

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878 Issue date: 3/15/2018 Revision date: 12/6/2023 Supersedes version of: 12/1/2022 Version: 2.3

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

#### **1.1. Product identifier**

Product form	: Mixture
Trade name	: SULPHUR RINGS
UFI	: Y0FA-TX9T-2D0S-UPW5
Type of product	: For œnological use
Product group	: Trade product

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

#### 1.2.1. Relevant identified uses

Main use category Industrial/Professional use spec Use of the substance/mixture Use of the substance/mixture

- : Professional use
- : For professional users only
- : For sulphiting of barrels and wooden vats.
- : For œnological use

#### 1.2.2. Uses advised against

No additional information available

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

#### Supplier

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# Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

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### 1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number	Comment
Australia	NSW Poisons Information Centre The Children's Hospital at Westmead	Locked Bag 4001 NSW 2145	13 11 26	
Bulgaria	Национален токсикологичен информационен център Многопрофилна болница за активно лечение и спешна медицина "Н.И.Пирогов"	бул. Ген. Едуард И. Тотлебен 21 1606 София	+359 2 9154 233	
Canada	Ontario Poison Centre (OPC)	The Hospital for Sick Children 555 University Avenue ON M5G 1X8 Toronto	1-800-268-9017 (416) 813-5900	
Canada	BC Drug and Poison Information Centre (DPIC)	655 West 12th Avenue BC V5Z 4R4 Vancouver	1-800-567-8911 (604) 682-5050	
China	National Poison Control Center	Chinese Center for Disease Control and Prevention Nanwei road, No.29 100050 Beijing	+86 10 831 32 046	
Croatia	Centar za kontrolu otrovanja Institut za medicinska istraživanja i medicinu rada	Ksaverska Cesta 2 p.p. 291 10000 Zagreb	+385 1 234 8342	Information available 24/7 in Croatian and English
Czech Republic	Toxikologické informační středisko Klinika pracovního lékařství VFN a 1. LF UK	Na Bojišti 1 120 00 Praha 2	+420 224 919 293 +420 224 915 402	
Denmark	Giftlinjen	Bispebjerg Bakke 23 Opgang 20 C 2400 København NV	+45 82 12 12 12	
Georgia	National Toxicology Information Advisory Center	Tbilisi State Medical University Department of Toxicology - 7 Asatiani St. 380 077 Tbilisi	+995 99 533320	
Greece	Poisons Information Centre Children's Hospital P&A Kyriakou	11762 Athens	+30 2 10 779 3777	
Hungary	Országos Kémiai Biztonsági Intézet Egészségügyi Toxikológiai Tájékoztató Szolgálat	Nagyvárad tér 2. 1437 Budapest, Pf. 839 1097 Budapest	+36 80 20 11 99	
Israel	Israel Poison Information Center Rambam Health Care Campus	6 Ha'Aliya Street 31096	+972 4 854 1900	
Japan	Japan Poison Information Center	Tsukuba Medical Center 1-1-1 Amakubo 305-0005 Tsukuba City, Ibaraki	+81-29-856-3566 +81-72-727-2499	
Jordan	National Drug & Poison Information Center of Jordan		0798506755 00962-6-5353444	

# Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Country	Organisation/Company	Address	Emergency number	Comment
Kazakhstan	Republican Toxicology Center	Tole-bi 93 480083 Almaty	+7 3272 925 868	
Malta	Medicines & Poisons Info Office	Mater Dei Hospital MSD Msida	+356 2545 6504	
New Zealand	National Poisons Centre	Dunedin School of Medicine, University of Otago PO Box 913 9054 Dunedin	0800 764 766 +56 2 2 247 3600	
Poland	National Poisons Information Centre The Nofer Institute of Occupational Medicine (Łódź)	ul. Teresy 8 P.O. BOX 199 90950 Łódź	+48 42 63 14 724	
Romania	Department of Clinical Toxicology Spitalul de Urgenta Floreasca	Calea Floreasca Bucuresti	+40 21 230 8000	
Russia	Информационно-консультативный центр по токсикология (RTIAC) Министерство здравоохранения Российской Федерации	3 Сухаревская Площадь Блок 7 129090 г. Москва	+7 495 628 1687 (только на русском)	
Serbia	Nacionalni centar za kontrolu trovanja - VMA	Crnotravska 17 11000 Beograd	+381 11 360 84 40	
Slovenia	Center za klinično toksikologijo in farmakologijo Interna klinika, UKCL	Zaloška 7 1000 Ljubljana	+386 522 52 83	
South Africa	Tygerberg Poison Information Centre	Division of Clinical Pharmacology Faculty of Medicine and Heath Sciences Stellenbosch University - PO Box 241 8 000 Cape Town	0861 555 777 +56 2 2 247 3600	
Sweden	Giftinformationscentralen	Solna Strandväg 21 171 54 Solna	112 – begär Giftinformation	
Turkey	Ulusal Zehir Merkezi (UZEM) Refik Saydam Hıfzısıhha Merkezi Başkanlığı	Cemal Gürsel Cd. No: 18 Sıhhiye Çankaya 06590 Ankara	114	Information is provided to public and medical personnel on poisoning incidents via 114.
United Kingdom	National Poisons Information Service (Belfast Centre) Royal Victoria Hospital	Grosvenor Road BT12 6BA	0344 892 0111	Only for healthcare professionals
United Kingdom	National Poisons Information Service (Birmingham Centre) City Hospital	Dudley Road B18 7QH	0344 892 0111	Only for healthcare professionals
United Kingdom	National Poisons Information Service (Cardiff Centre) University Hospital Llandough	Penlan Road CF64 2XX	0344 892 0111	Only for healthcare professionals
United Kingdom	National Poisons Information Service (Edinburgh Centre) Royal Infirmary of Edinburgh	Little France Crescent EH16 4SA	0344 892 0111	Only for healthcare professionals
United Kingdom	Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust	Avonley Road SE14 5ER	+44 20 7188 7188	

# Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Country	Organisation/Company	Address	Emergency number	Comment
United Kingdom	National Poisons Information Service (Newcastle Centre) Regional Drugs and Therapeutics Centre	16/17 Framlington Place Newcastle-upon-Tyne NE2 4AB	0344 892 0111	Only for healthcare professionals
United States of America	American Association of Poison Control Centers	515 King St., Suite 510 VA 22314 Alexandria	1-800-222-1222 +56 2 2 247 3600	

H315

## SECTION 2: Hazards identification

Skin corrosion/irritation, Category 2

#### **2.1.** Classification of the substance or mixture

Full text of H- and EUH-statements: see section 16

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Adverse physicochemical, human health and en	nvironmental effects	
Causes serious eye irritation. Causes skin irritati	on.	
2.2. Label elements		
Labelling according to Regulation (EC) No. 1272	2/2008 [CLP]	
Hazard pictograms (CLP)	GH507	
Signal word (CLP)	: Warning	
Hazard statements (CLP)	: H315 - Causes skin irritation.	
Precautionary statements (CLP)	: P264 - Wash hands thoroughly after handling.	
	P280 - Wear protective gloves, protective clothing, eye protection, face protection.	
	P302+P352 - IF ON SKIN: Wash with plenty of soap and water.	
	P332+P313 - If skin irritation occurs: Get medical advice/attention.	
	P362+P364 - Take off contaminated clothing and wash it before reuse.	
EUH-statements	: EUH401 - To avoid risks to human health and the environment, comply with the instructions for use.	
Extra phrases	: 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).	
	To protect aquatic organisms/non-target plants/non-target arthropods/insects respect an	
	unsprayed buffer zone of (distance to be specified) to non-agricultural land/surface water bodies.	

