## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878 Issue date: 2022/12/1 Revision date: 2022/5/30 Supersedes version of: 2021/4/28 Version: 5.0



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

#### 1.1. Product identifier

Product form Product name Product code : Mixture : Fassadol TSR : 12534 0022

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

#### 1.2.1. Relevant identified uses

Intended for general public Main use category Use of the substance/mixture

: Professional use. Consumer use.: Plating agent

#### 1.2.2. Uses advised against

No additional information available

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

Supplier

Bauprodukte GmbH Am Bahnhof, 7 DE– 97346 Iphofen – Bayern Germany T 09323 / 31-0 www.knauf.de/diy E-mail address of competent person responsible for the SDS : sdb@knauf.com Technical information Technical information service Knauf Bauprodukte T +49 (0) 9323/31-1647 KnaufBP.Direkt@Knauf.com

methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1) (55965-84-9), 2-octyl-2H-isothiazol-3-

one (26530-20-1), terbutryn (886-50-0). May produce an allergic reaction.

1.4. Emergency telephone number

No additional information available

## **SECTION 2: Hazards identification**

2.1. Classification of the substance	or mixture
Classification according to Regulation (	EC) No. 1272/2008 [CLP]
Aquatic Chronic 3	H412
Full text of hazard classes, H- and EUH-sta	atements: see section 16
Adverse physicochemical, human healtl	n and environmental effects
No additional information available	
2.2. Label elements	
Labelling according to Regulation (EC) I	No. 1272/2008 [CLP]
Signal word (CLP)	:-
Hazard statements (CLP)	: H412 - Harmful to aquatic life with long lasting effects.
Precautionary statements (CLP)	: P102 - Keep out of reach of children.
	P260 - Do not breathe dusts or mists.
	P262 - Do not get in eyes, on skin, or on clothing.
	P273 - Avoid release to the environment.
EUH-statements	: EUH208 - Contains 1,2-benzisothiazol-3(2H)-one (2634-33-5), 2-methyl-2H-isothiazol-3-one (2682-20-4), mixture of: 5-chloro-2-methyl-2H-isothiazol-3-one [EC no. 247-500-7] and 2-

EUH210 - Safety data sheet available on request.

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Extra phrases	EUH211 - Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist. : Treated article according to Regulation (EU) No 528/2012 to ensure the stability and shelf
	life. Contains pyridine-2-thiol 1-oxide, sodium salt (3811-73-2), pyrithione zinc (13463-41-7). MAXIMUM VOC CONTENT LIMIT VALUES FOR PAINTS AND VARNISHES. Product Subcategory: c (Type: WB): 40 g/l. VOC content: < 2 % (≤ 40 g/L).

#### 2.3. Other hazards

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

Component				
quartz, conc respirable crystalline silica<1% (14808- 60-7)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII			
2-octyl-2H-isothiazol-3-one (26530-20-1)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII			
pyrithione zinc (13463-41-7)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII			
1,2-benzisothiazol-3(2H)-one (2634-33-5)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII			
mixture of: 5-chloro-2-methyl-2H-isothiazol-3-one [EC no. 247-500-7] and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1) (55965-84-9)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, 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

#### 3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
quartz, conc respirable crystalline silica<1% substance with a Community workplace exposure limit	CAS-No.: 14808-60-7 EC-No.: 238-878-4	< 5	Not classified
terbutryn	CAS-No.: 886-50-0 EC-No.: 212-950-5	< 0,01	Acute Tox. 4 (Oral), H302 Skin Sens. 1B, H317 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410 (M=100)
2-octyl-2H-isothiazol-3-one	CAS-No.: 26530-20-1 EC-No.: 247-761-7 EC Index-No.: 613-112-00-5	< 0,05	Acute Tox. 2 (Inhalation), H330 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Oral), H301 Skin Corr. 1, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410 (M=100)

