SAFETY DATA SHEET

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

1.1. Product identifier

Trade name or designation of the mixture	Husqvarna 4-Stroke OIL 10W-30 Transmission Oil
Registration number	-
Synonyms	None.
Product code	597 68 70-01 (1 L), 597 68 70-04 (4 L), 597 68 70-20 (200 L)
Issue date	04-July-2019
Version number	01
Revision date	-
Supersedes date	-

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

Identified uses	Transmission oil.
Uses advised against	Use in accordance with supplier's recommendations.

1.3. Details of the supplier of the safety data sheet

Company name	Husqvarna AB Drottninggatan 2 561 82 Huskvarna, Sweden
Telephone	+46 (0)36-14 65 00
Contact person	Accessory Department
E-mail	sds.info@husqvarnagroup.com
1.4. Emergency telephone number	+1-760-476-3961 (Access code 333721)
General in EU	112 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

Classification according to Regulation (EC) No 1272/2008 as amended

Environmental hazards

Hazardous to the aquatic environment, long-term aquatic hazard	Category 3	H412 - Harmful to aquatic life with long lasting effects.

Hazard summary Not classified for health hazards. However, occupational exposure to the mixture or substance(s) may cause adverse health effects. Dangerous for the environment if discharged into watercourses.

2.2. Label elements

Label according to Regulation (EC) No. 1272/2008 as amended

Hazard pictograms None.

Signal word None.

Hazard statements

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

Prevention

P273 Avoid release to the environment.

Response Not assigned.

Storage Not assigned.

Disposal

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Supplemental label information EUH208 - Contains C14-18 alpha-olefin epoxide, reaction products with boric acid, Triphenyl phosphite. May produce an allergic reaction.

2.3. Other hazards This mixture does not contain substances assessed to be vPvB / PBT according to Regulation (EC) No 1907/2006, Annex XIII.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
Distillates (petroleum), hydrotreated light paraffinic	25-50	64742-55-8 265-158-7	01-2119487077-29	649-468-00-3	
Classification: Asp. Tox. 1;H304					L
Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate)	0.1-2.49	4259-15-8 224-235-5	01-2119493635-27	-	
Classification: Eye Dam. 1;H318, Aquatic Chronic 2;H411					
C14-18 alpha-olefin epoxide, reaction products with boric acid	0.1-0.99	- 939-580-3	01-2119976364-28	-	
Classification: Skin Sens. 1B;H317					
Triphenyl phosphite	0.1-0.15	101-02-0 202-908-4	01-2119511213-58	015-105-00-7	
Classification: Acute Tox. 4;H302, Skin Irrit. 2;H315, Skin Sens. 1;H317, Eye Irrit. 2;H319, Aquatic Acute 1;H400, Aquatic Chronic 1;H410					

Composition comments Mineral oil with additives. The mineral oils in the product contain <3% DMSO extract (IP 346).

SECTION 4: First aid measures

General information Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

4.1. Description of first aid measures

Inhalation Move to fresh air. Call a physician if symptoms develop or persist.

Skin contact Wash off with soap and water. Get medical attention if irritation develops and persists.

Eye contact Rinse with water. Get medical attention if irritation develops and persists.

Ingestion Rinse mouth. Get medical attention if symptoms occur.

4.2. Most important symptoms and effects, both acute and delayed Exposure may cause temporary irritation, redness, or discomfort.

4.3. Indication of any immediate medical attention and special treatment needed Treat symptomatically.

SECTION 5: Firefighting measures

General fire hazards No unusual fire or explosion hazards noted.

5.1. Extinguishing media

Suitable extinguishing media Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture During fire, gases hazardous to health may be formed.

5.3. Advice for firefighters

Special protective equipment for firefighters Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Special fire fighting procedures Move containers from fire area if you can do so without risk.

Specific methods Use standard firefighting procedures and consider the hazards of other involved materials.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained.

