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

1.1. Product identifier

Trade name or designation of the mixture	Husqvarna 2-Stroke Oil Guard
Registration number	-
Synonyms	None.
Product code	544 97 65-01 (1L), 544 97 65-02 (0,1L)
Issue date	29-August-2012
Version number	02
Revision date	18-December-2012
Supersedes date	29-August-2012

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

Identified uses	2-Stroke oil.
Uses advised against	Use in accordance with supplier's recommendations.

1.3. Details of the supplier of the safety data sheet

Supplier

Company name	Husqvarna AB
Address	Drottninggatan 2
Telephone	036-14 65 00
e-mail	sds.info@husqvarna.se
Contact person	Accessory Department

1.4. Emergency telephone number	+1-760-476-3961 (Access code 333721)

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 Directive 67/548/EEC or 1999/45/EC as amended

This preparation is not classified as dangerous according to Directive 1999/45/EC and its amendments.

The full text for all R-phrases is displayed in section 16.

Hazard summary

Physical hazards	Not classified for physical hazards.
Health hazards	Not classified for health hazards.
Environmental hazards	Not classified for hazards to the environment.
Specific hazards	May be irritating to the skin. May cause eye irritation on direct contact. May form vapours or oil mists during mechanical action or at elevated temperatures which may be irritating to respiratory tract. Vapours may cause drowsiness and dizziness. Prolonged exposure to oil mist may cause pulmonary disease such as chronic inflammation. Prolonged and repeated contact with used oil may cause serious skin diseases, such as dermatitis and skin cancer.
Main symptoms	May cause redness and pain. Defatting of the skin. Dermatitis. May cause eye irritation on direct contact. Ingestion may cause irritation and malaise. Vapours may cause drowsiness and dizziness. In high concentrations, mists/vapors may irritate throat and respiratory system and cause coughing.

2.2. Label elements

Label according to Directive 67/548/EEC or 1999/45/EC as amended

R-phrases	None.
S-phrases	None.
Authorization number	None.
Supplemental label information	Not applicable.
2.3. Other hazards	Not a PBT or vPvB substance or mixture.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	INDEX No.	Notes
Highly refined mineral oil (DMSO-extract < 3% IP 346)	> 50	- -	-	-	
Classification: **DSD:** - **CLP:** -					
Distillates (petroleum), hydrotreated light	10 - 15	64742-47-8 265-149-8	-	649-422-00-2	
Classification: **DSD:** Xn;R65, R66 **CLP:** Asp. Tox. 1;H304					
Hydrocarbyl amine	1 - 5	Polymer -	-	-	
Classification: **DSD:** R52/53 **CLP:** Aquatic Chronic 3;H412					

CLP: Regulation No. 1272/2008.
DSD: Directive 67/548/EEC.
#: This substance has been assigned Community workplace exposure limit(s).

Composition comments The full text for all R- and H-phrases is displayed in section 16. All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

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. If breathing is difficult, give oxygen. Call a physician if symptoms develop or persist.

Skin contact Immediately remove contaminated clothing. Wash with soap and water. Continue to rinse for at least 15 minutes. In case of rashes, wounds or other skin disorders: Seek medical attention and bring along these instructions. If high pressure injection under the skin occurs, always seek medical attention.

Eye contact Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyelids wide apart. If irritation persists: Continue flushing during transport to hospital. Take along these instructions.

Ingestion Never give anything by mouth to an unconscious person. Do NOT induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Get immediate medical attention.

4.2. Most important symptoms and effects, both acute and delayed May cause redness and pain. Defatting of the skin. Dermatitis. May cause eye irritation on direct contact. Ingestion may cause irritation and malaise. Vapours may cause drowsiness and dizziness. In high concentrations, mists/vapors may irritate throat and respiratory system and cause coughing.

4.3. Indication of any immediate medical attention and special treatment needed Provide general supportive measures and treat symptomatically. Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia. Symptoms may be delayed. HIGH PRESSURE SKIN INJECTION: Physician must be familiar with local procedures for treatment of this type of wound; incision, irrigation, removal of all necrotic tissue and open wound dressing.

