



ENEOS Outboard Plus 4T 10W40

Safety Data Sheet

according to Regulation (EC) No. 453/2010

Date of issue: 16/06/2014

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Version: 1.2

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

1.1. Product identifier

Product form : Mixture
Product name : ENEOS Outboard Plus 4T 10W40
Product code : V161500121
Product group : Trade product

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

1.2.1. Relevant identified uses

Intended for general public
Main use category : industrial use, professional use, consumer use
Use of the substance/mixture : Lubricant
Function or use category : Lubricants and additives

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

JX NIPPON OIL & ENERGY EUROPE LIMITED
4th Floor, 4 Moorgate
London, EC2R 6DA
UNITED KINGDOM

1.4. Emergency telephone number

Emergency number : 0044 20 7186 0400
(Monday to Friday: 8:00 - 17:00)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Not classified

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

Not classified

2.2. Label elements

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

Precautionary statements (CLP) : P102 - Keep out of reach of children
EUH-statements : EUH210 - Safety data sheet available on request

2.3. Other hazards

Other hazards not contributing to the classification : This product floats on water and may affect the oxygen-balance in the water. The base oil contains less than 3% DMSO-extract measured according IP 346, therefore it is NOT classified as T/R45: May cause cancer" (Note L)". USED ENGINE OILS: Combustion products resulting from the operation of internal combustion engines contaminate engine oils during use. Used engine oil may contain hazardous components which have the potential to cause skin cancer. Frequent or prolonged contact with all types and makes of used engine oil must therefore be avoided and a high standard of personal hygiene maintained.

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

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Name	Product identifier	%	Classification according to Directive 67/548/EEC	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Lubricating oils	(CAS No) 74869-22-0 (EC no) 278-012-2	>= 50	Not classified	Asp. Tox. 1, H304
Zinc dialkyl dithiophosphate	(CAS No) 68649-42-3 (EC no) 272-028-3	2,5 - 5	Xi; R41 Xi; R38 N; R51/53	Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Chronic 2, H411

Full text of R- and H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Seek medical attention if ill effect develops.
First-aid measures after inhalation	: Take victim to fresh air, in a quiet place, in an half laying position and if necessary take medical advice. Allow the victim to rest.
First-aid measures after skin contact	: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. High-pressure injection under skin may cause serious damage. Seek medical attention if ill effect or irritation develops.
First-aid measures after eye contact	: Remove contact lenses, if present and easy to do. Continue rinsing. Ensure adequate flushing of eyes by separating eyelids with the fingers. Obtain medical attention if pain, blinking, tears or redness persist.
First-aid measures after ingestion	: Consult a doctor/medical service if you feel unwell. If vomiting occurs spontaneously, keep head below the hips to prevent aspiration. Do not induce vomiting.

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

Symptoms/injuries after inhalation	: At normal ambient temperatures this product will be unlikely to present an inhalation hazard because of its low volatility. May be harmful by inhalation if exposure to vapour, mists or fumes resulting from thermal decomposition products occurs.
Symptoms/injuries after skin contact	: Unlikely to cause harm to the skin on brief or occasional contact but prolonged or repeated exposure may lead to dermatitis. High pressure injection of product into the skin may lead to local necrosis if the product is not surgically removed.
Symptoms/injuries after eye contact	: Unlikely to cause more than transient stinging or redness if accidental eye contact occurs.
Symptoms/injuries after ingestion	: Bad taste. Unlikely to cause harm if accidentally swallowed in small doses, though larger quantities may cause nausea and diarrhoea.
Symptoms/injuries upon intravenous administration	: Unknown.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Carbon dioxide (CO ₂), dry chemical powder, foam. Water fog.
Unsuitable extinguishing media	: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: Combustion generates : CO, CO ₂ , PO _x , NO _x , SO _x , H ₂ S. Metal oxides.
Explosion hazard	: Not expected to be a fire/explosion hazard under normal conditions of use.

