

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878 Issue date: 16-5-2018 Revision date: 23-9-2022 Supersedes version of: 9-2-2021 Version: 2.2

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

1.1. Product identifier

Product form : Mixture

Trade name : VatOil FerroCool
Product code : VI.30.01
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 use, Professional use

Use of the substance/mixture : Metal working fluid Function or use category : Metalworking fluid

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

VatOil

Dollegoorweg, 15 NL- 7602 EC Almelo Netherlands T 0031 (0)546 81 81 65

vib@vatoil.com

1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number	Comment
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2566 (Healthcare professionals- 24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)	
United Kingdom	National Poisons Information Service (Cardiff Centre) University Hospital Llandough	Penlan Road CF64 2XX Llandough	0344 892 0111	Only for healthcare professionals

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Serious eye damage/eye irritation, Category 2

Skin sensitisation, Category 1

Hazardous to the aquatic environment – Chronic Hazard, Category 3

H412

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

Adverse physicochemical, human health and environmental effects

May cause an allergic skin reaction. Causes serious eye irritation. Harmful to aquatic life with long lasting effects.

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2.2. Label elements

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

Hazard pictograms (CLP)



GHS07

Signal word (CLP) : Warning

Contains : 1,2-benzisothiazol-3(2H)-one

Hazard statements (CLP) : H317 - May cause an allergic skin reaction.

H319 - Causes serious eye irritation.

H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements (CLP) : P261 - Avoid breathing mist, vapours.

P273 - Avoid release to the environment.

P280 - Wear protective gloves, eye protection, protective clothing.
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.

P501 - Dispose of contents/container to hazardous or special waste collection point, in

accordance with local, regional, national and/or international regulation.

2.3. Other hazards

Contains no PBT/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

3.2. Mixtures

Comments : Highly refined mineral oils and additives.

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Alcohols, C16-18 and C18-unsatd., ethoxylated	CAS-No.: 68920-66-1 EC-No.: 500-236-9 REACH-no: 01-2119489407- 26	< 5	Skin Irrit. 2, H315 Aquatic Chronic 2, H411
sodium petroleum sulfonate	CAS-No.: 68608-26-4 EC-No.: 271-781-5 REACH-no: 01-2119527859- 22	< 2,5	Eye Irrit. 2, H319
Amides, C12-18 and C18-unsatd., N-(hydroxyethyl), ethoxylated	CAS-No.: 157707-44-3 EC-No.: 500-350-9	< 2,5	Eye Dam. 1, H318
Alcohols, C16-18, ethoxylated propoxylated	CAS-No.: 68002-96-0 EC-No.: 935-076-2	< 2,5	Aquatic Chronic 3, H412

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
1,2-benzisothiazol-3(2H)-one	CAS-No.: 2634-33-5 EC-No.: 220-120-9 EC Index-No.: 613-088-00-6 REACH-no: 01-2120761540-	< 0,3	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Acute 1, H400
pyridine-2-thiol 1-oxide, sodium salt	CAS-No.: 3811-73-2 EC-No.: 223-296-5 REACH-no: 01-2119493385- 28	< 0,3	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410

Specific concentration limits:			
Name	Product identifier	Specific concentration limits	
sodium petroleum sulfonate	CAS-No.: 68608-26-4 EC-No.: 271-781-5 REACH-no: 01-2119527859- 22	(61,5 ≤C < 100) Eye Irrit. 2, H319	
1,2-benzisothiazol-3(2H)-one	CAS-No.: 2634-33-5 EC-No.: 220-120-9 EC Index-No.: 613-088-00-6 REACH-no: 01-2120761540-	(0,05 ≤C < 100) Skin Sens. 1, H317	

Comments : The highly refined mineral oil contains <3% (w/w) DMSOextract, according to IP346.

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. Take off contaminated clothing. If skin irritation or rash

occurs: Get medical advice/attention.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy

to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion : Call a poison center or a doctor if you feel unwell.

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

Symptoms/effects : No additional information available. Symptoms/effects after skin contact : May cause an allergic skin reaction.

Symptoms/effects after eye contact : Eye irritation.

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. Carbon dioxide.

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Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Combustible liquid.

Hazardous decomposition products in case of fire : Toxic fumes may be released. Incomplete combustion releases dangerous carbon

monoxide, carbon dioxide and other toxic gases.

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 measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes. Avoid breathing

dust/fume/gas/mist/vapours/spray.

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 containment 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 : Provide good ventilation in process area to prevent formation of vapour.

Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or

smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container closed when not in use. Keep in a cool, well-ventilated place away from

heat.

Storage temperature : 0-40 °C

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

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VatOil FerroCool	/atOil FerroCool		
EU - Indicative Occupational Exposure Limit (IOEL)			
Exposure limits/standards for materials that can be formed when handling this product. When mists/aerosols can occur the following is recommended	5 mg/m³ - ACGIH TLV (inhalable fraction).		

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:

Safety glasses

Eye protection			
Туре	Field of application	Characteristics	Standard
Safety glasses	Droplet	clear	EN 166

8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing

Hand protection:

Protective gloves

Hand protection					
Туре	Material	Permeation	Thickness (mm)	Penetration	Standard
Reusable gloves	Nitrile rubber (NBR)	6 (> 480 minutes)	≥0.35		EN ISO 374

Other skin protection

Materials for protective clothing:

Wear suitable protective clothing

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8.2.2.3. Respiratory protection

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Colour : Yellow.
Odour : characteristic.
Odour threshold : Not available
Melting point : Not applicable

Freezing point : -18 °C - ASTM D5950 (pour point)

Boiling point : Not available Flammability : Not applicable

Explosive properties : Presents no particular fire or explosion hazard.

Explosive limits : Not available
Lower explosion limit : Not available
Upper explosion limit : Not available

Flash point : 220 °C - ASTM D92 (COC)

Auto-ignition temperature : Not available
Decomposition temperature : Not available
pH : 10
pH solution : 10 vol %

Viscosity, kinematic : 41,1 mm²/s (40 °C) - ASTM D7279

Solubility : Water: Emulsifiable
Partition coefficient n-octanol/water (Log Kow) : Not available
Vapour pressure : Not available
Vapour pressure at 50 °C : Not available

Density : 0,895 kg/l (15 °C) - ASTM D4052

Relative density : Not available Relative vapour density at 20 °C : Not available Particle characteristics : Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

VOC content : 0 % Refractive index : 1,481

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.

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10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use. Reacts violently with (strong) oxidizers.

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

No decomposition if stored normally.

SECTION 11: Toxicological information

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

: Not classified Acute toxicity (oral) Acute toxicity (dermal) Not classified

Acute toxicity (dermal) Acute toxicity (inhalation)	: Not classified : Not classified
sodium petroleum sulfonate (68608-2	26-4)
LD50 dermal rabbit	> 5000 mg/kg bodyweight Animal: rabbit, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Remarks on results: other:
Alcohols, C16-18 and C18-unsatd., e	thoxylated (68920-66-1)
LD50 oral rat	> 2000 mg/kg
LC50 Inhalation - Rat (Vapours)	1,6 mg/l/4h
Amides, C12-18 and C18-unsatd., N-((hydroxyethyl), ethoxylated (157707-44-3)
LD50 oral rat	> 2000 mg/kg
1,2-benzisothiazol-3(2H)-one (2634-3	3-5)
LD50 oral rat	> 490 mg/kg bodyweight
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LD50 dermal rabbit	> 2000 mg/kg bodyweight
pyridine-2-thiol 1-oxide, sodium salt	(3811-73-2)
LD50 oral rat	1208 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 401 (Acute Oral Toxicity), Guideline: EU Method B.1 (Acute Toxicity (Oral))
LD50 dermal rabbit	1800 – 1900 mg/kg bodyweight
LC50 Inhalation - Rat	1,08 mg/l/4h Animal: rat, Guideline: EPA OPP 81-3 (Acute inhalation toxicity), Guideline: EU Method B.2 (Acute Toxicity (Inhalation))
Skin corrosion/irritation	: Not classified pH: 10
Serious eye damage/irritation	: Causes serious eye irritation. pH: 10
Respiratory or skin sensitisation	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified

