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

1.1. Product identifier

Product form : Mixture

Trade name : SHIMANO LOW VISCOSITY OIL

UFI : 9GSH-J7WD-D72H-VDPK

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 : Consumer use

Use of the substance/mixture : Lubricating oils

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

SHIMANO EUROPE B.V.
High Tech Campus 92
P.O. Box 5656 AG
Eindhoven
The Netherlands
T +31-402-612222

shimano.eu.sds@shimano-eu.com

1.4. Emergency telephone number

Emergency number : +81-3-3218-1780
08:00 - 17:00h (monday - friday)

Country/Area	Organisation/Company	Address	Emergency number	Comment
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2566 (Healthcare professionals-24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Aspiration hazard, Category 1	H304
Hazardous to the aquatic environment – Chronic Hazard, Category 2	H411

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

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

Hazard pictograms (CLP) :

GHS08 GHS09

Signal word : Danger
Contains : Distillates (petroleum), hydrotreated light
Hazard statements (CLP) : H304 - May be fatal if swallowed and enters airways.
H411 - Toxic 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.
P273 - Avoid release to the environment.
P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER, a doctor.
P331 - Do NOT induce vomiting.
P391 - Collect spillage.
P405 - Store locked up.
P501 - Dispose of contents and container to an approved waste disposal plant.
Child-resistant fastening : Applicable
Tactile warning : Applicable

2.3. Other hazards

Other hazards : Results of PBT and vPvB assessment : Contains no PBT and/or vPvB substances ≥ 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

Comments : Note L (DMS0 < 3%)

Substance name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Distillates (petroleum), hydrotreated light	CAS-No.: 64742-47-8 EC-No.: 265-149-8;926-141-6 EC Index: 649-422-00-2	≤ 22	Asp. Tox. 1, H304
Phenol, isopropylated, phosphate (3:1)	CAS-No.: 68937-41-7 EC-No.: 273-066-3	≤ 0,53	Repr. 2, H361f STOT RE 2, H373 Aquatic Chronic 1, H410

Substance name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
2,6-di-tert-butyl-p-cresol	CAS-No.: 128-37-0 EC-No.: 204-881-4	≤ 0,2	Aquatic Chronic 1, H410 Aquatic Acute 1, H400

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

SECTION 4: First aid measures

4.1. Description of first aid measures

Additional advice : First aider: Pay attention to self-protection!. Concerning personal protective equipment to use, see section 8. Never give anything by mouth to an unconscious person. In case of doubt or persistent symptoms, consult always a physician. Show this safety data sheet to the doctor in attendance.

Inhalation : Remove casualty to fresh air and keep warm and at rest. Put victim at rest, cover with a blanket and keep warm. In case of doubt or persistent symptoms, consult always a physician.

Skin contact : Remove contaminated clothing and shoes. Gently wash with plenty of soap and water. In case of doubt or persistent symptoms, consult always a physician.

Eyes contact : Rinse immediately carefully and thoroughly with eye-bath or water. Remove contact lenses, if present and easy to do. Continue rinsing. In case of doubt or persistent symptoms, consult always a physician.

Ingestion : Rinse mouth thoroughly with water. Do NOT induce vomiting. Get immediate medical advice/attention.

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

Inhalation : In case of repeated or prolonged exposure : May cause respiratory irritation. Cough. Difficulty in breathing.

Skin contact : May produce an allergic reaction.

Eyes contact : May cause eye irritation. The following symptoms may occur: Irritation, Tears.

Ingestion : May be fatal if swallowed and enters airways. The following symptoms may occur: Vomiting.

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 : carbon dioxide (CO2), powder, alcohol-resistant foam, water spray.

Unsuitable extinguishing media : Strong water jet.

5.2. Special hazards arising from the substance or mixture

Specific hazards : Not flammable. Heating will cause a rise in pressure with a risk of bursting.

Hazardous decomposition products in case of fire : Carbon oxides (CO, CO2). Organic compounds. Sulfuric acid.

5.3. Advice for firefighters

Firefighting instructions	:	Evacuate area. Use water spray or fog for cooling exposed containers. Contain the extinguishing fluids by bunding. Prevent fire fighting water from entering the environment.
Protection during firefighting	:	Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus.
Other information	:	Do not allow run-off from fire-fighting to enter drains or water courses. Dispose of waste in accordance with environmental legislation.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

For non-emergency personnel	:	Evacuate unnecessary personnel. Keep upwind. Provide adequate ventilation. Wear recommended personal protective equipment. Concerning personal protective equipment to use, see section 8. Do not breathe vapours. Avoid contact with skin, eyes and clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharge. Use explosion-proof equipment. Use only non-sparking tools.

