

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

#### 1.1. Product identifier

Product form : Mixture  
Product name : 76630 - Hydraulic Oil HV ZF 46  
Product code : 76630

#### 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 : Hydraulic fluids 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

Other hazards which do not result in classification : Flammable liquids. Prolonged or repeated skin contact with the material will remove natural oils which leads to a dermatitis. Spills of this product present a serious slipping hazard.

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]
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	$\geq 90$	Not classified
Distillates (petroleum), solvent-dewaxed 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.: 64742-65-0 EC-No.: 265-169-7 EC Index-No.: 649-474-00-6 REACH-no: 01-2119471299-27	$\geq 1 - < 5$	Not classified
Hydrocarbons, C10-C13, aromatics, <1% naphthalene substance with national workplace exposure limit(s) (AT, BE, CZ, DK, ES, GB, IE, LV, NL, RO, SE, CH); substance with a Community workplace exposure limit	EC-No.: 922-153-0 REACH-no: 01-2119451097-39	$\geq 0.1 - < 0.3$	Asp. Tox. 1, H304 Aquatic Chronic 2, H411 (M=0)
Amines, C16-18-(even numbered, saturated and unsaturated) alkyl, O,O-di-Bu phosphorothioates	EC-No.: 947-129-7 REACH-no: 01-2120759337-45	$< 0.1$	Eye Irrit. 2, H319 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 2, H411
N-Phenyl-1-naphthylamin substance with national workplace exposure limit(s) (DE, NL)	CAS-No.: 90-30-2 EC-No.: 201-983-0	$< 0.1$	Acute Tox. 4 (Oral), H302 Skin Sens. 1, H317 STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
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	$< 0.1$	Asp. Tox. 1, H304
Distillates (petroleum), solvent-refined heavy paraffinic substance with national workplace exposure limit(s) (BE, BG, CZ, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, LT, LV, NL, PL, PT, RO, SE, SI, SK, IS, NO, CH); substance with a Community workplace exposure limit	CAS-No.: 64741-88-4 EC-No.: 265-090-8 EC Index-No.: 649-454-00-7 REACH-no: 01-2119488706-23	$< 0.1$	Not classified

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Octylamine substance with national workplace exposure limit(s) (LV)	CAS-No.: 111-86-4 EC-No.: 203-916-0 REACH-no: 01-2119474880-31	< 0.1	Flam. Liq. 3, H226 Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 4 (Inhalation), H332 Skin Corr. 1A, H314 Eye Dam. 1, H318 STOT SE 3, H335 Aquatic Acute 1, H400 Aquatic Chronic 2, H411
1-naphthol substance with national workplace exposure limit(s) (LT, LV, RO)	CAS-No.: 90-15-3 EC-No.: 201-969-4 EC Index-No.: 604-029-00-5	< 0.1	Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Oral), H302 STOT SE 3, H335 Skin Irrit. 2, H315 Eye Dam. 1, H318

### Specific concentration limits:

Name	Product identifier	Specific concentration limits (%)
N-Phenyl-1-naphthylamin	CAS-No.: 90-30-2 EC-No.: 201-983-0	(10 ≤ C < 100) STOT RE 2, H373

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

Symptoms/effects	: After adequate first aid, no further treatment is required unless symptoms reappear.
Symptoms/effects after inhalation	: After adequate first aid, no further treatment is required unless symptoms reappear.
Symptoms/effects after skin contact	: After adequate first aid, no further treatment is required unless symptoms reappear.
Symptoms/effects after eye contact	: After adequate first aid, no further treatment is required unless symptoms reappear.
Symptoms/effects after ingestion	: After adequate first aid, no further treatment is required unless symptoms reappear.

### 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

Fire hazard	: Will ignite if exposed to intensive heat.
Explosion hazard	: Not expected to be a fire/explosion hazard under normal conditions of use. Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries.

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- Reactivity in case of fire : Incomplete combustion releases dangerous carbon monoxide, carbon dioxide and other toxic gases.
- Hazardous decomposition products in case of fire : Toxic fumes may be released.

### 5.3. Advice for firefighters

- Precautionary measures fire : Evacuate area.
- Firefighting instructions : Eliminate all ignition sources if safe to do so. 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 : Spill area may be slippery. Prevent soil and water pollution. Prevent entry to sewers and public waters.

