

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878 Issue date: 17/02/2012 Revision date: 26/09/2022 Supersedes version of: 15/04/2022 Version: 9.3

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

1.1. Product identifier

Product form : Mixture

Product name : MASTEROIL ATF LIFE PROTECT 6

Product code : 3012
Type of product : MASTEROIL
Product group : Blend

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, Consumer use

Industrial/Professional use spec : Non-dispersive use

Used in closed systems
: Lubricants and additives

Function or use category : Lubricants and additives

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

masteroil GmbH Stockholmer Allee 30b 44269 Dortmund Germany

T 0231 / 44 42 47 64

info@masteroil.com - www.masteroil.com

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]

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

No additional information available

2.2. Label elements

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

Signal word (CLP) : -

Hazard statements (CLP) : H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements (CLP) : P273 - Avoid release to the environment.

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

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

P102 - Keep out of reach of children.

EUH-statements : EUH208 - Contains N,N-dicocoalkyl 3-amino-propane-1,2-diol, 2-tetradecyloxirane, reaction

products with boric acid. May produce an allergic reaction.

2.3. Other hazards

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

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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

: The mineral oils in the product contain < 3% DMSO extract (IP 346)

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Thiophene, tetrahydro-, 1, 1-dioxide, 3-(C9-11-isoalkyloxy) derivs., C10-rich	CAS-No.: 398141-87-2 EC-No.: 800-172-4 REACH-no: 01-2119969520- 35	1 – 1.49	Aquatic Chronic 2, H411
Acetamide, 2-hydroxy-, N, N-dicocoalkyl derivs	EC-No.: 471-920-1 REACH-no: 01-0000019770- 68	0.1 – 0.99	Skin Sens. 1B, H317
N,N-dicocoalkyl 3-amino-propane-1,2-diol	EC-No.: 482-000-4 REACH-no: 01-0000020142- 86	0.1 – 0.99	Skin Sens. 1, H317 Aquatic Chronic 3, H412
1-(tert-dodecylthio)propan-2-ol	CAS-No.: 67124-09-8 EC-No.: 266-582-5 REACH-no: 01-2119953277- 30	0.1 – 0.75	Skin Sens. 1B, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Benzene, polypropene derivatives, sulfonated, calcium salts	EC-No.: POLYMER REACH-no: 01-2120040541- 70	0.1 – 0.24	Skin Sens. 1B, H317
2-tetradecyloxirane, reaction products with boric acid	EC-No.: 701-392-2 REACH-no: 01-2119976364- 28	0.1 – 0.24	Skin Sens. 1B, H317
Methyl-1H-benzotriazole	CAS-No.: 29385-43-1 EC-No.: 249-596-6 REACH-no: 01-2119979081- 35	0.1 – 0.24	Acute Tox. 4 (Oral), H302 (ATE=500 mg/kg bodyweight) Repr. 2, H361 Aquatic Chronic 2, H411
2,2'-(C16-18 (evennumbered, C18 unsaturated) alkyl imino) diethanol	CAS-No.: 1218787-32-6 EC-No.: 620-540-6 REACH-no: 01-2119510877- 33	0.01 – 0.035	Acute Tox. 4 (Oral), H302 (ATE=500 mg/kg bodyweight) Skin Corr. 1C, H314 Eye Dam. 1, H318 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410
2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol	CAS-No.: 95-38-5 EC-No.: 202-414-9 REACH-no: 01-2119777867- 13	0.01 – 0.024	Acute Tox. 4 (Oral), H302 (ATE=500 mg/kg bodyweight) Skin Corr. 1C, H314 Eye Dam. 1, H318 STOT RE 2, H373 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410

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Specific concentration limits:		
Name	Product identifier	Specific concentration limits
Acetamide, 2-hydroxy-, N, N-dicocoalkyl derivs	EC-No.: 471-920-1 REACH-no: 01-0000019770- 68	(9.4 ≤C < 100) Skin Sens. 1B, H317
1-(tert-dodecylthio)propan-2-ol	CAS-No.: 67124-09-8 EC-No.: 266-582-5 REACH-no: 01-2119953277- 30	(14.2 ≤C < 100) Skin Sens. 1B, H317
Benzene, polypropene derivatives, sulfonated, calcium salts	EC-No.: POLYMER REACH-no: 01-2120040541- 70	(10 ≤C < 100) Skin Sens. 1B, H317

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 : Not expected to require first aid measures. First-aid measures after skin contact : Wash skin with mild soap and water.

First-aid measures after eye contact : In case of eye contact, immediately rinse with clean water for 10-15 minutes.

First-aid measures after ingestion : Do not induce vomiting. Rinse mouth. Get immediate medical advice/attention.

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

Symptoms/effects after inhalation : Not expected to present a significant inhalation hazard under anticipated conditions of

normal use.

Symptoms/effects after skin contact : Not expected to present a significant skin hazard under anticipated conditions of normal

use

Symptoms/effects after eye contact : Not expected to present a significant eye contact hazard under anticipated conditions of

normal use.