6.1.2. For emergency responders

For emergency responders	:	Ensure procedures and training for emergency decontamination and disposal are in place. Concerning personal protective equipment to use, see section 8.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up	:	Stop leak if safe to do so. Dam up the liquid spill. Small quantities of liquid spill: take up in non-combustible absorbent material and shovel into container for disposal. Recover large spills by pumping (use an explosion proof or hand pump). Place in a suitable container for disposal in accordance with the waste regulations (see Section 13). This material and its container must be disposed of in a safe way, and as per local legislation.

6.4. Reference to other sections

Concerning personal protective equipment to use, see section 8. Concerning disposal elimination after cleaning, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Provide adequate ventilation. Use personal protective equipment as required. Concerning personal protective equipment to use, see section 8. Do not breathe vapours. Avoid contact with skin, eyes and clothing. Take any precaution to avoid mixing with Incompatible materials, Refer to Section 10 on Incompatible Materials. Ensure proper process control to avoid excess waste discharge (temperature, concentration, pH, time). Avoid release to the environment. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not pipette liquid using a mouth pipette. Ground/bond container and receiving equipment. Ensure equipment is adequately earthed. Use only non-sparking tools.

Hygiene measures : Keep good industrial hygiene. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Do not eat, drink or smoke when using this product. Keep away from food, drink and animal feedingstuffs. Remove contaminated clothes. Separate working clothes from town clothes. Launder separately. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a dry, cool and well-ventilated place. Keep container tightly closed. Do not store near or with any of the incompatible materials listed in section 10. Bund storage facilities to prevent soil and water pollution in the event of spillage. Protect from humidity and water.

Incompatible materials : Halogens. Strong acids. alkalis. Strong oxidizing agents.

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

Special rules on packaging : Keep the container hermetically sealed. Do not pierce or burn, even after use. Keep in properly labelled containers. Child-resistant fastening. Tactile warning.

Packaging materials : Keep only in the original container. Never use pressure to empty container.

Germany

German storage class (LGK) : LGK 12 - Non-combustible liquids

Switzerland

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

7.3. Specific end use(s)

For further information see section 1.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

Distillates (petroleum), hydrotreated light (64742-47-8)	
Switzerland - Occupational Exposure Limits	
MAK (OEL TWA)	350 mg/m³ (vapour) 5 mg/m³ (not specified-aerosol, inhalable dust)
	50 ppm (vapour)
KZGW (OEL STEL)	700 mg/m³ (vapour)
	100 ppm (vapour)

Phenol, isopropylated, phosphate (3:1) (68937-41-7)	
Germany - Occupational Exposure Limits (TRGS 900)	
Local name	Phenol, isopropyliert, Phosphat (3:1)
Occupational exposure limit value (mg/m³) (TRGS900)	1 mg/m³ (inhalable fraction)
Peak exposure limitation factor	2(II)
Remark	DFG - Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe der DFG (MAK-Kommission)
Regulatory reference	TRGS900
Slovenia - Occupational Exposure Limits	
Local name	fenol, izopropiliran, fosfat (3:1)
OEL TWA	1 mg/m³ (inhalable fraction)
OEL STEL	2 mg/m³ (inhalable fraction)
Regulatory reference	Uradni list RS, št. 72/2021 z dne 11.5.2021
Switzerland - Occupational Exposure Limits	
Local name	Phosphate de triphényle isopropylé / Triphenylphosphat, isopropyliert
MAK (OEL TWA)	3,5 mg/m³ (inhalable dust)
KZGW (OEL STEL)	7 mg/m³ (inhalable dust)
Notation	SS_C / SS_C
Regulatory reference	www.suva.ch, 01.01.2024

2,6-di-tert-butyl-p-cresol (128-37-0)	
Austria - Occupational Exposure Limits	
Local name	2,6-Di-tert-butyl-p-kresol (Butylhydroxytoluol)
MAK (OEL TWA)	10 mg/m³
Regulatory reference	BGBl. II Nr. 156/2021

