This material is to be used for research purposes only under the supervision of a technically qualified individual. The toxicological properties may have not been completely characterized. To determine your responsibilities under the EC Seventh amendment Directive 92 /32/EEC, please see the Regulatory Information Section. If this material has been supplied to you under the terms of a secrecy or non-analysis agreement, the information included in this MSDS is hereby identified as "Confidential Information."

Prepared according to Commission Regulation (EU) No 453/2010.

Section 1 Identification of substance/mixture and of the company/undertaking

#### 1.1 Product Identifier

# **ENEOS Premium Ultra 0W30**

Synonyms

None

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

Relevant identified uses (see section 7.3 for information on REACH registered uses)

Experimental.

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

JX Nippon Oil & energy Europe Limited 4 Moorgate, 4th Floor

London EC2R 6DA Tel: +44 20 7186 0400 Email: info@eneos.eu

# 1.4 Emergency Telephone number

+44 20 7186 0400

Section 2 Hazards Identification

### 2.1 Classification of the substance or mixture

(EC) No 1272/2008

Aquatic Chronic 4; H413

67/548/EC or 1999/45/EC

R53

For a full text of R- and H- phrases: See section 16

# 2.2 Label elements

# (EC) No 1272/2008

May cause long lasting harmful effects to aquatic life.

Avoid release to the environment.

All disposal practices must be in accordance with local, national and international regulations.

#### Supplemental label information

None.

#### 2.3 Other hazards

None identified.

Section 3	Composition/Information on Ingredients
Section 5	Composition into matter on ingredients

### 3.2 Mixtures

# (EC) No 1272/2008

EC No.	Registration Number	Percentage (by wt.)	Name	Classification
204-884-0	01-2119490822-33	From 0 to 10.0 percent	2,6-Di-tert-butylphenol	Aquatic Acute 1; H400 Aquatic Chronic 1; H410 Skin Irrit. 2; H315
310-154-3	01-2119513207-49	From 0 to 10.0 percent	Phenol, dodecyl-, branched	Aquatic Acute 1; H400 Aquatic Chronic 1; H410 Eye Irrit. 2; H319 Repr. 2; H361 Skin Irrit. 2; H315

67/548/EC or 1999/45/EC

[2013/2/5]				ENEOS Premium Ultra 0W30
EC No.	Registration Number	Percentage (by wt.)	Name	Classification 67/548/EC
218-679-9	Not Available	From 0 to 10.0 percent	zinc O,O,O',O'-tetrakis(1,3-dimethylbutyl) bis(phosphorodithioate)	N Xi R38 R41 R51/53
283-392-8	01-2119493626-26	From 0 to 10.0 percent	Phosphorodithioic acid, mixed O,O-bis (1,3-dimethylbutyl and iso-Pr)esters, zinc salts	N Xi R38 R41 R51/53
204-884-0	01-2119490822-33	From 0 to 10.0 percent	2,6-Di-tert-butylphenol	N Xi R38 R50/53
310-154-3	01-2119513207-49	From 0 to 10.0 percent	Phenol, dodecyl-, branched	N Xn R36/38 R50/53 R62

600, 700 and 900 ECHA List Numbers do not have any legal significance; rather they are purely technical identifiers and are displayed for informational purposes only.

	G 4	E1 ( A1136
- 1	Section 4	First Aid Measures
- 1		

#### 4.1 Description of first aid measures

#### Skin

Wash with soap and water. Get medical attention if irritation develops. Launder contaminated clothing before reuse.

#### Eyes

Flush with water at least 30 minutes. Get medical attention if eye irritation develops or persists.

#### Inhaled

Remove exposed person to fresh air if adverse effects are observed.

#### Swallowed

DO NOT INDUCE VOMITING. Get immediate medical attention.

#### Advice for first-aid providers

When providing first aid always protect yourself against exposure to chemicals or blood born diseases by wearing gloves, masks and eye protection. After providing first aid wash your exposed skin with soap and water.

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

See section 11.

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

Note to physician: Treat symptomatically.