Symptoms/effects after ingestion : Not expected to present a significant ingestion hazard under anticipated conditions of

normal use.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water fog. Foam. Powder. Dry chemical product.

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

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

Precautionary measures fire : Exercise caution when fighting any chemical fire. Firefighting instructions : Use water spray or fog for cooling exposed containers.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment : Wear suitable protective clothing and gloves.

6.1.2. For emergency responders

Protective equipment : Wear suitable protective clothing and gloves.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment : Impound and recover large spill by mixing it with inert granular solids.

Methods for cleaning up : Detergent. Take up liquid spill into absorbent material sand, saw dust, kieselguhr.

Other information : Spill area may be slippery. Use suitable disposal containers.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Avoid all unnecessary exposure. Both local exhaust and general room ventilation are

usually required.

Handling temperature : < 40 °C

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 temperature : ≤ 40 °C

Storage area : Store in dry, cool, well-ventilated area.

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

No additional information available

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

Additional information : 5 mg/m3 for oil mists (TWA, 8h-workday) recommended, based upon the ACGIH TLV

(Analysis according to US NIOSH Method 5026, NIOSH Manual of Analytical Methods, 3rd

Edition).

8.1.5. Control banding

No additional information available

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8.2. Exposure controls

8.2.1. Appropriate engineering controls

No additional information available

8.2.2. Personal protection equipment

Personal protective equipment:

Safety glasses. Gloves.

Personal protective equipment symbol(s):





8.2.2.1. Eye and face protection

No additional information available

8.2.2.2. Skin protection

Skin and body protection:

No special clothing/skin protection equipment is recommended under normal conditions of use

Hand protection:

Permeation time: minimum >480min long term exposure; material / thickness [mm]: >0,35 mm. Nitrile rubber (NBR) /

8.2.2.3. Respiratory protection

Respiratory protection:

No special respiratory protection equipment is recommended under normal conditions of use with adequate ventilation.

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

No additional information available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid Colour Yellow-brown. Appearance : Oily liquid. Odour : Characteristic. Odour threshold : Not available Melting point : Not available Freezing point : Not available : Not available **Boiling point** Flammability : Not available : Not available **Explosive limits** Lower explosion limit : Not available Upper explosion limit : Not available

Flash point : > 150 °C @ ASTM D92

Auto-ignition temperature : Not available

Decomposition temperature : Not available

pH : Not available

Viscosity, kinematic : 31 mm²/s @ 40°C

Solubility : Slightly soluble, the product remains on the water surface.

Partition coefficient n-octanol/water (Log Kow) : Not available
Vapour pressure : Not available
Vapour pressure at 50°C : Not available
Density : 851 kg/m³ @15°C
Relative density : Not available

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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

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

None under normal conditions.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

None under normal conditions.

10.4. Conditions to avoid

No data available.

10.5. Incompatible materials

Strong oxidizers. acids. Bases.

10.6. Hazardous decomposition products

None under normal conditions.

SECTION 11: Toxicological information

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

Acute toxicity (oral) : Not classified Acute toxicity (dermal) Not classified Acute toxicity (inhalation) : Not classified Skin corrosion/irritation : Not classified Serious eye damage/irritation : Not classified Respiratory or skin sensitisation : Not classified Germ cell mutagenicity : Not classified Carcinogenicity : Not classified Reproductive toxicity : Not classified STOT-single exposure : Not classified STOT-repeated exposure : Not classified

2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol (95-38-5)

STOT-repeated exposure May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard : Not classified

MASTEROIL ATF LIFE PROTECT 6

Viscosity, kinematic 31 mm²/s @ 40°C

11.2. Information on other hazards

No additional information available

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SECTION 12: Ecological information

12.1. Toxicity

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.