#### 6.1.1. For non-emergency personnel

- Protective equipment : Wear recommended personal protective equipment.
- Emergency procedures : Ventilate spillage area. Evacuate unnecessary personnel. Avoid any direct contact with the product. Stop leaks if it can be done without personal risk.

#### 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 : For large spills, confine the spill in a dike and charge it with wet sand or earth for subsequent safe disposal.
- Methods for cleaning up : Take up liquid spill into absorbent material. Clear up spills immediately and dispose of waste safely. Sweep or shovel spills into appropriate container for disposal. This material and its container must be disposed of in a safe way, and as per local legislation. May be reused following decontamination. Clean contaminated surfaces with an excess of water.
- Other information : Dispose of materials or solid residues at an authorized site.

### 6.4. Reference to other sections

For further information refer to section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

- Additional hazards when processed : Empty containers retain product residue and can be hazardous.
- Precautions for safe handling : Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Do not ingest. Do not breathe fumes from fires or vapours from decomposition. Avoid breathing dust, fume, gas, mist, spray, vapours. Ensure good ventilation of the work station. Spilled material may present a slipping hazard. Clean spills promptly.
- Handling temperature : ≤ 40 °C
- Hygiene measures : Routine housekeeping should be instituted. 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.

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Storage conditions	: Store in a well-ventilated place. Keep cool. Store away from oxidising agents. Protect from sunlight. Store in original container. Always keep in containers made of the same material as the supply container. Do not store in open, inadequate, mislabeled packaging. Opened containers must be carefully closed and kept upright to avoid leakage. Empty containers should be taken for recycling, recovery or waste in accordance with local regulation. Empty containers retain product residue and can be hazardous.
Storage temperature	: ≤ 40 °C
Information on mixed storage	: Store away from strong oxidizers, strong bases, strong acids.
Storage area	: Store at ambient temperature.
Special rules on packaging	: Keep container tightly closed and dry.

### 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), solvent-dewaxed heavy paraffinic (64742-65-0)	
EU - Indicative Occupational Exposure Limit (IOEL)	
IOEL TWA	5 mg/m <sup>3</sup>
IOEL STEL	10 mg/m <sup>3</sup>
United Kingdom - Occupational Exposure Limits	
WEL TWA (OEL TWA) [1]	5 mg/m <sup>3</sup>
WEL STEL (OEL STEL)	10 mg/m <sup>3</sup>
Hydrocarbons, C10-C13, aromatics, <1% naphthalene	
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>
WEL STEL (OEL STEL)	10 mg/m <sup>3</sup>
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), C15-30, hydrotreated neutral oil-based (72623-86-0)	
EU - Indicative Occupational Exposure Limit (IOEL)	
IOEL TWA	5 mg/m <sup>3</sup>
Distillates (petroleum), solvent-refined heavy paraffinic (64741-88-4)	
EU - Indicative Occupational Exposure Limit (IOEL)	
IOEL TWA	5 mg/m <sup>3</sup>
IOEL STEL	10 mg/m <sup>3</sup>

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### Distillates (petroleum), solvent-refined heavy paraffinic (64741-88-4)

#### United Kingdom - Occupational Exposure Limits

WEL TWA (OEL TWA) [1]	5 mg/m <sup>3</sup>
WEL STEL (OEL STEL)	10 mg/m <sup>3</sup>

#### 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

#### 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
	Nitrile rubber (NBR), Neoprene rubber (HNBR)	5 (> 240 minutes)	0.7	3 (> 0.65)	EN ISO 374
	Polyvinylchloride (PVC)	2 (> 30 minutes)	0.4	3 (> 0.65)	EN ISO 374

##### 8.2.2.3. Respiratory protection

##### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

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### 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	: light yellow.
Odour	: Not available
Odour threshold	: Not available
Melting point	: Not applicable
Freezing point	: -42 °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	: 45 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	: 863 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

#### 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

Oxidizing agent.

