



# KNITTING OIL ISO 32

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878  
Issue date: 4/19/2012 Revision date: 4/3/2025 Version: 1.3

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

#### 1.1. Product identifier

Product form : Mixture  
Product name : KNITTING OIL ISO 32  
Product code : 5666

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

##### Relevant identified uses

Use of the substance/mixture : Lubricants and additives

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

##### Manufacturer

Millers Oils Ltd  
Hillside Oilworks  
Rastrick Common  
HD6 3DP Brighouse, West Yorkshire  
United Kingdom  
T +44 (0)1484 713201, F +44 (0)1484 721263  
[h.s@millersoils.co.uk](mailto:h.s@millersoils.co.uk)

#### 1.4. Emergency telephone number

Emergency number : 112

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

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

Corrosive to metals, Category 1 H290  
Serious eye damage/eye irritation, Category 2 H319  
Full text of H- and EUH-statements: see section 16

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

May be corrosive to metals. Causes serious eye irritation.

#### 2.2. Label elements

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

Hazard pictograms (CLP) :



GHS05

Signal word (CLP) :

Warning

Hazard statements (CLP) :

H290 - May be corrosive to metals.  
H319 - Causes serious eye irritation.

Precautionary statements (CLP) :

P264 - Wash hands, forearms and face thoroughly after handling.  
P280 - Wear protective clothing, eye protection, face protection.  
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P337+P313 - If eye irritation persists: Get medical advice/attention.  
P501 - Dispose of container, contents to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.  
P405 - Store locked up.

EUH-statements :

EUH208 - Contains NAPHTHENIC ACID(1338-24-5). May produce an allergic reaction.

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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

### 3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
DISTILLATES (PETROLEUM) HYDROTREATED LIGHT NAPHTHENIC	CAS-No.: 64742-53-6 EC-No.: 265-156-6 REACH-no: 01-2119480375-34	$\geq 30 - < 70$	Asp. Tox. 1, H304
DISTILLATES (PETROLEUM) HYDROTREATED HEAVY PARAFFINIC substance with national workplace exposure limit(s) (AT, BE, CZ, DE, EE, ES, FI, FR, GB, GR, HR, IE, IT, LV, NL, PL, PT, SI, CH); substance with a Community workplace exposure limit	CAS-No.: 64742-54-7 EC-No.: 265-157-1 REACH-no: 01-2119484627-25	$\geq 1 - < 10$	Not classified
Isotridecanol, Ethoxylated (90-100%)	CAS-No.: 69011-36-5 EC-No.: 931-138-8 REACH-no: Exempt under article 2 (9)	$\geq 1 - < 10$	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318
Distillates (petroleum), solvent-dewaxed heavy paraffinic	CAS-No.: 64742-65-0 EC-No.: 265-169-7	$< 10$	Asp. Tox. 1, H304
Amides, C18-unsatd., N,N-bis(hydroxyethyl)	CAS-No.: 93-83-4 EC-No.: 700-972-2	$< 10$	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Aquatic Chronic 2, H411
2,2'-iminodiethanol; diethanolamine substance with national workplace exposure limit(s) (BE, BG, CZ, DE, DK, EE, ES, FI, FR, GR, HR, IE, LT, PL, PT, SE, SI, IS, NO, CH)	CAS-No.: 111-42-2 EC-No.: 203-868-0 EC Index-No.: 603-071-00-1 REACH-no: 01-2119488930-28	$< 1$	Acute Tox. 4 (Oral), H302 STOT RE 2, H373 Skin Irrit. 2, H315 Eye Dam. 1, H318
NAPHTHENIC ACID	CAS-No.: 1338-24-5 EC-No.: 215-662-8 REACH-no: 01-2119552477-31	$< 1$	Skin Irrit. 2, H315 Skin Sens. 1, H317 Eye Irrit. 2, H319
CAUSTIC LIQUOR 17-19% substance with national workplace exposure limit(s) (BE, BG, CZ, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, LT, LV, PL, PT, SE, SK, IS, NO, CH)	CAS-No.: 1310-73-2 EC-No.: 215-185-5 EC Index-No.: 011-002-00-6 REACH-no: 01-2119457892-27	$< 1$	Met. Corr. 1, H290 Skin Corr. 1A, H314 Eye Dam. 1, H318