Thiophene, tetrahydro-, 1, 1-dioxide, 3-(C9-11-is-calkyloxy) derivs., C10-rich (388141-87-2) LC50 - Fish [1] 2.4 mg/l Oncotrynchus mykiss LC50 - Fish [2] 3.3 mg/l Opprindon variegatus EC50 - Crustacea [1] 4.6 mg/l Daphnia magna EC50 - Crustacea [1] 83 mg/l Subneastrum capricomutum NOEC chronic (more) 1 mg/l @4 DY (Oncorrynchus mykiss) NOEC chronic algae 0.83 mg/l 2 DY (Daphnia magna) NOEC chronic algae 0.83 mg/l 2 DY (Daphnia magna) Acetamide, 2-hydroxy-, N, N-dicocoalkyl deriv= Verival (Calcabil and	(chronic)		
LC50 - Fish [2] 3.3 mgl Cyprinodon variegatus EC50 - Crustacea [1] 4.6 mgl Daphnia magna EC50 72h - Algae [1] 63 mgl Selenastrum capricomutum NOEC chronic) 1 mgl &4 DY (Oncorhynchus mykiss) NOEC chronic drustacea 0.63 mgl 2 DY (Daphnia magna) NOEC chronic drustacea 0.313 mgl 3 DY (Selenastrum capricomutum) Acetamide, 2-hydroxy-, N, N-dicocoalkyl deri∨ EC50 - Crustacea [1] 180 mgl Daphnia magna NOEC chronic drustacea 100 mgl &21DY (Daphnia magna) NOEC chronic drustacea 100 mgl &21DY (Daphnia magna) 2,2*(C16-18 (evennumbered, C18 unsaturated) alkyl imino) diethanol (1218787-32-6) LC50 - Fish [1] 0.1 mgl Brachydanio rerio EC50 - Crustacea [1] 0.043 mgl Daphnia magna EC50 72h - Algae [1] 0.053 mgl Pseudokirchneriella subcapitata NOEC chronic algae 0.0156 mgl &3DY (Pseudokirchneriella subcapitata) 2,2*(Pseudokirchneriella subcapitata) EC50 - Fish [1] 0.3 mgl Brachydanio rerio EC50 - Crustacea [1] 0.3 mgl Daphnia magna EC50 - Toustacea [1] 0.03 mgl Pseudokirchneriolla subcapitata) 1-(tert-dodecylthio)propan-2-ol (67124-09-8) LC50 - Fish [1] > 0.75 mgl Oncorhynchus mykiss EC50 - Crustacea [1] 0.00 mgl Baphnia magna 1-(tert-dodecylthio)propan-2-ol (67124-09-8) LC50 - Fish [1] > 0.00 mgl Baphnia magna NOEC chronic algae 100 mgl @2DY (Daphnia magna) NOEC chronic digae 100 mgl @2DY (Daphnia magna)	Thiophene, tetrahydro-, 1, 1-dioxide, 3-(C9-11-	-isoalkyloxy) derivs., C10-rich (398141-87-2)	
EC50 - Crustacea [1]	LC50 - Fish [1]	2.4 mg/l Oncorhynchus mykiss	
EC50 72h - Algae [1]	LC50 - Fish [2]	3.3 mg/l Cyprinodon variegatus	
NOEC (chronic) 1 mg/l @4 DY (Oncorhynchus mykiss) NOEC chronic crustacea 0.63 mg/l 2 DY (Daphnia magna) NOEC chronic algae 0.313 mg/l 3 DY (Selenastrum capricomutum) Acetamide, 2-hydroxy-, N, N-dicocoalkyl derivs EC50 - Crustacea [1] 180 mg/l Daphnia magna NOEC chronic crustacea 100 mg/l @21DY (Daphnia magna) NOEC chronic crustacea 100 mg/l @21DY (Daphnia magna) LC50 - Fish [1] 0.1 mg/l Brachydanio rerio EC50 - Crustacea [1] 0.043 mg/l Daphnia magna EC50 - Crustacea [1] 0.043 mg/l Brachydanio rerio EC50 - Taylace [1] 0.053 mg/l Pseudokirchneriella subcapitata NOEC chronic algae 0.0156 mg/l @3DY (Pseudokirchneriella subcapitata) 2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol (95-38-5) 1 LC50 - Fish [1] 0.3 mg/l Brachydanio rerio EC50 - Crustacea [1] 0.163 mg/l Daphnia magna EC50 - Crustacea [2] 0.34 mg/l EC50 - Crustacea [2] 0.34 mg/l EC50 - Fish [1] 0.03 mg/l 1-(tert-dodecythio)propan-2-ol (67124-09-8) 1 LC50 - Fish [1] > 0.75 mg/l Oncorhynchus mykiss EC	EC50 - Crustacea [1]	4.6 mg/l Daphnia magna	
NOEC chronic crustacea 0.63 mg/l 2 DY (Daphnia magna) NOEC chronic algae 0.313 mg/l 3 DY (Selenastrum capricomutum) Acetamide, 2-hydroxy-, N, N-dicocoalkyl derivs EC50 - Crustacea [1] 180 mg/l Daphnia magna NOEC chronic crustacea 100 mg/l @21DY (Daphnia magna) 2,2*-(C16-18 (evennumbered, C18 unsaturated) alkyl imino) diethanol (1218787-32-6) LC50 - Fish [1] 0.1 mg/l Brachydanio rerio EC50 - Crustacea [1] 0.043 mg/l Daphnia magna EC50 72h - Algae [1] 0.053 mg/l Pseudokirchneriella subcapitata NOEC chronic algae 0.0156 mg/l @3DY (Pseudokirchneriella subcapitata) 2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol (95-38-5) 1.650 - Fish [1] LC50 - Fish [1] 0.3 mg/l Brachydanio rerio EC50 - Crustacea [1] 0.163 mg/l Daphnia magna EC50 - Crustacea [2] 0.34 mg/l EC50 - Crustacea [2] 0.34 mg/l Decconoric algae 0.011 mg/l 1-(tert-dodecylthio)propan-2-ol (67124-09-8) 1.00 mg/l Oncorhynchus mykiss EC50 - Crustacea [1] 0.58 mg/l Daphnia magna EC50 - Tesh [1] > 100 mg/l Selenastrum capricomutum NOEC chronic fish 0.56 mg/l <td>EC50 72h - Algae [1]</td> <td>63 mg/l Selenastrum capricornutum</td>	EC50 72h - Algae [1]	63 mg/l Selenastrum capricornutum	