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
pyrithione zinc (Active substance (Biocide))	CAS-No.: 13463-41-7 EC-No.: 236-671-3 EC Index-No.: 613-333-00-7	< 0.05	Repr. 1B, H360D Acute Tox. 2 (Inhalation), H330 Acute Tox. 3 (Oral), H301 STOT RE 1, H372 Eye Dam. 1, H318 Aquatic Acute 1, H400 (M=1000) Aquatic Chronic 1, H410 (M=10)
pyridine-2-thiol 1-oxide, sodium salt	CAS-No.: 3811-73-2 EC-No.: 223-296-5	< 0,1	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation), H332 Eye Dam. 1, H318 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 2, H411
1,2-benzisothiazol-3(2H)-one	CAS-No.: 2634-33-5 EC-No.: 220-120-9 EC Index-No.: 613-088-00-6	< 0,05	Acute Tox. 4 (Oral), H302 Acute Tox. 2 (Inhalation), H330 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 2, H411
mixture of: 5-chloro-2-methyl-2H-isothiazol-3-one [EC no. 247-500-7] and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1)	CAS-No.: 55965-84-9 EC Index-No.: 613-167-00-5	< 0,0015	Acute Tox. 2 (Inhalation), H330 Acute Tox. 2 (Dermal), H310 Acute Tox. 3 (Oral), H301 Skin Corr. 1C, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410 (M=100)

Specific concentration limits:			
Name	Product identifier	Specific concentration limits	
2-octyl-2H-isothiazol-3-one	CAS-No.: 26530-20-1 EC-No.: 247-761-7 EC Index-No.: 613-112-00-5	( 0,0015 ≤C ≤ 100) Skin Sens. 1A, H317	
1,2-benzisothiazol-3(2H)-one	CAS-No.: 2634-33-5 EC-No.: 220-120-9 EC Index-No.: 613-088-00-6	( 0,05 ≤C ≤ 100) Skin Sens. 1, H317	
mixture of: 5-chloro-2-methyl-2H-isothiazol-3-one [EC no. 247-500-7] and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1)	CAS-No.: 55965-84-9 EC Index-No.: 613-167-00-5	( 0,0015 ≤C ≤ 100) Skin Sens. 1A, H317 ( 0,06 ≤C < 0,6) Skin Irrit. 2, H315 ( 0,06 ≤C < 0,6) Eye Irrit. 2, H319 ( 0,6 ≤C ≤ 100) Eye Dam. 1, H318 ( 0,6 ≤C ≤ 100) Skin Corr. 1C, H314	

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 after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash skin with plenty of water.
First-aid measures after eye contact	: Rinse eyes with water as a precaution. Get medical advice/attention.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell. Rinse mouth out with water.

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4.2. Most important symptoms and effects, both acute and delayed

#### No additional information available

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	: Water spray. Dry powder. Foam.
5.2. Special hazards arising from the substa	ance or mixture
Hazardous decomposition products in case of fire	: Toxic fumes may be released.
5.3. Advice for firefighters	
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release mea	sures				
6.1. Personal precautions, protective equipment and emergency procedures					
6.1.1. For non-emergency personnel					
Emergency procedures	: Ventilate spillage area.				
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".				
6.2. Environmental precautions					
Avoid release to the environment.					
6.3. Methods and material for containme	ent and cleaning up				
Methods for cleaning up	: Take up liquid spill into absorbent material.				
Other information	: Dispose of materials or solid residues at an authorized site.				
6.4. Reference to other sections					
For further information refer to section 13.					
SECTION 7: Handling and storage					
7.1. Precautions for safe handling					
Precautions for safe handling	: Ensure good ventilation of the work station. Wear personal protective equipment. When spraying avoid inhalation of the aerosol. Ventilate the area thoroughly. Prohibit unauthorized persons.				
Hygiene measures	. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.				
7.2. Conditions for safe storage, includi	ng any incompatibilities				

#### No additional information available

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#### **SECTION 8: Exposure controls/personal protection**

#### 8.1. Control parameters

#### 8.1.1 National occupational exposure and biological limit values

#### quartz, conc respirable crystalline silica<1% (14808-60-7)

EU - Indicative Occupational Exposure Limit (IOEL)		
Local name Silica crystaline (Quartz)		
IOEL TWA	0,1 mg/m³ (Respirable fraction)	
Remark	(Year of adoption 2003)	
Regulatory reference	SCOEL Recommendations	

#### 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

No additional information available

#### 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 symbol(s):



#### 8.2.2.1. Eye and face protection

# Eye protection Type Field of application Characteristics Standard Safety glasses with side shields Use splash goggles when eye contact due to splashing is possible Image: Contact due to splashing is possible<

