



# ORLEN OIL DIESEL 2 HPDO CG-4 20W-50

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878  
Issue date: 23/04/2008 Revision date: 06/11/2023 Version: 10.0

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

#### 1.1. Product identifier

Product form : Mixture  
Trade name : ORLEN OIL DIESEL 2 HPDO CG-4 20W-50  
Product group : Trade product

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

##### 1.2.1. Relevant identified uses

Main use category : Professional use, Consumer use  
Use of the substance/mixture : Engine oil

##### 1.2.2. Uses advised against

No additional information available

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

ORLEN OIL Sp. z o.o.  
ul. Elbląska 135  
80-718 Gdańsk  
T +48 12 66 555 00 / +48 12 66 555 01  
[centrala@orlenoil.pl](mailto:centrala@orlenoil.pl)  
E-mail address of competent person responsible for the SDS : [msds@orlenoil.pl](mailto:msds@orlenoil.pl)

#### 1.4. Emergency telephone number

Emergency number : Emergency contact + 48 242010367, +48 242869509, +48242869556 (7:00-15:00)  
Emergency number 112

### SECTION 2: Hazards identification

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

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

Hazardous to the aquatic environment – Chronic Hazard, H412  
Category 3  
Full text of H- and EUH-statements: see section 16

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

Harmful to aquatic life with long lasting effects.

#### 2.2. Label elements

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

Signal word (CLP) : -  
Hazard statements (CLP) : H412 - Harmful to aquatic life with long lasting effects.  
Precautionary statements (CLP) : P273 - Avoid release to the environment.  
P501 - Dispose of contents/container to properly labelled waste containers according to the national law.

#### 2.3. Other hazards

Contains no PBT and/or vPvB substances  $\geq 0.1\%$  assessed in accordance with REACH Annex XIII

#### Component

phenol, dodecyl-, branched; phenol, 2-dodecyl-, branched; phenol, 3-dodecyl-, branched (121158-58-5)

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII  
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

# ORLEN OIL DIESEL 2 HPDO CG-4 20W-50

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

Component	
phenol, dodecyl-, branched; phenol, 2-dodecyl-, branched; phenol, 3-dodecyl-, branched(121158-58-5)	The substance is included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
phenol, dodecyl-, branched; phenol, 2-dodecyl-, branched; phenol, 3-dodecyl-, branched substance listed as REACH Candidate (Phenol, alkylation products (mainly in para position) with C12-rich branched alkyl chains from oligomerisation, covering any individual isomers and/ or combinations thereof (PDDP))	CAS-No.: 121158-58-5 EC-No.: 310-154-3 EC Index-No.: 604-092-00-9 REACH-no: 01-2119513207-49	0.009 – 0.027	Repr. 1B, H360F Skin Corr. 1C, H314 Eye Dam. 1, H318 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=10)

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

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash skin with plenty of water.
First-aid measures after eye contact	: Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.

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

No additional information available

### 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	: Dry chemical, CO2, or water spray or regular foam.
Unsuitable extinguishing media	: Strong water jet.

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

Hazardous decomposition products in case of fire	: Toxic fumes may be released.
--	--------------------------------

# ORLEN OIL DIESEL 2 HPDO CG-4 20W-50

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### 5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

## SECTION 6: Accidental release measures

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

#### 6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area.

#### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

### 6.2. Environmental precautions

Avoid release to the environment.

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

Methods for cleaning up : Take up liquid spill into absorbent material.  
Other information : Dispose of materials or solid residues at an authorized site.