#### 2.3. Other hazards

Contains no PBT and/or vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

## SECTION 3: Composition/information on ingredients

### **3.1. Substances**

#### Not applicable

# Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

3.2. Mixtures			
Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Solid sulfur substance with a Community workplace exposure limit	CAS-No.: 7704-34-9 EC-No.: 231-722-6 EC Index-No.: 016-094-00-1	> 75	Skin Irrit. 2, H315
Hydrogen Sulfide substance with a Community workplace exposure limit	CAS-No.: 7783-06-4 EC-No.: 231-977-3	< 0.001	Flam. Gas 1, H220 Press. Gas

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures	
4.1. Description of first aid measures	
First-aid measures general	: If symptoms persist call a doctor.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. If symptoms persist, call a physician.
First-aid measures after skin contact	<ul> <li>After contact with skin, wash immediately and thoroughly with water and soap. Immediately consult a doctor/medical service. Wash skin with plenty of water. Take off contaminated clothing. If skin irritation occurs: Get medical advice/attention.</li> </ul>
First-aid measures after eye contact	In case of eye contact, immediately rinse with clean water for 10-15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. Rinse eyes with water as a precaution.
First-aid measures after ingestion	: If swallowed, rinse mouth with water (only if the person is conscious). Never give anything by mouth to an unconscious person. Do not induce vomiting. Call a poison center or a doctor if you feel unwell.
4.2. Most important symptoms and effect	s, both acute and delayed
Symptoms/effects	: More detailed information: See section 11.
Symptoms/effects after inhalation	: May cause respiratory irritation.
Symptoms/effects after skin contact	: May cause irritation to skin. Irritation.
Symptoms/effects after eye contact	: May cause severe irritation.
Symptoms/effects after ingestion	: Gastrointestinal complaints.

EC Index-No.: 016-001-00-4

Acute Tox. 2 (Inhalation), H330 (ATE=444

Acute Tox. 2 (Inhalation:gas), H330 (ATE=444

ppmv/4h)

ppmv/4h)

Aquatic Acute 1, H400

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 Unsuitable extinguishing media	<ul> <li>carbon dioxide (CO2), powder, alcohol-resistant foam, water spray. Water spray. Dry powder. Foan</li> <li>Do not use water jet.</li> </ul>	
5.2. Special hazards arising from the substance	or mixture	
Fire hazard	: In case of fire and/or explosion do not breathe fumes. Watch out for invisible flames. May cause or intensify fire; oxidiser.	
Explosion hazard	: Heating may cause an explosion.	
Hazardous decomposition products in case of fire	: Toxic fumes may be released. Sulphur oxides.	

# Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

5.3. Advice for firefighters	
Precautionary measures fire	: Evacuate the personnel away from the fumes. Eliminate all ignition sources if safe to do so.
Firefighting instructions	: Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection.
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
Other information	: Do not contaminate ground and surface water. Dispose in a safe manner in accordance with local/national regulations.

## SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures		
General measures	: Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material damage.	
6.1.1. For non-emergency personnel		
Protective equipment	: Wear personal protective equipment.	
Emergency procedures	: Ventilate spillage area. Avoid contact with skin and eyes.	
Measures in case of dust release	: Avoid dust formation.	
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".	
Emergency procedures	: Evacuate unnecessary personnel.	

### 6.2. Environmental precautions

Avoid release to the environment. Notify authorities if product enters sewers or public waters. Do not flush into surface water or sewer system.

6.3. Methods and material for containment and cleaning up		
For containment	: Using a clean shovel, put the material in a dry container and cover without compressing it.	
Methods for cleaning up	: Mechanically recover the product. Contain leaking substance, pump over in suitable containers.	
	Clean contaminated surfaces with an excess of water.	
Other information	: Dispose of materials or solid residues at an authorized site.	
6.4. Reference to other sections		

Concerning personal protective equipment to use, see section 8. For further information refer to section 13.