NOEC chronic algae	NOEC (chronic)	1 mg/l @4 DY (Oncorhynchus mykiss)	
Acetamide, 2-hydroxy-, N, N-dicocoalkyl derivs EC50 - Crustacea [1] 180 mg/l Daphnia magna NOEC chronic crustacea 100 mg/l @21DY (Daphnia magna) 2,2*-(C16-18 (evennumbered, C18 unsaturated) alkyl imino) diethanol (1218787-32-6) LC50 - Fish [1] 0.1 mg/l Brachydanio rerio EC50 - Crustacea [1] 0.0043 mg/l Daphnia magna EC50 72h - Algae [1] 0.0053 mg/l Pseudokirchneriella subcapitata NOEC chronic algae 0.0156 mg/l @3DY (Pseudokirchneriella subcapitata) 2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol (95-38-5) 1.0 mg/l Brachydanio rerio EC50 - Crustacea [1] 0.163 mg/l Daphnia magna EC50 - Crustacea [2] 0.34 mg/l EC50 - Crustacea [2] 0.34 mg/l EC50 - Crustacea [2] 0.34 mg/l LC50 - Fish [1] 0.03 mg/l NOEC chronic algae 0.011 mg/l 1-(tert-dodecylthio)propan-2-ol (67124-09-8) 1.0 mg/l Daphnia magna EC50 - Crustacea [1] 0.58 mg/l Daphnia magna EC50 - Crustacea [1] > 100 mg/l Selenastrum capricomutum NOEC chronic fish 0.56 mg/l NOEC chronic algae 100 mg/l @2DY (Daphnia magna) NOEC chronic algae	NOEC chronic crustacea	0.63 mg/l 2 DY (Daphnia magna)	
EC50 - Crustacea [1] 180 mg/l Daphnia magna	NOEC chronic algae	0.313 mg/l 3 DY (Selenastrum capricornutum)	
NOEC chronic crustacea 100 mg/l @21DY (Daphnia magna) 2,2*-(C16-18 (evennumbered, C18 unsaturated) alkyl imino) diethanol (1218787-32-6) LC50 - Fish [1] 0.1 mg/l Brachydanio rerio EC50 - Crustacea [1] 0.043 mg/l Pseudokirchneriella subcapitata NOEC chronic algae 0.0156 mg/l @3DY (Pseudokirchneriella subcapitata) 2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol (95-38-5) LC50 - Fish [1] 0.3 mg/l Brachydanio rerio EC50 - Crustacea [1] 0.163 mg/l Daphnia magna EC50 - Crustacea [2] 0.34 mg/l EC50 - Crustacea [2] 0.34 mg/l NOEC chronic algae 0.011 mg/l 1-(tert-dodecylthio)propan-2-ol (67124-09-8) LC50 - Fish [1] > 0.75 mg/l Oncorhynchus mykiss EC50 - Crustacea [1] > 100 mg/l Selenastrum capricomutum NOEC chronic rish 0.56 mg/l NOEC chronic digae 100 mg/l @4DY (Daphnia magna) NOEC chronic digae 100 mg/l @4DY (Selenastrum capricomutum) 2-tetradecyloxirane, reaction products with boric acid LC50 - Fish [1] > 100 mg/l Oncorhynchus mykiss EC50 - Crustacea [1] > 100 mg/l Q4DY (Selenastrum capricomutum) 2-tetradecyloxirane, reaction products with boric acid LC50 - Fish [1] > 100 mg/l Oncorhynchus mykiss EC50 - Crustacea [1] > 100 mg/l Oncorhynchus mykiss EC50 - Crustacea [1] > 100 mg/l Oncorhynchus mykiss EC50 - Crustacea [1] > 100 mg/l Oncorhynchus mykiss EC50 - Crustacea [1] > 100 mg/l Oncorhynchus mykiss EC50 - Crustacea [1] > 100 mg/l Oncorhynchus mykiss EC50 - Crustacea [1] > 100 mg/l Oncorhynchus mykiss EC50 - Crustacea [1] > 100 mg/l Oncorhynchus mykiss EC50 - Crustacea [1] > 100 mg/l Oncorhynchus mykiss EC50 - Crustacea [1] > 100 mg/l Oncorhynchus mykiss EC50 - Crustacea [1] > 100 mg/l Oncorhynchus mykiss EC50 - Crustacea [1] > 100 mg/l Oncorhynchus mykiss EC50 - Crustacea [1] > 100 mg/l Oncorhynchus mykiss EC50 - Crustacea [1] > 100 mg/l Oncorhynchus mykiss	Acetamide, 2-hydroxy-, N, N-dicocoalkyl deriv	rs .	
2,2*-(C16-18 (evennumbered, C18 unsaturated) alkyl imino) diethanol (1218787-32-6) LC50 - Fish [1] 0.1 mg/l Brachydanio rerio EC50 - Crustacea [1] 0.043 mg/l Daphnia magna EC50 72h - Algae [1] 0.0053 mg/l Pseudokirchneriella subcapitata NOEC chronic algae 0.0156 mg/l @3DY (Pseudokirchneriella subcapitata) 2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol (95-38-5) C50 - Fish [1] LC50 - Fish [1] 0.3 mg/l Brachydanio rerio EC50 - Crustacea [1] 0.163 mg/l Daphnia magna EC50 - Crustacea [2] 0.34 mg/l EC50 - T2h - Algae [1] 0.03 mg/l NOEC chronic algae 0.011 mg/l 1-(tert-dodecylthio)propan-2-ol (67124-09-8) C50 - Fish [1] LC50 - Fish [1] > 0.75 mg/l Oncorhynchus mykiss EC50 - Crustacea [1] > 100 mg/l Selenastrum capricomutum NOEC chronic fish 0.56 mg/l NOEC chronic crustacea 0.32 mg/l @2DY (Daphnia magna) NOEC chronic algae 100 mg/l @4DY (Selenastrum capricomutum) 2-tetradecyloxirane, reaction products with boric acid LC50 - Fish [1] > 100 mg/l Oncorhynchus mykiss EC50 - Crustacea [1] > 100 mg/l Daphnia magna <	EC50 - Crustacea [1]	180 mg/l Daphnia magna	