Section 5	Fire Fighting Measures
Section 5	The Tighting Measures

### 5.1 Extinguishing Media

CO2, dry chemical, or foam. Water can be used to cool and protect exposed material.

# 5.2 Special hazards arising from substance or mixture

See section 10 for additional information.

# 5.3 Advice for firefighters

Recommend wearing self-contained breathing apparatus. Water may cause splattering.

Section 6
-----------

# 6.1 Personal precautions, protective equipment and emergency procedures

Personal protective equipment must be worn. Avoid contact with skin. Ventilate area if spilled in a confined space or other poorly ventilated area.

### 6.2 Environmental precautions

Take precautions to avoid release to the environment. Prevent from entering into soil, ditches, sewers, waterways and/or groundwater.

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

Pick up free liquid for recycle and/or disposal. Residual liquid can be absorbed on inert material.

# 6.4 Reference to other sections

See sections 8 and 13 for additional information.

Section 7	Handling and Storage
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#### 7.1 Precautions for safe handling

Keep containers closed when not in use. Do not discharge into drains or the environment, dispose to an authorized waste collection point. Use appropriate

**ENEOS Premium Ultra 0W30** [2013/2/5]

containment to avoid environmental contamination. Avoid skin contact. Wash thoroughly after handling. Launder contaminated clothing before reuse. Empty container contains product residue which may exhibit hazards of product. Dispose of packaging or containers in accordance with local, regional, national and international regulations.

# **Pumping Temperature**

Not determined.

### **Maximum Handling Temperature**

Not determined

### **Maximum Loading Temperature**

Not determined.

# 7.2 Conditions for safe storage, including any incompatibilities

Take precautions to avoid release to the environment. See section 10 for incompatible materials.

### **Maximum Storage Temperature**

Not determined.

### 7.3 Specific end use(s)

End uses are listed in an attached exposure scenario when one is required.

Section 8
-----------

**Exposure Controls/Personal Protection** 

#### 8.1 Control parameters

None known.

### Other Exposure Limits

Contains mineral oil. Under conditions which may generate mists, observe the OSHA PEL of 5 mg per cubic meter, ACGIH TWA of 5 mg per cubic meter.

#### 8.2 Exposure controls

Use with adequate ventilation.

### Eye/face protection

Safety Glasses.

# Skin protection

Nitrile.

Long sleeve shirt is recommended. Wear a chemically protective apron when contact with material may occur. When working with heated material, wear heat protective clothing. Launder contaminated clothing before reuse.

#### Respiratory Protection

Use respirator with a combination organic vapor and high efficiency filter cartridge if recommended exposure limit is exceeded. Use self-contained breathing apparatus for entry into confined space, for other poorly ventilated areas and for large spill clean-up sites.

# **Hygiene Measures**

Wash thoroughly after handling this product.

# **Environmental exposure controls**

See section 6 for details.

Section 9

Physical and Chemical Properties

## 9.1 Information on basic physical and chemical properties

Light colored liquid. **Appearance** 

Odour Mild

**Odour Threshold** Not determined. Not determined. Melting / Freezing Not determined. **Point** Not determined. **Boiling Point** 

Not determined. Flash Point >= 101 °C, 213.8 °F PMCC (Minimum)

**Evaporation Rate** Not determined. Flammability Not applicable. (solid,gas) Lower flammability or Not determined.

explosive limit

**Boiling Point Range** 

Upper flammability or Not determined.

explosive limit Vapour Pressure Not determined. Vapour Density Not determined. Relative density 0.87 (15.6 °C)

**Bulk Density** Not determined. Water Solubility Insoluble. Other solubilities Not determined. Partition coefficient: Not determined. n-octanol/water Not determined. **Autoignition Point** Decomposition Not determined. Temperature Not determined. Viscosity

**Explosive properties** Material does not have explosive properties. **Oxidising properties** Material is a non-oxidising substance.

#### 9.2 Other information

The above data are typical values and do not constitute a specification.