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Specific concentration limits:		
Name	Product identifier	Specific concentration limits (%)
CAUSTIC LIQUOR 17-19%	CAS-No.: 1310-73-2 EC-No.: 215-185-5 EC Index-No.: 011-002-00-6 REACH-no: 01-2119457892-27	(0.5 ≤ C ≤ 2) Skin Irrit. 2; H315 (0.5 ≤ C ≤ 2) Eye Irrit. 2; H319 (2 ≤ C ≤ 5) Skin Corr. 1B; H314 (5 ≤ C < 100) Skin Corr. 1A; H314

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

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general	: If you feel unwell, seek medical advice.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Take off contaminated clothing and wash it before reuse. Wash skin with plenty of water.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Get medical advice/attention if you feel unwell. Rinse mouth. Do not induce vomiting.
First-aid measures for first aider	: First aid workers will be equipped with suitable personal protective equipment.

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

Symptoms/effects after inhalation	: None under normal use.
Symptoms/effects after skin contact	: None under normal conditions.
Symptoms/effects after eye contact	: Eye irritation.
Symptoms/effects after ingestion	: None under normal conditions.

### 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	: Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media	: Strong water jet.

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

Fire hazard	: No fire hazard.
Explosion hazard	: No direct explosion hazard.
Hazardous decomposition products in case of fire	: Toxic fumes may be released.

### 5.3. Advice for firefighters

Firefighting instructions	: Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection.
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	: Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material damage.
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### For non-emergency personnel

- Protective equipment : Wear recommended personal protective equipment.  
Emergency procedures : Ventilate spillage area. See section 8 of the SDS for more information on personal protective equipment. Avoid contact with skin and eyes.

### 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".  
Emergency procedures : Evacuate unnecessary personnel. Stop leak if safe to do so.

## 6.2. Environmental precautions

Avoid release to the environment.

## 6.3. Methods and material for containment and cleaning up

- For containment : Absorb spilled material with sand or earth. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak without risks if possible.  
Methods for cleaning up : This material and its container must be disposed of in a safe way, and as per local legislation. Absorb spilled material with sand or earth.  
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 : Not expected to present a significant hazard under anticipated conditions of normal use.  
Precautions for safe handling : Ensure good ventilation of the work station. Avoid contact with skin and eyes. Wear personal protective equipment.  
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 : Keep in a cool, well-ventilated place away from heat.  
Storage conditions : Store in corrosive resistant container with a resistant inner liner. Keep only in original container.  
Packaging materials : Store always product in container of same material as original container.

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### 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>
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#### DNEL and PNEC