For emergency responders Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the SDS.

6.2. Environmental precautions Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up This product is miscible in water. Prevent product from entering drains.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use.

6.4. Reference to other sections For personal protection, see section 8 of the SDS. For waste disposal, see section 13 of the SDS.

SECTION 7: Handling and storage

7.1. Precautions for safe handling Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. Avoid prolonged exposure. Observe good industrial hygiene practices. Provide adequate ventilation. Wear appropriate personal protective equipment. Avoid release to the environment. Empty drums should be completely drained, properly bunged and promptly returned to a drum reconditioner, or promptly disposed of.

7.2. Conditions for safe storage, including any incompatibilities Store in original tightly closed container. Store away from incompatible materials (see section 10 of the SDS).

7.3. Specific end use(s) Transmission oil.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

Ireland. Occupational Exposure Limits

Product	Type	Value	Form
Oil mist, mineral	TWA	5 mg/m3	Inhalable fraction.

Biological limit values No biological exposure limits noted for the ingredient(s).

Recommended monitoring procedures Follow standard monitoring procedures.

Derived no effect levels (DNELs)

General Population

Components	Value	Assessment factor	Notes
C14-18 alpha-olefin epoxide, reaction products with boric acid (CAS -)			
Long-term, Systemic, Dermal	8.3 mg/kg bw/day	600	Repeated dose toxicity
Long-term, Systemic, Inhalation	1.45 mg/m3	150	Repeated dose toxicity
Long-term, Systemic, Oral	0.83 mg/kg bw/day	600	Repeated dose toxicity
Distillates (petroleum), hydrotreated light paraffinic (CAS 64742-55-8)			
Long-term, Systemic, Oral	0.74 mg/kg bw/day		
Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate) (CAS 4259-15-8)			
Long-term, Systemic, Dermal	4.8 mg/kg bw/day	240	Repeated dose toxicity
Long-term, Systemic, Inhalation	1.67 mg/m3		Repeated dose toxicity
Long-term, Systemic, Oral	0.19 mg/kg bw/day	600	Repeated dose toxicity

Workers

Components	Value	Assessment factor	Notes
C14-18 alpha-olefin epoxide, reaction products with boric acid (CAS -)			
Long-term, Systemic, Dermal	16.7 mg/kg bw/day	300	Repeated dose toxicity
Long-term, Systemic, Inhalation	5.88 mg/m3	75	Repeated dose toxicity
Distillates (petroleum), hydrotreated light paraffinic (CAS 64742-55-8)			
Long-term, Systemic, Dermal	1 mg/kg bw/day		
Long-term, Systemic, Inhalation	2.7 mg/m3		
Short-term, Local, Inhalation	5.6 mg/m3		
Triphenyl phosphite (CAS 101-02-0)			
Long-term, Systemic, Dermal	0.15 mg/kg bw/day		Repeated dose toxicity
Long-term, Systemic, Inhalation	0.53 mg/m3		Repeated dose toxicity

Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate) (CAS 4259-15-8)			
Long-term, Systemic, Dermal	9.6 mg/kg bw/day	120	Repeated dose toxicity
Long-term, Systemic, Inhalation	6.6 mg/m3	30	Repeated dose toxicity

Predicted no effect concentrations (PNECs)

Components	Value	Assessment factor	Notes
C14-18 alpha-olefin epoxide, reaction products with boric acid (CAS -)			
Freshwater	0.2 mg/l	50	
Marine water	0.02 mg/l	500	
Secondary poisoning	33.3 mg/kg	300	
Sediment (freshwater)	8556 mg/kg		
Sediment (marine water)	855.6 mg/kg		
Soil	1706.3 mg/kg		
STP	100 mg/l	100	
Distillates (petroleum), hydrotreated light paraffinic (CAS 64742-55-8)			
Secondary poisoning	9.33 mg/kg		
Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate) (CAS 4259-15-8)			
Freshwater	4 µg/l	100	
Marine water	4.6 µg/l	10000	
Secondary poisoning	8.33 mg/kg	300	Oral
Sediment (freshwater)	0.322 mg/kg		
Sediment (marine water)	0.032 mg/kg		
Soil	0.062 mg/kg		
STP	3.8 mg/l	100	

Exposure guidelines Provide adequate ventilation.