C50 - Fish [1] 0.1 mg/l Brachydanio rerio	NOEC chronic crustacea	100 mg/l @21DY (Daphnia magna)	
EC50 - Crustacea [1] 0.043 mg/l Daphnia magna EC50 72h - Algae [1] 0.053 mg/l Pseudokirchneriella subcapitata NOEC chronic algae 0.0156 mg/l @3DY (Pseudokirchneriella subcapitata) 2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol (95-38-5) LC50 - Fish [1] 0.3 mg/l Brachydanio rerio EC50 - Crustacea [1] 0.163 mg/l Daphnia magna EC50 - Crustacea [2] 0.34 mg/l EC50 - Crustacea [2] 0.34 mg/l NOEC chronic algae 0.011 mg/l 1-(tert-dodecylthio)propan-2-ol (67124-09-8) LC50 - Fish [1] > 0.75 mg/l Oncorhynchus mykiss EC50 - Crustacea [1] 0.58 mg/l Daphnia magna EC50 - Crustacea [1] > 100 mg/l Selenastrum capricomutum NOEC chronic fish 0.56 mg/l NOEC chronic crustacea 0.32 mg/l @2DY (Daphnia magna) NOEC chronic algae 100 mg/l @4DY (Selenastrum capricomutum) 2-tetradecyloxirane, reaction products with boric acid LC50 - Fish [1] > 100 mg/l Oncorhynchus mykiss	2,2'-(C16-18 (evennumbered, C18 unsaturated) alkyl imino) diethanol (1218787-32-6)	
C50 72h - Algae [1] 0.0053 mg/l Pseudokirchneriella subcapitata	LC50 - Fish [1]	0.1 mg/l Brachydanio rerio	
NOEC chronic algae 0.0156 mg/l @3DY (Pseudokirchneriella subcapitata)	EC50 - Crustacea [1]	0.043 mg/l Daphnia magna	
2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol (95-38-5) LC50 - Fish [1] 0.3 mg/l Brachydanio rerio EC50 - Crustacea [1] 0.163 mg/l Daphnia magna EC50 - Crustacea [2] 0.34 mg/l EC50 72h - Algae [1] 0.03 mg/l NOEC chronic algae 0.011 mg/l 1-(tert-dodecylthio)propan-2-ol (67124-09-8) LC50 - Fish [1] > 0.75 mg/l Oncorhynchus mykiss EC50 - Crustacea [1] 0.58 mg/l Daphnia magna EC50 - Crustacea [1] > 100 mg/l Selenastrum capricomutum NOEC chronic fish 0.56 mg/l NOEC chronic crustacea 0.32 mg/l @2DY (Daphnia magna) NOEC chronic algae 100 mg/l @4DY (Selenastrum capricomutum) 2-tetradecyloxirane, reaction products with boric acid LC50 - Fish [1] LC50 - Crustacea [1] > 100 mg/l Daphnia magna	EC50 72h - Algae [1]	0.0053 mg/l Pseudokirchneriella subcapitata	
LC50 - Fish [1] 0.3 mg/l Brachydanio rerio EC50 - Crustacea [1] 0.163 mg/l Daphnia magna EC50 - Crustacea [2] 0.34 mg/l EC50 72h - Algae [1] 0.03 mg/l NOEC chronic algae 0.011 mg/l 1-(tert-dodecylthio)propan-2-ol (67124-09-8) 1-(100 mg/l Oncorhynchus mykiss) LC50 - Fish [1] > 0.75 mg/l Oncorhynchus mykiss EC50 - Crustacea [1] 0.58 mg/l Daphnia magna EC50 72h - Algae [1] > 100 mg/l Selenastrum capricomutum NOEC chronic fish 0.56 mg/l NOEC chronic crustacea 0.32 mg/l @2DY (Daphnia magna) NOEC chronic algae 100 mg/l @4DY (Selenastrum capricomutum) 2-tetradecyloxirane, reaction products with boric acid LC50 - Fish [1] > 100 mg/l Oncorhynchus mykiss EC50 - Crustacea [1] > 100 mg/l Daphnia magna	NOEC chronic algae	0.0156 mg/l @3DY (Pseudokirchneriella subcapitata)	
EC50 - Crustacea [1] 0.163 mg/l Daphnia magna EC50 - Crustacea [2] 0.34 mg/l EC50 72h - Algae [1] 0.03 mg/l NOEC chronic algae 0.011 mg/l 1-(tert-dodecylthio)propan-2-ol (67124-09-8) LC50 - Fish [1] > 0.75 mg/l Oncorhynchus mykiss EC50 - Crustacea [1] 0.58 mg/l Daphnia magna EC50 72h - Algae [1] > 100 mg/l Selenastrum capricomutum NOEC chronic fish 0.56 mg/l NOEC chronic crustacea 0.32 mg/l @2DY (Daphnia magna) NOEC chronic algae 100 mg/l @4DY (Selenastrum capricomutum) 2-tetradecyloxirane, reaction products with boric acid LC50 - Fish [1] > 100 mg/l Oncorhynchus mykiss EC50 - Crustacea [1] > 100 mg/l Daphnia magna	2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethano	l (95-38-5)	