#### DISTILLATES (PETROLEUM) HYDROTREATED LIGHT NAPHTHENIC (64742-53-6)

##### DNEL/DMEL (Workers)

Long-term - systemic effects, dermal	0.97 mg/kg bodyweight/day
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<b>DISTILLATES (PETROLEUM) HYDROTREATED LIGHT NAPHTHENIC (64742-53-6)</b>	
Long-term - systemic effects, inhalation	2.73 mg/m <sup>3</sup>
Long-term - local effects, inhalation	5.58 mg/m <sup>3</sup>
<b>DNEL/DMEL (General population)</b>	
Long-term - systemic effects,oral	0.74 mg/kg bodyweight/day
<b>PNEC (Oral)</b>	
PNEC oral (secondary poisoning)	9.33 mg/kg food
<b>DISTILLATES (PETROLEUM) HYDROTREATED HEAVY PARAFFINIC (64742-54-7)</b>	
<b>DNEL/DMEL (Workers)</b>	
Long-term - systemic effects, dermal	0.97 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	2.73 mg/m <sup>3</sup>
Long-term - local effects, inhalation	5.58 mg/m <sup>3</sup>
<b>DNEL/DMEL (General population)</b>	
Long-term - systemic effects,oral	0.74 mg/kg bodyweight/day
<b>PNEC (Oral)</b>	
PNEC oral (secondary poisoning)	9.33 mg/kg food
<b>Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)</b>	
<b>DNEL/DMEL (Workers)</b>	
Long-term - systemic effects, dermal	0.97 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	2.73 mg/m <sup>3</sup>
Long-term - local effects, inhalation	5.58 mg/m <sup>3</sup>
<b>DNEL/DMEL (General population)</b>	
Long-term - systemic effects,oral	0.74 mg/kg bodyweight/day
<b>PNEC (Oral)</b>	
PNEC oral (secondary poisoning)	9.33 mg/kg food
<b>NAPHTHENIC ACID (1338-24-5)</b>	
<b>DNEL/DMEL (Workers)</b>	
Long-term - systemic effects, dermal	15.1 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	21.3 mg/m <sup>3</sup>
<b>DNEL/DMEL (General population)</b>	
Long-term - systemic effects,oral	1.51 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	5.25 mg/m <sup>3</sup>
Long-term - systemic effects, dermal	7.55 mg/kg bodyweight/day
<b>PNEC (Water)</b>	
PNEC aqua (freshwater)	5.62 µg/l
PNEC aqua (marine water)	0.562 µg/l
PNEC aqua (intermittent, freshwater)	56.2 µg/l
PNEC aqua (intermittent, marine water)	5.62 µg/l

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<b>NAPHTHENIC ACID (1338-24-5)</b>	
<b>PNEC (Sediment)</b>	
PNEC sediment (freshwater)	28.2 mg/kg dwt
PNEC sediment (marine water)	2.82 mg/kg dwt
<b>PNEC (Soil)</b>	
PNEC soil	5.61 mg/kg dwt
<b>PNEC (STP)</b>	
PNEC sewage treatment plant	0.13 mg/l
<b>CAUSTIC LIQUOR 17-19% (1310-73-2)</b>	
<b>DNEL/DMEL (Workers)</b>	
Long-term - local effects, inhalation	1 mg/m <sup>3</sup>
<b>DNEL/DMEL (General population)</b>	
Long-term - local effects, inhalation	1 mg/m <sup>3</sup>
<b>Amides, C18-unsatd., N,N-bis(hydroxyethyl) (93-83-4)</b>	
<b>DNEL/DMEL (Workers)</b>	
Long-term - systemic effects, dermal	4.16 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	73.44 mg/m <sup>3</sup>
<b>DNEL/DMEL (General population)</b>	
Long-term - systemic effects,oral	6.25 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	21.73 mg/m <sup>3</sup>
Long-term - systemic effects, dermal	2.5 mg/kg bodyweight/day
<b>PNEC (Water)</b>	
PNEC aqua (freshwater)	0.007 mg/l
PNEC aqua (marine water)	0.0007 mg/l
PNEC aqua (intermittent, freshwater)	0.032 mg/l
<b>PNEC (Sediment)</b>	
PNEC sediment (freshwater)	1.227 mg/kg dwt
PNEC sediment (marine water)	0.1227 mg/kg dwt
<b>PNEC (Soil)</b>	
PNEC soil	0.2406 mg/kg dwt
<b>PNEC (STP)</b>	
PNEC sewage treatment plant	830 mg/l
<b>2,2'-iminodiethanol; diethanolamine (111-42-2)</b>	
<b>DNEL/DMEL (Workers)</b>	
Long-term - systemic effects, dermal	0.13 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	0.75 mg/m <sup>3</sup>
Long-term - local effects, inhalation	0.5 mg/m <sup>3</sup>
<b>DNEL/DMEL (General population)</b>	
Long-term - systemic effects,oral	0.06 mg/kg bodyweight/day