### 6.4. Reference to other sections

For further information refer to section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment.  
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

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

Storage conditions : Store in a well-ventilated place. Keep cool.  
Storage temperature : -20 – 40 °C

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### 8.1.1 National occupational exposure and biological limit values

No additional information available

#### 8.1.2. Recommended monitoring procedures

No additional information available

#### 8.1.3. Air contaminants formed

No additional information available

# ORLEN OIL DIESEL 2 HPDO CG-4 20W-50

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### 8.1.4. DNEL and PNEC

phenol, dodecyl-, branched; phenol, 2-dodecyl-, branched; phenol, 3-dodecyl-, branched (121158-58-5)	
<b>DNEL/DMEL (Workers)</b>	
Acute - systemic effects, dermal	166 mg/kg bodyweight/day
Acute - systemic effects, inhalation	44.18 mg/m <sup>3</sup>
Long-term - systemic effects, dermal	0.25 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	17621 mg/m <sup>3</sup>
<b>DNEL/DMEL (General population)</b>	
Acute - systemic effects, dermal	50 mg/kg bodyweight/day
Acute - systemic effects, inhalation	13.26 mg/m <sup>3</sup>
Acute - systemic effects, oral	1.26 mg/kg bodyweight/day
Long-term - systemic effects, oral	0.075 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	0.79 mg/m <sup>3</sup>
Long-term - systemic effects, dermal	0.075 mg/kg bodyweight/day
<b>PNEC (Water)</b>	
PNEC aqua (freshwater)	0.074 µg/l
PNEC aqua (marine water)	0.0074 µg/l
PNEC aqua (intermittent, freshwater)	0.37 µg/l
<b>PNEC (Sediment)</b>	
PNEC sediment (freshwater)	0.226 mg/kg dwt
PNEC sediment (marine water)	0.0266 mg/kg dwt
<b>PNEC (Soil)</b>	
PNEC soil	0.118 mg/kg dwt
<b>PNEC (Oral)</b>	
PNEC oral (secondary poisoning)	4 mg/kg food
<b>PNEC (STP)</b>	
PNEC sewage treatment plant	100 mg/l
Distillates (petroleum), hydrotreated heavy paraffinic; Baseoil— unspecified; (64742-54-7)	
<b>DNEL/DMEL (Workers)</b>	
Long-term - local effects, inhalation	5.4 mg/m <sup>3</sup> 8 hours
<b>DNEL/DMEL (General population)</b>	
Long-term - local effects, inhalation	1.2 mg/m <sup>3</sup> 24 hours
<b>PNEC (Oral)</b>	
PNEC oral (secondary poisoning)	9.33 mg/kg food mammalian

### 8.1.5. Control banding

No additional information available

## 8.2. Exposure controls

### 8.2.1. Appropriate engineering controls

#### Appropriate engineering controls:

Ensure good ventilation of the work station.

# ORLEN OIL DIESEL 2 HPDO CG-4 20W-50

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### 8.2.2. Personal protection equipment

Personal protective equipment symbol(s):



#### 8.2.2.1. Eye and face protection

**Eye protection:**

Safety glasses

#### 8.2.2.2. Skin protection

**Skin and body protection:**

Wear suitable protective clothing

**Hand protection:**

Protective gloves

#### 8.2.2.3. Respiratory protection

**Respiratory protection:**

In case of insufficient ventilation, wear suitable respiratory equipment

#### 8.2.2.4. Thermal hazards

No additional information available

### 8.2.3. Environmental exposure controls

**Environmental exposure controls:**

Avoid release to the environment.

## SECTION 9: Physical and chemical properties

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

Physical state	: Liquid
Colour	: amber.
Odour	: characteristic.
Odour threshold	: Not available
Melting point	: Not applicable
Freezing point	: $\approx -28\text{ }^{\circ}\text{C}$
Boiling point	: Not available
Flammability	: Non flammable.
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: $\approx 236\text{ }^{\circ}\text{C}$
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
pH	: Not available
Viscosity, kinematic	: $17.6\text{ mm}^2/\text{s}\text{ }100^{\circ}\text{C}$
Solubility	: insoluble in water. Soluble in hydrocarbons.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at $50^{\circ}\text{C}$	: Not available
Density	: $0.892\text{ g/cm}^3\text{ }15^{\circ}\text{C}$
Relative density	: Not available
Relative vapour density at $20^{\circ}\text{C}$	: Not available
Particle characteristics	: Not applicable

### 9.2. Other information

#### 9.2.1. Information with regard to physical hazard classes

No additional information available

# ORLEN OIL DIESEL 2 HPDO CG-4 20W-50

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### 9.2.2. Other safety characteristics

