

Indication of changes:
This Safety data sheet has been amended fundamentally according to Annex II of the REACH regulation (1907/2006/EC), regulation 2015/830 of 28 May 2015 and Commission Regulation (EU) 2020/878. Furthermore, it has been adapted to Regulation (EC) No 1272/2008 (CLP), as well as to the 22nd ATP of the CLP regulation.

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
ATE	= Acute Toxicity Estimate
AwSV	= Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (German regulation for protection of waterbodies)
CAS	= Chemical Abstacts Service
CLP	= Classification. Labelling and Packaging
d	= days
DT50	= dissipation time (half life)
EINECS	= European Inventory of Existing Commercial Chemical Substances
EC	= European Community, Effect Concentration
EU	= European Union
g/l	= grams per litre
h	= hours
IATA-DGR	= International Air Transport Association Dangerous Goods Regulation
ICAO	= International Civil Aviation Organization
IMDG	= International Maritime Dangerous Goods
IMO	= International Maritime organisation
LD	= Lethal Dose
LC	= Lethal Concentration
MMAD	= Mass Median Aerodynamic Diameter
NIOSH	= National Institute for Occupational Safety and Health (USA)
OECD	= Organisation for Economic Co-operation and Development
PBT	= Persistent, Bioaccumulative, Toxic
REACH	= Registration, Evaluation, and Authorisation of Chemicals
RID	= Dangerous goods regulations for transport by rail
SCL	= Specific Concentration Limit
STOT	= Specific Target Organ Toxicity
UN	= United Nations
vPvB	= very Persistent and very Bioaccumulative
w/w	= Weight/weight

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:
Classification according to Regulation (EC) Nr. 1272/2008: none
Classification procedure: not applicable, as toxicological data on the mixture is available.

Relevant H-statements (number and full text):
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
For the active substance 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