#### 8.2.2.2. Skin protection

#### Skin and body protection:

Wear suitable protective clothing

#### Hand protection:

Protective gloves

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Hand protection					
Туре	Material	Permeation	Thickness (mm)	Penetration	Standard
Impermeable protective gloves	Nitrile rubber (NBR)				

#### 8.2.2.3. Respiratory protection

#### **Respiratory protection:**

In case of insufficient ventilation, wear suitable respiratory equipment. Wear breathing apparatus if exposed to vapours/dusts/aerosols. During spraying wear suitable respiratory equipment

Respiratory protection			
Device	Filter type	Condition	Standard
Dust formation: dust mask	Туре Р2	Milling, grinding and similar activities	

#### 8.2.2.4. Thermal hazards

No additional information available

#### 8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

#### Consumer exposure controls:

Other protection measures such as segregation of activity, minimisation of personnel, respiratory protection, impervious suits and face shields should also be considered for high dispersion activities which are likely to lead to substantial aerosol or vapour release, e.g. spraying.

SECTION 9: Physical and chemical properties	
9.1. Information on basic physical and chemical properties	
Physical state	: Liquid
Colour	: Various colours.
Odour	: characteristic.
Odour threshold	: Not available
Melting point	: Not available
Freezing point	: Not available
Boiling point	: 100 °C
Flammability	: Not available
Explosive properties	: Product is not explosive.
Explosive limits	: Not available
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: Not available
Auto-ignition temperature	: Not self-igniting
Decomposition temperature	: Not available
рН	: ≈9(20 °C)
Viscosity, kinematic	: Not available
Solubility	: Water: completely miscible
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50°C	: Not available

Density Relative density Relative vapour density at 20°C Particle characteristics

9.2. Other information

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

No additional information available

: 1,55 g/cm<sup>3</sup> (20 °C)

: Not available

: Not available

: Not applicable

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#### 9.2.2. Other safety characteristics

VOC content

: < 2 % (≤ 40 g/L)

SECTION 10: Stability and reactivity
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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

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

#### **SECTION 11: Toxicological information**

11.1. Information on hazard classes as defined in Regulation (EC) No 127
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Acute toxicity (oral)	: Not classified	
Acute toxicity (dermal)	: Not classified	
Acute toxicity (inhalation)	: Not classified	
mixture of: 5-chloro-2-methyl-2H-isc	othiazol-3-one [EC no. 247-500-7] and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6]	
(3:1) (55965-84-9)		
LD50 oral rat	66 mg/kg bodyweight (OECD 401: Acute Oral Toxicity, Rat, Male / female, Experimental value, Calculated by reference to active substance, Oral, 14 day(s))	
LD50 dermal rat	> 141 mg/kg bodyweight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s))	
LC50 Inhalation - Rat	0,17 mg/l air (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Calculated by reference to active substance, Inhalation (aerosol), 14 day(s))	
ATE CLP (oral)	53 mg/kg bodyweight	
ATE CLP (dermal)	200 mg/kg bodyweight	
ATE CLP (gases)	700 ppmv/4h	
ATE CLP (vapours)	3 mg/l/4h	
ATE CLP (dust,mist)	0,5 mg/l/4h	
terbutryn (886-50-0)		
LD50 oral rat	2045 mg/kg (Rat, Oral)	
LD50 dermal rat	> 2000 mg/kg (Rat, Dermal)	
LC50 Inhalation - Rat	> 8 mg/l (4 h, Rat, Inhalation)	
ATE CLP (oral)	500 mg/kg bodyweight	

