

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

#### 1.1. Product identifier

Product form : Mixture  
Product name : 78450 - Synthetic ATF MBF  
Product code : 78450

#### 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 : Industrial use, Professional use, Consumer use  
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

Transnational Blenders bv  
Wieldrechtseweg, 37  
NL- 3316 BG Dordrecht – Netherlands Zuid Holland  
Netherlands  
T +31 (0)78 6527652  
[technical@tnb.nl](mailto:technical@tnb.nl) - [www.tnb.nl](http://www.tnb.nl)

#### 1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number	Comment
United Kingdom	Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust	Avonley Road SE14 5ER	+44 20 7188 7188	
United Kingdom	National Poisons Information Service (Belfast Centre) Royal Victoria Hospital	Grosvenor Road BT12 6BA	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]

Hazardous to the aquatic environment – Chronic Hazard, H412  
Category 3  
Full text of H- and EUH-statements: see section 16

##### Adverse physicochemical, human health and environmental effects

Harmful to aquatic life with long lasting effects.

#### 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) : P101 - If medical advice is needed, have product container or label at hand.  
P102 - Keep out of reach of children.  
P103 - Read carefully and follow all instructions.  
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.

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### 2.3. Other hazards

Contains no PBT and/or vPvB substances  $\geq 0.1\%$  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 substance(s) are 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]
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based substance with national workplace exposure limit(s) (BE, BG, CZ, DK, ES, FI, GR, HU, IE, LT, LV, NL, PL, PT, RO, SE, SK, IS, NO, CH); substance with a Community workplace exposure limit	CAS-No.: 72623-86-0 EC-No.: 276-737-9 EC Index-No.: 649-482-00-X REACH-no: 01-2119474878-16	$\geq 45 - < 55$	Asp. Tox. 1, H304
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil substance with a Community workplace exposure limit	CAS-No.: 72623-87-1 EC-No.: 276-738-4 EC Index-No.: 649-483-00-5 REACH-no: 01-2119474889-13	$\geq 25 - < 45$	Asp. Tox. 1, H304
Distillates (petroleum), hydrotreated light paraffinic substance with national workplace exposure limit(s) (AT, BE, BG, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IT, LT, LV, NL, PL, PT, RO, SE, SI, SK, IS, NO, CH); substance with a Community workplace exposure limit	CAS-No.: 64742-55-8 EC-No.: 265-158-7 EC Index-No.: 649-468-00-3 REACH-no: 01-2119487077-29	$\geq 1 - < 3$	Not classified
Distillates (petroleum), hydrotreated heavy paraffinic substance with national workplace exposure limit(s) (AT, BE, BG, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IT, LT, LV, NL, PL, PT, RO, SE, SI, SK, IS, NO, CH, TR); substance with a Community workplace exposure limit	CAS-No.: 64742-54-7 EC-No.: 265-157-1 EC Index-No.: 649-467-00-8 REACH-no: 01-2119484627-25	$\geq 1 - < 3$	Not classified
Thiophene, tetrahydro-, 1,1-dioxide, 3-(C9-11-isoalkyloxy) derivs., C10-rich substance with a Community workplace exposure limit	CAS-No.: 398141-87-2 EC-No.: 800-172-4 REACH-no: 01-2119969520-35	$\geq 0.3 - < 3$	Aquatic Chronic 2, H411
2,2'-(C16-18 (evennumbered, C18 unsaturated) alkyl imino) diethanol	CAS-No.: 61791-44-4 EC-No.: 620-540-6 REACH-no: 01-2119510877-33	$< 0.3$	Acute Tox. 4 (Oral), H302 Skin Corr. 1C, H314 Eye Dam. 1, H318 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410
Dimantine	CAS-No.: 124-28-7 EC-No.: 204-694-8 REACH-no: 01-2119486676-20	$< 0.3$	Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
3-((C9-11-iso,C10-rich)alkyloxy)propan-1-amine	EC-No.: 939-485-7 REACH-no: 01-2119974116-35	< 0.1	Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 Aquatic Acute 1, H400 (M=100) 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	< 0.1	Acute Tox. 4 (Oral), H302 Skin Corr. 1C, H314 Eye Dam. 1, H318 STOT RE 2, H373 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410
2-Naphthalenol, 1-[[4-(phenylazo)phenyl]azo]-, ar-heptyl ar',ar"-Me derivs. substance with a Community workplace exposure limit	CAS-No.: 92257-31-3 EC-No.: 296-120-8 REACH-no: 01-2120753600-62	< 0.1	Repr. 2, H361f STOT RE 2, H373 Aquatic Chronic 4, H413

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.
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

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. Carbon dioxide.
Unsuitable extinguishing media	: Do not use a water jet since it may cause the fire to spread.

