

# Quicksilver Optimax/DFI 2-Cycle Outboard Oil

## Safety Data Sheet

according to Regulation (EC) No. 453/2010

Revision date: 10/11/2011

Supersedes: 25/11/2010

Version: 1.0

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

#### 1.1. Product identifier

Product form : Mixture  
Trade name : Quicksilver Optimax/DFI 2-Cycle Outboard Oil  
Product code : 625426316; 92-881112; 92-858037Q01; 92-858038Q01; 92-858039Q01  
Synonyms : Two cycle engine oil  
Product group : Trade product

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

##### 1.2.1. Relevant identified uses

Use of the substance/preparation : Marine and Watercraft Applications

##### 1.2.2. Uses advised against

No additional information available

#### 1.3. Details of the supplier of the safety data sheet

Mercury Marine  
41-71 Bessemer Drive Dandenong South Vic  
Australia  
3175  
+61 3 9791 5822

#### 1.4. Emergency telephone number

Emergency number : Chemtrec Australia (Sydney) +(61) 290372994 (24 hour service)

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

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

Skin Irrit Cat.2 H315  
STOT SE 3 H336  
Aquatic Chronic 2 H411

Full text of H-phrases: see section 16.

##### Adverse physicochemical, human health and environmental effects

Injection under the skin of pressurized hydrocarbons can cause severe, permanent tissue damage. In case of large spills the product may be hazardous to aquatic organisms due to possible formation of a film on the surface water which can diminish dissolved oxygen levels.

#### 2.2. Label elements

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

Hazard pictograms (CLP) :



GHS09

GHS07

Signal word (CLP) :

Warning

Hazard statements (CLP) :

H315 - Causes skin irritation  
H336 - May cause drowsiness or dizziness  
H411 - Toxic to aquatic life with long lasting effects

Precautionary statements (CLP) :

P271 - Use only outdoors or in a well-ventilated area  
P280 - Wear eye protection, protective clothing, protective gloves  
P302+P352 - IF ON SKIN: Wash with plenty of soap and water  
P362 - Take off contaminated clothing and wash before reuse  
P501 - Dispose of contents/container to hazardous or special waste collection point.

##### Labelling according to Directive 67/548/EEC or 1999/45/EC

Hazard symbols :



Xi - Irritant

N - Dangerous for the environment

Hazardous ingredients :

Distillates (petroleum), hydrotreated light

R-phrases :

R38 - Irritating to skin.  
R51/53 - Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic

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- S-phrases : environment.  
: S24 - Avoid contact with skin.  
S35 - This material and its container must be disposed of in a safe way.  
S37 - Wear suitable gloves.  
S59 - Refer to manufacturer/supplier for information on recovery/recycling.  
S61 - Avoid release to the environment. Refer to special instructions/safety data sheets.

### 2.3. Other hazards

- other hazards which do not result in classification : Combustible liquid. Spills of this product present a serious slipping hazard.

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier	%	Classification according to Directive 67/548/EEC
Distillates (petroleum), hydrotreated light	(CAS No.) 64742-47-8 (EC no) 265-149-8 (EC index no) 649-422-00-2	>25	Xn; R65 R10 R51/53 Xi; R38
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 (EC index no) 649-422-00-2	>25	Flam. Liq. 3, H226 STOT SE 3, H336 Asp. Tox. 1, H304 Skin irrit. cat.2 H315 Aquatic Chronic 2, H411

Full text of R-, H- and EUH-phrases: see section 16.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

- First-aid measures after inhalation : Remove victim to fresh air. If not breathing, give artificial respiration. In case of breathing difficulties administer oxygen. Seek medical attention immediately. Keep victim warm and rested.
- First-aid measures after skin contact : Heated product causes burns. Immediately flush the contact area with plenty of low pressure water to cool the skin. After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water and soap. Discard contaminated leather articles. Wash contaminated clothing before reuse. Seek medical attention if ill effect or irritation develops. If material is injected under the skin, seek medical attention immediately.
- First-aid measures after eye contact : Rinse immediately and thoroughly, pulling the eyelids well away from the eye (15 minutes minimum). Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical attention if ill effect or irritation develops.
- First-aid measures after ingestion : Do not induce vomiting. Give nothing to eat or drink. Never give anything by mouth to an unconscious person. Immediately get medical attention.