SECTION 5: Firefighting measures

General fire hazards Heating may generate vapors which may form explosive vapor/air mixtures. Material will float and can be re-ignited on surface of water.

5.1. Extinguishing media

Suitable extinguishing media Foam. Dry powder. Carbon dioxide (CO_2). Water fog.

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	By heating and fire, irritating vapours/gases 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. Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace.
Special fire fighting procedures	Move container from fire area if it can be done without risk. Use water spray to cool unopened containers. Cool containers exposed to flames with water until well after the fire is out.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). In case of spills, beware of slippery floors and surfaces. Avoid breathing mist or vapour. Avoid contact with skin and eyes. Wear protective clothing as described in section 8 of this safety data sheet.
For emergency responders	Keep unnecessary personnel away. Wear protective clothing as described in Section 8 of this safety data sheet.
6.2. Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not allow to enter drains, sewers or watercourses. Environmental manager must be informed of all major releases.
6.3. Methods and material for containment and cleaning up	Remove sources of ignition. Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Large Spills: Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Wash area with soap and water. Small Spills: Absorb spillage with non-combustible, absorbent material. Clean surface thoroughly to remove residual contamination. Never return spills in original containers for re-use.
6.4. Reference to other sections	For personal protection, see section 8. For waste disposal, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling	Heating will generate vapours which may form explosive vapour/air mixtures. Ground container and transfer equipment to eliminate static electric sparks. Use only in well-ventilated areas. Avoid breathing mists or vapours. Avoid contact with skin, eyes and clothing. Wear protective clothing as described in Section 8 of this safety data sheet. Wash contaminated clothing before reuse. Be aware of potential for surfaces to become slippery. Do not eat, drink or smoke when using the product. Observe good industrial hygiene practices.
7.2. Conditions for safe storage, including any incompatibilities	Keep away from ignition, flame and heat sources. Keep container tightly closed. Store in a cool, dry, well-ventilated place. Store away from incompatible materials. Store locked up.
7.3. Specific end use(s)	2-Stroke oil.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

Belgium. Exposure Limit Values.

Components	Type	Value	Form
Distillates (petroleum), hydrotreated light (CAS 64742-47-8)	TWA	200 mg/m3	Vapor.
Highly refined mineral oil (DMSO-extract < 3% IP 346) (CAS -)	STEL	10 mg/m3	Mist.
	TWA	5 mg/m3	Mist.

Bulgaria. OELs. Regulation No 13 on protection of workers against risks of exposure to chemical agents at work

Components	Type	Value
Distillates (petroleum), hydrotreated light (CAS 64742-47-8)	TWA	300 mg/m3
Highly refined mineral oil (DMSO-extract < 3% IP 346) (CAS -)	TWA	5 mg/m3

Czech Republic. OELs. Government Decree 361

Components	Type	Value	Form
Highly refined mineral oil (DMSO-extract < 3% IP 346) (CAS -)	Ceiling	10 mg/m3	Aerosol
	TWA	5 mg/m3	Aerosol

Denmark. Exposure Limit Values

Components	Type	Value	Form
Highly refined mineral oil (DMSO-extract < 3% IP 346) (CAS -)	TLV	1 mg/m3	Mist.

Finland. Workplace Exposure Limits

Components	Type	Value	Form
Distillates (petroleum), hydrotreated light (CAS 64742-47-8)	TWA	500 mg/m3	
Highly refined mineral oil (DMSO-extract < 3% IP 346) (CAS -)	TWA	5 mg/m3	Mist.

Germany. DFG MAK List (advisory OELs). Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area (DFG)

Components	Type	Value
Distillates (petroleum), hydrotreated light (CAS 64742-47-8)	TWA	140 mg/m3
		20 ppm

Greece. OELs (Decree No. 90/1999, as amended)

Components	Type	Value	Form
Highly refined mineral oil (DMSO-extract < 3% IP 346) (CAS -)	TWA	5 mg/m3	Mist.

