MATERIAL SAFETY DATA SHEET

1. NAME OF THE PRODUCT AND COMPANY

Trade name	Husqvarna 2 stroke Oil – Low Smoke
Article number	5444502-01 (0.1L.), 5444502-02 (1L.), 5444502-03 (4L.), 5444502-04 (10L.) 5310050-76 (208L)
Application	2 stroke oil

Supplier	Husqvarna AB
Address	SE 561 82 Huskvarna
Country	Sweden
Telephone	+46 36 14 65 00
Fax	+46 36 14 73 55
Contact	Per Carlbäck

For emergencies	Contact the Poison Information Centre

2. HAZARDOUS PROPERTIES

General
Assessed and classified as a product that is not hazardous to the environment or health.

Fire and explosion
Flammable liquid, class 3.

3. COMPOSITION/CLASSIFICATION OF SUBSTANCE

No.	Substance name	EC no.	CAS no.	Content (%)	Marking	R phrases
1	Highly refined mineral oil (DMSO extract <3%, IP 346)			>40	IK	
2	Distillate (petroleum), hydrotreated light	265-149-8	64742-47-8	15-25	Xn	R65-66
3	Polyolefin phenol			<5		R52
Table of symbols: T+=Very toxic, T=Toxic, C=Corrosive, Xn=Hazardous to health, Xi=Irritating, E=Explosive, O=Oxidizing, F+=Extremely flammable, F=Very flammable , N=Harmful to the environment, IK=Not subject to classification with respect to hazards to the environment and health.						

See item 16 for a list of all the relevant risk phrases.

4. FIRST AID

General
Remove the injured party from the source of exposure as soon as possible. Generally speaking first aid should always be administered in the form of symptomatic treatment if there is uncertainty surrounding which treatment to prescribe.

Inhalation
Fresh air, rest and warmth. Rinse nose, mouth and throat with water. If symptoms persist, seek medical attention.

Skin contact
Wash skin with soap and water. Remove contaminated clothing. If symptoms persist, seek medical attention. Instances where substances have forced their way in under the skin under high pressure shall be treated as serious injuries and require IMMEDIATE hospital treatment.

Contact with eyes
Rinse immediately with water for 10-15 minutes. Keep eyes wide open.

Consumption:
Do NOT induce vomiting. Seek medical attention.

5. MEASURES IN THE EVENT OF FIRE

Extinguishing agents
Foam, powder, carbon dioxide. Water spray.

Unsuitable extinguishing agents
Water.

Risk of fire and explosion
Heated product may cause combustible vapours. Combustion causes irritating fumes. Carbon monoxide (CO) may be formed in the event of incomplete combustion.

Personal protective equipment in the event of fire
Use respiratory protective device.

Information
Fires in enclosed areas must only be tackled by qualified personnel. Containers close to a fire must be removed and/or cooled using water.

6. MEASURES FOR SPILLS/ACCIDENTAL DISCHARGES

Measures for avoiding personal injury
Mark the discharge. Use personal protective equipment, see item 8.

Measures for avoiding environmental damage
General - Build a dike to prevent spread using sand, earth or other material. Above all, prevent spills from entering the drainage system and watercourses. The spill should be cleaned up using rags or an appropriate absorption agent. Inform the local authorities immediately if the discharge reaches the drainage system or watercourses. Contact the National Rescue Services Board where larger spills are involved. Any material collected is to be treated as hazardous waste, see item 13.
Water - Contain the discharge using booms and pump up as much as possible. Collect smaller amounts using a suitable absorption agent (bark, diatomaceous earth, containment booms)

7. HANDLING AND STORAGE

Special properties and risks
Handle so that spills and oil mist are avoided.

Handling directives
Flammable liquid, class 3. Handling flammable liquids may require a permit from or notification to the municipality.

Storage
Preferably under roof. Store drums horizontally so that the bunghole is under the fluid level.

8. RESTRICTING EXPOSURE/PERSONAL PROTECTION MEASURES

Preventive measures
Observe good personal hygiene. Do not wear clothing that has been contaminated by the product. Do not keep oil saturated rags in your pockets. Where there is a risk of direct contact or splashes, you should wear eye protection, protective gloves and protective clothing. Provide good ventilation.

Eye protection
Wear protective goggles or a face shield where there is a risk of eye contact.

Hand protection
Always wear protective gloves for work where there is a risk of direct contact with the product.

Skin protection
Wear suitable protective clothing (long arms and legs) where there is a risk of direct contact or splashes.

Information
For detailed information contact the protective equipment supplier.