5.3. Advice for firefighters

Precautionary measures fire	: Do not enter fire area without proper protective equipment, including respiratory protection.
Firefighting instructions	: Use water spray or fog for cooling exposed containers.
Protection during firefighting	: Use self-contained breathing apparatus and chemically protective clothing.
Other information	: Prevent fire-fighting water from entering environment. Sweep up and remove to a suitable, clearly marked container for disposal in accordance with local regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Spill area may be slippery. Prevent soil and water pollution. Prevent entry to sewers and public waters.
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6.1.1. For non-emergency personnel

Protective equipment	: When the risk of skin exposure is high (e.g. when cleaning up spillages or if there is a risk of splashing) then chemical resistant aprons and/or impervious chemical suits and boots will be required. Use protective clothing.
Emergency procedures	: Consider evacuation.

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6.1.2. For emergency responders

- Protective equipment : When the risk of skin exposure is high (e.g. when cleaning up spillages or if there is a risk of splashing) then chemical resistant aprons and/or impervious chemical suits and boots will be required.
- Emergency procedures : No specific measures are necessary.

6.2. Environmental precautions

Dike for recovery or absorb with appropriate material. Notify authorities if product enters sewers or public waters. Prevent soil and water pollution. Prevent liquid from entering sewers, watercourses, underground or low areas. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

6.3. Methods and material for containment and cleaning up

- For containment : Large quantities: Contain large spillage with sand or earth.
- Methods for cleaning up : Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Take up large spills with pump or vacuum and finish with dry chemical absorbent.
- Other information : Use suitable disposal containers. Sweep up and remove to a suitable, clearly marked container for disposal in accordance with local regulations. On water, recover/skim from surface and pour out in disposal container.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Additional hazards when processed : Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.
- Precautions for safe handling : Avoid prolonged and repeated contact with skin. May be dangerously slippery if spilled. Where contact with eyes or skin is likely, wear suitable protection. Do not eat, drink or smoke during use. Remove contaminated clothing and shoes.
- Hygiene measures : Take all necessary measures to avoid accidental discharge of products into drains and waterways due to the rupture of containers or transfer systems. Handle in accordance with good industrial hygiene and safety practice. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Where contact with eyes or skin is likely, wear suitable protection. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Keep container tightly closed and in well ventilated place.
- Storage conditions : Store in original container.
- Incompatible products : Reacts vigorously with strong oxidizers and acids.
- Maximum storage period : 5 year
- Storage temperature : ≤ 40 °C.
- Prohibitions on mixed storage : Keep away from : oxidizing materials. strong acids.
- Storage area : Store at ambient temperature.
- Special rules on packaging : Keep container tightly closed and dry.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Zinc dialkyl dithiophosphate (68649-42-3)		
Germany	TRGS 900 Occupational exposure limit value (mg/m ³)	0,1 mg/m ³
Germany	TRGS 900 Limitation of exposure peaks (mg/m ³)	2 mg/m ³
Lubricating oils (74869-22-0)		
Belgium	Limit value (mg/m ³)	5 mg/m ³ mist
Belgium	Short time value (mg/m ³)	10 mg/m ³ mist
Bulgaria	OEL TWA (mg/m ³)	5 mg/m ³
Czech Republic	Expoziční limity (PEL) (mg/m ³)	5 mg/m ³ Aerosol
Czech Republic	Expoziční limity (NPK-P) (mg/m ³)	10 mg/m ³ Aerosol
Denmark	Grænseværdie (kortvarig) (mg/m ³)	1 mg/m ³
Denmark	Grænseværdie (kortvarig) (ppm)	mist
Greece	OEL TWA (mg/m ³)	5 mg/m ³ mist

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Lubricating oils (74869-22-0)		
Hungary	AK-érték	5 mg/m ³ mist
Ireland	OEL (15 min ref) (mg/m ³)	0,2 mg/m ³
Italy	OEL TWA (mg/m ³)	5 mg/m ³
Lithuania	IPRV (mg/m ³)	1 mg/m ³ mist
Lithuania	TPRV (mg/m ³)	3 mg/m ³ mist
Netherlands	Grenswaarde TGG 15MIN (mg/m ³)	5 mg/m ³ mist
Poland	NDS (mg/m ³)	10 mg/m ³ Aerosol
Poland	NDSP (mg/m ³)	5 mg/m ³ Aerosol
Portugal	OEL STEL (mg/m ³)	10 mg/m ³ Aerosol
Portugal	OEL - Ceilings (mg/m ³)	5 mg/m ³ Aerosol
Romania	OEL TWA (mg/m ³)	5 mg/m ³
Romania	OEL STEL (mg/m ³)	10 mg/m ³
Slovakia	NPHV (priemerná) (mg/m ³)	1 mg/m ³ mist
Slovakia	NPHV (Hraničná) (mg/m ³)	5 mg/m ³ mist
Spain	VLA-ED (mg/m ³)	5 mg/m ³ mist
Spain	VLA-EC (mg/m ³)	10 mg/m ³ mist
Sweden	nivågränsvärde (NVG) (mg/m ³)	10 mg/m ³ mist
Sweden	kortidsvärde (KTV) (mg/m ³)	5 mg/m ³ mist
Iceland	OEL (15 min ref) (mg/m ³)	1 mg/m ³ mist
Norway	Gjennomsnittsverdier (Korttidsverdi) (mg/m ³)	1 mg/m ³ mist