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

- Symptoms/injuries : Acute exposure to high doses or chronic exposure can cause pulmonary damages, liver, kidneys and neurological disorders.
- Symptoms/injuries after inhalation : Inhalation of mists or vapours at elevated temperatures may cause respiratory irritation.
- Symptoms/injuries after skin contact : Slightly irritating to skin. Frequent or prolonged contact with skin may cause dermal irritation. Effects of skin contact may include: irritation and burn feeling. Injection under the skin of pressurized hydrocarbons can cause severe, permanent tissue damage.
- Symptoms/injuries after eye contact : May cause slight temporary irritation.
- Symptoms/injuries after ingestion : On ingestion in large quantities : CNS depression. Symptoms of ingestion include drowsiness, weakness, headache, dizziness, nausea, vomiting.

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

Injection under the skin of pressurized hydrocarbons can cause severe, permanent tissue damage.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

- Suitable extinguishing media: : carbon dioxide (CO<sub>2</sub>), dry chemical powder, foam. Use caution when applying carbon dioxide in confined spaces. Carbon dioxide can displace oxygen.
- Unsuitable extinguishing media : Water spray. Do not use a solid water stream as it may scatter and spread fire.

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### 5.2. Special hazards arising from the substance or mixture

- Fire hazard : The product is not easily ignited. When heated above the flash point, releases vapours. Exposed to ignition source, vapours can burn in open / explode if confined. Mist or spray may burn at temperature below flash point.
- Explosion hazard : Exposed to ignition source, vapours can burn in open / explode if confined. Risk of explosion if heated in a confined system.
- Reactivity : On combustion, forms: carbon oxides (CO and CO<sub>2</sub>). Sulfur oxides. Nitrogen oxides (NO<sub>x</sub>). hydrocarbons. Toxic fumes may be released.

### 5.3. Advice for firefighters

- Firefighting instructions : Risk of explosion if heated under confinement. At or above flash point, vapours present may burn in open or explode if confined when mixed with air and exposed to ignition source.
- Protective equipment for firefighters : In case of fire: Wear self-contained breathing apparatus. Wear proper protective equipment. Refer to section 8.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Evacuate personnel to a safe area. Keep away from sources of ignition.

#### 6.1.1. For non-emergency personnel

- Protective equipment : Wear suitable protective clothing, gloves and eye/face protection. Refer to section 8.
- Emergency procedures : High slip hazard because of leaking or spilled product. Do not handle until all safety precautions have been read and understood. Stop leak if safe to do so. Soak up with absorbent material (for example sand, sawdust, neutral absorbent granule, silica gel). Sweep or shovel spills into appropriate container for disposal. Do not allow the product to be released into the environment.

#### 6.1.2. For emergency responders

- Protective equipment : Wear suitable protective clothing, gloves and eye/face protection. In case of fire: Wear self-contained breathing apparatus. Refer to section 8.
- Emergency procedures : High slip hazard because of leaking or spilled product. Stop leak if safe to do so. Take up liquid spill into inert absorbent material, e.g.: sand/earth. Collect all waste in suitable and labelled containers and dispose according to local legislation. Prevent entry to sewers and public waters.

### 6.2. Environmental precautions

- Do not discharge into drains or the environment. Substance floats in water.

### 6.3. Methods and material for containment and cleaning up

- For containment : Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Collect in closed containers for disposal. Prevent entry to sewers and public waters.
- Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Sweep or shovel spills into appropriate container for disposal. Stop leak if safe to do so. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Minimize water use for cleaning.
- Other information : Comply with local regulations for disposal.

### 6.4. Reference to other sections

- No additional information available

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

- Precautions for safe handling : Handle in accordance with good industrial hygiene and safety procedures. Wear recommended personal protective equipment. Avoid all eye and skin contact and do not breathe vapour and mist.

