

# SAFETY DATA SHEET.

TOP HYDROL HVI 15

(TO3604)

Issuing Date 06-02-2024

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Version 2

## SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1. Product identifier

**Product Name**

**TOP HYDROL HVI 15**

**Product Code(s)**

(TO3604)

Contains Highly refined, low viscosity base oil (Viscosity <7 cSt @40°C), Highly refined, low viscosity mineral oils/hydrocarbons (Viscosity >7 - <20.5 cSt @40°C)

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

**Recommended Use**

Hydraulic Fluid

**Uses advised against**

Any other purpose.

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

**Supplier**

Derfal Limited, T/A Falzol Top Lubricants

North West Business Park,

Collooney, Co. Sligo, F91PPT0

Ireland

Ph: 0719130033

<https://falzol.ie/>

### 1.4. Emergency telephone number

0719130033/ 999

**Poison Information Center  
telephone number**

(IE) +353 (0)1 809 2166 (08:00 - 22:00), (IS) +354 543 2222

## SECTION 2: HAZARDS IDENTIFICATION

### 2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

**Aspiration hazard**

Category 1 - (H304)

### 2.2. Label elements

Contains Highly refined, low viscosity base oil (Viscosity <7 cSt @40°C), Highly refined, low viscosity mineral oils/hydrocarbons (Viscosity >7 - <20.5 cSt @40°C)

**Signal word**

Danger

**Hazard statements**

H304 - May be fatal if swallowed and enters airways

EUH066 - Repeated exposure may cause skin dryness or cracking

**Precautionary Statements - EU (§28, 1272/2008)**

P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician

P331 - Do NOT induce vomiting

P405 - Store locked up

P501 - Dispose of contents/ container to an approved waste disposal plant

**2.3. Other hazards**

No information available

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS****3.2 Mixtures**

This product is a mixture. Health hazard information is based on its ingredients

Chemical name	EC No	CAS No	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH registration number
Highly refined, low viscosity base oil (Viscosity <7 cSt @40°C)	-	-	50% - 100%	Asp. Tox. 1 (H304) (EUH066)	-
Highly refined, low viscosity mineral oils/hydrocarbons (Viscosity >7 - <20.5 cSt @40°C)	-	-	10% - 25%	Asp. Tox. 1 (H304) (EUH066)	-
Highly refined base oil (Viscosity >20.5 cSt @40°C)	-	-	1% - 2.5%	**	-
2,6-Di-tert-butylphenol	204-884-0	128-39-2	0% - 1%	Skin Irrit. 2 (H315) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	01-2119490822-33-xxxx

Product containing mineral oil with less than 3% DMSO extract as measured by IP 346. The highly refined base oil may be described by one or more of the following generic CAS identifiers: 64742-54-7, 64742-65-0, 64742-52-5, 64742-53-6, 64742-62-7, 64742-57-0, 64742-01-4, 64741-88-4, 64742-96-4, 64741-97-5, 64742-55-8, 64742-56-9, 64741-89-5, 8042-47-5. See Section 15 for additional information on base oils.

\*\* Substances for which there are Community workplace exposure limits

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

## SECTION 4: FIRST AID MEASURES

### 4.1. Description of first aid measures

<b>General advice</b>	If swallowed, seek medical advice immediately and show this container or label. Do not get in eyes, on skin, or on clothing.
<b>Inhalation</b>	Immediate medical attention is required. Aspiration into lungs can produce severe lung damage. IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
<b>Skin contact</b>	Wash off immediately with soap and plenty of water. Take off contaminated clothing and wash before reuse.
<b>Eye contact</b>	Rinse thoroughly with plenty of water, also under the eyelids. Keep eye wide open while rinsing.
<b>Ingestion</b>	ASPIRATION HAZARD IF SWALLOWED - CAN ENTER LUNGS AND CAUSE DAMAGE. Do NOT induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. If swallowed, call a poison control center or physician immediately.
<b>Self-protection of the first aider</b>	Use personal protective equipment as required.

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

<b>Symptoms</b>	Coughing and/ or wheezing. Difficulty in breathing.
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### 4.3. Indication of any immediate medical attention and special treatment needed

<b>Note to physicians</b>	Aspiration may cause pulmonary edema and pneumonitis. Because of the danger of aspiration, emesis or gastric lavage should not be employed unless the risk is justified by the presence of additional toxic substances.
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## SECTION 5: FIRE FIGHTING MEASURES

### 5.1. Extinguishing media

#### **Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use: Carbon dioxide (CO<sub>2</sub>). Dry chemical. Foam. Water spray or fog. Cool containers with flooding quantities of water until well after fire is out.

#### **Unsuitable extinguishing media**

Do not use straight streams. Do not scatter spilled material with high pressure water streams.