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### 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

#### Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)

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) (Vapours - mg/l/4h)	> 5.53 mg/l/4h 403 Acute Inhalation Toxicity Test

#### Hydrocarbons, C10-C13, aromatics, <1% naphthalene

LD50 oral (rat)	> 6318 mg/kg OECD TG 401
LD50 dermal (rat)	> 2000 mg/kg OECD TG 402
LC50 inhalation (rat) (Dust/Mist - mg/l/4h)	> 4.778 mg/l/4h OECD TG 403

#### Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)

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

#### Amines, C16-18-(even numbered, saturated and unsaturated) alkyl, O,O-di-Bu phosphorothioates

LD50 oral (rat)	> 2000 mg/kg
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#### N-Phenyl-1-naphthylamin (90-30-2)

LD50 oral (rat)	1625 mg/kg Animal: rat, Animal sex: male, 95% CL: 1201 - 2197
LD50 dermal (rabbit)	> 5000 mg/kg

#### Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based (72623-86-0)

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

#### Distillates (petroleum), solvent-refined heavy paraffinic (64741-88-4)

LD50 oral (rat)	> 5000 mg/kg
LD50 dermal (rabbit)	> 2000 mg/kg
LC50 inhalation (rat) (mg/l)	> 5000 mg/m <sup>3</sup>
LC50 inhalation (rat) (Vapours - mg/l/4h)	5.53 mg/l/4h

#### Octylamine (111-86-4)

LD50 oral (rat)	200 mg/kg bw/day
LD50 dermal (rabbit)	200 – 2000 mg/kg



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<b>Octylamine (111-86-4)</b>	
LC50 inhalation (rat) (Dust/Mist - mg/l/4h)	1.6 mg/l/4h
<b>1-naphtol (90-15-3)</b>	
LD50 oral (rat)	1870 mg/kg
LD50 dermal (rabbit)	880 mg/kg
LC50 inhalation (rat) (Dust/Mist - mg/l/4h)	> 97 mg/l/4h
Skin corrosion/irritation	: Not classified
<b>Octylamine (111-86-4)</b>	
pH	11.8 Temp.: 25 °C Concentration: 10 other:g / 100 ml
Serious eye damage/irritation	: Not classified
<b>Octylamine (111-86-4)</b>	
pH	11.8 Temp.: 25 °C Concentration: 10 other:g / 100 ml
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
<b>N-Phenyl-1-naphthylamin (90-30-2)</b>	
NOAEL (animal/male, F0/P)	< 40 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: EPA OPP 83-4 (Reproduction and Fertility Effects), Guideline: EU Method B.35 (Two-Generation Reproduction Toxicity Test)
NOAEL (animal/female, F0/P)	< 46 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: EPA OPP 83-4 (Reproduction and Fertility Effects), Guideline: EU Method B.35 (Two-Generation Reproduction Toxicity Test)
<b>Octylamine (111-86-4)</b>	
NOAEL (animal/male, F0/P)	100 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
NOAEL (animal/female, F0/P)	100 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
STOT-single exposure	: Not classified
<b>Octylamine (111-86-4)</b>	
STOT-single exposure	May cause respiratory irritation.
<b>1-naphtol (90-15-3)</b>	
STOT-single exposure	May cause respiratory irritation.
STOT-repeated exposure	: Not classified
<b>Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)</b>	
LOAEL (oral, rat, 90 days)	125 mg/kg bodyweight
<b>Hydrocarbons, C10-C13, aromatics, &lt;1% naphthalene</b>	
NOAEL (oral, rat, 90 days)	300 mg/kg bodyweight OECD Guideline 408
NOAEL (subchronic, oral, animal/male, 90 days)	300 mg/kg bodyweight
<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

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<b>N-Phenyl-1-naphthylamin (90-30-2)</b>	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
<b>Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based (72623-86-0)</b>	
LOAEL (oral, rat, 90 days)	125 mg/kg bodyweight
<b>1-naphthol (90-15-3)</b>	
NOAEL (subchronic, oral, animal/male, 90 days)	130 mg/kg bodyweight
Aspiration hazard	: Not classified
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Viscosity, kinematic	45 mm <sup>2</sup> /s @ 40°C (ASTM D7042)
<b>Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)</b>	
Viscosity, kinematic	150 (1.99 – 847) mm <sup>2</sup> /s @40°C
<b>Hydrocarbons, C10-C13, aromatics, &lt;1% naphthalene</b>	
Viscosity, kinematic	4.25 mm <sup>2</sup> /s
<b>Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)</b>	
Viscosity, kinematic	≈ 98 mm <sup>2</sup> /s @ 40°C
<b>Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based (72623-86-0)</b>	
Viscosity, kinematic	2978 mm <sup>2</sup> /s 40°C
<b>Distillates (petroleum), solvent-refined heavy paraffinic (64741-88-4)</b>	
Viscosity, kinematic	28.51 mm <sup>2</sup> /s @40°C
<b>Octylamine (111-86-4)</b>	
Viscosity, kinematic	1.756 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.

