1. Chemical and company identification

Name of chemical (Product name)  Husqvarna 2-Stroke Oil LS+

Manufacturer/Supplier  Husqvarna AB
Address  Drottninggatan 2
Telephone  +46 (0)36-14 65 00
Contact person  Accessory Department
E-mail  sds.info@husqvarna.se
Emergency telephone number  +1-760-476-3961 (Access code 333721)

Recommended use of the chemical and restrictions on use

Intended use  Lubrication of 2-stroke engine.
Restrictions on use  Use in accordance with supplier’s recommendations.

2. Hazards identification

GHS classification

Category 4 Flammable liquids

Physical hazards  The product is not classified according to GHS.
Health hazards  The product is not classified according to GHS.
Environmental hazards  The product is not classified according to GHS.

GHS label elements

Symbols  None.
Signal words  Warning
Hazard statement  Combustible liquid.

Precautionary statement

Prevention  Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Wear protective gloves/eye protection/face protection.
Response  In case of fire: Use foam, carbon dioxide, dry powder or water fog for extinction.
Storage  Store in a well-ventilated place. Keep cool.
Disposal  Dispose of contents/container in accordance with local/regional/national/international regulations.

Main symptoms and emergency overview

Main symptoms  Defatting of the skin. Dermatitis. May cause eye irritation on direct contact. In high concentrations, mists/vapors may irritate throat and respiratory system and cause coughing.

3. Composition/information on ingredients

Components  Mixture

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS Number</th>
<th>ENCS no.</th>
<th>ISHL no.</th>
<th>Concentration (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distillates (petroleum), solvent-dewaxed heavy paraffinic</td>
<td>64742-65-0</td>
<td>(9)-1692,</td>
<td>(9)-1692,</td>
<td>50 - 75</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(9)-1702</td>
<td>(9)-1702</td>
<td></td>
</tr>
<tr>
<td>Naphtha (petroleum), hydrotreated heavy</td>
<td>64742-48-9</td>
<td>(9)-1703</td>
<td>(9)-1703</td>
<td>10 - 20</td>
</tr>
<tr>
<td>Polyolefin polyamine succinimide</td>
<td>-</td>
<td>(9)-1703</td>
<td>(9)-1703</td>
<td>&lt; 25</td>
</tr>
<tr>
<td>Highly refined mineral oil (DMSO-extract &lt; 3% IP 346)</td>
<td>-</td>
<td>(9)-1692</td>
<td>(9)-1692</td>
<td>1 - 5</td>
</tr>
</tbody>
</table>

Chemical formula  UVCB (64742-65-0), UVCB (-)
Composition comments  All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First aid measures

If inhaled  Move to fresh air. If breathing is difficult, give oxygen. Call a physician if symptoms develop or persist.
If on skin
Wash with soap and water. 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.

If in eyes
Flush eyes immediately with large amounts of water. Remove any contact lenses and open eyelids wide apart. Get medical attention if irritation develops and persists.

If swallowed
Rinse mouth. 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 medical attention if symptoms occur. Get immediate medical attention.

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

Protection of first-aid responders
Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

Notes to physician
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.

5. Fire-fighting measures
Extinguishing media
Foam. Dry powder. Carbon dioxide (CO2). Water fog.

Extinguishing media to avoid
Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards
By heating and fire, irritating vapors/gases may be formed.

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.

Protection of fire-fighters
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.

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

6. Accidental release measures
Personal precautions, protective equipment and emergency measures
Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). In case of spills, beware of slippery floors and surfaces. Wear protective clothing as described in Section 8 of this safety data sheet.

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.

Methods or materials 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: Wipe up spilled material and place in a suitable container for disposal. Clean surface thoroughly to remove residual contamination.

Never return spills in original containers for re-use.

7. Handling and storage
Handling
Technical measures (e.g. Local and general ventilation)
Use only in well-ventilated areas.

Safe handling advice
Wear protective clothing as described in Section 8 of this safety data sheet. Avoid inhalation of oil mist and contact with skin and eyes. Be aware of potential for surfaces to become slippery.

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.

Storage
Safe storage conditions
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.

Safe packaging materials
Keep in original container.
8. Exposure controls/personal protection

Occupational exposure limits
Japan. OELs - JSOH (Japan Society of Occupational Health: Recommendation of Occupational Exposure Limits)

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>OIL MIST (MINERAL) (CAS -)</td>
<td>TWA</td>
<td>3 mg/m³</td>
<td>Mist.</td>
</tr>
</tbody>
</table>

US. ACGIH Threshold Limit Values

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>OIL MIST (MINERAL) (CAS -)</td>
<td>TWA</td>
<td>5 mg/m³</td>
<td>Inhalable fraction.</td>
</tr>
</tbody>
</table>

Engineering measures
Provide adequate ventilation and minimize the risk of inhalation of vapors and oil mist. Use explosion-proof equipment. Provide easy access to water supply and eye wash facilities.