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2-octyl-2H-isothiazol-3-one (26530-20-1)		
LD50 oral rat	550 mg/kg (Rat, Literature study, Oral)	
LD50 dermal rabbit	690 mg/kg bodyweight (Rabbit, Literature study, Dermal)	
LC50 Inhalation - Rat	> 2 mg/m³ (4 h, Rat, Literature study, Inhalation (vapours))	
ATE CLP (oral)	125 mg/kg bodyweight	
ATE CLP (dermal)	311 mg/kg bodyweight	
ATE CLP (gases)	100 ppmv/4h	
ATE CLP (vapours)	0,5 mg/l/4h	
ATE CLP (dust,mist)	0,27 mg/l	
pyridine-2-thiol 1-oxide, sodium salt (3811	-73-2)	
LD50 oral rat	1208 mg/kg bodyweight (OECD 401: Acute Oral Toxicity, Rat, Female, Experimental value, Oral)	
LD50 dermal rabbit	1800 mg/kg bodyweight (EPA OPP 81-2, 24 h, Rabbit, Male / female, Experimental value, Skin, 14 day(s))	
LC50 Inhalation - Rat	1,08 mg/l (EPA OPP 81-3: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (aerosol), 14 day(s))	
ATE CLP (oral)	870 mg/kg bodyweight	
ATE CLP (dermal)	300 mg/kg bodyweight	
ATE CLP (gases)	4500 ppmv/4h	
ATE CLP (vapours)	11 mg/l/4h	
ATE CLP (dust,mist)	1,5 mg/l/4h	
1,2-benzisothiazol-3(2H)-one (2634-33-5)		
LD50 oral rat	490 mg/kg bodyweight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 14 day(s))	
LD50 dermal rat	> 2000 mg/kg bodyweight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s))	
ATE CLP (oral)	1020 mg/kg bodyweight	
ATE CLP (gases)	100 ppmv/4h	
ATE CLP (vapours)	0,5 mg/l/4h	
ATE CLD (duct mict)		
ATE CLP (dust,mist)	0,05 mg/l/4h	
pyrithione zinc (13463-41-7)	0,05 mg/l/4h	
	0,05 mg/l/4h 269 mg/kg bodyweight (OECD 401: Acute Oral Toxicity, Rat, Male / female, Experimental value, Aqueous solution, Oral, 14 day(s))	
pyrithione zinc (13463-41-7)	269 mg/kg bodyweight (OECD 401: Acute Oral Toxicity, Rat, Male / female, Experimental	
pyrithione zinc (13463-41-7) LD50 oral rat	269 mg/kg bodyweight (OECD 401: Acute Oral Toxicity, Rat, Male / female, Experimental value, Aqueous solution, Oral, 14 day(s))         > 2000 mg/kg (EPA OPP 81-2, 24 h, Rat, Male / female, Experimental value, Dermal, 14	
pyrithione zinc (13463-41-7) LD50 oral rat LD50 dermal rat	269 mg/kg bodyweight (OECD 401: Acute Oral Toxicity, Rat, Male / female, Experimental value, Aqueous solution, Oral, 14 day(s))         > 2000 mg/kg (EPA OPP 81-2, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s))         1,03 mg/l air (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental	
pyrithione zinc (13463-41-7)       LD50 oral rat       LD50 dermal rat       LC50 Inhalation - Rat	269 mg/kg bodyweight (OECD 401: Acute Oral Toxicity, Rat, Male / female, Experimental value, Aqueous solution, Oral, 14 day(s))         > 2000 mg/kg (EPA OPP 81-2, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s))         1,03 mg/l air (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (aerosol))	
pyrithione zinc (13463-41-7)         LD50 oral rat         LD50 dermal rat         LC50 Inhalation - Rat         ATE CLP (oral)	269 mg/kg bodyweight (OECD 401: Acute Oral Toxicity, Rat, Male / female, Experimental value, Aqueous solution, Oral, 14 day(s))         > 2000 mg/kg (EPA OPP 81-2, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s))         1,03 mg/l air (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (aerosol))         221 mg/kg bodyweight	
pyrithione zinc (13463-41-7)         LD50 oral rat         LD50 dermal rat         LC50 Inhalation - Rat         ATE CLP (oral)         ATE CLP (gases)	269 mg/kg bodyweight (OECD 401: Acute Oral Toxicity, Rat, Male / female, Experimental value, Aqueous solution, Oral, 14 day(s))         > 2000 mg/kg (EPA OPP 81-2, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s))         1,03 mg/l air (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (aerosol))         221 mg/kg bodyweight         100 ppmv/4h	