Hungary. OELs. Joint Decree on Chemical Safety of Workplaces

Components	Type	Value	Form
Highly refined mineral oil (DMSO-extract < 3% IP 346) (CAS -)	Ceiling	5 mg/m3	Mist.

Iceland. OELs. Regulation 154/1999 on occupational exposure limits

Components	Type	Value	Form
Highly refined mineral oil (DMSO-extract < 3% IP 346) (CAS -)	TWA	1 mg/m3	Mist.

Ireland. Occupational Exposure Limits

Components	Type	Value	Form
Highly refined mineral oil (DMSO-extract < 3% IP 346) (CAS -)	TWA	0,2 mg/m3	Inhalable fraction.

Italy. OELs

Components	Type	Value	Form
Highly refined mineral oil (DMSO-extract < 3% IP 346) (CAS -)	TWA	5 mg/m3	Inhalable fraction.

Latvia. OELs. Occupational exposure limit values of chemical substances in work environment

Components	Type	Value
Highly refined mineral oil (DMSO-extract < 3% IP 346) (CAS -)	TWA	5 mg/m3

Lithuania. OELs. Limit Values for Chemical Substances, General Requirements (Hygiene Norm HN 23:2007)

Components	Type	Value	Form
Distillates (petroleum), hydrotreated light (CAS 64742-47-8)	STEL	500 mg/m3	
	TWA	350 mg/m3	
Highly refined mineral oil (DMSO-extract < 3% IP 346) (CAS -)	STEL	3 mg/m3	Fume and mist.
	TWA	1 mg/m3	Fume and mist.

Netherlands. OELs (binding)

Components	Type	Value	Form
Highly refined mineral oil (DMSO-extract < 3% IP 346) (CAS -)	TWA	5 mg/m3	Mist.

Norway. Administrative Norms for Contaminants in the Workplace

Components	Type	Value	Form
Distillates (petroleum), hydrotreated light (CAS 64742-47-8)	TLV	275 mg/m3	
		40 ppm	
Highly refined mineral oil (DMSO-extract < 3% IP 346) (CAS -)	TLV	1 mg/m3	Mist.

Poland. MACs. Minister of Labour and Social Policy Regarding Maximum Allowable Concentrations and Intensities in Working Environment

Components	Type	Value	Form
Distillates (petroleum), hydrotreated light (CAS 64742-47-8)	STEL	300 mg/m3	
	TWA	100 mg/m3	
Highly refined mineral oil (DMSO-extract < 3% IP 346) (CAS -)	STEL	10 mg/m3	Aerosol
	TWA	5 mg/m3	Aerosol

Portugal. VLEs. Norm on occupational exposure to chemical agents (NP 1796)

Components	Type	Value	Form
Highly refined mineral oil (DMSO-extract < 3% IP 346) (CAS -)	STEL	10 mg/m3	Aerosol
	TWA	5 mg/m3	Aerosol

Romania. OELs. Protection of workers from exposure to chemical agents at the workplace

Components	Type	Value
Highly refined mineral oil (DMSO-extract < 3% IP 346) (CAS -)	STEL	10 mg/m3
	TWA	5 mg/m3

Slovakia. OELs. Decree of the government of the Slovak Republic concerning protection of health in work with chemical agents

Components	Type	Value	Form
Highly refined mineral oil (DMSO-extract < 3% IP 346) (CAS -)	TWA	1 mg/m3	Fume and mist.
		5 ppm	Fume and mist.

Spain. Occupational Exposure Limits

Components	Type	Value	Form
Highly refined mineral oil (DMSO-extract < 3% IP 346) (CAS -)	STEL	10 mg/m3	Mist.
	TWA	5 mg/m3	Mist.

Sweden. Occupational Exposure Limit Values

Components	Type	Value	Form
Distillates (petroleum), hydrotreated light (CAS 64742-47-8)	STEL	500 mg/m3	
	TWA	350 mg/m3	
Highly refined mineral oil (DMSO-extract < 3% IP 346) (CAS -)	STEL	3 mg/m3	Mist.
	TWA	1 mg/m3	Mist.