	COLUMN ID ALL
Section 10	Stability and Reactivity
occuon 10	Stability and Reactivity

#### 10.1 Reactivity

Carefully review all information provided in sections 10.2 - 10.6.

#### 10.2 Chemical stability

Material is normally stable at moderately elevated temperatures and pressures.

# 10.3 Possibility of hazardous reactions

Will not occur.

#### 10.4 Conditions to avoid

Not determined.

### 10.5 Incompatible materials

Oxidizing agents.

#### 10.6 Hazardous decomposition products

Smoke, carbon monoxide, carbon dioxide, aldehydes and other products of incomplete combustion.

Section 11	Toxicological Information

# 11.1 Information on toxicological effects

### Acute toxicity

#### Oral

The LD50 in rats is > 10,000 mg/Kg. Based on data from components or similar materials.

#### Derma

The LD50 in rabbits is > 2000 mg/Kg. Based on data from components or similar materials.

# Inhalation

No data available to indicate product or components may be a toxic inhalation hazard.

#### Skin corrosion / irritation

Not expected to be a primary skin irritant. Based on data from components or similar materials. Prolonged or repeated skin contact as from clothing wet with material may cause dermatitis. Symptoms may include redness, edema, drying, and cracking of the skin.

# Serious eye damage / irritation

Not expected to cause eye irritation. Based on data from components or similar materials. Vapors formed from heating may cause eye irritation.

#### Respiratory Irritation

If material is misted or if vapors are generated from heating, exposure may cause irritation of mucous membranes and the upper respiratory tract. Based on data from similar materials.

#### Respiratory or skin sensitization

# Skin

No data available to indicate product or components may be a skin sensitizer.

#### Respiratory

No data available to indicate product or components may be respiratory sensitizers.

# Germ cell mutagenicity

No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

## Carcinogenicity

This product contains mineral oils which are considered to be severely refined and not considered to be carcinogenic under IARC. All of the oils in this product have been demonstrated to contain less than 3% extractables by the IP 346 test.

#### Reproductive Toxicity

This product contains para-dodecylphenol. Rats given high, repeated daily doses of para-dodecylphenol by oral intubation experienced adverse reproductive effects. The relevance of these effects to humans is uncertain.

This product contains para-dodecylphenol. Pregnant rats given high, repeated daily doses of para-dodecylphenol by oral intubation gave birth to pups with cleft palate and skeletal malformations. The relevance of these effects to humans is uncertain.

### STOT repeated exposure

Repeated-dose oral toxicity studies in rats using a component contained in this product revealed internal organ effects (i.e., liver and thyroid enlargement). These effects were considered adaptive and were reversible upon cessation of treatment.

#### Other information

No other health hazards known.

Section 12	Ecological Information
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### 12.1 Toxicity

#### Freshwater fish

Not determined.

# Freshwater invertebrates

Chronic effects expected at 1 - 10 mg/L based on component data.

# Algae

Not determined.

#### Saltwater fish

Not determined.

### Saltwater invertebrates

Not determined.

#### Bacteria

Not determined.

### 12.2 Persistence and degradability

Substance	Pct. (weight)	Test type	<b>Duration (days)</b>	Pct. degradation
2,6-Di-tert-butylphenol	From 0 to 10.0 percent	Zahn-Wellens	28	24
2,6-Di-tert-butylphenol	From 0 to 10.0 percent	Sturm	28	5
Phenol, dodecyl-, branched	From 0 to 10.0 percent	Miscellaneous-Degradation	56	10
Phenol, dodecyl-, branched	From 0 to 10.0 percent	Sturm	28	25

### 12.3 Bioaccumulative potential

Substance	Pct. (weight)	Test type	<b>Duration (days)</b>	Log Kow or BCF
2,6-Di-tert-butylphenol	From 0 to 10.0 percent	Octanol-Water Coefficient	0.1	4.5
Phenol, dodecyl-, branched	From 0 to 10.0 percent	Bioconcentration Factor	27	2.9
Phenol, dodecyl-, branched	From 0 to 10.0 percent	Octanol-Water Coefficient	0.1	7.1

# 12.4 Mobility in soil

Not applicable.