### 5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire	: Toxic fumes may be released.
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### 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 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

General measures	: Avoid spilling the product, as this might cause falls.
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### 6.1.1. For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment.  
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 containment and cleaning up

For containment : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.  
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. Avoid contact with skin and eyes.  
Handling temperature : ≤ 40 °C  
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, including any incompatibilities

Technical measures : Provide local exhaust or general room ventilation.  
Storage conditions : Store in a well-ventilated place. Keep cool.  
Storage temperature : ≤ 40 °C  
Storage area : Store in a well-ventilated place. Store away from heat.  
Special rules on packaging : Keep only in original container. Store in a closed container.

### 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

Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)	
EU - Indicative Occupational Exposure Limit (IOEL)	
IOEL TWA	5 mg/m <sup>3</sup>
United Kingdom - Occupational Exposure Limits	
WEL TWA (OEL TWA) [1]	5 mg/m <sup>3</sup>
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil (72623-87-1)	
EU - Indicative Occupational Exposure Limit (IOEL)	
IOEL TWA	5 mg/m <sup>3</sup>

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Lubricating oils (petroleum), C20-50, hydrotreated neutral oil (72623-87-1)	
IOEL STEL	10 mg/m <sup>3</sup>
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based (72623-86-0)	
EU - Indicative Occupational Exposure Limit (IOEL)	
IOEL TWA	5 mg/m <sup>3</sup>
Thiophene, tetrahydro-, 1,1-dioxide, 3-(C9-11-isoalkyloxy) derivs., C10-rich (398141-87-2)	
EU - Indicative Occupational Exposure Limit (IOEL)	
IOEL TWA [ppm]	50 ppm
Distillates (petroleum), hydrotreated light paraffinic (64742-55-8)	
EU - Indicative Occupational Exposure Limit (IOEL)	
IOEL TWA	5 mg/m <sup>3</sup>
United Kingdom - Occupational Exposure Limits	
WEL TWA (OEL TWA) [1]	5 mg/m <sup>3</sup>
2-Naphthalenol, 1-[[4-(phenylazo)phenyl]azo]-, ar-heptyl ar',ar''-Me derivs. (92257-31-3)	
EU - Indicative Occupational Exposure Limit (IOEL)	
IOEL TWA	0.14 mg/m <sup>3</sup>
IOEL TWA [ppm]	0.008 ppm
IOEL STEL	0.42 mg/m <sup>3</sup>
IOEL STEL [ppm]	0.02 ppm

### 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:

Gloves. Safety glasses. Protective clothing.

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



#### 8.2.2.1. Eye and face protection

##### Eye protection:

Safety glasses

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Eye protection			
Type	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					
Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Reusable gloves	Nitrile rubber (NBR), Neoprene rubber (HNBR)	6 (> 480 minutes)	≥ 0.35	3 (> 0.65)	EN ISO 374

### 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	: red.
Odour	: Not available
Odour threshold	: Not available
Melting point	: Not applicable
Freezing point	: -48 °C (ASTM D7346)
Boiling point	: Not available
Flammability	: Non flammable.
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: > 201 °C (ASTM D92)
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
pH	: Not available
Viscosity, kinematic	: 28 mm <sup>2</sup> /s @ 40°C (ASTM D7042)
Solubility	: insoluble in water.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50°C	: Not available
Density	: 843 kg/m <sup>3</sup> @ 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

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### 9.2.2. Other safety characteristics

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

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

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

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

Strong oxidizing agents.