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Serious eye damage/irritation	: Not classified	
Respiratory or skin sensitisation	pH: ≈ 9 (20 °C) : Not classified. (Bridging principle. rLLNA. mouse. (OECD 429 method))	
Germ cell mutagenicity	: Not classified	
Carcinogenicity	: Not classified	
quartz, conc respirable crystalline silica<1% (14808-60-7)		
IARC group	1 - Carcinogenic to humans	
Reproductive toxicity	: Not classified	
STOT-single exposure	: Not classified	
STOT-repeated exposure	: Not classified	
pyrithione zinc (13463-41-7)		
STOT-repeated exposure	Causes damage to organs through prolonged or repeated exposure.	
Aspiration hazard	: Not classified	
11.2. Information on other hazards		

No additional information available

# **SECTION 12: Ecological information**

## 12.1. Toxicity

(acute)	Not classified. Harmful to aquatic life with long lasting effects.	
Fassadol TSR		
EC50 - Crustacea [1]	> 1 mg/l OECD 202; Daphnia magna	
EC50 72h - Algae [1]	> 10 mg/l	
mixture of: 5-chloro-2-methyl-2H-isothiazol- (3:1) (55965-84-9)	3-one [EC no. 247-500-7] and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6]	
EC50 - Crustacea [1]	0,007 mg/l (48 h, Acartia tonsa, Salt water, Experimental value, GLP)	
terbutryn (886-50-0)		
LC50 - Fish [1]	0,82 mg/l (96 h, Salmo gairdneri, Static system, Literature study)	
EC50 - Crustacea [1]	7,1 mg/l (48 h, Daphnia magna, Literature study, Locomotor effect)	
2-octyl-2H-isothiazol-3-one (26530-20-1)		
LC50 - Fish [1]	0,036 mg/l Oncorhynchus mykiss (Rainbow trout)	
LC50 - Fish [2]	0,05 mg/l (96 h, Oncorhynchus mykiss, Literature study)	
EC50 - Crustacea [1]	0,42 mg/l (48 h, Daphnia magna, Literature study)	
EC50 72h - Algae [1]	0,084 mg/l Desmodesmus subspicatus)	
NOEC chronic fish	0,022 mg/l Oncorhynchus mykiss (Rainbow trout)	
NOEC chronic crustacea	0,02 mg/l Daphnia magna, 21d	
NOEC chronic algae	0,004 mg/l algae	
pyridine-2-thiol 1-oxide, sodium salt (3811-73-2)		
LC50 - Fish [1]	7,3 μg/l (EPA OPP 72-1, 96 h, Oncorhynchus mykiss, Flow-through system, Fresh water, Experimental value, GLP)	
ErC50 algae	0,46 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Experimental value, GLP)	

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1,2-benzisothiazol-3(2H)-one (2634-33	-5)
LC50 - Fish [1]	2,18 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Oncorhynchus mykiss, Static system, Experimental value, Nominal concentration)
EC50 - Crustacea [1]	2,94 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Experimental value, Lethal)
ErC50 algae	150 μg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Experimental value, GLP)
pyrithione zinc (13463-41-7)	
LC50 - Fish [1]	2,6 μg/l (EPA OPP 72-1, 96 h, Pimephales promelas, Flow-through system, Fresh water, Experimental value, GLP)
EC50 - Crustacea [1]	8,2 μg/l (EPA OPP 72-2, 48 h, Daphnia magna, Flow-through system, Fresh water, Experimental value, GLP)
EC50 96h - Algae [1]	1,3 μg/l (EPA OPP 122-2, Skeletonema costatum, Static system, Fresh water, Experimental value, GLP)
12.2. Persistence and degradability	
mixture of: 5-chloro-2-methyl-2H-isot (3:1) (55965-84-9)	hiazol-3-one [EC no. 247-500-7] and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6
Persistence and degradability	Not readily biodegradable in water.
terbutryn (886-50-0)	
Persistence and degradability	Biodegradable in the soil. Not readily biodegradable in water.
2-octyl-2H-isothiazol-3-one (26530-20	-1)
Persistence and degradability	Inherently biodegradable.
pyridine-2-thiol 1-oxide, sodium salt (	3811-73-2)
Persistence and degradability	Readily biodegradable in water.
quartz, conc respirable crystalline sil	ica<1% (14808-60-7)
Persistence and degradability	Biodegradability: not applicable. No (test)data on mobility of the substance available.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
1,2-benzisothiazol-3(2H)-one (2634-33	-5)
Persistence and degradability	Not readily biodegradable in water.
pyrithione zinc (13463-41-7)	
Persistence and degradability	Not readily biodegradable in water.