2,6-di-tert-butyl-p-cresol (128-37-0)	
Belgium - Occupational Exposure Limits	
Local name	2,6-Di-tert-butyl-p-crésol (vapeur et aérosol) # Di-tert-butyl-4-methylfenol (damp en aërosol)
OEL TWA	2 mg/m³ (aerosol and vapor)
Regulatory reference	Koninklijk besluit/Arrêté royal 16/11/2023
Bulgaria - Occupational Exposure Limits	
Local name	Дибутилпаракрезол
OEL TWA	10 mg/m³
OEL STEL	50 mg/m³
Regulatory reference	Наредба № 13 от 30.12.2003 г. за защита на работещите от рискове, свързани с експозиция на химични агенти при работа (изм. и доп. ДВ. бр. 47 от 2021 г., в сила от 04.06.2021 г.)
Croatia - Occupational Exposure Limits	
Local name	2,6-Di-tert-butil-p-krezol
GVI (OEL TWA)	10 mg/m³
Regulatory reference	Pravilnik o zaštiti radnika od izloženosti opasnim kemikalijama na radu, graničnim vrijednostima izloženosti i biološkim graničnim vrijednostima (NN 148/2023)
Denmark - Occupational Exposure Limits	
Local name	2,6-Di-tert-butyl-p-cresol (Butylhydroxytoluen)
OEL TWA	10 mg/m³
OEL STEL	20 mg/m³
Regulatory reference	BEK nr 202 af 21/02/2023
Finland - Occupational Exposure Limits	
Local name	2,6-Di-tert-butyyli-p-kresoli
HTP (OEL TWA)	10 mg/m³
HTP (OEL STEL)	20 mg/m³
Regulatory reference	HTP-ARVOT 2020 (Sosiaali- ja terveysministeriö)
France - Occupational Exposure Limits	
Local name	2,6-Di-tert-butyl-p-crésol
VME (OEL TWA)	10 mg/m³
Remark	Valeurs recommandées/admises
Regulatory reference	Circulaire du Ministère du travail (réf.: INRS ED 6443, 2022; Outil65)
Germany - Occupational Exposure Limits (TRGS 900)	
Local name	2,6-Di-tert-butyl-p-kresol
Occupational exposure limit value (mg/m³) (TRGS900)	10 mg/m³ (the risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed-inhalable fraction)
Peak exposure limitation factor	4(II)

2,6-di-tert-butyl-p-cresol (128-37-0)	
Remark	DFG - Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe der DFG (MAK-Kommission); Y - Ein Risiko der Fruchtschädigung braucht bei Einhaltung des Arbeitsplatzgrenzwertes und des biologischen Grenzwertes (BGW) nicht befürchtet zu werden; 11 - Summe aus Dampf und Aerosolen
Regulatory reference	TRGS900
Greece - Occupational Exposure Limits	
Local name	Βουτυλο-υσροξυ-τολουόλιο
OEL TWA	10 mg/m³
Regulatory reference	Π.Δ. 90/1999 - Προστασία της υγείας των εργαζομένων που εκτίθενται σε ορισμένους χημικούς παράγοντες κατά τη διάρκεια της εργασίας τους
Ireland - Occupational Exposure Limits	
Local name	2,6-Ditertiary-butyl-para-cresol [Butylated hydroxytoluene (BHT)]
OEL TWA	2 mg/m³
OEL STEL	6 mg/m³ (calculated)
Regulatory reference	Chemical Agents Code of Practice 2021
Portugal - Occupational Exposure Limits	
Local name	Hidroxitoluenobutilado (2,6-Di-terc-butil-p-cresol) (BHT)
OEL TWA	2 mg/m³ (inhalable fraction; vapor)
OEL chemical category	A4 - Not Classifiable as a Human Carcinogen
Remark	A4 (Agente não classificável como carcinogénico no Homem)
Regulatory reference	Norma Portuguesa NP 1796:2014
Slovenia - Occupational Exposure Limits	
Local name	2,6-di-terc-butil-p-krezol
OEL TWA	10 mg/m³ (inhalable fraction)
OEL STEL	40 mg/m³ (inhalable fraction)
Remark	Y (Snovi, pri katerih ni nevarnosti za zarodek ob upoštevanju mejnih vrednosti in bat vrednosti)
Regulatory reference	Uradni list RS, št. 72/2021 z dne 11.5.2021
Spain - Occupational Exposure Limits	
Local name	2,6-Diterc-butil-p-cresol
VLA-ED (OEL TWA)	10 mg/m³
Regulatory reference	Límites de Exposición Profesional para Agentes Químicos en España 2024. INSHT
United Kingdom - Occupational Exposure Limits	
Local name	2,6-Di-tert-butyl-p-cresol
WEL TWA (OEL TWA)	10 mg/m³
WEL STEL (OEL STEL)	30 mg/m³ (calculated)