# 12.5 Results of PBT and vPvB assessment

Not Available

# 12.6 Other adverse effects

None known.

Section 13	Disposal Considerations	

# 13.1 Waste treatment methods

All disposal practices must be in accordance with local, regional, national and international regulations. Do not dispose in landfill. Dispose of packaging or containers in accordance with local, regional, national and international regulations.

Section 14	Transport Information
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### 14.1 UN number

ADR/RID	Not regulated
ICAO	Not regulated
IMDG	Not regulated

### 14.2 UN proper shipping name

ADR/RID Not regulated ICAO Not regulated IMDG Not regulated

14.3 Transport hazard class(es)

ADR/RID Not regulated ICAO Not regulated IMDG Not regulated

14.4 Packing group

ADR/RID Not regulated ICAO Not regulated IMDG Not regulated

14.5 Environmental hazards

ADR/RID Not applicable.

ICAO Not applicable.

IMDG Not applicable.

### 14.6 Special precautions for users

Review classification requirements before shipping materials at elevated temperatures.

# 14.7 Transport in bulk according to Annex II of Marpol 73/78 and the IBC code

Not determined.

Section 15 Regulatory Information

### 15.1 Safety, health and environment regulations / legislation specific for the substance or mixture

#### **Global Chemical Inventories**

Australia May require notification before sale under Australian regulations.

Canada May require notification before sale under Canadian regulations.

China This product may require notification in China.

EU To obtain information on the REACH compliance status of this product, please visit Lubrizol.com/REACH, or e-mail us at

 $REACH\_MSDS\_INQUIRIES@Lubrizol.com$ 

**Japan** May require notification in Japan.

**Korea** May require notification before sale in Korea.

New ZealandMay require notification before sale under New Zealand regulations.PhilippinesMay require notification before sale under Philippines Republic Act 6969.

Switzerland May require notification before sale in Switzerland.

Taiwan May require notification before sale in Taiwan.

USA May require notification in the U.S. Commercial shipments from Lubrizol's U.S. location must be exported to non U.S. customers only.

Research and development quantities must bear special labels and shipping papers. Sample recipients must comply with the requirements

for an R&D exemption under TSCA.

#### German water hazard classes

WGK = 2 according to the Water Hazardous Directive, VwVwS, dated May 17, 1999.

## 15.2 Chemical safety assessment

No chemical safety assessment has been carried out.

Section 16	Other Information
	Other militing matter

#### Created by

Product Safety and Compliance Department (440-943-1200)

#### **Created Date**

20 October 2010

# Revision date

05 February 2013

### SDS No.

 $22437587 \hbox{-} 1401212 \hbox{-} 0017321 \hbox{-} 102103$ 

#### **HMIS Codes**

Health	Fire	Reactivity
1*	1	0

# Relevant R Phrases

R36/38 -- Irritating to eyes and skin.

R38 -- Irritating to skin.

R41 -- Risk of serious damage to eye.

R50/53 -- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R51/53 -- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R53 -- May cause long-term adverse effects in aquatic environment.

R62 -- Possible risk of impaired fertility.

#### Relevant hazard phrases

H315 - Causes skin irritation.

H319 - Causes serious eye irritation.

H361 - Suspected of damaging fertility or the unborn child.

H400 - Very toxic to aquatic life.

H410 - Very toxic to aquatic life with long lasting effects.

H413 - May cause long lasting harmful effects to aquatic life.

### **Revision Indicators**

Section: 3 CLP Hazardous Ingredients
Section: 3 EU hazardous ingredients
Section: 3 EU hazardous ingredients
Section: 4 Additional first aid measures.
Changed: 5 February 2013
Section: 8 Clothing recommendations.
Changed: 5 February 2013
Section: 9 Flash point.
Changed: 16 May 2012
Section: 11 Cacinogenicity.
Changed: 1 May 2012
Section: 16 Relevant hazard phrases
Changed: 29 May 2012

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