EC50 - Crustacea [2] 0.34 mg/l EC50 72h - Algae [1] 0.03 mg/l NOEC chronic algae 0.011 mg/l 1-(tert-dodecylthio)propan-2-ol (67124-09-8) LC50 - Fish [1] > 0.75 mg/l Oncorhynchus mykiss EC50 - Crustacea [1] 0.58 mg/l Daphnia magna EC50 72h - Algae [1] > 100 mg/l Selenastrum capricomutum NOEC chronic fish 0.56 mg/l NOEC chronic crustacea 0.32 mg/l @2DY (Daphnia magna) NOEC chronic algae 100 mg/l @4DY (Selenastrum capricomutum) 2-tetradecyloxirane, reaction products with boric acid LC50 - Fish [1] > 100 mg/l Oncorhynchus mykiss EC50 - Crustacea [1] > 100 mg/l Daphnia magna	LC50 - Fish [1]	0.3 mg/l Brachydanio rerio	
EC50 72h - Algae [1] 0.03 mg/l NOEC chronic algae 0.011 mg/l	EC50 - Crustacea [1]	0.163 mg/l Daphnia magna	
NOEC chronic algae 0.011 mg/l	EC50 - Crustacea [2]	0.34 mg/l	
1-(tert-dodecylthio)propan-2-ol (67124-09-8) LC50 - Fish [1] > 0.75 mg/l Oncorhynchus mykiss EC50 - Crustacea [1] 0.58 mg/l Daphnia magna EC50 72h - Algae [1] > 100 mg/l Selenastrum capricomutum NOEC chronic fish 0.56 mg/l NOEC chronic crustacea 0.32 mg/l @2DY (Daphnia magna) NOEC chronic algae 100 mg/l @4DY (Selenastrum capricomutum) 2-tetradecyloxirane, reaction products with boric acid LC50 - Fish [1] > 100 mg/l Oncorhynchus mykiss EC50 - Crustacea [1] > 100 mg/l Daphnia magna	EC50 72h - Algae [1]	0.03 mg/l	
LC50 - Fish [1] > 0.75 mg/l Oncorhynchus mykiss EC50 - Crustacea [1] 0.58 mg/l Daphnia magna EC50 72h - Algae [1] > 100 mg/l Selenastrum capricomutum NOEC chronic fish 0.56 mg/l NOEC chronic crustacea 0.32 mg/l @2DY (Daphnia magna) NOEC chronic algae 100 mg/l @4DY (Selenastrum capricomutum) 2-tetradecyloxirane, reaction products with boric acid LC50 - Fish [1] > 100 mg/l Oncorhynchus mykiss EC50 - Crustacea [1] > 100 mg/l Daphnia magna	NOEC chronic algae	0.011 mg/l	
EC50 - Crustacea [1] 0.58 mg/l Daphnia magna EC50 72h - Algae [1] > 100 mg/l Selenastrum capricomutum NOEC chronic fish 0.56 mg/l NOEC chronic crustacea 0.32 mg/l @2DY (Daphnia magna) NOEC chronic algae 100 mg/l @4DY (Selenastrum capricomutum) 2-tetradecyloxirane, reaction products with boric acid LC50 - Fish [1] > 100 mg/l Oncorhynchus mykiss EC50 - Crustacea [1] > 100 mg/l Daphnia magna	1-(tert-dodecylthio)propan-2-ol (67124-09-8)		
EC50 72h - Algae [1] > 100 mg/l Selenastrum capricomutum NOEC chronic fish 0.56 mg/l NOEC chronic crustacea 0.32 mg/l @2DY (Daphnia magna) NOEC chronic algae 100 mg/l @4DY (Selenastrum capricomutum) 2-tetradecyloxirane, reaction products with boric acid LC50 - Fish [1] > 100 mg/l Oncorhynchus mykiss EC50 - Crustacea [1] > 100 mg/l Daphnia magna	LC50 - Fish [1]	> 0.75 mg/l Oncorhynchus mykiss	
NOEC chronic fish 0.56 mg/l NOEC chronic crustacea 0.32 mg/l @2DY (Daphnia magna) NOEC chronic algae 100 mg/l @4DY (Selenastrum capricomutum) 2-tetradecyloxirane, reaction products with boric acid LC50 - Fish [1] > 100 mg/l Oncorhynchus mykiss EC50 - Crustacea [1] > 100 mg/l Daphnia magna	EC50 - Crustacea [1]	0.58 mg/l Daphnia magna	
NOEC chronic crustacea 0.32 mg/l @2DY (Daphnia magna) NOEC chronic algae 100 mg/l @4DY (Selenastrum capricomutum) 2-tetradecyloxirane, reaction products with boric acid LC50 - Fish [1] > 100 mg/l Oncorhynchus mykiss EC50 - Crustacea [1] > 100 mg/l Daphnia magna	EC50 72h - Algae [1]	> 100 mg/l Selenastrum capricomutum	
NOEC chronic algae 100 mg/l @4DY (Selenastrum capricomutum) 2-tetradecyloxirane, reaction products with boric acid LC50 - Fish [1] > 100 mg/l Oncorhynchus mykiss EC50 - Crustacea [1] > 100 mg/l Daphnia magna	NOEC chronic fish	0.56 mg/l	
2-tetradecyloxirane, reaction products with boric acid LC50 - Fish [1] > 100 mg/l Oncorhynchus mykiss EC50 - Crustacea [1] > 100 mg/l Daphnia magna	NOEC chronic crustacea	0.32 mg/l @2DY (Daphnia magna)	
LC50 - Fish [1] > 100 mg/l Oncorhynchus mykiss EC50 - Crustacea [1] > 100 mg/l Daphnia magna	NOEC chronic algae	100 mg/l @4DY (Selenastrum capricomutum)	
EC50 - Crustacea [1] > 100 mg/l Daphnia magna	2-tetradecyloxirane, reaction products with boric acid		
	LC50 - Fish [1]	> 100 mg/l Oncorhynchus mykiss	
EC50 72h - Algae [1] > 100 mg/l Selenastrum capricomutum	EC50 - Crustacea [1]	> 100 mg/l Daphnia magna	
	EC50 72h - Algae [1]	> 100 mg/l Selenastrum capricomutum	