### 7.2. Conditions for safe storage, including any incompatibilities

- Technical measures: : Use only in well-ventilated areas.
- Storage condition(s) : Keep container tightly closed in a cool, well-ventilated place. Keep away from open flames, hot surfaces and sources of ignition. Only use containers approved for especially this product. Protect from sunlight. Protect containers against damage. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose containers to flames, sparks, heat, or other potential ignition sources.
- Incompatible materials : Protect from sunlight. Oxidizing agents. Avoid high temperatures.
- Storage area : Keep out of direct sunlight. Keep only in the original container in a cool, well-ventilated place.

### 7.3. Specific end use(s)

- No additional information available

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### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### Quicksilver Optimax/DFI 2-Cycle Outboard Oil

Australia	MAC TGG 8H (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup> Oil Mist
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#### 8.2. Exposure controls

Appropriate engineering controls : Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Provide local exhaust or general room ventilation to minimize vapour concentrations.

Personal protective equipment : Gloves. Safety glasses. Protective clothing.



Hand protection : For prolonged contact, use nitrile or neoprene gloves or other material resistant to petroleum oils. Heat resistant gloves.

Eye protection : Chemical goggles or face shield with safety glasses. Use splash goggles when eye contact due to splashing is possible. Wear goggles and face shield when handling material at elevated temperatures.

Skin and body protection : Wear suitable protective clothing. Wear long sleeves. Wear heat resistant boots and protective clothing when handling material at elevated temperatures.

Respiratory protection : With correct and proper use, and under normal conditions, breathing protection is not required. An approved organic vapour respirator/supplied air or self-contained breathing apparatus must be used when vapour concentration exceeds applicable exposure limits. In case of fire: Wear self-contained breathing apparatus.

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Dark amber
Odour	: petroleum-like odour.
Odour threshold	: No data available
pH	: No data available
Melting point	: No data available
Solidification point	: No data available
Boiling point	: No data available
Flash point	: 65 °C (Closed cup)
Relative evaporation rate (butylacetate=1)	: No data available
Flammability (solid, gas)	: No data available
Explosive limits	: No data available
Vapour pressure	: < 0.1 hPa @ 20°C
Relative vapour density at 20 °C	: > 1 (air=1)
Relative density	: 0.86 g/cm <sup>3</sup>
Density	: 861.8 kg/m <sup>3</sup> Lbs/gal.
Solubility	: Water: Negligible.
Log Pow	: No data available
Log Kow	: No data available
Self ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: 31 cSt @ 40°C
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available

#### 9.2. Other information

VOC content : 235 g/l Approximately.

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

On combustion, forms: carbon oxides (CO and CO<sub>2</sub>). Sulfur oxides. Nitrogen oxides (NO<sub>x</sub>). hydrocarbons. Toxic fumes may be released.

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### 10.2. Chemical stability

Stable under normal conditions of use.

### 10.3. Possibility of hazardous reactions

None known.

### 10.4. Conditions to avoid

Keep away from: strong oxidants and strong acids. High temperature.

### 10.5. Incompatible materials

Oxidizing agents.

### 10.6. Hazardous decomposition products

On burning: release of (highly) toxic gases/vapours. carbon dioxide (CO<sub>2</sub>). Carbon monoxide. nitrogen oxides (NO<sub>x</sub>) and sulphur oxides.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

Distillates (petroleum), hydrotreated light (64742-47-8)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat (mg/l)	> 5.2 mg/l/4h

Skin corrosion/irritation : Not classified

Serious eye damage/irritation : Not classified

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : May cause drowsiness or dizziness.

Specific target organ toxicity (repeated exposure) : May cause damage to organs through prolonged or repeated exposure.