8.2. Exposure controls

Appropriate engineering controls Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

General information Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

Eye/face protection Wear safety glasses with side shields (or goggles). Eye protection should meet standard EN 166.

Skin protection

- Hand protection Wear appropriate chemical resistant gloves. Glove material: Nitrile rubber. Use gloves with breakthrough time of 480 minutes. Minimum glove thickness 0.35 mm. Wear suitable gloves tested to EN374.

- Other Wear suitable protective clothing.

Respiratory protection In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

Hygiene measures Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

Environmental exposure controls Inform appropriate managerial or supervisory personnel of all environmental releases. Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. Fume scrubbers, filters or engineering modifications to the process equipment may be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state Liquid.

Form Liquid.

Colour Brown.

Odour Characteristic.

Odour threshold No data available.

pH Not applicable.

Melting point/freezing point No data available.

Initial boiling point and boiling range No data available.

Flash point	> 200.0 °C (> 392.0 °F) (ASTM D 92)
Evaporation rate	No data available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	No data available.
Flammability limit - upper (%)	No data available.
Vapour pressure	No data available.
Vapour density	No data available.
Relative density	0.866 (15.6 °C)
Solubility(ies)	Slightly soluble in water.
Partition coefficient (n-octanol/water)	No data available.
Auto-ignition temperature	No data available.
Decomposition temperature	No data available.
Viscosity	71 mm²/s (40°C)
Explosive properties	Not explosive.
Oxidising properties	Not oxidising.
9.2. Other information	
Density	0.87 kg/m³ at 15°C

SECTION 10: Stability and reactivity

10.1. Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
10.2. Chemical stability	Material is stable under normal conditions.
10.3. Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
10.4. Conditions to avoid	Contact with incompatible materials.
10.5. Incompatible materials	Strong oxidising agents.
10.6. Hazardous decomposition products	No hazardous decomposition products are known.

SECTION 11: Toxicological information

General information	Occupational exposure to the substance or mixture may cause adverse effects.
Information on likely routes of exposure	
Inhalation	Prolonged inhalation may be harmful.
Skin contact	Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.
Eye contact	Direct contact with eyes may cause temporary irritation.
Ingestion	May cause discomfort if swallowed. However, ingestion is not likely to be a primary route of occupational exposure.
Symptoms	Exposure may cause temporary irritation, redness, or discomfort.

11.1. Information on toxicological effects

Acute toxicity

Components	Species	Test Results
C14-18 alpha-olefin epoxide, reaction products with boric acid (CAS -)		
Acute		
Dermal		
LD50	Rat	> 2000 mg/kg
Oral		
LD50	Rat	> 16000 mg/kg
Triphenyl phosphite (CAS 101-02-0)		
Acute		
Dermal		
LD50	Rabbit	2 - 5 g/kg, 24 Hours

Components	Species	Test Results
Inhalation		
Aerosol		
LC50	Rat	> 6.7 mg/l, 1 Hours
Oral		
LD50	Rat	2 g/kg

Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate) (CAS 4259-15-8)