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: Not classified

: Not classified

Carcinogenicity

Reproductive toxicity

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Pyridine-2-thiol 1-oxide, sodium salt (3811-73-2) LOAEL (animal/male, F1) 2,8 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: EPA OPPTS 870.3800 (Reproduction and Fertility Effects) LOAEL (animal/female, F1) 1,4 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: EPA OPPTS 870.3800 (Reproduction and Fertility Effects) NOAEL (animal/male, F1) 1,4 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: EPA OPPTS 870.3800 (Reproduction and Fertility Effects) NOAEL (animal/female, F1) 0,7 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: EPA OPPTS 870.3800 (Reproduction and Fertility Effects) STOT-single exposure Not classified Not classified	1,2-benzisothiazol-3(2H)-one (2634-33-5)	
LOAEL (animal/male, F1) 2.8 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: EPA OPPTS 870.3800 (Reproduction and Fertility Effects) 1.4 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: EPA OPPTS 870.3800 (Reproduction and Fertility Effects) NOAEL (animal/male, F1) 1.4 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: EPA OPPTS 870.3800 (Reproduction and Fertility Effects) NOAEL (animal/female, F1) 1.4 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: EPA OPPTS 870.3800 (Reproduction and Fertility Effects) NOAEL (animal/female, F1) 0.7 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: EPA OPPTS 870.3800 (Reproduction and Fertility Effects) STOT-single exposure 1. Not classified STOT-repeated exposure 2. Not classified Sod mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity Study in Rodents) NOAEL (oral, rat, 90 days) 500 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 410 (Repeated Dose 28-Day Oral Toxicity: 21/28-Day Study) Alcohols, C16-18 and C18-unsatd., ethoxylated (68920-66-1) NOAEL (oral, rat, 90 days) 2 500 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents) NOAEL (oral, rat, 90 days) 2 500 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents) NOAEL (oral, rat, 90 days) 3 500 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents) Aspiration hazard 3 Not classified VatOil FerroCool Viscosity, kinematic 41,1 mm²/s (40 °C) - ASTM D7279 Alcohols, C16-18 and C18-unsatd., ethoxylated (68920-66-1) Viscosity, kinematic 34,502 mm²/s pyridine-2-thiol 1-oxide, sodium salt (3811-73-2)	NOAEL (animal/female, F1)	56,6 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: EPA OPPTS 870.3800 (Reproduction and Fertility Effects)
(Reproduction and Fertility Effects) LOAEL (animal/female, F1) 1,4 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: EPA OPPTS 870.3800 (Reproduction and Fertility Effects) NOAEL (animal/male, F1) 1,4 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: EPA OPPTS 870.3800 (Reproduction and Fertility Effects) NOAEL (animal/female, F1) 0,7 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: EPA OPPTS 870.3800 (Reproduction and Fertility Effects) STOT-single exposure 1 Not classified STOT-repeated exposure 2 Not classified So0 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity Study in Rodents) NOAEL (oral, rat, 90 days) So0 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 410 (Repeated Dose 28-Day Oral Toxicity: 21/28-Day Study) Alcohols, C16-18 and C18-unsatd., ethoxylated (68920-66-1) NOAEL (oral, rat, 90 days) So0 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity: Study in Rodents) Soon mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents) Soon mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents) Soon mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents) Aspiration hazard Not classified VatOil FerroCool Viscosity, kinematic 41,1 mm²/s (40 °C) - ASTM D7279 Alcohols, C16-18 and C18-unsatd., ethoxylated (68920-66-1) Viscosity, kinematic 34,502 mm²/s pyridine-2-thiol 1-oxide, sodium salt (3811-73-2)	pyridine-2-thiol 1-oxide, sodium salt (3811-73	3-2)