2,6-di-tert-butyl-p-cresol (128-37-0)	
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE
Iceland - Occupational Exposure Limits	
Local name	2,6-Dí-tert-bútýl-p-kresól (bútýlhýdroxýtólúen)
OEL TWA	10 mg/m³
Regulatory reference	Reglugerð um mengunarmörk og aðgerðir til að draga úr mengun á vinnustöðum (Nr. 390/2009)
North Macedonia - Occupational Exposure Limits	
Local name	2,6-ди-терц-бутил-р-крезол
OEL TWA	10 mg/m³ (I) инхалабилна фракција – дел на вкупно суспендирани материи, кои работникот ги вдишува
Regulatory reference	Правилник за минималните барања за безбедност и здравје при работа на вработени од ризици поврзани со изложување на хемиски супстанци („Службен весник на Република Македонија" бр.46/10)
Switzerland - Occupational Exposure Limits	
Local name	Butylhydroxytoluène (BHT) / Butylhydroxytoluol (BHT) [2,6-Di-tert-butyl-4-kresol]
MAK (OEL TWA)	10 mg/m³ (no elevated carcinogenic risk by keeping the MAK-value-aerosol, inhalable dust, vapour)
KZGW (OEL STEL)	40 mg/m³ (aerosol, inhalable dust, vapour)
Notation	$C1^{\#}_{B}$, SS_{C} / $C1^{\#}_{B}$, SS_{C}
Remark	Pas de risque accru de cancer si la VME est respectée. La substance peut être présente sous forme de vapeur et d'aérosol en même temps / Kein erhöhtes Krebsrisiko bei Einhalten des MAK-Werts. Der Stoff kann gleichzeitig als Dampf und Aerosol vorliegen.
OEL chemical category	Category C1B carcinogen carcinogenic with threshold value
Regulatory reference	www.suva.ch, 01.01.2024
USA - ACGIH - Occupational Exposure Limits	
Local name	Butylated hydroxytoluene
ACGIH OEL TWA	2 mg/m³ (inhalable fraction and vapor)
Remark (ACGIH)	TLV® Basis: URT irr. Notations: A4 (Not classifiable as a Human Carcinogen)
ACGIH chemical category	Not Classifiable as a Human Carcinogen
Regulatory reference	ACGIH 2024

8.1.2. Recommended monitoring procedures

Monitoring methods	
Monitoring methods	Personal air monitoring. Room air monitoring.

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

Additional information : Recommended monitoring procedures :. Personal air monitoring. Room air monitoring

8.1.5. Control banding

No additional information available

8.2. Exposure controls

Engineering measure(s) : Provide adequate ventilation. Organisational measures to prevent/limit releases, dispersion and exposure. See Section 7 for information on safe handling.

Personal protective equipment : The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hand protection : Wear chemically resistant gloves (tested to EN374) . Suitable material: Not determined. Thickness. Not determined. Breakthrough time : refer to the recommendations of the supplier. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.

Eye protection : Use suitable eye protection (EN166): Safety glasses with side-shields

Body protection : Wear suitable protective clothing. Long sleeved clothing

Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment. Half-face mask (DIN EN 140). full face mask (DIN EN 136). Filter type: The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used. (EN 137)

Thermal hazard protection : Not required for normal conditions of use. Use dedicated equipment.

Environmental exposure controls : Avoid release to the environment. Comply with applicable Community environmental protection legislation.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: light yellow.
Appearance	: Liquid.
Odour	: Characteristic. Mineral oil.
Odour threshold	: No data available
Melting point	: ≤ -20 °C Pour point
Freezing point	: Not available
Initial boiling point and boiling range	: > 150 °C expected
Flammability	: Non flammable,Capable of catching fire
Explosive properties	: Not applicable. The classification procedures for self-reactive substances and mixtures need not be applied because there are no chemical groups present in the molecule associated with explosive or selfreactive properties.