### 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 1272/2008

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

<b>Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)</b>	
LD50 oral (rat)	> 5000 mg/kg bodyweight 401 Acute Oral Toxicity Test
LD50 dermal (rabbit)	> 2000 mg/kg 402 Acute Dermal Toxicity Test
LC50 inhalation (rat) (mg/l)	> 5000 mg/l/4h
LC50 inhalation (rat) (Dust/Mist - mg/l/4h)	> 5.53 mg/l/4h 403 Acute Inhalation Toxicity Test
<b>Lubricating oils (petroleum), C20-50, hydrotreated neutral oil (72623-87-1)</b>	
LD50 oral (rat)	> 5000 mg/kg
LD50 dermal (rabbit)	> 2000 mg/kg
LC50 inhalation (rat) (Dust/Mist - mg/l/4h)	> 5.53 mg/l/4h
<b>Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based (72623-86-0)</b>	
LD50 oral (rat)	> 5000 mg/kg bodyweight 401 Acute Oral Toxicity Test
LD50 dermal (rabbit)	> 5000 mg/kg 402 Acute Dermal Toxicity Test
LC50 inhalation (rat) (mg/l)	5.53 mg/l 403 Acute Inhalation Toxicity
LC50 inhalation (rat) (Dust/Mist - mg/l/4h)	> 5.53 mg/l/4h 403 Acute Inhalation Toxicity Test
<b>Thiophene, tetrahydro-, 1,1-dioxide, 3-(C9-11-isoalkyloxy) derivs., C10-rich (398141-87-2)</b>	
LD50 oral (rat)	> 10000 mg/kg
LD50 dermal (rabbit)	≥ 4000 – < 8000 mg/kg

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<b>Distillates (petroleum), hydrotreated light paraffinic (64742-55-8)</b>	
LD50 oral (rat)	> 5000 mg/kg 401 Acute Oral Toxicity Test
LD50 dermal (rabbit)	> 5000 mg/kg 402 Acute Dermal Toxicity Test
LC50 inhalation (rat) (Dust/Mist - mg/l/4h)	> 5.53 mg/l/4h 403 Acute Inhalation Toxicity Test
<b>2,2'-(C16-18 (evennumbered, C18 unsaturated) alkyl imino) diethanol (61791-44-4)</b>	
LD50 oral (rat)	≥ 300 – < 2000 mg/kg OECD 401 Test
LD50 dermal (rabbit)	> 2000 mg/kg
LC50 inhalation (rat) (mg/l)	≥ mg/l
LC50 inhalation (rat) (Dust/Mist - mg/l/4h)	> 0.6 mg/l/4h
<b>Dimantine (124-28-7)</b>	
LD50 oral (rat)	1230 mg/kg
LD50 dermal (rabbit)	8000 mg/kg
<b>2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol (95-38-5)</b>	
LD50 oral (rat)	1265 mg/kg bodyweight
<b>3-((C9-11-iso,C10-rich)alkyloxy)propan-1-amine</b>	
LD50 oral (rat)	500 – 2000 mg/kg 401 Acute Oral Toxicity Test
<b>2-Naphthalenol, 1-[[4-(phenylazo)phenyl]azo]-, ar-heptyl ar',ar''-Me derivs. (92257-31-3)</b>	
LD50 oral (rat)	> 5000 mg/kg
LD50 dermal (rabbit)	> 2000 mg/kg
Skin corrosion/irritation	: Not classified
<b>2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol (95-38-5)</b>	
pH	11.1
<b>2-Naphthalenol, 1-[[4-(phenylazo)phenyl]azo]-, ar-heptyl ar',ar''-Me derivs. (92257-31-3)</b>	
pH	5.93 @20°C
Serious eye damage/irritation	: Not classified
<b>2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol (95-38-5)</b>	
pH	11.1
<b>2-Naphthalenol, 1-[[4-(phenylazo)phenyl]azo]-, ar-heptyl ar',ar''-Me derivs. (92257-31-3)</b>	
pH	5.93 @20°C
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
<b>Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)</b>	
LOAEL (oral, rat, 90 days)	125 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 408
<b>Lubricating oils (petroleum), C20-50, hydrotreated neutral oil (72623-87-1)</b>	
LOAEL (oral, rat, 90 days)	125 mg/kg bodyweight/day



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Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based (72623-86-0)	
LOAEL (oral, rat, 90 days)	125 mg/kg bodyweight
Distillates (petroleum), hydrotreated light paraffinic (64742-55-8)	
LOAEL (oral, rat, 90 days)	125 mg/kg bodyweight/day Animal: rat, Animal sex: male, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol (95-38-5)	
NOAEL (oral, rat, 90 days)	20 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test), Guideline: other:
STOT-repeated exposure	May cause damage to organs (gastro-intestinal tract, thymus) through prolonged or repeated exposure (oral).
2-Naphthalenol, 1-[[4-(phenylazo)phenyl]azo]-, ar-heptyl ar',ar''-Me derivs. (92257-31-3)	
STOT-repeated exposure	May cause damage to organs (spleen, liver) through prolonged or repeated exposure (oral).