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<b>2,2'-iminodiethanol; diethanolamine (111-42-2)</b>	
Long-term - systemic effects, inhalation	0.125 mg/m <sup>3</sup>
Long-term - systemic effects, dermal	0.07 mg/kg bodyweight/day
Long-term - local effects, inhalation	0.125 mg/m <sup>3</sup>
<b>PNEC (Water)</b>	
PNEC aqua (freshwater)	0.021 mg/l
PNEC aqua (marine water)	0.002 mg/l
PNEC aqua (intermittent, freshwater)	0.095 mg/l
<b>PNEC (Sediment)</b>	
PNEC sediment (freshwater)	0.096 mg/kg dwt
PNEC sediment (marine water)	0.0092 mg/kg dwt
<b>PNEC (Soil)</b>	
PNEC soil	1.63 mg/kg dwt
<b>PNEC (Oral)</b>	
PNEC oral (secondary poisoning)	1.04 mg/kg food
<b>PNEC (STP)</b>	
PNEC sewage treatment plant	100 mg/l

## 8.2. Exposure controls

### Appropriate engineering controls

#### Appropriate engineering controls:

Ensure good ventilation of the work station.

### Personal protection equipment

#### Personal protective equipment:

Wear recommended personal protective equipment.

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



### Eye and face protection

#### Eye protection:

Protective goggles (EN 166)

### Skin protection

#### Skin and body protection:

Wear suitable protective clothing

#### Hand protection:

Protective gloves

### Respiratory protection

#### Respiratory protection:

No respiratory protection needed under normal use conditions

### Environmental exposure controls

#### Environmental exposure controls:

Avoid release to the environment.

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### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Colourless.
Odour	: Not available
Odour threshold	: Not available
Melting point	: Not applicable
Freezing point	: Not available
Boiling point	: Not available
Flammability	: Non flammable.
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: > 150 °C
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
pH	: 8.7
Viscosity, kinematic	: 32 mm <sup>2</sup> /s @40oC
Solubility	: Insoluble.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50°C	: Not available
Density	: Not available
Relative density	: 0.909 @15oC
Relative vapour density at 20°C	: Not available
Particle characteristics	: Not applicable

#### 9.2. Other information

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

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

#### 10.5. Incompatible materials

Strong acids. Strong bases.

#### 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

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<b>DISTILLATES (PETROLEUM) HYDROTREATED LIGHT NAPHTHENIC (64742-53-6)</b>	
LD50 oral rat	> 5000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LD50 dermal	> 2000 mg/kg
<b>DISTILLATES (PETROLEUM) HYDROTREATED HEAVY PARAFFINIC (64742-54-7)</b>	
LD50 oral rat	> 5000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LD50 dermal rabbit	> 5000 mg/kg
LC50 Inhalation - Rat (Dust/Mist)	> 5.53 mg/l/4h
<b>Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)</b>	
LD50 oral rat	> 5000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
<b>Amides, C18-unsatd., N,N-bis(hydroxyethyl) (93-83-4)</b>	
LD50 oral rat	≈ 10000 mg/kg bodyweight Animal: rat, Animal sex: male
LD50 dermal rabbit	> 2000 mg/kg bodyweight Animal: rabbit, Guideline: other:
Skin corrosion/irritation	: Not classified pH: 8.7
Serious eye damage/irritation	: Causes serious eye irritation. pH: 8.7
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
<b>2,2'-iminodiethanol; diethanolamine (111-42-2)</b>	
NOAEL (chronic, oral, animal/male, 2 years)	64 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 451 (Carcinogenicity Studies)
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
<b>DISTILLATES (PETROLEUM) HYDROTREATED LIGHT NAPHTHENIC (64742-53-6)</b>	
LOAEL (oral, rat, 90 days)	125 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)
NOAEC (inhalation, rat, dust/mist/fume, 90 days)	> 0.98 mg/l air Animal: rat, Guideline: OECD Guideline 412 (Subacute Inhalation Toxicity: 28-Day Study)
<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 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)
NOAEC (inhalation, rat, dust/mist/fume, 90 days)	> 0.98 mg/l air Animal: rat, Guideline: OECD Guideline 412 (Subacute Inhalation Toxicity: 28-Day Study)
<b>Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)</b>	
LOAEL (oral, rat, 90 days)	125 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)
NOAEC (inhalation, rat, dust/mist/fume, 90 days)	> 0.98 mg/l air Animal: rat, Guideline: OECD Guideline 412 (Subacute Inhalation Toxicity: 28-Day Study)