Oxidising properties	:	Not applicable. The study does not need to be conducted because the substance is incapable of reacting exothermically with combustible materials.
Lower explosion limit	:	Not available
Upper explosion limit	:	Not available
Flash point	:	≥ 70 °C (PMCC)
Auto-ignition temperature	:	> 320 °C expected
Decomposition temperature	:	No data available
pH	:	No data available
Kinematic viscosity	:	5 mm^2/s (40°C)
Dynamic viscosity	:	No data available
Solubility	:	Water: Negligible
Partition coefficient n-octanol/water (Log Kow)	:	Not available
Partition coefficient n-octanol/water	:	No data available
Vapour pressure	:	No data available
Vapour pressure at 50°C	:	Not available
Density	:	0,8 – 0,82 g/cm^3 (15°C)
Relative density	:	No data available
Vapour density	:	No data available
Particle characteristics	:	Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Explosion limits : 1 – 10 vol %

9.2.2. Other safety characteristics

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

None under normal conditions. Reference to other sections: 10.4 & 10.5.

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. Protect from sunlight. Protect from humidity and water. See Section 7 for information on safe handling.

10.5. Incompatible materials

Halogens. alkalis. Strong acids. Strong oxidizing agents. See Section 7 for information on safe handling.

10.6. Hazardous decomposition products

Reference to other sections 5.2.

SECTION 11: Toxicological information

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

Acute toxicity (oral) : Not classified (Based on available data, the classification criteria are not met)

Acute toxicity (dermal) : Not classified (Based on available data, the classification criteria are not met)

Acute toxicity (inhalation) : Not classified (Based on available data, the classification criteria are not met)

Distillates (petroleum), hydrotreated light (64742-47-8)	
LD50/oral/rat	> 5000 mg/kg (Source: IUCLID)
LD50/dermal/rabbit	> 2000 mg/kg (Source: NLM_CIP)
LC50/inhalation/4h/rat	> 5,2 mg/l/4h

Phenol, isopropylated, phosphate (3:1) (68937-41-7)	
LD50/oral/rat	> 5000 mg/kg (Source: CHEMVIEW)
LD50 oral	> 5000 mg/kg
LD50/dermal/rabbit	> 10000 mg/kg (Source: EPA_HPV)
LD50 dermal	> 10000 mg/kg
LC50/inhalation/4h/rat	> 200 mg/l (Exposure time: 1 h Source: EPA_HPV)

2,6-di-tert-butyl-p-cresol (128-37-0)	
LD50/oral/rat	> 2930 mg/kg (Source: EPA_HPV)
LD50/dermal/rat	> 2000 mg/kg (Source: JAPAN_GHS)

Skin corrosion/irritation : Not classified (Based on available data, the classification criteria are not met)
pH: No data available

Serious eye damage/irritation : Not classified (Based on available data, the classification criteria are not met)
pH: No data available

Respiratory or skin sensitisation : Not classified (Based on available data, the classification criteria are not met)

Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met)

Carcinogenicity : Not classified (Based on available data, the classification criteria are not met)

2,6-di-tert-butyl-p-cresol (128-37-0)	
IARC group	3 - Not classifiable

Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met)

STOT-single exposure : Not classified (Based on available data, the classification criteria are not met)

STOT-repeated exposure : Not classified (Based on available data, the classification criteria are not met)

Phenol, isopropylated, phosphate (3:1) (68937-41-7)	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard : May be fatal if swallowed and enters airways.

SHIMANO LOW VISCOSITY OIL	
Kinematic viscosity	5 mm²/s (40°C)

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

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 %

11.2.2. Other information

Other information : Symptoms related to the physical, chemical and toxicological characteristics,For further information see section 4

SECTION 12: Ecological information

12.1. Toxicity

Environmental properties : Toxic 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) : Toxic to aquatic life with long lasting effects.