Aspiration hazard : Not classified

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Viscosity, kinematic	28 mm <sup>2</sup> /s @ 40°C (ASTM D7042)
Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)	
Viscosity, kinematic	≈ 98 mm <sup>2</sup> /s @ 40°C
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil (72623-87-1)	
Viscosity, kinematic	47 mm <sup>2</sup> /s
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based (72623-86-0)	
Viscosity, kinematic	2978 mm <sup>2</sup> /s 40°C
Thiophene, tetrahydro-, 1,1-dioxide, 3-(C9-11-isoalkyloxy) derivs., C10-rich (398141-87-2)	
Viscosity, kinematic	4.263 – 24.46 mm <sup>2</sup> /s
Distillates (petroleum), hydrotreated light paraffinic (64742-55-8)	
Viscosity, kinematic	< 20.5 mm <sup>2</sup> /s @40°C
Dimantine (124-28-7)	
Viscosity, kinematic	5.074 mm <sup>2</sup> /s
2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol (95-38-5)	
Viscosity, kinematic	35.85 mm <sup>2</sup> /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 (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Harmful to aquatic life with long lasting effects.

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<b>Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)</b>	
LC50 - Fish [1]	> 100 mg/l Pimephales promelas
EC50 - Crustacea [1]	> 10000 mg/l Daphnia magna
EC50 72h - Algae [1]	> 100 mg/l Pseudokirchneriella subcapitata
NOEC chronic fish	1000 mg/l Oncorhynchus mykiss (14d)
NOEC chronic crustacea	10 mg/l Daphnia magna (21d)
NOEC chronic algae	≥ 100 mg/l Pseudokirchneriella subcapitata (72h)
<b>Lubricating oils (petroleum), C20-50, hydrotreated neutral oil (72623-87-1)</b>	
LC50 - Fish [1]	> 100 mg/l Pimephales promelas
EC50 - Crustacea [1]	> 10000 Daphnia magna
NOEC chronic fish	1000 mg/l Oncorhynchus mykiss (14d)
NOEC chronic crustacea	10 mg/l Daphnia magna (21d)
NOEC chronic algae	100 mg/l Pseudokirchneriella subcapitata (72h)
<b>Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based (72623-86-0)</b>	
LC50 - Fish [1]	> 100 mg/l Pimephales promelas
EC50 - Crustacea [1]	> 10000 mg/l Daphnia magna
NOEC chronic fish	1000 mg/l Oncorhynchus mykiss (14d)
NOEC chronic crustacea	10 mg/l Daphnia magna (21d)
NOEC chronic algae	≥ 100 mg/l Pseudokirchneriella subcapitata (72h)
<b>Thiophene, tetrahydro-, 1,1-dioxide, 3-(C9-11-isoalkyloxy) derivs., C10-rich (398141-87-2)</b>	
LC50 - Fish [1]	2.4 mg/l Oncorhynchus mykiss (Rainbow trout)
LC50 - Fish [2]	3.3 mg/l Cyprinodon variegatus
EC50 - Crustacea [1]	4.6 mg/l Daphnia magna
EC50 72h - Algae [1]	63 mg/l Scenedesmus quadricauda
NOEC chronic fish	1 mg/l
NOEC chronic crustacea	0.63 mg/l
NOEC chronic algae	0.313 mg/l Scenedesmus quadricauda (3d)
<b>Distillates (petroleum), hydrotreated light paraffinic (64742-55-8)</b>	
LC50 - Fish [1]	> 100 mg/l Pimephales promelas
EC50 - Crustacea [1]	> 10000 mg/l Daphnia magna
EC50 72h - Algae [1]	> 100 mg/l Pseudokirchneriella subcapitata
NOEC chronic fish	1000 mg/l Oncorhynchus mykiss (14d)
NOEC chronic crustacea	10 mg/l Daphnia magna (21d)
NOEC chronic algae	≥ 100 mg/l Pseudokirchneriella subcapitata (72h)
<b>2,2'-(C16-18 (evennumbered, C18 unsaturated) alkyl imino) diethanol (61791-44-4)</b>	
LC50 - Fish [1]	0.1 mg/kg Brachydanio rerio
EC50 - Crustacea [1]	0.043 mg/l Daphnia magna
EC50 72h - Algae [1]	0.0538 mg/l Pseudokirchneriella subcapitata
ErC50 algae	0.0538 mg/l