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2-tetradecyloxirane, reaction products with boric acid		
NOEC chronic crustacea	10 mg/l Daphnia magna	
Methyl-1H-benzotriazole (29385-43-1)		
LC50 - Fish [1]	25.5 mg/l (Pimephales promelas)	
LC50 - Fish [2]	65 mg/l (Brachydanio rerio)	
EC50 - Crustacea [1]	87.4 mg/l (Daphnia magna)	
EC50 - Crustacea [2]	8.58 mg/l (Daphnia magna)	
EC50 72h - Algae [1]	62 mg/l (Selenastrum capricomutum)	
NOEC chronic crustacea	18.4 mg/l @21DY (Daphnia magna)	
12.2. Persistence and degradability		
MASTEROIL ATF LIFE PROTECT 6		
Persistence and degradability	Not soluble in water, so only minimally biodegradable.	
Thiophene, tetrahydro-, 1, 1-dioxide, 3-(C	9-11-isoalkyloxy) derivs., C10-rich (398141-87-2)	
Persistence and degradability	Not readily biodegradable.	
BOD (% of ThOD)	9.6 % ThOD 28DY OECD TG 301 F	
2,2'-(C16-18 (evennumbered, C18 unsatu	rated) alkyl imino) diethanol (1218787-32-6)	
BOD (% of ThOD)	63 % ThOD	
1-(tert-dodecylthio)propan-2-ol (67124-09-8)		
BOD (% of ThOD)	5.9 % ThOD @28DY OECD TG 301 F	
2-tetradecyloxirane, reaction products with boric acid		
Persistence and degradability	Not readily biodegradable.	
Biodegradation	26.7 %	
Biodegradation	% (days)	
12.3. Bioaccumulative potential		
- 1. 1		