Exposure-value for oil mist : 10 mg/m³ (15 min.) or 5 mg/m³ (8 hours).

8.2. Exposure controls

- Appropriate engineering controls : Large quantities: Contain large spillage with sand or earth.
- Personal protective equipment : Gloves. In case of splash hazard: safety glasses. Eye protection should only be necessary where liquid could be splashed or sprayed.
- Materials for protective clothing : PVC gloves. Neoprene or nitrile rubber gloves
- Hand protection : In case of repeated or prolonged contact wear gloves. The gloves should be replaced immediately in case of damage or signs of wear. It is recommended to use preventative skin protection (skin cream). The protection glove should be tested for its specific suitability (e.g. mechanical strength, product compatibility, anti-static properties).
- Eye protection : Eye protection should only be necessary where liquid could be splashed or sprayed
- Skin and body protection : No special clothing/skin protection equipment is recommended under normal conditions of use. Avoid repeated or prolonged skin contact. If repeated skin contact or contamination of clothing is likely, protective clothing should be worn. Equipment should conform to EN 166.
- Respiratory protection : Respiratory protective equipment is not normally required where there is adequate natural or local exhaust ventilation to control exposure. Where excessive vapour, mist, or dust may result, use approved respiratory protection equipment. Respiratory protective equipment must be checked to ensure it fits correctly each time it is worn. Provided an air-filtering/air-purifying respirator is suitable, a filter for particulates can be used for mist or fume. Use filter type P or comparable standard. A combination filter for particles and organic gases and vapours (boiling point >65°C) may be required if vapour or abnormal odour is also present due to high product temperature. Use filter type AP or comparable standard.



- Environmental exposure controls : See Heading 12. See Heading 6.
- Consumer exposure controls : PVC gloves. Neoprene or nitrile rubber gloves.
- Other information : Do not put the product-soaked rags into the pockets of working clothes. Do not use cloths stained with the product to dry hands. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Do not eat, drink or smoke during use. Wash contaminated clothing before reuse.

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: liquid
Appearance	: Oily. liquid.
Colour	: Brown.
Odour	: characteristic.
Odour threshold	: no data available
pH	: no data available
Relative evaporation rate (butylacetate=1)	: < 0,1
Melting point	: -42 °C.
Freezing point	: no data available
Boiling point	: > 280 °C.
Flash point	: 216 °C.
Auto-ignition temperature	: > 240 °C.
Decomposition temperature	: no data available
Flammability (solid, gas)	: no data available
Vapour Pressure 20°C	: < 0,1 hPa
Relative vapour density at 20 °C	: > 1 (air=1)
Relative density	: no data available
Density	: 0,870 - 0,880 kg/l
Solubility	: insoluble in water.
Log Pow	: > 3
Viscosity, kinematic	: 150 - 300 cSt
Viscosity, dynamic	: no data available
Explosive properties	: no data available
Oxidising properties	: no data available
Explosive limits	: 0,6 - 7 vol %

9.2. Other information

VOC content	: 0 %
Other properties	: Gas/vapour heavier than air at 20°C.

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions of use.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Refer to section 10.1 on Reactivity.

10.4. Conditions to avoid

Moisture. Overheating.

10.5. Incompatible materials

Strong oxidizing agents. strong acids.