Limit Values

Substance name	Cas no.	Class interval	Ppm	Mg/m^3	Year	Remark
Highly refined mineral oil (DMSO extract <3%, IP 346)	-	8 hours		1,0		
Highly refined mineral oil (DMSO extract <3%, IP 346)	-	15 min.		3,0		
Distillate (petroleum), hydrotreated light	64742-47-8	8 hours		350,0		
Distillate (petroleum), hydrotreated light	64742-47-8	15 min.		500,0		

Other information about limit values and vigilance
The limit value are based on limit value for oil fog, including oil fume.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form	Fluid
Colour	Blue
Odour	Organic solvents
Solubility	Organic solvents (the majority)

Density	867 kg/m^3 (15°C) ASTM D 4052
Flash point	>75°C, ASTM D 92
Solubility in water	Negligible
Viscosity	48 mm^2/s (40°C) ASTM D 445

10. STABILITY AND REACTIVITY

Stability
Chemically stable.

Reacts with
Powerful oxidizing agents.

Hazardous conversion products
Carbon monoxide (CO) and other substances hazardous to health may be formed during heating or combustion.

11. TOXICOLOGICAL INFORMATION

General
The product has a low acute toxicity when swallowed, although there is a risk of chemical pneumonia where aspiration to the lungs occurs. Not absorbed in acute toxic amounts through the skin. Inhalation of high concentrations of oil mist has an irritating effect on respiratory organs. Eye contact may cause discomfort but does not damage eye tissue. Long-term and/or repeated contact with the product in combination with inadequate personal hygiene may cause skin problems in the form of dermatitis, eczema and oil acne. Used products may contain contaminants that are hazardous to health.

Skin contact
Instances where substances have forced their way in under the skin under high pressure may cause necrosis to the skin.

12. ECOTOXICOLOGICAL INFORMATION

Mobility
Low water solubility, floats on water. Absorbs strongly into soil particles.

Degradability
Considered to be potentially degradable, long degradation time in nature.

Bioaccumulation
Contains components that can bioaccumulate (logPow>3).

Ecotoxicity
Non-toxic for water organisms. Anticipated LC/EC50 – value>100 mg/l.

Other damages
Oil film may cause physical injury to organisms and disrupt oxygen supply in the air/water, air/earth boundary layers.

Information
NOTE! The above information applies to base fluids.

13. WASTE MANAGEMENT

Applicable requirements for waste generators
See the Waste Ordinance SFS 2001:1063.

General instructions for waste management
Different types of hazardous waste are fobidden to mix with eachother. Types of wastes can be mixed if the purpose is to improve the security when disposal or recycling or in a way which can be approved from a environmental protection perspective. Waste storage may only be professional transported by the person which has special permission. Solvents- and oil waste may under certain given amounts be transported without special permission, after contacting The County Administrative Board.

Draining instructions
Cans which have a death's-head or a hazardous to the environment symbol and riskphase 50/53 should always be treated as hazardous waste.

Other cans should be drained thoroughly before submitting for recycling or reconditioning. The contents may need to be treated as hazardous waste. Drain at room temperature for best results. Place the containers upside down with about a 10 degree tilt so that run off occurs in such a way that the lowest point of the container is the outflow hole. Residual content should be collected up and used in the process where the product is included. For metal drums, it is particularly important that run off occurs at room temperature (min 15°C). Wait until the container is drip dry. Do not reseal the container following run off.

Note in particular the risks that exist when draining containers that contain flammable liquids. Ventilate drained containers in a safe place away from sparks and flames. Residual liquid may constitute an explosion risk. Do not puncture, cut or weld cleaned cans, containers or drums. If possible, cans which have contained water soluble products should first be rinsed thoroughly 3 times before draining. If possible, the rinsing water should be used in the process where the product is included.

Classification of waste types
Waste generators are responsible for classifying the waste they generate. All waste is specified using a six figure EWC code. The codes are specified in the Waste Ordinance (SFS 2001:1063). The codes for oil waste are based on applications and the constituent base oil. Oil waste is always classed as hazardous waste.

Waste group
EWC 13 02 05. Mineral-based non-chlorinated engine, transmission and lubricating oils.

14. TRANSPORT INFORMATION

The chemicals are classified as hazardous goods Yes ☐ No ☒ Not assessed ☐

Other information
Not covered by the regulations for transporting hazardous goods.

15. APPLICABLE REQUIREMENTS

R phrases/S phrases
Assessed and classified as a product that is not hazardous to health.

Marking/Danger symbol
Not subject to marking.

16. MISCELLANEOUS INFORMATION

Information sources
Current legislation at the time of the revision and technical documentation from the raw material supplier, Svenska Statoil AB.

List of all relevant risk phrases.

No.	R phrase text
R52	Harmful to aquatic organisms.
R65	Harmful: May cause lung damage if swallowed.
R66	Repeated exposure may cause skin dryness or cracking.

Revision overview

Issue	Rev. date	Responsible	Amendments
1	01/10/1996	Hanna Svennberg	
2	27/01/1998	Hanna Svennberg	Revised, Sections 1-16
3	12/12/2003	Hanna Svennberg	Revised, Sections 1-16
4	01/01/2007	Anita Cenusa	Revised, Sections 1-16
5	08/03/2010	Marie Sennevik	-

Supplier notes