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<b>NAPHTHENIC ACID (1338-24-5)</b>	
NOAEL (oral, rat, 90 days)	302 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)
<b>Amides, C18-unsatd., N,N-bis(hydroxyethyl) (93-83-4)</b>	
LOAEL (dermal, rat/rabbit, 90 days)	50 mg/kg bodyweight Animal: rat
NOAEL (oral, rat, 90 days)	1000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
<b>2,2'-iminodiethanol; diethanolamine (111-42-2)</b>	
LOAEL (dermal, rat/rabbit, 90 days)	32 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 411 (Subchronic Dermal Toxicity: 90-Day Study)
NOAEC (inhalation, rat, dust/mist/fume, 90 days)	0.003 mg/l air Animal: rat, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study)
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	: Not classified
<b>KNITTING OIL ISO 32</b>	
Viscosity, kinematic	32 mm <sup>2</sup> /s @40oC
<b>DISTILLATES (PETROLEUM) HYDROTREATED HEAVY PARAFFINIC (64742-54-7)</b>	
Viscosity, kinematic	15 – 21 mm <sup>2</sup> /s @40oC
<b>11.2. Information on other hazards</b>	
<b>Endocrine disrupting properties</b>	
Adverse health effects caused by endocrine disrupting properties	: 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 %
<b>SECTION 12: Ecological information</b>	
<b>12.1. Toxicity</b>	
Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified
<b>DISTILLATES (PETROLEUM) HYDROTREATED LIGHT NAPHTHENIC (64742-53-6)</b>	
LC50 - Fish [1]	> 100 mg/l
EC50 - Other aquatic organisms [1]	> 100 mg/l
<b>Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)</b>	
EC50 - Other aquatic organisms [1]	> 10000 mg/l
<b>NAPHTHENIC ACID (1338-24-5)</b>	
LC50 - Fish [1]	≈ 5.62 mg/l Test organisms (species): Pimephales promelas
EC50 - Crustacea [1]	≈ 20 mg/l Test organisms (species): Daphnia magna

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<b>NAPHTHENIC ACID (1338-24-5)</b>	
EC50 72h - Algae [1]	≈ 29.6 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)
EC50 72h - Algae [2]	≈ 17.7 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)
EC50 96h - Algae [1]	≈ 29.9 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)
EC50 96h - Algae [2]	≈ 18.1 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)
NOEC (chronic)	4.1 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
<b>CAUSTIC LIQUOR 17-19% (1310-73-2)</b>	
EC50 - Crustacea [1]	40.4 mg/l Test organisms (species): Ceriodaphnia sp.
<b>Amides, C18-unsatd., N,N-bis(hydroxyethyl) (93-83-4)</b>	
LC50 - Fish [1]	≈ 5.1 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)
EC50 - Crustacea [1]	≈ 3.2 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	≈ 18.6 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
EC50 72h - Algae [2]	≈ 23.4 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
LOEC (chronic)	≈ 0.32 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	≈ 0.1 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic fish	≈ 0.32 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri) Duration: '28 d'
<b>2,2'-iminodiethanol; diethanolamine (111-42-2)</b>	
LC50 - Fish [1]	460 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
EC50 - Crustacea [1]	30.1 mg/l Test organisms (species): Ceriodaphnia dubia
EC50 - Crustacea [2]	89.9 mg/l Test organisms (species): Ceriodaphnia dubia
LOEC (chronic)	1.56 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	0.78 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
<b>12.2. Persistence and degradability</b>	
<b>KNITTING OIL ISO 32</b>	
Persistence and degradability	Not established.
<b>DISTILLATES (PETROLEUM) HYDROTREATED LIGHT NAPHTHENIC (64742-53-6)</b>	
Persistence and degradability	Not rapidly degradable
<b>DISTILLATES (PETROLEUM) HYDROTREATED HEAVY PARAFFINIC (64742-54-7)</b>	
Persistence and degradability	Not rapidly degradable
<b>Isotridecanol, Ethoxylated (90-100%) (69011-36-5)</b>	
Persistence and degradability	Not rapidly degradable
<b>Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)</b>	
Persistence and degradability	Not rapidly degradable