Acute		
Dermal		
LD50	Rabbit	> 5000 mg/kg, 24 Hours
Oral		
LD50	Rat	3100 mg/kg

Skin corrosion/irritation	Based on available data, the classification criteria are not met.
Serious eye damage/eye irritation	Based on available data, the classification criteria are not met. Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate) [CAS 4259-15-8] was not an ocular irritant when tested as a 50% formulation in mineral oil.
Respiratory sensitisation	Due to partial or complete lack of data the classification is not possible.
Skin sensitisation	Based on available data, the classification criteria are not met.
Germ cell mutagenicity	Based on available data, the classification criteria are not met.
Carcinogenicity	Due to partial or complete lack of data the classification is not possible.
Reproductive toxicity	Based on available data, the classification criteria are not met.
Specific target organ toxicity - single exposure	Due to partial or complete lack of data the classification is not possible.
Specific target organ toxicity - repeated exposure	Based on available data, the classification criteria are not met.
Aspiration hazard	Based on available data, the classification criteria are not met.
Mixture versus substance information	No information available.
Other information	Prolonged and repeated contact with used oil may cause serious skin diseases, such as dermatitis and skin cancer.

SECTION 12: Ecological information

12.1. Toxicity Harmful to aquatic life with long lasting effects. Based on available data, the classification criteria are not met for hazardous to the aquatic environment, acute hazard.

Components		Species	Test Results
C14-18 alpha-olefin epoxide, reaction products with boric acid (CAS -)			
Aquatic			
Acute			
Algae	EL50	Pseudokirchneriella subcapitata	> 100 mg/l, 72 hours
Crustacea	EL50	Daphnia magna	> 100 mg/l, 48 hours
Fish	LL50	Oncorhynchus mykiss	> 100 mg/l, 96 hours
Chronic			
Crustacea	NOEL	Daphnia magna	10 mg/l, 21 days
Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate) (CAS 4259-15-8)			
Aquatic			
Fish	LL50	Rainbow trout (Oncorhynchus mykiss)	4.4 mg/l, 96 hours
	NOEC	Rainbow trout (Oncorhynchus mykiss)	3.2 mg/l, 96 hours

12.2. Persistence and degradability	The product is expected to be biodegradable.
12.3. Bioaccumulative potential	No data available.
Partition coefficient n-octanol/water (log Kow)	Not available.
Bioconcentration factor (BCF)	Not available.
12.4. Mobility in soil	No data available.
12.5. Results of PBT and vPvB assessment	This mixture does not contain substances assessed to be vPvB / PBT according to Regulation (EC) No 1907/2006, Annex XIII.

12.6. Other adverse effects Oil spills are generally hazardous to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Residual waste	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.
EU waste code	The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Disposal methods/information	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.
Special precautions	Dispose in accordance with all applicable regulations.

SECTION 14: Transport information

ADR

14.1. - 14.6.: Not regulated as dangerous goods.

RID

14.1. - 14.6.: Not regulated as dangerous goods.

ADN

14.1. - 14.6.: Not regulated as dangerous goods.

IATA

14.1. - 14.6.: Not regulated as dangerous goods.

IMDG

14.1. - 14.6.: Not regulated as dangerous goods.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not established.

SECTION 15: Regulatory information

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

EU regulations

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended

Not listed.

Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended

Not listed.

Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended

Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate) (CAS 4259-15-8)

Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA

Not listed.

Authorisations

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended

Not listed.

Restrictions on use

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended

Not listed.

Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended.

Not listed.

Other EU regulations

Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended

Not listed.

Other regulations	The product is classified and labelled in accordance with Regulation (EC) 1272/2008 (CLP Regulation) as amended. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006, as amended.
National regulations	Follow national regulation for work with chemical agents in accordance with Directive 98/24/EC, as amended.
15.2. Chemical safety assessment	No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

List of abbreviations	PBT: Persistent, bioaccumulative and toxic. vPvB: Very Persistent and very Bioaccumulative.
References	ECHA CHEM
Information on evaluation method leading to the classification of mixture	The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.
Full text of any H-statements not written out in full under Sections 2 to 15	H302 Harmful if swallowed. H304 May be fatal if swallowed and enters airways. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H319 Causes serious eye irritation. 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.
Training information	Follow training instructions when handling this material.
Disclaimer	Husqvarna AB cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.