Distillates (petroleum), hydrotreated light (64742-47-8)	
NOAEL (oral,rat,90 days)	750 mg/kg bodyweight/day
NOAEL (dermal,rat/rabbit,90 days)	> 400 mg/kg bodyweight/day
NOAEL (inhalation,rat,vapour,90 days)	> 1 mg/l/6h/day

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

Potential Adverse human health effects and symptoms : May produce skin irritation. Repeated exposure may cause skin dryness or cracking. Inhalation of mists or vapours at elevated temperatures may cause respiratory irritation. Injection under the skin of pressurized hydrocarbons can cause severe, permanent tissue damage.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - water : In case of large spills the product may be hazardous to aquatic organisms due to possible formation of a film on the surface water which can diminish dissolved oxygen levels.

Distillates (petroleum), hydrotreated light (64742-47-8)	
LC50 fishes	45 mg/l
LC50 other aquatic organisms	140 mg/l
LOEC (chronic)	1 mg/l
ErC50 (algae)	4.2 mg/l

### 12.2. Persistence and degradability

No additional information available

### 12.3. Bioaccumulative potential

No additional information available

### 12.4. Mobility in soil

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Ecology - soil	Do not allow to enter into soil/subsoil.

### 12.5. Results of PBT and vPvB assessment

No additional information available

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### 12.6. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Regional legislation (waste) : Dispose of this material and its container to hazardous or special waste collection point.  
Waste treatment methods : Do not pressurize, cut, weld, braze, solder, drill, grind, or expose containers to flames, sparks, heat, or other potential ignition sources.  
Waste disposal recommendations : Disposal must be done according to official regulations. Do not re-use empty containers. Empty containers can be dumped according to local legislation.  
Additional information : Dispose in a safe manner in accordance with local/national regulations.

## SECTION 14: Transport information

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

### 14.1. UN number

UN-No. : 3082

### 14.2. UN proper shipping name

Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
Transport document description : UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., 9, III, (E)

### 14.3. Transport hazard class(es)

Class (UN) : 9  
Hazard labels (UN) : 9



### 14.4. Packing group

Packing group (UN) : III

### 14.5. Environmental hazards

Marine pollutant :



Other information : No supplementary information available.

### 14.6. Special precautions for user

#### 14.6.1. Overland transport

Hazard identification number (Kemler No.) : 90  
Classification code : M6  
Orange plates :



Tunnel restriction code : E  
Limited quantities (ADR) : LQ07  
Excepted quantities (ADR) : E1

#### 14.6.2. Transport by sea

No additional information available

#### 14.6.3. Air transport

No additional information available

### 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

#### 15.1.1. EU-Regulations

Contains no REACH candidate substance

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VOC content : 235 g/l Approximately.  
Other regulations, restrictions and prohibition regulations : Regulation (EC) 1907/2006 as amended. Regulation (EC) 1272/2008 as amended. Directive 67/548/EEC as amended. Directive 1999/45/EC as amended.

### 15.1.2. National regulations

Regional legislation : National Code of Practice for the Preparation of Material Safety Data Sheets [NOHSC:2011(2003)].

### 15.2. Chemical safety assessment

No additional information available

## SECTION 16: Other information

Sources of Key data : MSDS.

Abbreviations and acronyms : ASTM - American Society for Testing and Materials . CLP - Classification, Labelling and Packaging. CSR - Chemical Safety Report. EC - European Community. EEC - European Economic Community. GHS - Globally Harmonised System. REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals. SDS - Safety Data Sheet.

Full text of R-, H- and EUH-phrases:

Aquatic Chronic 2	Hazardous to the aquatic environment - Chronic Hazard Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment - Chronic Hazard Category 3
Asp. Tox. 1	Aspiration hazard Category 1
Flam. Liq. 3	flammable liquids Category 3
Skin Irrit. 2	skin corrosion/irritation Category 2
STOT RE 2	Specific target organ toxicity (repeated exposure) Category 2
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H226	Flammable liquid and vapour
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H336	May cause drowsiness or dizziness
H373	May cause damage to organs through prolonged or repeated exposure
H411	Toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects
R10	Flammable.
R38	Irritating to skin.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R65	Harmful: may cause lung damage if swallowed.

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*