Distillates (petroleum), hydrotreated light (64742-47-8)	
LC50 - Fish [1]	45 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through] Source: IUCLID)
LC50 - Fish [2]	2,2 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static] Source: EPA)

Phenol, isopropylated, phosphate (3:1) (68937-41-7)	
LC50 - Fish [1]	1,15 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [semi-static] Source: IUCLID)
LC50 - Fish [2]	1000 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [static] Source: IUCLID)
EC50 - Crustacea [1]	14 mg/l (Exposure time: 48 h - Species: Daphnia magna)

Phenol, isopropylated, phosphate (3:1) (68937-41-7)	
NOEC chronic fish	3,1 µg/L

2,6-di-tert-butyl-p-cresol (128-37-0)	
EC50 72h - Algae [1]	6 mg/l (Species: Pseudokirchneriella subcapitata)
EC50 72h - Algae [2]	> 0,42 mg/l (Species: Desmodesmus subspicatus)

12.2. Persistence and degradability

SHIMANO LOW VISCOSITY OIL	
Persistence and degradability	No additional information available.

12.3. Bioaccumulative potential

SHIMANO LOW VISCOSITY OIL	
Partition coefficient n-octanol/water	No data available
Bioaccumulative potential	No additional information available.

Distillates (petroleum), hydrotreated light (64742-47-8)	
BCF - Fish [1]	61 – 159

Phenol, isopropylated, phosphate (3:1) (68937-41-7)	
BCF - Fish [1]	(225 dimensionless (edible fraction)
Partition coefficient n-octanol/water	4,92 – 5,17

2,6-di-tert-butyl-p-cresol (128-37-0)	
BCF - Fish [1]	230 – 2500
Partition coefficient n-octanol/water	5,1

12.4. Mobility in soil

SHIMANO LOW VISCOSITY OIL	
Mobility in soil	No data available

12.5. Results of PBT and vPvB assessment

SHIMANO LOW VISCOSITY OIL	
Results of PBT assessment	Contains no PBT and/or vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

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

Other adverse effects : No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

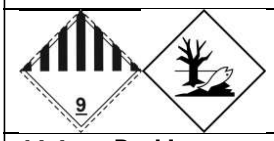
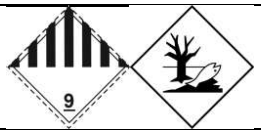
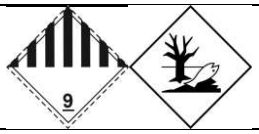
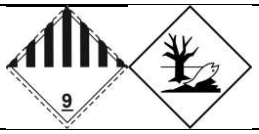
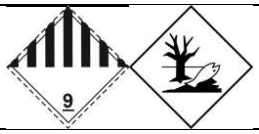
Product/Packaging disposal recommendations : Avoid release to the environment. Dispose of empty containers and wastes safely. See Section 7 for information on safe handling. Refer to manufacturer/supplier for information on recovery/recycling. Recycling is preferred to disposal or incineration. If recycling is not possible, eliminate in accordance with local valid waste disposal regulations. Handle contaminated packages in the same way as the substance itself. Dispose of contaminated materials in accordance with current regulations. Do not pierce or burn, even after use. Never use pressure to empty container.

European waste catalogue (2001/573/EC, 75/442/EEC, 91/689/EEC) : This material and its container must be disposed of as hazardous waste Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities

SECTION 14: Transport information

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

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
3082	3082	3082	3082	3082
14.2. UN proper shipping name				
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Phenol, isopropylated, phosphate (3:1) ; 2,6-di-tert-butyl-p-cresol)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Phenol, isopropylated, phosphate (3:1) ; 2,6-di-tert-butyl-p-cresol)	Environmentally hazardous substance, liquid, n.o.s. (Phenol, isopropylated, phosphate (3:1) ; 2,6-di-tert-butyl-p-cresol)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Phenol, isopropylated, phosphate (3:1) ; 2,6-di-tert-butyl-p-cresol)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Phenol, isopropylated, phosphate (3:1) ; 2,6-di-tert-butyl-p-cresol)
Transport document description				
UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Phenol, isopropylated, phosphate (3:1) ; 2,6-di-tert-butyl-p-cresol), 9, III, (-)	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Phenol, isopropylated, phosphate (3:1) ; 2,6-di-tert-butyl-p-cresol), 9, III, MARINE POLLUTANT	UN 3082 Environmentally hazardous substance, liquid, n.o.s. (Phenol, isopropylated, phosphate (3:1) ; 2,6-di-tert-butyl-p-cresol), 9, III	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Phenol, isopropylated, phosphate (3:1) ; 2,6-di-tert-butyl-p-cresol), 9, III	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Phenol, isopropylated, phosphate (3:1) ; 2,6-di-tert-butyl-p-cresol), 9, III