Thiophene, tetrahydro-, 1, 1-dioxide, 3-(C9-11-isoalkyloxy) derivs., C10-rich (398141-87-2)		
Bioconcentration factor (BCF REACH)	27.54	
Partition coefficient n-octanol/water (Log Kow)	4.1	
Bioaccumulative potential	Potential to bioaccumulate.	
2,2'-(C16-18 (evennumbered, C18 unsaturated) alkyl imino) diethanol (1218787-32-6)		
BCF - Fish [1]	110.2 mg/kg	
Partition coefficient n-octanol/water (Log Kow)	3.6	
2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol (95-38-5)		
Partition coefficient n-octanol/water (Log Kow)	> 7	
1-(tert-dodecylthio)propan-2-ol (67124-09-8)		
Partition coefficient n-octanol/water (Log Kow)	5.7	

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2-tetradecyloxirane, reaction products with boric acid	
Partition coefficient n-octanol/water (Log Kow) 9.4	
Methyl-1H-benzotriazole (29385-43-1)	
Partition coefficient n-octanol/water (Log Kow) 1.71	

12.4. Mobility in soil

Thiophene, tetrahydro-, 1, 1-dioxide, 3-(C9-11-isoalkyloxy) derivs., C10-rich (398141-87-2)	
Ecology - soil	Adsorbs into the 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 considerations

13.1. Waste treatment methods

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

SECTION 14: Transport information

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

14.1. UN number or ID number

UN-No. (ADR) : Not applicable UN-No. (IMDG) : 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

IATA

Transport hazard class(es) (IATA) : Not applicable

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ADN

Transport hazard class(es) (ADN) : Not applicable

RID

Transport hazard class(es) (RID) : Not applicable

14.4. Packing group

Packing group (ADR) : Not applicable
Packing group (IMDG) : Not applicable
Packing group (IATA) : Not applicable
Packing group (ADN) : Not applicable
Packing group (RID) : Not applicable

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

No data available

Transport by sea

No data available

Air transport

No data available

Inland waterway transport

No data available

Rail transport

No data available

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 substance(s) listed on REACH Annex XVII (Restriction Conditions)

REACH Annex XIV (Authorisation List)

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

REACH Candidate List (SVHC)

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

PIC Regulation (Prior Informed Consent)

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

POP Regulation (Persistent Organic Pollutants)

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

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Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 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 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

Germany

Water hazard class (WGK) : WGK 2, Significantly 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 : 1-(tert-dodecylthio)propan-2-ol is listed SZW-lijst van mutagene stoffen : 1-(tert-dodecylthio)propan-2-ol is listed SZW-lijst van reprotoxische stoffen – Borstvoeding : None of the components are listed

SZW-lijst van reprotoxische stoffen -

: None of the components are listed

Vruchtbaarheid

SZW-lijst van reprotoxische stoffen – Ontwikkeling : None of the components are listed

Denmark

Danish National Regulations : Pregnant/breastfeeding women working with the product must not be in direct contact with

the product

Switzerland

Storage class (LK) : LK 10/12 - Liquids

15.2. Chemical safety assessment

No chemical safety assessment has been carried out for the substance or the mixture by the supplier

SECTION 16: Other information

Indication of changes			
Section	Changed item	Change	Comments
	Supersedes	Modified	
	Revision date	Modified	
3	Composition/information on ingredients	Modified	

Abbreviations and acronyms:		
	ACGIH: American Conference of Governmental Industrial Hygienists	
	TWA: Time Weighted Average	
	TLV: Threshold Limit Value	
	ASTM: American Society for Testing and Materials	
	ADR: Accord Européen Relatif au Transport International des Marchandises Dangereuses par Route	
	RID: Regulations Concerning the International Carriage of Dangerous Goods by Rail	
	ADNR: Accord Européen relatif au Transport International des Marchandises Dangereuses par voie de Navigation du Rhin	
	IMDG: International Maritime Dangerous Goods	
	ICAO: International Civil Aviation Organization	

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Abbreviations and acronyms:	
	IATA: International Air Transport Association
	STEL: Short Term Exposure Limit
	LD50: median Lethal Dose for 50% of subjects
	ATE: acute toxicity estimate
	LC50: median Lethal Concentration for 50% of subjects
	EC50: concentration producing 50% effect

Other information

: The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.

Full text of H- and EUH-statements:		
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 N,N-dicocoalkyl 3-amino-propane-1,2-diol, 2-tetradecyloxirane, reaction products with boric acid. May produce an allergic reaction.	
Eye Dam. 1	Serious eye damage/eye irritation, Category 1	
H302	Harmful if swallowed.	
H314	Causes severe skin burns and eye damage.	
H317	May cause an allergic skin reaction.	
H318	Causes serious eye damage.	
H361	Suspected of damaging fertility or the unborn child.	
H373	May cause 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. 2	Reproductive toxicity, Category 2	
Skin Corr. 1C	Skin corrosion/irritation, Category 1, Sub-Category 1C	
Skin Sens. 1	Skin sensitisation, Category 1	
Skin Sens. 1B	Skin sensitisation, category 1B	
STOT RE 2	Specific target organ toxicity – Repeated exposure, Category 2	

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.