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

#### **Specific hazards arising from the chemical**

Thermal decomposition can lead to release of irritating and toxic gases and vapors. In the event of fire and/or explosion do not breathe fumes. The product is insoluble and floats on water.

<b>Hazardous combustion products</b>	Carbon monoxide. Carbon dioxide (CO <sub>2</sub> ).
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### 5.3. Advice for firefighters

<b>Special protective equipment for fire-fighters</b>	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.
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## SECTION 6: ACCIDENTAL RELEASE MEASURES

### 6.1. Personal precautions, protective equipment and emergency procedures

**Personal precautions** Remove all sources of ignition. Ensure adequate ventilation. Extremely slippery when spilled.

**For emergency responders** Use personal protection recommended in Section 8.

### 6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.

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

**Methods for containment** Dike to collect large liquid spills.

**Methods for cleaning up** Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Take up mechanically, placing in appropriate containers for disposal.

**Prevention of secondary hazards** Clean contaminated objects and areas thoroughly observing environmental regulations.

### 6.4. Reference to other sections

See Section 8 / 12 / 13 for more information.

## SECTION 7: HANDLING AND STORAGE

### 7.1. Precautions for safe handling

**Advice on safe handling** Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice.

**General hygiene considerations** When using do not eat, drink or smoke. Take off contaminated clothing and wash before reuse.

### 7.2. Conditions for safe storage, including any incompatibilities

**Storage Conditions** Keep container tightly closed in a dry and well-ventilated place. Keep cool. Protect from sunlight. Keep away from open flames, hot surfaces and sources of ignition.

**Materials to Avoid** Oxidizing agent

### 7.3. Specific end use(s)

Hydraulic Fluid

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

#### Exposure limits

*Legend*

*TWA - Time-Weighted Average; STEL - Short Term Exposure Limit; Ceiling - Ceiling Value*

Chemical name	European Union	United Kingdom	France	Spain
Highly refined, low viscosity				VLA-EC: 10 mg/m <sup>3</sup>

base oil (Viscosity <7 cSt @40°C)				VLA-ED: 5 mg/m <sup>3</sup>
Highly refined, low viscosity mineral oils/hydrocarbons (Viscosity >7 - <20.5 cSt @40°C)				VLA-EC: 10 mg/m <sup>3</sup> VLA-ED: 5 mg/m <sup>3</sup>
Highly refined base oil (Viscosity >20.5 cSt @40°C)				VLA-EC: 10 mg/m <sup>3</sup> VLA-ED: 5 mg/m <sup>3</sup>

Spain Límites de Exposición Profesional Para Agentes Químicos en España (Ley 31/1995).

Chemical name	Germany	Italy	Portugal	Netherlands
Highly refined, low viscosity base oil (Viscosity <7 cSt @40°C)		TWA: 5 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup> STEL: 10 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup>
Highly refined, low viscosity mineral oils/hydrocarbons (Viscosity >7 - <20.5 cSt @40°C)		TWA: 5 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup> STEL: 10 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup>
Highly refined base oil (Viscosity >20.5 cSt @40°C)		TWA: 5 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup> STEL: 10 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup>

Italy Istituto Superiore per la Prevenzione e la Sicurezza del Lavoro (ISPESL), Allegato XXXVIII e Allegato XLIII - Valori Limite di Esposizione Professionale.

Portugal Valores-limite e índices biológicos de exposição profissional a agentes químicos. Quadro 1 - Valores Limite de Exposição (Norma Portuguesa NP 1796:2014).

Netherlands Grenswaarden gezondheidsschadelijke stoffen; Arbeidsomstandighedenregeling.

Chemical name	Austria	Switzerland	Poland	Ireland
Highly refined, low viscosity base oil (Viscosity <7 cSt @40°C)			TWA: 5 mg/m <sup>3</sup> frakcja wdychalna	STEL: 10 mg/m <sup>3</sup> TWA: 5 mg/m <sup>3</sup> (Mist)
Highly refined, low viscosity mineral oils/hydrocarbons (Viscosity >7 - <20.5 cSt @40°C)			TWA: 5 mg/m <sup>3</sup> frakcja wdychalna	STEL: 10 mg/m <sup>3</sup> TWA: 5 mg/m <sup>3</sup> (Mist)
Highly refined base oil (Viscosity >20.5 cSt @40°C)			TWA: 5 mg/m <sup>3</sup> frakcja wdychalna	STEL: 10 mg/m <sup>3</sup> TWA: 5 mg/m <sup>3</sup> (Mist)

Poland Rozporządzenie Ministra Pracy i Polityki Społecznej z dnia 6 czerwca 2014 w sprawie najwyższych dopuszczalnych stężeń i natężeń czynników szkodliwych dla zdrowia w środowisku pracy (Dz.U. 2016 Nr. 944).