Personal protective equipment

Respiratory protection
In case of inadequate ventilation or risk of inhalation of oil mist, suitable respiratory equipment with particulate filter and organic vapor cartridges can be used. Wear air-supplied mask in confined areas. Seek advice from local supervisor.

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.

Eye protection
Wear safety glasses with side shields (or goggles).

Skin and body protection
Wear appropriate clothing to prevent repeated or prolonged skin contact.

9. Physical and chemical properties

Appearance
Blue liquid.

Physical state
Liquid.

Form
Liquid.

Color
Blue.

Odor
Slight.

pH
8

Melting point/Freezing point
-38.2 °F (-39 °C)

Boiling point, initial boiling point, and boiling range
> 572 °F (> 300 °C)

Flash point
> 158.0 °F (> 70.0 °C) Pensky-Martens Closed Cup (ASTM D 93)

Combustion characteristics (solid, gas)
Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower (%)
Not available.

Flammability limit - upper (%)
Not available.

Explosive limit - lower (%)
Not available.

Explosive limit - upper (%)
Not available.

Vapor pressure
< 0.01 kPa (20 °C)

Vapor density
Not available.

Evaporation rate
Not available.

Solubility(ies)

Solubility (water)
Insoluble in water.

Partition coefficient (n-octanol/water)
Not available.

Auto-ignition temperature
> 572 °F (> 300 °C)

Decomposition temperature
> 572 °F (> 300 °C)

Viscosity (Coefficient of viscosity)
8.5 cSt (212 °F (100 °C))
53 cSt (104 °F (40 °C))

Other information
Explosive properties
Not available.
10. Stability and reactivity

Reactivity
The product is non-reactive under normal conditions of use, storage and transport.

Chemical stability
Material is stable under normal conditions.

Possibility of hazardous reactions
Hazardous polymerization does not occur.

Conditions to avoid
Heat, sparks, flames, elevated temperatures. Contact with incompatible materials.

Incompatible materials
Strong oxidizing agents.

Hazardous decomposition products
By heating and fire, irritating vapors/gases may be formed. Carbon oxides. Nitrogen oxides. Sulfur oxides.

11. Toxicological information

Acute toxicity
May irritate and cause stomach pain, vomiting, diarrhea 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 vapor.

Skin corrosion/irritation
Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.

Serious eye damage/eye irritation
Direct contact with eyes may cause temporary irritation.

Respiratory or skin sensitization
Respiratory sensitization: No data available.
Skin sensitization: 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.

ACGIH Carcinogens
OIL MIST (MINERAL) (CAS -) A4 Not classifiable as a human carcinogen.

Reproductive toxicity
No data available.

Specific target organ toxicity - single exposure
High concentrations: May cause respiratory irritation.

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.

Other information
Prolonged and repeated contact with used oil may cause serious skin diseases, such as dermatitis and skin cancer.

12. Ecological information

Ecotoxicity
The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Persistence and degradability
Expected to biodegrade slowly.

Bioaccumulation
The product contains potentially bioaccumulating substances.

Mobility in soil
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.

Hazardous to the ozone layer
No data available.

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

13. Disposal considerations

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.

Local disposal regulations
Dispose in accordance with all applicable regulations. This material and/or its container must be disposed of as hazardous waste.

14. Transport information

IATA
Not regulated as dangerous goods.
IMDG
Not regulated as dangerous goods.

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

National regulations
Follow regulation in section 15 for domestic transportation.

15. Regulatory information

Industrial Safety and Health Act
Notifiable substances
Not regulated.
Labeling substances
Not regulated.

Poisonous and Deleterious Substances Control Act
Specified poisonous substances
Not regulated.
Poisonous substances
Not regulated.
Deleterious substances
Not regulated.

Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.
Class I specified chemical substances
Not regulated.
Class II specified chemical substances
Not regulated.
Monitoring chemical substances
Not regulated.
Priority Assessment Chemical Substances (PACs)
Not regulated.

Law concerning Pollutant Release and Transfer Register
Specified class 1 substances (substance name, ordinance number and content)
Not regulated.
Class 1 substances (substance name, ordinance number and content)
Not regulated.
Class 2 substances (substance name, ordinance number and content)
Not regulated.

Fire Service Act
Class 4 Group 3 oils (Non-water soluble) Hazard rank III

Ship Safety Law, Dangerous Goods Marine Transport and Storage Rule
Not regulated.

Air Law, Enforcement Rule
Not regulated.

Explosives Control Act
Not regulated.

16. Other information

Bibliography
HSDB® - Hazardous Substances Data Bank
Registry of Toxic Effects of Chemical Substances (RTECS)
JIS Z 7250: 2005 Safety data sheet for chemical products-Part 1:Content and order of sections
JCIA GHS Guideline, October 2008
Japan Society for Occupational Health, Recommendation of Occupational Exposure Limits

This safety data sheet was prepared in accordance with the Safety Data Sheet for Chemical Products (JIS Z 7250:2005). The information in the sheet was written based on the best knowledge and experience currently available.