<b>Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)</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>Hydrocarbons, C10-C13, aromatics, &lt;1% naphthalene</b>	
LC50 - Fish [1]	3.6 mg/l Oncorhynchus mykiss (OECD 203)

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<b>Hydrocarbons, C10-C13, aromatics, &lt;1% naphthalene</b>	
EC50 - Crustacea [1]	1.1 mg/l OECD 202
ErC50 algae	3.8 mg/l 72h (Pseudokirchneriella subcapitata, OECD 201)
NOEC chronic fish	0.103 mg/l 28 d (PETROTOX QSAR)
NOEC chronic crustacea	0.179 mg/l 21 d (Daphnia magna, OECD 211)
NOEC chronic algae	0.179 mg/l 72h (Pseudokirchneriella subcapitata, OECD 201)
<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>Amines, C16-18-(even numbered, saturated and unsaturated) alkyl, O,O-di-Bu phosphorothioates</b>	
LC50 - Fish [1]	0.028 mg/l Oncorhynchus mykiss
EC50 - Crustacea [1]	0.071 mg/l Daphnia magna
EC50 72h - Algae [1]	0.028 mg/l Pseudokirchneriella subcapitata
NOEC chronic algae	0.025 mg/l Pseudokirchneriella subcapitata (72h)
<b>N-Phenyl-1-naphthylamin (90-30-2)</b>	
LC50 - Fish [1]	0.44 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
EC50 - Crustacea [1]	0.3 mg/l Daphnia magna
EC50 96h - Algae [1]	0.93 mg/l Pseudokirchneriella subcapitata
NOEC chronic crustacea	0.032 mg/l Daphnia magna (21d)
NOEC chronic algae	0.032 mg/l Daphnia magna (21d)
<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>Distillates (petroleum), solvent-refined heavy paraffinic (64741-88-4)</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>Octylamine (111-86-4)</b>	
LC50 - Fish [1]	5.19 mg/l Pimephales promelas

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<b>Octylamine (111-86-4)</b>	
EC50 - Crustacea [1]	1.9 mg/l Daphnia magna
EC50 72h - Algae [1]	0.23 mg/l Desmodesmus subspicatus
NOEC chronic algae	0.07 mg/l Desmodesmus subspicatus (72h)
<b>1-naphthol (90-15-3)</b>	
LC50 - Fish [1]	0.33 mg/l M. cavasius
EC50 - Crustacea [1]	2.51 mg/l Daphnia magna
EC50 72h - Algae [1]	> 2.18 mg/l Pseudokirchneriella subcapitata
NOEC chronic crustacea	0.25 mg/l Daphnia magna (21d)
NOEC chronic algae	> 2.18 mg/l Pseudokirchneriella subcapitata (72h)
<b>12.2. Persistence and degradability</b>	
<b>Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)</b>	
Biodegradation	31 % OECD 301F (28d)
<b>Hydrocarbons, C10-C13, aromatics, &lt;1% naphthalene</b>	
Persistence and degradability	Readily biodegradable.
Biodegradation	70 % 28d OECD 301F
<b>Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)</b>	
Persistence and degradability	Not readily biodegradable.
Biodegradation	31 % OECD TG 301 F (28d)
<b>Amines, C16-18-(even numbered, saturated and unsaturated) alkyl, O,O-di-Bu phosphorothioates</b>	
Biodegradation	75 % 28D
<b>N-Phenyl-1-naphthylamin (90-30-2)</b>	
Persistence and degradability	Not readily biodegradable.
Biodegradation	0 % 28d
<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>Distillates (petroleum), solvent-refined heavy paraffinic (64741-88-4)</b>	
Persistence and degradability	Not readily biodegradable.
Biodegradation	31 % OECD 301F (28d)
<b>Octylamine (111-86-4)</b>	
Persistence and degradability	Readily biodegradable.
Biodegradation	99 % 11d
<b>1-naphthol (90-15-3)</b>	
Biodegradation	77.8 % OECD 301B (29d)