Ireland 2016 Code of Practice for the Safety, Health and Welfare at Work (Chemical Agents) Regulations 2001.

Chemical name	Finland	Denmark	Norway	Sweden
Highly refined, low viscosity base oil (Viscosity <7 cSt @40°C)	TWA: 5mg/m <sup>3</sup> (Öljysumu)	TWA: 1 mg/m <sup>3</sup> (Olietåge)	TWA: 1 mg/m <sup>3</sup> (Oljetåke)	TWA: 1 mg/m <sup>3</sup> STEL: 3 mg/m <sup>3</sup> (Oljedimma)
Highly refined, low viscosity mineral oils/hydrocarbons (Viscosity >7 - <20.5 cSt @40°C)	TWA: 5mg/m <sup>3</sup> (Öljysumu)	TWA: 1 mg/m <sup>3</sup> (Olietåge)	TWA: 1 mg/m <sup>3</sup> (Oljetåke)	TWA: 1 mg/m <sup>3</sup> STEL: 3 mg/m <sup>3</sup> (Oljedimma)
Highly refined base oil (Viscosity >20.5 cSt @40°C)	TWA: 5mg/m <sup>3</sup> (Öljysumu)	TWA: 1 mg/m <sup>3</sup> (Olietåge)	TWA: 1 mg/m <sup>3</sup> (Oljetåke)	TWA: 1 mg/m <sup>3</sup> STEL: 3 mg/m <sup>3</sup> (Oljedimma)

Finland Förordningen om koncentrationer som befunnits skadliga, 268/2014 - HTP-arvot 2014.

Denmark Bekendtgørelse om grænseværdier for stoffer og materialer. Arbejdstilsynets bekendtgørelse nr. 507 Bilag 2 Afsnit A.

Norway Forskrift om tiltaksverdier og grenseverdier for fysiske og kjemiske faktorer i arbeidsmiljøet samt smitterisikogrupper for biologiske faktorer (Forskrift om tiltaks- og grenseverdier), FOR-2011-12-06-1358, FOR-2016-06-21-760, FOR-2016-12-22-1860.

Sweden Arbetsmiljöverkets föreskrifter om hygieniska gränsvärden och allmänna råd om tillämpningen av föreskrifterna.

Chemical name	Czech Republic	Hungary	Bulgaria	Romania
Highly refined, low viscosity base oil (Viscosity <7 cSt @40°C)	TWA: 5 mg/m <sup>3</sup> Ceiling: 10 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup> STEL: 10 mg/m <sup>3</sup>
Highly refined, low viscosity mineral oils/hydrocarbons (Viscosity >7 - <20.5 cSt @40°C)	TWA: 5 mg/m <sup>3</sup> Ceiling: 10 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup> STEL: 10 mg/m <sup>3</sup>
Highly refined base oil (Viscosity >20.5 cSt @40°C)	TWA: 5 mg/m <sup>3</sup> Ceiling: 10 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup> STEL: 10 mg/m <sup>3</sup>

Czech Republic Narizeni vlady 93/2012, kterym se meni narizeni vlady c.361/2007 Sb., kterym se stanoví podmínky ochrany zdraví při práci, ve zneni narizeni vlady c.68/2010 Sb.

Hungary 25/2000. (IX. 30.) EüM-SzCsM együttes rendelet a munkahelyek kémiai biztonságáról (62/2016. (XII.29.)).

Bulgaria НАРЕДБА #13 от 30.12.2003 г. за защита на работещите от рискове, свързани с експозиция на химични агенти при работа.

Romania Valori Limit Obligatorii Nationale de expunere profesională ale agenților chimic - Anex Nr.1 Publicat în Monitorul Oficial, Partea I nr. 845.

Chemical name	Greece	Cyprus	Turkey	Malta
Highly refined, low viscosity base oil (Viscosity <7 cSt @40°C)	TWA: 5 mg/m <sup>3</sup>			
Highly refined, low viscosity mineral oils/hydrocarbons (Viscosity >7 - <20.5 cSt @40°C)	TWA: 5 mg/m <sup>3</sup>			
Highly refined base oil (Viscosity >20.5 cSt @40°C)	TWA: 5 mg/m <sup>3</sup>			

Greece Οριακές Τιμές Επαγγελματικής Έκθεσης - Προστασία της υγείας και της ασφάλειας των εργαζομένων που εκτίθενται σε ορισμένους καρκινογόνους και μεταλλαξιογόνους παράγοντες 127/2000.