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

Recommended monitoring procedures Follow standard monitoring procedures.

Derived no-effect level (DNEL) Not available.

Predicted no effect concentrations (PNECs) Not available.

8.2. Exposure controls

Appropriate engineering controls Provide adequate ventilation and minimise the risk of inhalation of vapours. Use explosion-proof equipment. Provide easy access to water supply and eye wash facilities.

Individual protection measures, such as personal protective equipment

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

Eye/face protection Risk of contact: Wear safety glasses with side shields (or goggles).

Skin protection

- Hand protection Wear protective gloves. Nitrile gloves are recommended, but be aware that the liquid may penetrate the gloves. Frequent change is advisable. Suitable gloves can be recommended by the glove supplier.

- Other Wear appropriate clothing to prevent repeated or prolonged skin contact.

Respiratory protection In case of inadequate ventilation or risk of inhalation of oil mist, suitable respiratory equipment with combination filter (type A2/P2) can be used. Wear air-supplied mask in confined areas. Seek advice from local supervisor.

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. When using, do not eat, drink or smoke. Launder contaminated clothing before reuse. Private clothes and working clothes should be kept separately.

Environmental exposure controls Environmental manager must be informed of all major spillages.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance Blue liquid.

Physical state Liquid.

Form Liquid.

Colour Blue.

Odour Organic solvents.

Odour threshold Not available.

pH Not applicable.

Melting point/freezing point Not available.

Initial boiling point and boiling range Not available.

Flash point > 75 °C (> 167 °F)

Evaporation rate Not available.

Flammability (solid, gas) Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower (%) Not available.

Flammability limit - upper (%)	Not available.
Vapour pressure	Not available.
Vapour density	Not available.
Relative density	0,871 (approximate) (15 °C)
Solubility(ies)	Negligible.
Partition coefficient (n-octanol/water)	Log Kow: >3 (Estimated).
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	45 mm2/s (approximate) (40 °C)
Explosive properties	Not available.
Oxidizing properties	Not oxidizing.
9.2. Other information	No relevant additional information available.

SECTION 10: Stability and reactivity

10.1. Reactivity	The product is non-reactive under normal conditions of use, storage and transport.
10.2. Chemical stability	Material is stable under normal conditions.
10.3. Possibility of hazardous reactions	Hazardous polymerisation does not occur.
10.4. Conditions to avoid	Heat, sparks, flames, elevated temperatures. Contact with incompatible materials.
10.5. Incompatible materials	Strong oxidising agents. Strong acids.
10.6. Hazardous decomposition products	By heating and fire, irritating vapours/gases may be formed. Carbon oxides.

SECTION 11: Toxicological information

General information	Occupational exposure to the substance or mixture may cause adverse effects.

Information on likely routes of exposure

Ingestion	Ingestion may cause irritation and malaise. Ingestion may result in vomiting; aspiration (breathing) of vomitus into lungs must be avoided as even small quantities may result in aspiration pneumonitis.
Inhalation	Vapours may cause drowsiness and dizziness. Breathing of high concentrations may cause dizziness, light-headedness, headache, nausea and loss of co-ordination. Continued inhalation may result in unconsciousness.
Skin contact	May be irritating to the skin. Prolonged or repeated contact may dry skin and cause dermatitis.
Eye contact	Direct contact with eyes may cause temporary irritation.
Symptoms	May cause redness and pain. Defatting of the skin. Dermatitis. May cause eye irritation on direct contact. Ingestion may cause irritation and malaise. Vapours may cause drowsiness and dizziness. In high concentrations, mists/vapors may irritate throat and respiratory system and cause coughing.