10.6. Hazardous decomposition products

CO, CO₂, PO_x, NO_x, SO_x, H₂S. Metallic oxides.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified (Based on available data, the classification criteria are not met)

Zinc dialkyl dithiophosphate (68649-42-3)

LD50 oral rat	2230 - 3100 mg/kg
LD50 dermal rat	> 2000 ml/kg
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified

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Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified

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Viscosity, kinematic	150 - 300 mm ² /s
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Other information : Toxicological data have not been determined specifically for this product. Information given is based on a knowledge of the components and the toxicology of similar products. Likely route of exposure: ingestion, skin and eye.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Ecotoxicological data have not been determined specifically for this product. Information given is based on a knowledge of the components and the ecotoxicology of similar products.

Ecology - water : This product floats on water and may affect the oxygen-balance in the water.

Zinc dialkyl dithiophosphate (68649-42-3)

LC50 fish 1	1 - 5 mg/l 96h; Pimephales promelas (static)
EC50 Daphnia 1	1 - 1,5 mg/l 48h; Daphnia magna
LC50 fish 2	10 - 35 mg/l 96h; Pimephales promelas (semi-static)

12.2. Persistence and degradability

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Persistence and degradability	Not readily biodegradable.
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12.3. Bioaccumulative potential

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Log Pow	> 3
Bioaccumulative potential	This product is not expected to bioaccumulate through food chains in the environment.

12.4. Mobility in soil

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Ecology - soil	Not miscible with water. Spillages may penetrate the soil causing ground water contamination. This product floats on water and may affect the oxygen-balance in the water.
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12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste) : Disposal must be done according to official regulations.

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Do not discharge into drains or the environment.

Additional information : Hazardous waste.

Ecology - waste materials : Every mixture with foreign substances such as solvents, brake- and cooling liquids is forbidden. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly. When not empty dispose of this container at hazardous or special waste collection point.

European List of Waste (LoW) code : 13 02 05* - mineral-based non-chlorinated engine, gear and lubricating oils

SECTION 14: Transport information

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

14.1. UN number

Not regulated for transport

14.2. UN proper shipping name

Proper Shipping Name : Not applicable

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Proper Shipping Name (IMDG)	: Not applicable
Proper Shipping Name (IATA)	: Not applicable
Proper Shipping Name (ADN)	: Not applicable
Proper Shipping Name (RID)	: Not applicable

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR)	: Not applicable
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IMDG

Transport hazard class(es) (IMDG)	: Not applicable
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IATA

Transport hazard class(es) (IATA)	: Not applicable
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ADN

Transport hazard class(es) (ADN)	: Not applicable
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RID

Transport hazard class(es) (RID)	: Not applicable
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14.4. Packing group

Packing group (UN)	: Not applicable
Packing group (IMDG)	: Not applicable
Packing group (IATA)	: Not applicable
Packing group (ADN)	: Not applicable
Packing group (RID)	: Not applicable

14.5. Environmental hazards

Dangerous for the environment	: No
Marine pollutant	: No
Other information	: No supplementary information available

14.6. Special precautions for user

- Overland transport

no data available

- Transport by sea

no data available

- Air transport

no data available

- Inland waterway transport

Not subject to ADN	: No
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- Rail transport

Carriage prohibited (RID)	: No
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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 substances with Annex XVII restrictions
Contains no substance on the REACH candidate list
Contains no REACH Annex XIV substances

VOC content	: 0 %
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15.1.2. National regulations

Germany

VwVwS Annex reference : Water hazard class (WGK) 3, severe hazard to waters (Classification according to VwVwS, Annex 4.)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands

SZW-lijst van kankerverwekkende stoffen : Zinc dialkyl dithiophosphate, Lubricating oils are listed

SZW-lijst van mutagene stoffen : Zinc dialkyl dithiophosphate is listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : None of the components are listed

Denmark

Classification remarks : Emergency management guidelines for the storage of flammable liquids must be followed

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

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

Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Asp. Tox. 1	Aspiration hazard, Category 1
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Skin Irrit. 2	Skin corrosion/irritation, Category 2
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H318	Causes serious eye damage
H411	Toxic to aquatic life with long lasting effects
EUH210	Safety data sheet available on request
R38	Irritating to skin
R41	Risk of serious damage to eyes
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
N	Dangerous for the environment
Xi	Irritant

SDS EU (REACH Annex II)

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