Chemical name	Belgium	Luxembourg	Iceland	Croatia
Highly refined, low viscosity base oil (Viscosity <7 cSt @40°C)	TWA: 5 mg/m <sup>3</sup> STEL: 10 mg/m <sup>3</sup>			
Highly refined, low viscosity mineral oils/hydrocarbons (Viscosity >7 - <20.5 cSt @40°C)	TWA: 5 mg/m <sup>3</sup> STEL: 10 mg/m <sup>3</sup>			
Highly refined base oil (Viscosity >20.5 cSt @40°C)	TWA: 5 mg/m <sup>3</sup> STEL: 10 mg/m <sup>3</sup>			

Belgium Arrêté royal relatif à la protection de la santé et de la sécurité des travailleurs contre les risques liés à des agents chimiques sur le lieu de travail.

Chemical name	Russia	Estonia	Latvia	Lithuania
Highly refined, low viscosity base oil (Viscosity <7 cSt @40°C)			TWA: 5 mg/m <sup>3</sup>	TWA: 1 mg/m <sup>3</sup> STEL: 3 mg/m <sup>3</sup>
Highly refined, low viscosity mineral oils/hydrocarbons (Viscosity >7 - <20.5 cSt @40°C)			TWA: 5 mg/m <sup>3</sup>	TWA: 1 mg/m <sup>3</sup> STEL: 3 mg/m <sup>3</sup>
Highly refined base oil (Viscosity >20.5 cSt @40°C)			TWA: 5 mg/m <sup>3</sup>	TWA: 1 mg/m <sup>3</sup> STEL: 3 mg/m <sup>3</sup>

Latvia Ministru Kabineta noteikumi Nr. 325 - Darba aizsardzības prasības, saskaroties ar ķīmiskajām vielām darba vietās.

Lithuania Del Lietuvos higienos normos HN 23:2011 "Cheminiu medžiagu profesinio poveikio ribiniai dydžiai. Matavimo ir poveikio vertinimo bendrieji reikalavimai".

Chemical name	Belarus	Ukraine	Slovakia	Slovenia
Highly refined, low viscosity base oil (Viscosity <7 cSt @40°C)			TWA: 5mg/m <sup>3</sup>	
Highly refined, low viscosity mineral oils/hydrocarbons (Viscosity >7 - <20.5 cSt @40°C)			TWA: 5mg/m <sup>3</sup>	
Highly refined base oil (Viscosity >20.5 cSt @40°C)			TWA: 5mg/m <sup>3</sup>	

Slovakia Nariadenie Vlády Slovenskej republiky z 16. januára 2002 o ochrane zdravia pri práci s karcinogénnymi a mutagénymi faktormi.

### Derived No Effect Level (DNEL)

**Workers Systemic toxicity**

Chemical name	Long term - Oral exposure	Long term - Dermal exposure	Long term - Inhalation exposure	Short term - Oral Exposure	Short term - Dermal exposure	Short term - Inhalation exposure
2,6-Di-tert-butylphenol		2.77 mg/kg	19.6 mg/m <sup>3</sup>			

**Workers Local effects**

Not determined

**Consumers Systemic toxicity**

Chemical name	Long term - Oral exposure	Long term - Dermal exposure	Long term - Inhalation exposure	Short term - Oral Exposure	Short term - Dermal exposure	Short term - Inhalation exposure
2,6-Di-tert-butylphenol	1.67 mg/kg		5.8 mg/m <sup>3</sup>			

**Consumers Local effects**

Not determined

**Predicted No Effect Concentration (PNEC)**

Chemical name	Fresh water	Sea water	Fresh water sediment	Sea sediment	Soil
2,6-Di-tert-butylphenol	0.00045 mg/L	0.00045 mg/L	0.196 mg/kg	0.0196 mg/kg	0.0389 mg/kg

**8.2. Exposure controls****Engineering Measures**

Ensure adequate ventilation, especially in confined areas.

**Personal protective equipment**

Engineering controls should be considered as the first line of protection against adverse exposure to harmful substances. Administrative controls and PPE should be used in the absence of engineering controls or as supplemental controls where engineering controls are insufficient in reducing specific exposures to an acceptable level.

**Eye Protection**

Safety glasses with side-shields.

**Hand Protection**

The following glove type may be suitable for handling this product.. Protective gloves complying with EN 374.

*Nitrile rubber*

*Glove thickness => 0.38 mm Break through time => 480 min*

*Butyl rubber*

*Glove thickness => 0.64 mm Break through time => 480 min*

Glove material suitability will vary depending on specific use conditions. Consideration should be given to variables such as operational characteristics, anticipated contact time, task requirements and other factors relevant to the selection of PPE. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion. Any specific glove information provided is based on published literature and glove manufacturer data. Gloves should be replaced regularly and if there is any sign of damage to the glove material.

**Skin and body protection**

Long sleeved clothing.

**Respiratory protection**

No special protective equipment required. In case of mist, spray or aerosol exposure wear suitable personal respiratory protection and protective suit.