(Reproduction and Fertility Effects) NOAEL (animal/male, F1) 1,4 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: EPA OPPTS 870.3800 (Reproduction and Fertility Effects) NOAEL (animal/female, F1) 0,7 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: EPA OPPTS 870.3800 (Reproduction and Fertility Effects) STOT-single exposure Not classified STOT-repeated exposure Not classified sodium petroleum sulfonate (68608-26-4) NOAEL (oral, rat, 90 days) 500 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity Study in Rodents) NOAEL (dermal, rat/rabbit, 90 days) > 1000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 410 (Repeated Dose Dermal Toxicity: 21/28-Day Study) Alcohols, C16-18 and C18-unsatd., ethoxylated (68920-66-1) NOAEL (oral, rat, 90 days) > 500 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents) Aspiration hazard Not classified VatOil FerroCool Viscosity, kinematic 41,1 mm²/s (40 °C) - ASTM D7279 Alcohols, C16-18 and C18-unsatd., ethoxylated (68920-66-1) Viscosity, kinematic 34,502 mm²/s pyridine-2-thiol 1-oxide, sodium salt (3811-73-2)	LOAEL (animal/male, F1)	
(Reproduction and Fertility Effects) NOAEL (animal/female, F1) 0,7 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: EPA OPPTS 870.3800 (Reproduction and Fertility Effects) STOT-single exposure : Not classified STOT-repeated exposure : Not classified sodium petroleum sulfonate (68608-26-4) NOAEL (oral, rat, 90 days) 500 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity Study in Rodents) NOAEL (dermal, rat/rabbit, 90 days) > 1000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 410 (Repeated Dose Dermal Toxicity: 21/28-Day Study) Alcohols, C16-18 and C18-unsatd., ethoxylated (68920-66-1) NOAEL (oral, rat, 90 days) ≥ 500 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents) Aspiration hazard : Not classified VatOil FerroCool Viscosity, kinematic 41,1 mm²/s (40 °C) - ASTM D7279 Alcohols, C16-18 and C18-unsatd., ethoxylated (68920-66-1) Viscosity, kinematic 34,502 mm²/s pyridine-2-thiol 1-oxide, sodium salt (3811-73-2)	LOAEL (animal/female, F1)	
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Dermal Toxicity: 21/28-Day Study) Alcohols, C16-18 and C18-unsatd., ethoxylated (68920-66-1) NOAEL (oral, rat, 90 days) Aspiration hazard : Not classified VatOil FerroCool Viscosity, kinematic 41,1 mm²/s (40 °C) - ASTM D7279 Alcohols, C16-18 and C18-unsatd., ethoxylated (68920-66-1) Viscosity, kinematic 34,502 mm²/s pyridine-2-thiol 1-oxide, sodium salt (3811-73-2)	NOAEL (oral, rat, 90 days)	
NOAEL (oral, rat, 90 days) ≥ 500 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents) Aspiration hazard: Not classified VatOil FerroCool Viscosity, kinematic: 41,1 mm²/s (40 °C) - ASTM D7279 Alcohols, C16-18 and C18-unsatd., ethoxylated (68920-66-1) Viscosity, kinematic: 34,502 mm²/s pyridine-2-thiol 1-oxide, sodium salt (3811-73-2)	NOAEL (dermal, rat/rabbit, 90 days)	
Day Oral Toxicity Study in Rodents) Aspiration hazard : Not classified VatOil FerroCool Viscosity, kinematic 41,1 mm²/s (40 °C) - ASTM D7279 Alcohols, C16-18 and C18-unsatd., ethoxylated (68920-66-1) Viscosity, kinematic 34,502 mm²/s pyridine-2-thiol 1-oxide, sodium salt (3811-73-2)	Alcohols, C16-18 and C18-unsatd., ethoxylat	ed (68920-66-1)
VatOil FerroCool Viscosity, kinematic 41,1 mm²/s (40 °C) - ASTM D7279 Alcohols, C16-18 and C18-unsatd., ethoxylated (68920-66-1) Viscosity, kinematic 34,502 mm²/s pyridine-2-thiol 1-oxide, sodium salt (3811-73-2)	NOAEL (oral, rat, 90 days)	≥ 500 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90- Day Oral Toxicity Study in Rodents)
Viscosity, kinematic 41,1 mm²/s (40 °C) - ASTM D7279 Alcohols, C16-18 and C18-unsatd., ethoxylated (68920-66-1) Viscosity, kinematic 34,502 mm²/s pyridine-2-thiol 1-oxide, sodium salt (3811-73-2)	Aspiration hazard :	Not classified
Alcohols, C16-18 and C18-unsatd., ethoxylated (68920-66-1) Viscosity, kinematic 34,502 mm²/s pyridine-2-thiol 1-oxide, sodium salt (3811-73-2)	VatOil FerroCool	
Viscosity, kinematic 34,502 mm²/s pyridine-2-thiol 1-oxide, sodium salt (3811-73-2)	Viscosity, kinematic	41,1 mm²/s (40 °C) - ASTM D7279
pyridine-2-thiol 1-oxide, sodium salt (3811-73-2)	Alcohols, C16-18 and C18-unsatd., ethoxylat	ed (68920-66-1)
	Viscosity, kinematic	34,502 mm²/s
Viscosity, kinematic 6687 mm²/s Temp.: '20°C' Parameter: 'kinematic viscosity (in mm²/s)'	pyridine-2-thiol 1-oxide, sodium salt (3811-73	3-2)
	Viscosity, kinematic	6687 mm²/s Temp.: '20°C' Parameter: 'kinematic viscosity (in mm²/s)'