ADR	IMDG	IATA	ADN	RID
14.3. Transport hazard class(es)				
9	9	9	9	9
				
14.4. Packing group				
III	III	III	III	III
14.5. Environmental hazards				
Dangerous for the environment : Yes	Dangerous for the environment : Yes Marine pollutant : Yes	Dangerous for the environment : Yes	Dangerous for the environment : Yes	Dangerous for the environment : Yes
No supplementary information available				

14.6. Special precautions for user

Special precautions for user : No data available

- Overland transport

Classification code (ADR)	:	M6
Special provisions	:	274, 335, 375, 601
Limited quantities (ADR)	:	5l
Excepted quantities (ADR)	:	E1
Packing instructions (ADR)	:	P001, IBC03, LP01, R001
Special packing provisions (ADR)	:	PP1
Mixed packing provisions (ADR)	:	MP19
Portable tank and bulk container instructions (ADR)	:	T4
Portable tank and bulk container special provisions (ADR)	:	TP1, TP29
Tank code (ADR)	:	LGBV
Vehicle for tank carriage	:	AT
Transport category (ADR)	:	3
Special provisions for carriage - Packages (ADR)	:	V12
Special provisions for carriage - Loading, unloading and handling (ADR)	:	CV13
Hazard identification number (Kemler No.)	:	90
Orange plates	:	90 3082
Tunnel restriction code	:	-
EAC code	:	•3Z

- Transport by sea

Special provisions (IMDG)	:	274, 335, 969
Limited quantities (IMDG)	:	5 L

Excepted quantities (IMDG)	: E1
Packing instructions (IMDG)	: LP01, P001
Special packing provisions (IMDG)	: PP1
IBC packing instructions (IMDG)	: IBC03
Tank instructions (IMDG)	: T4
Tank special provisions (IMDG)	: TP1, TP29
EmS-No. (Fire)	: F-A
EmS-No. (Spillage)	: S-F
Stowage category (IMDG)	: A

- Air transport

PCA Excepted quantities (IATA)	: E1
PCA Limited quantities (IATA)	: Y964
PCA limited quantity max net quantity (IATA)	: 30kgG
PCA packing instructions (IATA)	: 964
PCA max net quantity (IATA)	: 450L
CAO packing instructions (IATA)	: 964
CAO max net quantity (IATA)	: 450L
Special provisions (IATA)	: A97, A158, A197, A215
ERG code (IATA)	: 9L

- Inland waterway transport

Classification code (ADN)	: M6
Special provisions (ADN)	: 274, 335, 375, 601
Limited quantities (ADN)	: 5 L
Excepted quantities (ADN)	: E1
Carriage permitted (ADN)	: T
Equipment required (ADN)	: PP
Number of blue cones/lights (ADN)	: 0

- Rail transport

Classification code (RID)	: M6
Special provisions (RID)	: 274, 335, 375, 601
Limited quantities (RID)	: 5L
Excepted quantities (RID)	: E1
Packing instructions (RID)	: P001, IBC03, LP01, R001
Special packing provisions (RID)	: PP1
Mixed packing provisions (RID)	: MP19
Portable tank and bulk container instructions (RID)	: T4
Portable tank and bulk container special provisions (RID)	: TP1, TP29
Tank codes for RID tanks (RID)	: LGBV
Transport category (RID)	: 3
Special provisions for carriage – Packages (RID)	: W12

Special provisions for carriage - Loading, unloading and handling (RID) : CW13, CW31

Colis express (express parcels) (RID) : CE8

Hazard identification number (RID) : 90

14.7. Maritime transport in bulk according to IMO instruments

Code: IBC : No data available.