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### 12.3. Bioaccumulative potential

#### Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)

Bioconcentration factor (BCF REACH)	260
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#### Hydrocarbons, C10-C13, aromatics, <1% naphthalene

Bioconcentration factor (BCF REACH)	5780
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Partition coefficient n-octanol/water (Log Pow)	6.5
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#### Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)

Partition coefficient n-octanol/water (Log Pow)	3.9 – 6
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#### N-Phenyl-1-naphthylamin (90-30-2)

Bioconcentration factor (BCF REACH)	1424
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Partition coefficient n-octanol/water (Log Pow)	4.28
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#### Distillates (petroleum), solvent-refined heavy paraffinic (64741-88-4)

Partition coefficient n-octanol/water (Log Pow)	3.9 – 6
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#### Octylamine (111-86-4)

Partition coefficient n-octanol/water (Log Pow)	2.9
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#### 1-naphthol (90-15-3)

Partition coefficient n-octanol/water (Log Pow)	2.85
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### 12.4. Mobility in soil

#### Hydrocarbons, C10-C13, aromatics, <1% naphthalene

Organic Carbon Normalized Adsorption Coefficient (Log Koc)	3.11 @ 20°C
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#### Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based (72623-86-0)

Ecology - soil	Adsorbs into the soil.
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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.
Sewage disposal recommendations	: Disposal must be done according to official regulations.
Product/Packaging disposal recommendations	: Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
European List of Waste (LoW, EC 2000/532)	: 13 01 10* - mineral based non-chlorinated hydraulic oils

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HP Code : HP3 - "Flammable:"

- flammable liquid waste: liquid waste having a flash point below 60 °C or waste gas oil, diesel and light heating oils having a flash point > 55 °C and ≤ 75 °C;
- flammable pyrophoric liquid and solid waste: solid or liquid waste which, even in small quantities, is liable to ignite within five minutes after coming into contact with air;
- flammable solid waste: solid waste which is readily combustible or may cause or contribute to fire through friction;
- flammable gaseous waste: gaseous waste which is flammable in air at 20 °C and a standard pressure of 101.3 kPa;
- water reactive waste: waste which, in contact with water, emits flammable gases in dangerous quantities;
- other flammable waste: flammable aerosols, flammable self-heating waste, flammable organic peroxides and flammable self-reactive waste.

### 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 regulated for transport				
<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>				
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No	Dangerous for the environment: No	Dangerous for the environment: No
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

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### 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
	Revision date	Modified	
	Supersedes	Modified	
2.1	Adverse physicochemical, human health and environmental effects	Modified	
2.1	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Added	
2.2	Hazard statements (CLP)	Added	
2.2	Precautionary statements (CLP)	Added	
3	Composition/information on ingredients	Modified	
5.2	Explosion hazard	Added	
5.2	Fire hazard	Added	
5.2	Reactivity in case of fire	Added	
5.3	Precautionary measures fire	Modified	
5.3	Firefighting instructions	Modified	

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Indication of changes			
Section	Changed item	Change	Comments
6.1	Emergency procedures	Modified	
6.1	General measures	Added	
6.3	For containment	Modified	
6.3	Methods for cleaning up	Modified	
7.1	Hygiene measures	Modified	
7.1	Precautions for safe handling	Modified	
7.1	Additional hazards when processed	Added	
7.2	Special rules on packaging	Modified	
7.2	Storage area	Modified	
7.2	Storage conditions	Modified	
7.2	Information on mixed storage	Added	
10.5	Incompatible materials	Added	
12.1	Ecology - general	Modified	
13.1	European List of Waste (LoW, EC 2000/532)	Added	
13.1	Sewage disposal recommendations	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



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### Abbreviations and acronyms:

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
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. 3 (Dermal)	Acute toxicity (dermal), Category 3
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2
Asp. Tox. 1	Aspiration hazard, Category 1
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H311	Toxic in contact with skin.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.

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Full text of H- and EUH-statements:	
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
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.
Skin Corr. 1A	Skin corrosion/irritation, Category 1, Sub-Category 1A
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
STOT RE 2	Specific target organ toxicity – Repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation

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.