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<b>2,2'-(C16-18 (evennumbered, C18 unsaturated) alkyl imino) diethanol (61791-44-4)</b>	
NOEC chronic crustacea	0.0107 mg/l Daphnia magna (21d)
NOEC chronic algae	0.0156 mg/l Pseudokirchneriella subcapitata (72h)
<b>Dimantine (124-28-7)</b>	
LC50 - Fish [1]	0.26 mg/l Danio rerio
EC50 - Crustacea [1]	0.0558 mg/l Daphnia magna
EC50 72h - Algae [1]	0.0165 mg/l
NOEC chronic crustacea	0.036 mg/l Daphnia magna (21d)
NOEC chronic algae	0.00256 mg/l (72h)
<b>2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol (95-38-5)</b>	
LC50 - Fish [1]	0.33 mg/l Brachydanio rerio (zebra-fish)
EC50 - Crustacea [1]	0.163 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	0.03 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
NOEC chronic algae	0.014 mg/l Desmodesmus subspicatus (72h)
<b>3-((C9-11-iso,C10-rich)alkyloxy)propan-1-amine</b>	
LC50 - Fish [1]	2.14 mg/l Danio rerio
EC50 - Crustacea [1]	1.05 mg/l
EC50 72h - Algae [1]	0.0544 mg/l
NOEC chronic crustacea	1.22 mg/l Daphnia magna (21d)
NOEC chronic algae	0.0421 mg/l Raphidocelis subcapitata (72h)
<b>12.2. Persistence and degradability</b>	
<b>Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)</b>	
Persistence and degradability	Not readily biodegradable.
Biodegradation	31 % OECD TG 301 F (28d)
<b>Lubricating oils (petroleum), C20-50, hydrotreated neutral oil (72623-87-1)</b>	
Biodegradation	31 %
<b>Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based (72623-86-0)</b>	
Persistence and degradability	Not readily biodegradable.
Biodegradation	31 % 28 d OECD 301F
<b>Thiophene, tetrahydro-, 1,1-dioxide, 3-(C9-11-isoalkyloxy) derivs., C10-rich (398141-87-2)</b>	
Persistence and degradability	Not readily biodegradable.
Biodegradation	9.6 % OECD TG 301 C (28d)
<b>Distillates (petroleum), hydrotreated light paraffinic (64742-55-8)</b>	
Biodegradation	31 % OECD TG 301 F (28d)
<b>2,2'-(C16-18 (evennumbered, C18 unsaturated) alkyl imino) diethanol (61791-44-4)</b>	
Persistence and degradability	Biodegradable.
Biodegradation	61 – 65 % OECD TG 301 D (28d)

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<b>Dimantine (124-28-7)</b>	
Persistence and degradability	Readily biodegradable.
Biodegradation	68 % OECD 301D (28d)
<b>2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol (95-38-5)</b>	
Persistence and degradability	Not readily biodegradable.
Biodegradation	< 20 % OECD 301F (28d)
<b>3-((C9-11-iso,C10-rich)alkyloxy)propan-1-amine</b>	
Persistence and degradability	Biodegradable.
Biodegradation	68 % OECD 301D
<b>2-Naphthalenol, 1-[[4-(phenylazo)phenyl]azo]-, ar-heptyl ar',ar''-Me derivs. (92257-31-3)</b>	
Persistence and degradability	Not readily biodegradable. May cause long-term adverse effects in the environment.
Biodegradation	6 % 28d - OECD richtlijn 301 B
<b>12.3. Bioaccumulative potential</b>	
<b>Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)</b>	
Partition coefficient n-octanol/water (Log Pow)	3.9 – 6
<b>Thiophene, tetrahydro-, 1,1-dioxide, 3-(C9-11-isoalkyloxy) derivs., C10-rich (398141-87-2)</b>	
Bioconcentration factor (BCF REACH)	27.54
Partition coefficient n-octanol/water (Log Kow)	4.1
Bioaccumulative potential	Bioaccumulative potential.
<b>Distillates (petroleum), hydrotreated light paraffinic (64742-55-8)</b>	
Partition coefficient n-octanol/water (Log Pow)	> 6
<b>2,2'-(C16-18 (evennumbered, C18 unsaturated) alkyl imino) diethanol (61791-44-4)</b>	
BCF - Fish [1]	110.2 mg/l
Partition coefficient n-octanol/water (Log Kow)	3.6
<b>Dimantine (124-28-7)</b>	
Partition coefficient n-octanol/water (Log Pow)	> 6.91
<b>2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol (95-38-5)</b>	
Partition coefficient n-octanol/water (Log Kow)	> 7
<b>3-((C9-11-iso,C10-rich)alkyloxy)propan-1-amine</b>	
Partition coefficient n-octanol/water (Log Pow)	-0.34 @25°C
<b>2-Naphthalenol, 1-[[4-(phenylazo)phenyl]azo]-, ar-heptyl ar',ar''-Me derivs. (92257-31-3)</b>	
Partition coefficient n-octanol/water (Log Kow)	≥ 4
Bioaccumulative potential	Not established.