12.3. Bioaccumulative potential

mixture of: 5-chloro-2-methyl-2H-isothiazol-3-one [EC no. 247-500-7] and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1) (55965-84-9)		
BCF - Fish [1]	41 – 54 (OECD 305: Bioconcentration: Flow-Through Fish Test, 28 day(s), Lepomis macrochirus, Flow-through system, Fresh water, Experimental value, Fresh weight)	
Partition coefficient n-octanol/water (Log Pow)	0,75 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 24 °C)	
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).	

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terbutryn (886-50-0)			
Partition coefficient n-octanol/water (Log Pow)	3,43 – 3,74 (Literature study)		
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).		
2-octyl-2H-isothiazol-3-one (26530-20-1)			
BCF - Fish [1]	1280 (67 day(s), Lepomis macrochirus, Flow-through system, Literature study)		
Partition coefficient n-octanol/water (Log Pow)	2,45 (Experimental value)		
Bioaccumulative potential	Potential for bioaccumulation ( $500 \le BCF \le 5000$ ).		
pyridine-2-thiol 1-oxide, sodium salt (3811-73-2)			
Partition coefficient n-octanol/water (Log Pow)	-2,7 (Experimental value, EU Method A.8: Partition Coefficient, 20 °C)		
Bioaccumulative potential	Not bioaccumulative.		
quartz, conc respirable crystalline silica<1% (14808-60-7)			
Bioaccumulative potential	No bioaccumulation data available.		
1,2-benzisothiazol-3(2H)-one (2634-33-5)			
BCF - Fish [1]	6,62 (Equivalent or similar to OECD 305, 56 day(s), Lepomis macrochirus, Experimental value, Fresh weight)		
Partition coefficient n-octanol/water (Log Pow)	-0,9 – 0,99 (Experimental value, EU Method A.8: Partition Coefficient, 20 °C)		
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).		
pyrithione zinc (13463-41-7)			
BCF - Other aquatic organisms [1]	7,87 – 11 (OECD 305: Bioconcentration: Flow-Through Fish Test, 30 day(s), Crassostrea sp., Flow-through system, Salt water, Experimental value, Fresh weight)		
Partition coefficient n-octanol/water (Log Pow)	0,9 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 25 $^\circ\text{C}$ )		
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).		
12.4. Mobility in soil			

mixture of: 5-chloro-2-methyl-2H-isothiazol-3-one [EC no. 247-500-7] and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1) (55965-84-9)		
Surface tension	No data available in the literature	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	0,81 – 1 (log Koc, Calculated value)	
Ecology - soil	Highly mobile in soil.	
terbutryn (886-50-0)		
Ecology - soil	Adsorbs into the soil. Not toxic to bees.	
2-octyl-2H-isothiazol-3-one (26530-20-1)		
Ecology - soil	No (test)data on mobility of the substance available.	
pyridine-2-thiol 1-oxide, sodium salt (3811-73-2)		
Ecology - soil	Adsorbs into the soil.	
quartz, conc respirable crystalline silica<1% (14808-60-7)		
Surface tension	No data available in the literature	
Ecology - soil	Low potential for mobility in soil.	

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1,2-benzisothiazol-3(2H)-one (2634-33-5)	
Surface tension	72,6 mN/m (20 °C, 0.1 %, EU Method A.5: Surface tension)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	0,97 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value, GLP)
Ecology - soil	Highly mobile in soil.
pyrithione zinc (13463-41-7)	
Surface tension	73 mN/m (20 °C, 7.2 mg/l, OECD 115: Surface Tension of Aqueous Solutions)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	4,295 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Ecology - soil	Low potential for mobility in soil.
12.5. Results of PBT and vPvB assessment	
No additional information available	

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal consid	lerations
13.1. Waste treatment methods	
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions. Handle cured product residues as dust-free as possible.
SECTION 14: Transport inform	nation