11.1. Information on toxicological effects

Acute toxicity	May irritate and cause stomach pain, vomiting, diarrhoea and nausea. Human evidence indicates that the product has very low acute oral, dermal or inhalation toxicity. However, it can produce severe injury if taken into the lung as a liquid, and there may be profound central nervous system depression following prolonged exposure to high levels of vapour.
Skin corrosion/irritation	May be irritating to the skin. Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.
Serious eye damage/irritation	Direct contact with eyes may cause temporary irritation.
Respiratory sensitisation	No data available.
Skin sensitisation	No data available.
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	Not classified.
Reproductive toxicity	No data available.
Specific target organ toxicity - single exposure	May cause drowsiness or dizziness.
Specific target organ toxicity - repeated exposure	No data available.

Aspiration hazard	Not classified, however droplets of the product may be aspirated into the lungs through ingestion or vomiting and may cause a serious chemical pneumonia.
Mixture versus substance information	Not 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 organisms, may cause long-term adverse effects in the aquatic environment.
12.2. Persistence and degradability	Expected to biodegrade slowly.
12.3. Bioaccumulative potential	The product contains potentially bioaccumulating substances.
Partition coefficient n-octanol/water (log Kow)	Log Kow: >3 (Estimated).
Bioconcentration factor (BCF)	Not available.
12.4. Mobility in soil	The product adsorbs strongly to soil.
Mobility in general	The product is insoluble in water. It will spread on the water surface while some of the components will eventually sediment in water systems. The volatile components of the product will spread in the atmosphere.
12.5. Results of PBT and vPvB assessment	Not a PBT or vPvB substance or mixture.
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	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	Dispose in accordance with all applicable regulations. This material and/or its container must be disposed of as hazardous waste.

SECTION 14: Transport information

ADR

The product is not covered by international regulation on the transport of dangerous goods.

RID

The product is not covered by international regulation on the transport of dangerous goods.

ADN

The product is not covered by international regulation on the transport of dangerous goods.

IATA

The product is not covered by international regulation on the transport of dangerous goods.

IMDG

The product is not covered by international regulation on the transport of dangerous goods.

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

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

Not listed.

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

Not listed.

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

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 1 as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 2 as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 3 as amended

Not listed.

Regulation (EC) No. 689/2008 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

Not listed.

Regulation (EC) No. 1907/2006, REACH Article 59(1) Candidate List as currently published by ECHA

Not listed.

Authorisations

Regulation (EC) No. 143/2011 Annex XIV Substances Subject to Authorisation

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

Not regulated.

Directive 92/85/EEC: on the safety and health of pregnant workers and workers who have recently given birth or are breastfeeding

Not regulated.

Other EU regulations

Directive 96/82/EC (Seveso II) on the control of major-accident hazards involving dangerous substances

Not regulated.

Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Distillates (petroleum), hydrotreated light (CAS 64742-47-8)

Directive 94/33/EC on the protection of young people at work

Not listed.

Other regulations	The product is classified and labelled in accordance with EC directives or respective national laws. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006.
National regulations	Follow national regulation for work with chemical agents.
15.2. Chemical safety assessment	No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

List of abbreviations	DNEL: Derived No-Effect Level. PNEC: Predicted No-Effect Concentration. PBT: Persistent, bioaccumulative and toxic. vPvB: Very Persistent and very Bioaccumulative.
References	HSDB® - Hazardous Substances Data Bank Registry of Toxic Effects of Chemical Substances (RTECS) ESIS (European chemical Substances Information System)
Information on evaluation method leading to the classification of mixture	The mixture is classified based on test data for physical hazards. The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available. For details, refer to Sections 9, 11 and 12.
Full text of any statements or R-phrases and H-statements under Sections 2 to 15	R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. R65 Harmful: may cause lung damage if swallowed. R66 Repeated exposure may cause skin dryness or cracking. H304 - May be fatal if swallowed and enters airways. H412 - Harmful to aquatic life with long lasting effects.
Training information	Follow training instructions when handling this material.

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

This substance does not meet the criteria for classification according to Regulation (EC) 1272/2008 as amended.

Disclaimer	The information in the sheet was written based on the best knowledge and experience currently available.