*This information is based on the state in which the specific product is delivered and on the intended use specified within this SDS. This information is provided based on literature reference, manufacturer specifications and recommendations and/or derived by analogy with similar substances. The level of protection and types of exposure controls will vary depending on potential exposure conditions.*

**Hygiene measures**

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Regular cleaning of equipment, work area and clothing is recommended. Do not eat, drink or smoke when using this product. Handle in accordance with good industrial hygiene and safety practice.

**Environmental Exposure Controls**

No special environmental precautions required.

**Thermal hazards**

None under normal use conditions

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**
**9.1. Information on basic physical and chemical properties**

<b>Physical state</b>	Liquid	<b>Appearance</b>	clear yellow
<b>Odor</b>	Characteristic	<b>Odor threshold</b>	Not Determined
<u>Property</u>	<u>Values</u>	<u>Remarks</u>	
<b>pH</b>	7		
<b>Melting point / freezing point</b>	< -42 °C / < -44 °F		
<b>Boiling point / boiling range</b>	> 260 °C / > 500 °F		
<b>Flash point</b>	> 146 °C / > 295 °F	ASTM D 92	
<b>Evaporation rate</b>	negligible		
<b>Flammability (solid, gas)</b>	No data available		
<b>Flammability Limit in Air</b>			
<b>Upper flammability or explosive limits</b>	No data available		
<b>Lower flammability or explosive limits</b>	No data available		
<b>Vapor pressure</b>	< 0.01 kPa		
<b>Vapor density</b>	No data available		
<b>Relative density</b>	0.87 @ 15 °C		
<b>Solubility(ies)</b>	Insoluble in water		
<b>Partition coefficient</b>	Not applicable		
<b>Autoignition temperature</b>	> 230 °C / > 446 °F		
<b>Decomposition temperature</b>	> 230 °C / > 446 °F		
<b>Kinematic viscosity</b>	15 cSt @ 40 °C	ASTM D 445	
<b>Explosive properties</b>	Not applicable		
<b>Oxidizing Properties</b>	Not applicable		

**9.2. Other information**

<b>Viscosity, kinematic (100°C)</b>	3.88 cSt @ 100°C	ASTM D 445
<b>Pour Point</b>	Not Determined	
<b>VOC Content (ASTM E-1868-10)</b>	No data available	
<b>VOC content</b>	No data available	

**SECTION 10: STABILITY AND REACTIVITY**
**10.1. Reactivity**

None under normal use conditions

**10.2. Chemical stability**

Stable under normal conditions.

**10.3. Possibility of hazardous reactions**

None under normal use conditions

**10.4. Conditions to avoid**

Keep away from open flames, hot surfaces and sources of ignition. Extremes of temperature and direct sunlight.

**10.5. Incompatible materials**

None known based on information supplied.

**10.6. Hazardous decomposition products**

Thermal decomposition can lead to release of irritating and toxic gases and vapors; Carbon monoxide; Carbon dioxide (CO<sub>2</sub>)

## SECTION 11: TOXICOLOGICAL INFORMATION

**11.1. Information on toxicological effects****Product Information - Principle Routes of Exposure**

<b>Inhalation</b>	Risk of serious damage to the lungs (by aspiration)
<b>Eye contact</b>	None known
<b>Skin contact</b>	Repeated exposure may cause skin dryness or cracking
<b>Ingestion</b>	Risk of product entering the lungs on vomiting after ingestion

**Acute toxicity - Product Information**

Product does not present an acute toxicity hazard based on known or supplied information.

**Acute toxicity - Component Information**

No information available

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Highly refined, low viscosity base oil (Viscosity <7 cSt @40°C)	>2000 mg/kg	>2000 mg/kg	>5 mg/L
Highly refined, low viscosity mineral oils/hydrocarbons (Viscosity >7 - <20.5 cSt @40°C)	>2000 mg/kg	>2000 mg/kg	>5 mg/L
Highly refined base oil (Viscosity >20.5 cSt @40°C)	>2000 mg/kg	>2000 mg/kg	>5 mg/L
2,6-Di-tert-butylphenol	>5000 mg/kg ( Rat )	= 10000 mg/kg ( Rabbit )	

**Skin corrosion/irritation** Prolonged or repeated skin contact may cause removal of natural fat from the skin resulting in dermatitis (skin inflammation).

**Serious eye damage/eye irritation** Based on available data, the classification criteria are not met.

**Sensitization**

**Respiratory Sensitization**  
**Skin sensitization**

Based on available data, the classification criteria are not met.  
Based on available data, the classification criteria are not met.

**Germ cell mutagenicity**

Based on available data, the classification criteria are not met.