SECTION 7: Handling and storage	
7.1. Precautions for safe handling	
Additional hazards when processed Precautions for safe handling Hygiene measures	<ul> <li>Ensure good ventilation of the work station.</li> <li>Ensure good ventilation of the work station. Avoid dust formation. Store tightly closed in a dry and cool place. Avoid contact with skin and eyes. Wear personal protective equipment.</li> <li>Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product.</li> </ul>
7.2. Conditions for safe storage, including a	Always wash hands after handling the product.
Technical measures	: Store in original container. Keep in a cool, well-ventilated place away from heat. Take precautionary measures against static discharge.
Storage conditions	: Keep container tightly closed to prevent moisture pick-up. Keep out of direct sunlight. Store tightly closed in a dry and cool place.
Incompatible products	: Strong acids, strong oxidants. Strong bases.
Incompatible materials	: Direct sunlight. Sources of ignition.
Storage area	: Store in a well-ventilated place. Store away from heat.

# Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Packaging materials

: Store always product in container of same material as original container.

### 7.3. Specific end use(s)

For œnological use.

## SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

SULPHUR RINGS		
USA - ACGIH - Occupational Exposure Limits		
ACGIH OEL STEL	0.25 ppm	
Remark (ACGIH)	SO2	
Solid sulfur (7704-34-9)		
EU - Indicative Occupational Exposure Limit (IOEL)		
IOEL TWA	≈ 0.5 ppm	
IOEL STEL	≈ 1 ppm	
Remark	SO2	
USA - ACGIH - Occupational Exposure Limits		
ACGIH OEL STEL	0.25 ppm	
Remark (ACGIH)	SO2	
Hydrogen Sulfide (7783-06-4)		
EU - Indicative Occupational Exposure Limit (IOEL)		
Local name	Hydrogen sulphide	
IOEL TWA	7 mg/m <sup>3</sup>	
	5 ppm	
IOEL STEL	14 mg/m³	
	10 ppm	
Remark	SO2	
Regulatory reference	COMMISSION DIRECTIVE 2009/161/EU	
France - Occupational Exposure Limits		
Local name	Hydrogène sulfuré (Sulfure d'hydrogène)	
VME (OEL TWA)	7 mg/m³	
	5 ppm	
VLE (OEL C/STEL)	14 mg/m³	
	10 ppm	
Remark	Valeurs règlementaires contraignantes	
Regulatory reference	Article R4412-149 du Code du travail (réf.: INRS ED 984, 2016; Décret n° 2019-1487; Décret n° 2020-1546; Décret n° 2021-434; Décret n° 2021-1849)	

# Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Hydrogen Sulfide (7783-06-4)		
Spain - Occupational Exposure Limits		
Local name	Sulfuro de hidrógeno	
VLA-ED (OEL TWA)	7 mg/m <sup>3</sup>	
	5 ppm	
VLA-EC (OEL STEL)	14 mg/m <sup>3</sup>	
	10 ppm	
Remark	VLI (Agente químico para el que la U.E. estableció en su día un valor límite indicativo).	
Regulatory reference	Límites de Exposición Profesional para Agentes Químicos en España 2023. INSHT	
USA - ACGIH - Occupational Exposure Limits		
ACGIH OEL STEL	0.25 ppm	
Remark (ACGIH)	SO2	

#### 8.1.2. Recommended monitoring procedures

No additional information available

#### 8.1.3. Air contaminants formed

No additional information available

#### 8.1.4. DNEL and PNEC

SULPHUR RINGS	
PNEC (STP)	
PNEC sewage treatment plant	0 mg/l

#### 8.1.5. Control banding

No additional information available

#### 8.2. Exposure controls

### 8.2.1. Appropriate engineering controls

#### Appropriate engineering controls:

Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

#### Personal protective equipment:

Refer to protective measures listed in Sections 7 and 8.

#### Personal protective equipment symbol(s):



### 8.2.2.1. Eye and face protection

#### Eye protection:

Safety glasses

Eye protection			
Туре	Field of application	Characteristics	Standard
Safety glasses	Dust	With side shields	EN 166

# Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

#### 8.2.2.2. Skin protection

#### Skin and body protection:

Wear suitable protective clothing

Skin and body protection	
Туре	Standard
Chemically resistant protective gloves	EN 374

#### Hand protection:

Protective gloves. Protective gloves made of PVC. Butyl rubber gloves. Nitrile rubber gloves. Natural rubber