### 12.4. Mobility in soil

<b>Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based (72623-86-0)</b>	
Ecology - soil	Adsorbs into the soil.

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### 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

Waste treatment methods

European List of Waste (LoW, EC 2000/532)

HP Code

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

: 13 02 06\* - synthetic engine, gear and lubricating oils

: HP5 - "Specific Target Organ Toxicity (STOT)/Aspiration Toxicity:" waste which can cause specific target organ toxicity either from a single or repeated exposure, or which cause acute toxic effects following aspiration.

HP14 - "Ecotoxic:" waste which presents or may present immediate or delayed risks for one or more sectors of the environment

## SECTION 14: Transport information

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

ADR	IMDG	IATA	ADN	RID
<b>14.1. UN number or ID number</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.2. UN proper shipping name</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.3. Transport hazard class(es)</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.4. Packing group</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.5. Environmental hazards</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
No supplementary information available				

### 14.6. Special precautions for user

#### Overland transport

Not applicable

#### Transport by sea

Not applicable

#### Air transport

Not applicable

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### 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

##### 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)

##### 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

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
	Supersedes	Modified	
	Revision date	Modified	
	Flammability (solid, gas)	Added	
1.2	Intended for general public	Added	
1.2	Function or use category	Added	
1.2	Main use category	Modified	

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Indication of changes			
Section	Changed item	Change	Comments
2.1	Adverse physicochemical, human health and environmental effects	Added	
2.1	Intended for general public	Added	
2.2	Precautionary statements (CLP)	Modified	
4.1	First-aid measures after skin contact	Added	
4.1	First-aid measures after inhalation	Added	
4.1	First-aid measures after ingestion	Added	
4.1	First-aid measures after eye contact	Added	
4.3	Other medical advice or treatment	Added	
5.1	Suitable extinguishing media	Added	
5.1	Unsuitable extinguishing media	Modified	
5.2	Hazardous decomposition products in case of fire	Added	
5.3	Protection during firefighting	Added	
5.3	Firefighting instructions	Added	
5.3	Precautionary measures fire	Added	
6.1	Protective equipment	Added	
6.1	Emergency procedures	Added	
6.1	Protective equipment	Added	
6.2	Environmental precautions	Added	
6.3	Methods for cleaning up	Added	
6.3	Other information	Added	
6.3	For containment	Added	
6.4	Reference to other sections (8, 13)	Added	
7.1	Precautions for safe handling	Modified	
7.1	Hygiene measures	Added	
7.1	Handling temperature	Added	
7.2	Storage conditions	Added	
7.2	Storage temperature	Modified	
7.2	Special rules on packaging	Added	
7.2	Storage area	Added	
7.2	Technical measures	Added	
8.2	Skin and body protection	Added	
8.2	Environmental exposure controls	Added	
8.2	Respiratory protection	Added	
8.2	Hand protection	Added	
8.2	Eye protection	Added	
8.2	Appropriate engineering controls	Added	
8.2	Personal protective equipment	Added	

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Indication of changes			
Section	Changed item	Change	Comments
9.1	Density	Modified	
9.1	Viscosity, kinematic	Modified	
10.1	Reactivity	Added	
10.2	Chemical stability	Added	
10.3	Possibility of hazardous reactions	Added	
10.4	Conditions to avoid	Added	
10.6	Hazardous decomposition products	Added	
12.1	Ecology - general	Added	
13.1	Waste treatment methods	Added	
15.2	Chemical safety assessment	Added	
16	Abbreviations and acronyms	Added	

Abbreviations and acronyms:	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer
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



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### Abbreviations and acronyms:

RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
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 (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 4	Hazardous to the aquatic environment – Chronic Hazard, Category 4
Asp. Tox. 1	Aspiration hazard, Category 1
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H361f	Suspected of damaging fertility.
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.
H413	May cause long lasting harmful effects to aquatic life.
Repr. 2	Reproductive toxicity, Category 2
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
Skin Corr. 1C	Skin corrosion/irritation, Category 1, Sub-Category 1C
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.