11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Harmful to aquatic life with long lasting effects.

Hazardous to the aquatic environment, short-term : Not classified

(acute)

Hazardous to the aquatic environment, long-term : Harmful to aquatic life with long lasting effects.

(chronic)

Not rapidly degradable		
sodium petroleum sulfonate (68608-26-4)		
EC50 72h - Algae [1]	> 1000 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)	

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C50 96h - Algae [1]	> 1000 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names	
	Raphidocelis subcapitata, Selenastrum capricornutum)	
Alcohols, C16-18 and C18-unsatd., ethoxyla	ited (68920-66-1)	
C50 - Fish [1]	108 mg/l (96h, Dario rerio)	
C50 - Crustacea [1]	51 mg/l (48h, Daphnia magna)	
C50 72h - Algae [1]	> 100 mg/l (72h, Scenedesmus subspicatus)	
rC50 algae	10 mg/l	
Amides, C12-18 and C18-unsatd., N-(hydrox	cyethyl), ethoxylated (157707-44-3)	
C50 - Fish [1]	1 – 10 mg/l	
C50 - Crustacea [1]	1 – 10 mg/l	
rC50 algae	14 mg/l	
1,2-benzisothiazol-3(2H)-one (2634-33-5)		
C50 - Fish [1]	2,15 mg/l	
C50 - Crustacea [1]	2,9 mg/l	
C50 72h - Algae [1]	2 mg/l	
rC50 algae	0,11 mg/l	
pyridine-2-thiol 1-oxide, sodium salt (3811-73-2)		
C50 - Fish [1]	7,3 µg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)	
C50 - Crustacea [1]	0,6 mg/l Test organisms (species): Daphnia magna	
C50 72h - Algae [1]	0,22 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)	

Alcohols, C16-18 and C18-unsatd., ethoxylated (68920-66-1)	
Persistence and degradability	Readily biodegradable.

12.3. Bioaccumulative potential

sodium petroleum sulfonate (68608-26-4)		
Partition coefficient n-octanol/water (Log Pow) 41,63		
Alcohols, C16-18 and C18-unsatd., ethoxylated (68920-66-1)		
Partition coefficient n-octanol/water (Log Pow) 4,6		
1,2-benzisothiazol-3(2H)-one (2634-33-5)		
Bioconcentration factor (BCF REACH) 6,95 (fish) [OECD 305]		
Partition coefficient n-octanol/water (Log Kow) 0,7 [OECD 117]		
pyridine-2-thiol 1-oxide, sodium salt (3811-73-2)		
Partition coefficient n-octanol/water (Log Pow) -0,24		

12.4. Mobility in soil

No additional information available

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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 considerations

13.1. Waste treatment methods

Waste treatment methods

: Dispose of contents/container in accordance with licensed collector's sorting instructions.

Product/Packaging disposal recommendations

: Dispose in a safe manner in accordance with local/national regulations.

European List of Waste (LoW) code

: 13 08 99* - wastes not otherwise specified

SECTION 14: Transport information

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

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID n	number			
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.2. UN proper shippin	g name			
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.3. Transport hazard	class(es)			
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.4. Packing group				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.5. Environmental haz	zards			
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated

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

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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

REACH Annex XVII (Restriction List)

Contains no REACH substances with Annex XVII restrictions

REACH Annex XIV (Authorisation List)

Contains no REACH Annex XIV substances

REACH Candidate List (SVHC)

Contains no substance on the REACH candidate list

PIC Regulation (Prior Informed Consent)

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

POP Regulation (Persistent Organic Pollutants)

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

Ozone Regulation (1005/2009)

Contains no substance subject to REGULATION (EU) No 1005/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 September 2009 on substances that deplete the ozone layer.

VOC Directive (2004/42)

VOC content : 0 %

Explosives Precursors Regulation (2019/1148)

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on drug precursors)

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes			
Section	Changed item	Change	Comments
	Revision date	Modified	
	Supersedes	Modified	
1.2	Function or use category	Added	
1.2	Use of the substance/mixture	Added	
2.2	Precautionary statements (CLP)	Modified	

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Indication of changes			
Section	Changed item	Change	Comments
5.2	Hazardous decomposition products in case of fire	Modified	
9.1	Solubility in water	Added	
10.3	Possibility of hazardous reactions	Modified	
13.1	H code	Added	
15.1	REACH Annex XVII	Modified	

Abbreviations and acr	ronyms:
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
IATA	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
PBT	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

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Abbreviations and acronyms:	
VOC	Volatile Organic Compounds
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. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) 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
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
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.
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1

Safety Data Sheet (SDS), EU

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.

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