Hand protection					
Туре	Material	Permeation	Thickness (mm)	Penetration	Standard
Chemically resistant protective gloves	Nitrile rubber (NBR)	6 (> 480 minutes)	0.4		EN 420, EN ISO 374
Chemically resistant protective gloves	Chloroprene rubber (CR)	6 (> 480 minutes)	0.5		EN 420, EN ISO 374
Chemically resistant protective gloves	Butyl rubber	6 (> 480 minutes)	0.7		EN 420, EN ISO 374

#### 8.2.2.3. Respiratory protection

#### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. EN 143

## 8.2.2.4. Thermal hazards

No additional information available

#### 8.2.3. Environmental exposure controls

#### Environmental exposure controls:

Do not allow into drains or water courses. Avoid release to the environment.

#### Other information:

Do not eat, drink or smoke during work. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

SECTION 9: Physical and chemical properties			
9.1. Information on basic physical an	9.1. Information on basic physical and chemical properties		
Physical state	: Solid		
Colour	: Yellow.		
Appearance	: Powder. Chunks.		
Odour	: characteristic.		
Odour threshold	: Not available		
Melting point	: 115 – 119 °C à 1.013bar		
Freezing point	: Not applicable		
Boiling point	: 444.6 à 1.013bar		
Flammability	: Non flammable.		
Explosive limits	: Not applicable		
Lower explosion limit	: Not applicable		
Upper explosion limit	: Not applicable		
Flash point	: Not applicable		
Auto-ignition temperature	: Not applicable		
Decomposition temperature	: Not available		

# Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

рН	: Not available
pH solution	: ≈6 (≥0) 5% - 20°C
Viscosity, kinematic	: Not applicable
Solubility	: insoluble in water.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: ≈ 0.11 mm Hg
Vapour pressure at 50°C	: Not available
Density	: ≈ 1.79 (0 – 0) kg/m³ 20°C
Relative density	: Not available
Relative vapour density at 20°C	: Not applicable
Particle size	: Not available
Particle size distribution	: Not available
Particle shape	: Not available
Particle aspect ratio	: Not available
Particle aggregation state	: Not available
Particle agglomeration state	: Not available
Particle specific surface area	: Not available
Particle dustiness	: Not available

#### 9.2. Other information

### 9.2.1. Information with regard to physical hazard classes

No additional information available

#### 9.2.2. Other safety characteristics

No additional information available

## SECTION 10: Stability and reactivity

#### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

#### 10.2. Chemical stability

Stable under normal conditions.

**10.3.** Possibility of hazardous reactions

May react violently with oxidants. Contact with acids liberates toxic gas.

#### 10.4. Conditions to avoid

Heat. flames or sparks.

**10.5.** Incompatible materials

Strong acids. Strong bases. Oxidizing agent.

**10.6. Hazardous decomposition products** 

May liberate toxic gases. Thermal decomposition generates : Sulphur dioxide. Hydrogen sulfide.

## **SECTION 11: Toxicological information**

## 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral)
Acute toxicity (dermal)
Acute toxicity (inhalation)

- : Not classified
- : Not classified
- : Not classified

# Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Solid sulfur (7704-34-9)	
LD50 oral rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: EPA OPP 81-1 (Acute Oral Toxicity), Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 434 (Acute Dermal Toxicity - Fixed Dose Procedure)
Hydrogen Sulfide (7783-06-4)	i
LD50 dermal rat	632 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), 95% CL: 1260 -
LC50 Inhalation - Rat [ppm]	444 ppm
kin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Severe eye irritation
Additional information	: Causes serious eye damage.
Respiratory or skin sensitisation Germ cell mutagenicity	: Not classified : Not classified
Carcinogenicity	: Not classified
Solid sulfur (7704-34-9)	
NOAEL (chronic, oral, animal/male, 2 years)	256 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)
NOAEL (chronic, oral, animal/female, 2 years)	284 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 453 (Combine Chronic Toxicity / Carcinogenicity Studies)
Reproductive toxicity	: Not classified
TOT-single exposure	: Not classified
Solid sulfur (7704-34-9)	
LOAEL (oral, rat)	1000 mg/kg bodyweight
LOAEL (dermal, rat/rabbit)	400 mg/kg bodyweight
LOAEC (inhalation, rat, dust/mist/fume)	4.552 mg/l
NOAEL (oral, rat)	0 mg/kg bodyweight
Hydrogen Sulfide (7783-06-4)	
LOAEL (oral, rat)	2000 mg/kg bodyweight
LOAEL (dermal, rat/rabbit)	2000 mg/kg bodyweight
LOAEC (inhalation, rat, dust/mist/fume)	4.552 mg/l
NOAEL (oral, rat)	1000 mg/kg bodyweight
NOAEL (dermal, rat/rabbit)	400 mg/kg bodyweight
TOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified
SULPHUR RINGS	