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NAPHTHENIC ACID (1338-24-5)	
Persistence and degradability	Not rapidly degradable
CAUSTIC LIQUOR 17-19% (1310-73-2)	
Persistence and degradability	Not rapidly degradable
Amides, C18-unsatd., N,N-bis(hydroxyethyl) (93-83-4)	
Persistence and degradability	Not rapidly degradable
2,2'-iminodiethanol; diethanolamine (111-42-2)	
Persistence and degradability	Not rapidly degradable

### 12.3. Bioaccumulative potential

KNITTING OIL ISO 32	
Bioaccumulative potential	No bioaccumulation data available.

### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Endocrine disrupting properties

Adverse effects on the environment caused by endocrine disrupting properties : 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 %.

### 12.7. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Regional waste regulation : Disposal must be done according to official regulations.  
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.

## 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 regulated	Not regulated	Not regulated	Not regulated	Not regulated

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ADR	IMDG	IATA	ADN	RID
<b>14.3. Transport hazard class(es)</b>				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
<b>14.4. Packing group</b>				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
<b>14.5. Environmental hazards</b>				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
No supplementary information available				

### 14.6. Special precautions for user

#### Overland transport

Not regulated

#### Transport by sea

Not regulated

#### Air transport

Not regulated

#### Inland waterway transport

Not regulated

#### Rail transport

Not regulated

### 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

#### 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 (2024/590)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 2024/590 on substances that deplete the ozone layer)

##### Council Regulation (EC) for the control of dual-use items

Contains no substance subject to the COUNCIL REGULATION (EC) for the control of dual-use items

##### 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)

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### 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)

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

Abbreviations and acronyms:	
ACGIH	American Conference of Government Industrial Hygienists
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)
CAS-No.	Chemical Abstract Service number
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
COD	Chemical oxygen demand (COD)
CSA	Chemical safety assessment
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
ED	Endocrine disruptor
EN	European Standard
EWC	European waste catalogue
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
Log Kow	Partition coefficient n-octanol/water (Log Kow)
Log Pow	Partition coefficient n-octanol/water (Log Pow)
MAK	maximum workplace concentration
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
N.O.S.	Not Otherwise Specified
OECD	Organisation for Economic Co-operation and Development

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Abbreviations and acronyms:	
OEL	Occupational Exposure Limit
OSHA	Occupational Safety Health Administration
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
PPE	Personal protection equipment
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
TF	Technical function
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
TWA	Time Weighted Average
VOC	Volatile Organic Compounds
vPvB	Very Persistent and Very Bioaccumulative
UFI	Unique Formula Identifier

Full text of H- and EUH-statements:	
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
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
Met. Corr. 1	Corrosive to metals, Category 1
Skin Corr. 1A	Skin corrosion/irritation, Category 1, Sub-Category 1A
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
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
H290	May be corrosive to metals.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
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.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.
EUH208	Contains NAPHTHENIC ACID(1338-24-5). May produce an allergic reaction.

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The classification complies with : ATP 12

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.