<b>Carcinogenicity</b>	Based on available data, the classification criteria are not met.
<b>Reproductive toxicity</b>	Based on available data, the classification criteria are not met.
<b>Specific target organ systemic toxicity (single exposure)</b>	Based on available data, the classification criteria are not met
<b>Specific target organ systemic toxicity (repeated exposure)</b>	Based on available data, the classification criteria are not met
<b>Aspiration hazard</b>	May be fatal if swallowed and enters airways.

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

No special environmental measures are necessary

Chemical name	Algae/aquatic plants	Fish	Crustacea
Highly refined, low viscosity base oil (Viscosity <7 cSt @40°C)	>100: 72 h mg/L	>100: 96 h mg/L	>100: 48 h mg/L
Highly refined, low viscosity mineral oils/hydrocarbons (Viscosity >7 - <20.5 cSt @40°C)	>100: 72 h mg/L	>100: 96 h mg/L	>100: 48 h mg/L
Highly refined base oil (Viscosity >20.5 cSt @40°C)	>100: 72 h mg/L	>100: 96 h mg/L	>100: 48 h mg/L
2,6-Di-tert-butylphenol		1.4: 96 h Pimephales promelas mg/L LC50	0.45: 48 h Daphnia magna mg/L EC50

### 12.2. Persistence and degradability

The product is not readily biodegradable, but it can be degraded by micro-organisms, it is regarded as being inherently biodegradable.

### 12.3. Bioaccumulative potential

No information available

### 12.4. Mobility in soil

The product is insoluble and floats on water.

### 12.5. Results of PBT and vPvB assessment

This preparation contains no substance considered to be persistent, bioaccumulating nor toxic (PBT) This preparation contains no substance considered to be very persistent nor very bioaccumulating (vPvB)

### 12.6. Other adverse effects

None known

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1. Waste treatment methods

<b>Waste from residues/unused products</b>	Should not be released into the environment. Dispose of in accordance with local regulations.
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<b>Contaminated packaging</b>	Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not reuse empty containers. Observe all label precautions until container is cleaned, reconditioned or destroyed
<b>Waste codes / waste designations according to EWC / AVV</b>	Waste codes should be assigned by the user based on the application for which the product was used.

## SECTION 14: TRANSPORT INFORMATION

### **14.1. UN-Number**

Not regulated

### **14.2. UN proper shipping name**

Not regulated

### **14.3. Transport hazard class**

Not regulated

### **14.4. Packing Group**

Not regulated

### **14.5. Environmental Hazards**

None

### **14.6. Special precautions for users**

None

### **14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code**

Not applicable

**IMDG** Not regulated

**ADR** Not regulated

**IATA** Not regulated

**ADN** Not regulated

## SECTION 15: REGULATORY INFORMATION

### **15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

#### **EU legislation**

The Classification, Labeling and Packaging of Substances and Mixtures (CLP) Regulation (EC 1272/2008)  
Registration, Evaluation, Authorization, and Restriction of Chemicals (REACH) Regulation (EC 1907/2006)  
European Agreement concerning the International Carriage of Dangerous Goods by Road  
Safety Data Sheet according to Regulation EC 1907/2006 (REACH) with its amendment regulation EC 2015/830  
European Agreement concerning the International Carriage of Dangerous Goods by Road/ Regulations concerning the International Carriage of Dangerous Goods by Rail

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International Civil Aviation Organization / International Air Transport Association Dangerous Goods Regulation

**Substance(s) of Very High Concern**

This product does not contain candidate substances of very high concern at a concentration  $\geq 0.1\%$  (Regulation (EC) No. 1907/2006 (REACH), Article 59).

**Authorizations and/or restrictions on use:**

This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII). This product does not contain substances subject to authorization (Regulation (EC) No. 1907/2006 (REACH), Annex XIV).

**National regulations****Germany Water hazard class (WGK)**

Low hazard to water/Class 1

**Product Registration number**

Denmark Registration (DK)

No information available

**International Regulations****Ozone-depleting substances (ODS)**

Not applicable

**The Stockholm Convention on Persistent Organic Pollutants**

Not applicable

**The Rotterdam Convention**

Not applicable

**International Inventories****TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

All ingredients are on the inventory or exempt from listing

**DSL/NDL** - Canadian Domestic Substances List/Non-Domestic Substances List

Contact supplier for inventory compliance status

**AICS** - Australian Inventory of Chemical Substances

Contact supplier for inventory compliance status

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

Contact supplier for inventory compliance status

**KECL** - Korean Existing and Evaluated Chemical Substances

Contact supplier for inventory compliance status

**IECSC** - China Inventory of Existing Chemical Substances

All ingredients are on the inventory or exempt from listing

**ENCS** - Japan Existing and New Chemical Substances

Contact supplier for inventory compliance status

**TCSI** - Taiwan National Existing Chemical Inventory

Contact supplier for inventory compliance status

**NZIoC** - New Zealand Inventory of Chemicals

All ingredients are on the inventory or exempt from listing

**Other Information**

The highly refined base oil (Viscosity >20.5 cSt @40°C) contains one or more substance with the following CAS/EC numbers/REACH registration numbers:

Chemical name	CAS No	EC No	REACH registration number
Distillates (petroleum), solvent-refined heavy paraffinic	64741-88-4	265-090-8	01-2119488706-23-xxxx
Distillates (petroleum), solvent-refined light paraffinic	64741-89-5	265-091-3	01-2119487081-40-xxxx
Residual oils (petroleum), solvent deasphalted	64741-95-3	265-096-0	01-2119487081-40-xxxx
Distillates (petroleum), solvent-refined heavy naphthenic	64741-96-4	265-097-6	01-2119483621-38-xxxx
Distillates (petroleum), solvent-refined light naphthenic	64741-97-5	265-098-1	01-2119480374-36-xxxx
Residual oils (petroleum), solvent-refined	64742-01-4	265-101-6	01-2119488707-21-xxxx
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	265-155-0	01-2119467170-45-xxxx
Distillates (petroleum), hydrotreated light naphthenic	64742-53-6	265-156-6	01-2119480375-34-xxxx
Distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7	265-157-1	01-2119484627-25-xxxx
Distillates (petroleum), hydrotreated light paraffinic	64742-55-8	265-158-7	01-2119487077-29-xxxx
Distillates (petroleum), solvent-dewaxed light paraffinic	64742-56-9	265-159-2	01-2119480132-48-xxxx
Residual oils (petroleum), hydrotreated	64742-57-0	265-160-8	01-2119489287-22-xxxx
Lubricating oils (petroleum), hydrotreated spent	64742-58-1	265-161-3	
Residual oils (petroleum), solvent-dewaxed	64742-62-7	265-166-0	01-2119480472-38-xxxx
Distillates (petroleum), solvent-dewaxed heavy paraffinic	64742-65-0	265-169-7	01-2119471299-27-xxxx
Paraffin oils (petroleum), catalytic dewaxed heavy	64742-70-7	265-174-4	01-2119487080-42-xxxx
Paraffin oils (petroleum), catalytic dewaxed light	64742-71-8	265-176-5	01-2119485040-48-xxxx
Lubricating oils (petroleum), C>25, hydrotreated bright stock-based	72623-83-7	276-735-8	
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based, high-viscosity	72623-85-9	276-736-3	01-2119555262-43-xxxx
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	72623-86-0	276-737-9	01-2119474878-16-xxxx
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	72623-87-1	276-738-4	01-2119474889-13-xxxx
Lubricating oils	74869-22-0	278-012-2	01-2119495601-36-xxxx
White mineral oil (petroleum)	8042-47-5	232-455-8	

The highly refined, low viscosity mineral oils/hydrocarbons (Viscosity >7 - <20.5 cSt @40°C) contains one or more substance with the following CAS/EC numbers/REACH registration numbers:

Chemical name	CAS No	EC No	REACH registration number
Distillates (petroleum), hydrotreated heavy paraffinic	63742-54-7	265-157-1	01-2119484627-25-xxxx
Distillates (petroleum), solvent-refined heavy paraffinic	64741-88-4	265-090-8	01-2119488706-23-xxxx
Distillates (petroleum), solvent-refined light paraffinic	64741-89-5	265-091-3	01-2119487067-30-xxxx
Residual oils (petroleum), solvent deasphalted	64741-95-3	265-096-0	01-2119487081-40-xxxx
Distillates (petroleum), solvent-refined heavy naphthenic	64741-96-4	265-097-6	01-2119483621-38-xxxx
Distillates (petroleum), solvent-refined light naphthenic	64741-97-5	265-098-1	01-2119480374-36-xxxx
Residual oils (petroleum), solvent-refined	64742-01-4	265-101-6	01-2119488707-21-xxxx
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	265-155-0	01-2119467170-45-xxxx
Distillates (petroleum), hydrotreated light naphthenic	64742-53-6	265-156-6	01-2119480375-34-xxxx
Distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7	265-157-1	01-2119484627-25-xxxx
Distillates (petroleum), hydrotreated light paraffinic	64742-55-8	265-158-7	01-2119487077-29-xxxx
Distillates (petroleum), solvent-dewaxed light paraffinic	64742-56-9	265-159-2	01-2119480132-48-xxxx
Residual oils (petroleum), hydrotreated	64742-57-0	265-160-8	01-2119489287-22-xxxx
Lubricating oils (petroleum), hydrotreated spent	64742-58-1	265-161-3	
Residual oils (petroleum), solvent-dewaxed	64742-62-7	265-166-0	01-2119480472-38-xxxx
Distillates (petroleum), solvent-dewaxed heavy paraffinic	64742-65-0	265-169-7	01-2119471299-27-xxxx
Paraffin oils (petroleum), catalytic dewaxed light	64742-71-8	265-176-5	01-2119485040-48-xxxx
Dec-1-ene, homopolymer, hydrogenated	68037-01-4	500-183-1	01-2119486452-34-xxxx
Lubricating oils (petroleum), C>25, hydrotreated bright stock-based	72623-83-7	276-735-8	

Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based, high-viscosity	72623-85-9	276-736-3	01-2119555262-43-xxxx
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	72623-86-0	276-737-9	01-2119474878-16-xxxx
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	72623-87-1	276-738-4	01-2119474889-13-xxxx
Lubricating oils	74869-22-0	278-012-2	01-2119495601-36-xxxx

The highly refined, low viscosity base oil (Viscosity <7 cSt @40°C) contains one or more substance with the following CAS/EC numbers/REACH registration numbers:

Chemical name	CAS No	EC No	REACH registration number
Distillates (petroleum), hydrotreated heavy paraffinic	63742-54-7	265-157-1	01-2119484627-25-xxxx
Distillates (petroleum), hydrotreated light	64742-47-8	265-149-8	01-2119484819-18-xxxx
Distillates (petroleum), hydrotreated light naphthenic	64742-53-6	265-156-6	01-2119480375-34-xxxx
Distillates (petroleum), hydrotreated light paraffinic	64742-55-8	265-158-7	01-2119487077-29-xxxx
Distillates (petroleum), solvent-dewaxed light paraffinic	64742-56-9	265-159-2	01-2119480132-48-xxxx
Distillates (petroleum), solvent-dewaxed heavy paraffinic	64742-65-0	265-169-7	01-2119471299-27-xxxx
Distillates (petroleum), hydrodesulfurized middle	64742-80-9	265-183-3	01-2119448343-41-xxxx
Dec-1-ene, dimers, hydrogenated	68649-11-6	500-228-5	
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	NOT AVAILABLE	926-141-6	01-2119456620-43-xxxx

## 15.2. Chemical Safety Assessment

A chemical safety assessment according to regulation (EC) No. 1907/2006 is not required

## SECTION 16: OTHER INFORMATION

### Key or legend to abbreviations and acronyms used in the safety data sheet

Repr.-Reproduction toxicity  
 Asp. Tox. - Aspiration Toxicity  
 Acute Tox. - Acute Toxicity  
 Aquatic Acute - Acute Aquatic Toxicity  
 Aquatic Chronic - Chronic Aquatic Toxicity  
 Eye Dam. - Eye Damage  
 Eye Irrit. - Eye Irritation  
 Skin Corr. - Skin Corrosion  
 Skin Irrit. - Skin Irritation  
 Skin Sens. - Skin Sensitizer  
 Resp. Sens. - Respiratory Sensitizer  
 STOT SE - Specific target organ systemic toxicity (Single exposure)  
 STOT RE - Specific target organ systemic toxicity (repeated exposure)  
 VOC - Volatile organic compounds

### Full text of H-Statements referred to under section 3

H304 - May be fatal if swallowed and enters airways  
 H315 - Causes skin irritation  
 H400 - Very toxic to aquatic life  
 H410 - Very toxic to aquatic life with long lasting effects  
 EUH066 - Repeated exposure may cause skin dryness or cracking

### Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)  
 U.S. Environmental Protection Agency ChemView Database  
 European Food Safety Authority (EFSA)  
 EPA (Environmental Protection Agency)  
 Acute Exposure Guideline Level(s) (AEGL(s))  
 U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act

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U.S. Environmental Protection Agency High Production Volume Chemicals  
Food Research Journal  
Hazardous Substance Database  
International Uniform Chemical Information Database (IUCLID)  
Japan GHS Classification  
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)  
NIOSH (National Institute for Occupational Safety and Health)  
National Library of Medicine's ChemID Plus (NLM CIP)  
National Library of Medicine's PubMed database (NLM PUBMED)  
National Toxicology Program (NTP)  
New Zealand's Chemical Classification and Information Database (CCID)  
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications  
Organization for Economic Co-operation and Development High Production Volume Chemicals Program  
Organization for Economic Co-operation and Development Screening Information Data Set  
RTECS (Registry of Toxic Effects of Chemical Substances)  
World Health Organization

**Classification for mixtures and used evaluation method according to regulation (EC) 1207/2008 [CLP]**

<b>Physical hazards</b>	On basis of test data
<b>Health Hazards</b>	Calculation Method
<b>Environmental Hazards</b>	Calculation Method

**Revision Date** 06-02-2020

**Revision Note** This SDS has been revised in the following section(s), 8, 15.

**Disclaimer**

**The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.**