**11.2.** Information on other hazards

No additional information available

# Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

SECTION 12: Ecological information	
12.1. Toxicity	
Ecology - general Hazardous to the aquatic environment, short–term (acute) Hazardous to the aquatic environment, long–term (chronic)	<ul> <li>The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.</li> <li>Not classified</li> <li>Not classified</li> </ul>
Solid sulfur (7704-34-9)	
LC50 - Fish [1]	0 – 14 mg/l
LC50 - Fish [2]	57.2 mg/l Test organisms (species): Prosopium williamsoni
EC50 - Crustacea [1]	> 5 μg/l Test organisms (species): Daphnia magna
EC50 - Other aquatic organisms [1]	121.7 mg/l Test organisms (species): other:
NOEC (chronic)	> 100 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
Hydrogen Sulfide (7783-06-4)	
LC50 - Fish [1]	≈ 0.16 (≥ 0) mg/l
LC50 - Fish [2]	0
EC50 - Crustacea [1]	0.12 mg/l Test organisms (species): Daphnia sp.
EC50 72h - Algae [1]	48.1 mg/l Snenedesmus subspicatus
12.2. Persistence and degradability	
Solid sulfur (7704-34-9)	
Persistence and degradability	Mineral.
Hydrogen Sulfide (7783-06-4)	
Persistence and degradability	Mineral.
12.3. Bioaccumulative potential	
Solid sulfur (7704-34-9)	
Bioaccumulative potential	Not established.
Hydrogen Sulfide (7783-06-4)	
Partition coefficient n-octanol/water (Log Pow)	≈ -4
Bioaccumulative potential	There is no bioaccumulation.
12.4. Mobility in soil	
No additional information available	

12.5. Results of PBT and vPvB assessment

No additional information available

## **12.6. Endocrine disrupting properties**

No additional information available

# Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

## 12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations			
13.1. Waste treatment methods			
Regional waste regulation	: Disposal must be done according to official regulations.		
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.		
Sewage disposal recommendations	: Do not flush into surface water or sewer system. Disposal must be done according to official regulations.		
Product/Packaging disposal recommendations	: Empty remaining contents. Dispose of contents/container in accordance with licensed collector's sorting instructions. Disposal must be done according to official regulations.		
Additional information	: Do not re-use empty containers.		

## SECTION 14: Transport information

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

14.1. UN number or ID number		
UN-No. (ADR) UN-No. (IMDG) UN-No. (IATA) UN-No. (ADN) UN-No. (RID)	<ul> <li>Not regulated</li> <li>Not regulated</li> <li>Not regulated</li> <li>Not regulated</li> <li>Not regulated</li> <li>Not regulated</li> </ul>	
14.2. UN proper shipping name		
Proper Shipping Name (ADR) Proper Shipping Name (IMDG) Proper Shipping Name (IATA) Proper Shipping Name (ADN) Proper Shipping Name (RID)	<ul> <li>Not regulated</li> <li>Not regulated</li> <li>Not regulated</li> <li>Not regulated</li> <li>Not regulated</li> <li>Not regulated</li> </ul>	
14.3. Transport hazard class(es)		
ADR Transport hazard class(es) (ADR)	: Not regulated	
IMDG Transport hazard class(es) (IMDG)	: Not regulated	
IATA Transport hazard class(es) (IATA)	: Not regulated	
ADN Transport hazard class(es) (ADN)	: Not regulated	
RID Transport hazard class(es) (RID)	: Not regulated	
14.4. Packing group		
Packing group (ADR) Packing group (IMDG) Packing group (IATA) Packing group (ADN) Packing group (RID)	<ul> <li>Not regulated</li> <li>Not regulated</li> <li>Not regulated</li> <li>Not regulated</li> <li>Not regulated</li> <li>Not regulated</li> </ul>	

# Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

14.5. Environmental hazards	
Dangerous for the environment	: No
Marine pollutant	: No
Other information	: No supplementary information available

#### 14.6. Special precautions for user

### **Overland transport**

Not regulated

#### Transport by sea

Not regulated

#### Air transport

Not regulated

### Inland waterway transport

Not regulated

## **Rail transport**

Not regulated

### 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

### 15.1.1. EU-Regulations

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

Contains no substance(s) listed on the REACH Candidate List

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

#### 15.1.2. National regulations

#### Germany

Water hazard class (WGK)	: WGK 1, Slightly hazardous to water (Classification according to AwSV, Annex 1)
Hazardous Incident Ordinance (12. BImSchV)	: Is not subject of the Hazardous Incident Ordinance (12. BImSchV)
Netherlands	
SZW-lijst van kankerverwekkende stoffen	: None of the components are listed
SZW-lijst van mutagene stoffen	: None of the components are listed
SZW-lijst van reprotoxische stoffen – Borstvoeding	: None of the components are listed
SZW-lijst van reprotoxische stoffen – Vruchtbaarheid	: None of the components are listed
SZW-lijst van reprotoxische stoffen – Ontwikkeling	: None of the components are listed
15.2. Chemical safety assessment	

A chemical safety assessment has been carried out No chemical safety assessment has been carried out

### **SECTION 16: Other information**

Indication of changes: Revision - See : \*.

# Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Indication of changes			
Section	Changed item	Change	Comments
1.1	UFI	Added	
1.3	Manufacturer/Supplier	Modified	
8.1	Control parameters	Modified	

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	
BCF	Bioconcentration factor	
BLV	Biological limit value	
BOD	Biochemical oxygen demand (BOD)	
COD	Chemical oxygen demand (COD)	
DMEL	Derived Minimal Effect level	
DNEL	Derived-No Effect Level	
EC-No.	European Community number	
EC50	Median effective concentration	
EN	European Standard	
IARC	International Agency for Research on Cancer	
ΙΑΤΑ	International Air Transport Association	
IMDG	International Maritime Dangerous Goods	
LC50	Median lethal concentration	
LD50	Median lethal dose	
LOAEL	Lowest Observed Adverse Effect Level	
NOAEC	No-Observed Adverse Effect Concentration	
NOAEL	No-Observed Adverse Effect Level	
NOEC	No-Observed Effect Concentration	
OECD	Organisation for Economic Co-operation and Development	
OEL	Occupational Exposure Limit	
РВТ	Persistent Bioaccumulative Toxic	
PNEC	Predicted No-Effect Concentration	
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail	
SDS	Safety Data Sheet	
STP	Sewage treatment plant	
ThOD	Theoretical oxygen demand (ThOD)	
TLM	Median Tolerance Limit	
VOC	Volatile Organic Compounds	

# Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Abbreviations and acronyms:	
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disrupting properties

Full text of H- and EUH-statements:	
Acute Tox. 2 (Inhalation)	Acute toxicity (inhal.), Category 2
Acute Tox. 2 (Inhalation:gas)	Acute toxicity (inhalation:gas) Category 2
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
EUH401	To avoid risks to human health and the environment, comply with the instructions for use.
Flam. Gas 1	Flammable gases, Category 1
H220	Extremely flammable gas.
H315	Causes skin irritation.
Н330	Fatal if inhaled.
H400	Very toxic to aquatic life.
Press. Gas	Gases under pressure
Skin Irrit. 2	Skin corrosion/irritation, Category 2

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.