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

14.1. UN number or ID number	
UN-No. (ADR) UN-No. (IMDG)	: Not applicable : Not applicable
UN-No. (IATA)	: Not applicable
UN-No. (ADN)	: Not applicable
UN-No. (RID)	: Not applicable
14.2. UN proper shipping name	
Proper Shipping Name (ADR)	: Not applicable
Proper Shipping Name (IMDG)	: Not applicable
Proper Shipping Name (IATA)	: Not applicable
Proper Shipping Name (ADN)	: Not applicable
Proper Shipping Name (RID)	: Not applicable
14.3. Transport hazard class(es)	
ADR	
Transport hazard class(es) (ADR)	: Not applicable
IMDG	
Transport hazard class(es) (IMDG)	: Not applicable

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IATA Transport hazard class(es) (IATA)	: Not applicable
<b>ADN</b> Transport hazard class(es) (ADN)	: Not applicable
<b>RID</b> Transport hazard class(es) (RID)	: Not applicable
14.4. Packing group	
Packing group (ADR) Packing group (IMDG) Packing group (IATA) Packing group (ADN) Packing group (RID)	<ul> <li>Not applicable</li> <li>Not applicable</li> <li>Not applicable</li> <li>Not applicable</li> <li>Not applicable</li> </ul>
14.5. Environmental hazards	
Dangerous for the environment Marine pollutant Other information	: No : No : No supplementary information available
14.6. Special precautions for user	

Overland transport Not applicable

Transport by sea Not applicable

Air transport Not applicable

**Inland waterway transport** Not applicable

Rail transport

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

#### 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 Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors) VOC content  $: < 2 \% (\le 40 \text{ g/L})$ 

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

#### 15.1.2. National regulations

No additional information available

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15.2. Chemical safety assessment

No additional information available

## **SECTION 16: Other information**

Indication of changes			
Section	Changed item	Change	Comments
2.2	EUH-statements	Modified	
2.2	Precautionary statements (CLP)	Modified	
3	Composition/information on ingredients	Modified	
7.1	Precautions for safe handling	Modified	
8.2	Consumer exposure controls	Added	
8.2	Respiratory protection	Modified	
13.1	Waste treatment methods	Modified	

Full text of H- and EUI	Full text of H- and EUH-statements:		
Acute Tox. 2 (Dermal)	Acute toxicity (dermal), Category 2		
Acute Tox. 2 (Inhalation)	Acute toxicity (inhal.), Category 2		
Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3		
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3		
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4		
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4		
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1		
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1		
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2		
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3		
EUH208	Contains 1,2-benzisothiazol-3(2H)-one (2634-33-5), 2-methyl-2H-isothiazol-3-one (2682-20-4), mixture of: 5-chloro-2- methyl-2H-isothiazol-3-one [EC no. 247-500-7] and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1) (55965-84- 9), 2-octyl-2H-isothiazol-3-one (26530-20-1), terbutryn (886-50-0). May produce an allergic reaction.		
EUH210	Safety data sheet available on request.		
EUH211	Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.		
Eye Dam. 1	Serious eye damage/eye irritation, Category 1		
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2		
H301	Toxic if swallowed.		
H302	Harmful if swallowed.		
H310	Fatal in contact with skin.		
H311	Toxic in contact with skin.		
H314	Causes severe skin burns and eye damage.		
H315	Causes skin irritation.		
H317	May cause an allergic skin reaction.		
H318	Causes serious eye damage.		

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Full text of H- and EUH-statements:		
H319	Causes serious eye irritation.	
H330	Fatal if inhaled.	
H332	Harmful if inhaled.	
H360D	May damage the unborn child.	
H372	Causes damage to organs through prolonged or repeated exposure.	
H400	Very toxic to aquatic life.	
H410	Very toxic to aquatic life with long lasting effects.	
H411	Toxic to aquatic life with long lasting effects.	
H412	Harmful to aquatic life with long lasting effects.	
Repr. 1B	Reproductive toxicity, Category 1B	
Skin Corr. 1	Skin corrosion/irritation, Category 1	
Skin Corr. 1C	Skin corrosion/irritation, Category 1, Sub-Category 1C	
Skin Irrit. 2	Skin corrosion/irritation, Category 2	
Skin Sens. 1	Skin sensitisation, Category 1	
Skin Sens. 1A	Skin sensitisation, category 1A	
Skin Sens. 1B	Skin sensitisation, category 1B	
STOT RE 1	Specific target organ toxicity – Repeated exposure, Category 1	

Knauf SDS EU (REACH Annex II)

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.