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 (EU 1005/2009)

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

Dual-Use Regulation (428/2009)

Contains no substance subject to the COUNCIL REGULATION (EC) No 428/2009 of 5 May 2009 setting up a Community regime for the control of exports, transfer, brokering and transit 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)

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)

Detergent Regulation (648/2004/EC): Labelling of contents

15.1.2. National regulations

France

Installations classées			
No ICPE	Désignation de la rubrique	Code Régime	Rayon
4511.text	Dangereux pour l'environnement aquatique de catégorie chronique 2.		
4511.1	La quantité totale susceptible d'être présente dans l'installation étant : 1. Supérieure ou égale à 200 t Quantité seuil bas au sens de l'article R. 511-10 : 200 t. Quantité seuil haut au sens de l'article R. 511-10 : 500 t.	A	1
4511.2	La quantité totale susceptible d'être présente dans l'installation étant : 2. Supérieure ou égale à 100 t mais inférieure à 200 t Quantité seuil bas au sens de l'article R. 511-10 : 200 t. Quantité seuil haut au sens de l'article R. 511-10 : 500 t.	DC	

Germany

Employment restrictions : Observe restrictions according Act on the Protection of Working Mothers (MuSchG).
Observe restrictions according Act on the Protection of Young People in Employment (JArbSchG).

Water hazard class (WGK) : WGK 3, Highly hazardous to water (Classification according to AwSV, Annex 1).

Hazardous Incident Ordinance (12. BImSchV) : Listed in the 12. BImSchV (Annex I) under: 1.3.2
- Quantity threshold for operational area under § 1 para. 1
  - Sentence 1 :200000 kg
  - Sentence 2 :500000 kg

Netherlands

Waterbezwaarlijkheid : A (2) - Vergiftig voor in water levende organismen
kan in het aquatische milieu op lange termijn schadelijke effecten veroorzaken

SZW-lijst van kankerverwekkende stoffen : Phenol, isopropylated, phosphate (3:1) is listed

SZW-lijst van mutagene stoffen : Phenol, isopropylated, phosphate (3:1) is listed

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

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

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

Denmark

Classification remarks : Emergency management guidelines for the storage of flammable liquids must be followed

Danish National Regulations : Young people below the age of 18 years are not allowed to use the product
Pregnant/breastfeeding women working with the product must not be in direct contact with the product

15.2. Chemical safety assessment

Not applicable.

SECTION 16: Other information

Abbreviations and acronyms:

	ABM = Algemene beoordelingsmethodiek
	ADN = Accord Européen relatif au Transport International des Marchandises Dangereuses par voie de Navigation du Rhin ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route CLP = Classification, Labelling and Packaging Regulation according to 1272/2008/EC IATA = International Air Transport Association IMDG = International Maritime Dangerous Goods Code LEL = Lower Explosive Limit/Lower Explosion Limit UEL = Upper Explosion Limit/Upper Explosive Limit REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
	BTT = Breakthrough time (maximum wearing time)
	DMEL = Derived Minimal Effect level
	DNEL = Derived No Effect Level
	EC50 = Median Effective Concentration
	EL50 = Median effective level
	ErC50 = EC50 in terms of reduction of growth rate
	ErL50 = EL50 in terms of reduction of growth rate
	EWC = European waste catalogue
	LC50 = Median lethal concentration
	LD50 = Median lethal dose
	LL50 = Median lethal level
	NA = Not applicable
	NOEC = No observed effect concentration
	NOEL: no-observed-effect level
	NOELR = No observed effect loading rate
	NOAEC = No observed adverse effect concentration
	NOAEL = No observed adverse effect level
	N.O.S. = Not Otherwise Specified
	OEL = Occupational Exposure Limits - Short Term Exposure Limits (STELs)
	PNEC = Predicted No Effect Concentration
	Quantitative structure-activity relationship (QSAR)
	STOT = Specific Target Organ Toxicity
	TWA = time weighted average
	VOC = Volatile organic compounds
	WGK = Wassergefährdungsklasse (Water Hazard Class under German Federal Water Management Act)

Sources of key data used to compile the datasheet : ECHA (European Chemicals Agency). Supplier information : SDS (Shell Lubricants Japan K.K./ Rev dat: December 20/2023).

Training advice : Training staff on good practice. Manipulations are to be done only by qualified and authorised persons.

Other information : Classification - Assessment method: CLP Calculation method (Article 9). Physicochemical hazard assessment: Information given is based on tests on the mixture itself.

Full text of H- and EUH-statements:

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
H304	May be fatal if swallowed and enters airways.
H361f	Suspected of damaging fertility.
H373	May cause damage to organs through prolonged or repeated exposure.

H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
Repr. 2	Reproductive toxicity, Category 2
STOT RE 2	Specific target organ toxicity – Repeated exposure, Category 2

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878
Classification according to Regulation (EC) No. 1272/2008 [CLP]
Labelling according to Regulation (EC) No. 1272/2008 [CLP]

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