No 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

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral) : Not classified  
Acute toxicity (dermal) : Not classified  
Acute toxicity (inhalation) : Not classified

#### phenol, dodecyl-, branched; phenol, 2-dodecyl-, branched; phenol, 3-dodecyl-, branched (121158-58-5)

LD50 oral rat	2100 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity), 95% CL: 1620 - 2730
LD50 dermal rabbit	≈ 15000 mg/kg bodyweight Animal: rabbit, Animal sex: male, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)

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  
STOT-single exposure : Not classified  
STOT-repeated exposure : Not classified  
Aspiration hazard : Not classified

### ORLEN OIL DIESEL 2 HPDO CG-4 20W-50

Viscosity, kinematic	17.6 mm <sup>2</sup> /s 100°C
----------------------	-------------------------------

# ORLEN OIL DIESEL 2 HPDO CG-4 20W-50

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### 11.2. Information on other hazards

#### 11.2.1. Endocrine disrupting properties

Component	
phenol, dodecyl-, branched; phenol, 2-dodecyl-, branched; phenol, 3-dodecyl-, branched(121158-58-5)	The substance is identified for having endocrine disrupting properties but there is no additional data available (see section 2.3)

#### 11.2.2. Other information

No additional information available

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general : Harmful to aquatic life with long lasting effects.  
Hazardous to the aquatic environment, short-term (acute) : Not classified  
Hazardous to the aquatic environment, long-term (chronic) : Harmful to aquatic life with long lasting effects.  
Not rapidly degradable

phenol, dodecyl-, branched; phenol, 2-dodecyl-, branched; phenol, 3-dodecyl-, branched (121158-58-5)	
EC50 - Crustacea [1]	0.037 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	0.15 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
EC50 72h - Algae [2]	0.36 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
LOEC (chronic)	0.012 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	0.0037 mg/l Test organisms (species): Daphnia magna Duration: '21 d'

### 12.2. Persistence and degradability

No additional information available

### 12.3. Bioaccumulative potential

No additional information available

### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

Component	
phenol, dodecyl-, branched; phenol, 2-dodecyl-, branched; phenol, 3-dodecyl-, branched (121158-58-5)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

### 12.6. Endocrine disrupting properties

Component	
phenol, dodecyl-, branched; phenol, 2-dodecyl-, branched; phenol, 3-dodecyl-, branched(121158-58-5)	The substance is identified for having endocrine disrupting properties but there is no additional data available (see section 2.3)

### 12.7. Other adverse effects

No additional information available

# ORLEN OIL DIESEL 2 HPDO CG-4 20W-50

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

### SECTION 14: Transport information

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

ADR	IMDG	IATA	ADN	RID
<b>14.1. UN number or ID number</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.2. UN proper shipping name</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.3. Transport hazard class(es)</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.4. Packing group</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.5. Environmental hazards</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
No supplementary information available				

#### 14.6. Special precautions for user

##### Overland transport

Not applicable

##### Transport by sea

Not applicable

##### Air transport

Not applicable

##### Inland waterway transport

Not applicable

##### Rail transport

Not applicable

#### 14.7. Maritime transport in bulk according to IMO instruments

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

###### REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

###### REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)



# ORLEN OIL DIESEL 2 HPDO CG-4 20W-50

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### REACH Candidate List (SVHC)

Contains substance(s) listed on the REACH Candidate List

### PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

### POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

### Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

### Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

### Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

#### 15.1.2. National regulations

No additional information available

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

Indication of changes			
Section	Changed item	Change	Comments
	Supersedes version of	Added	
	Revision date	Modified	
2.2	Precautionary statements (CLP)	Modified	
5.1	Suitable extinguishing media	Added	

Abbreviations and acronyms:	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods

# ORLEN OIL DIESEL 2 HPDO CG-4 20W-50

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Abbreviations and acronyms:	
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disrupting properties

Full text of H- and EUH-statements:	
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H360F	May damage fertility.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
Repr. 1B	Reproductive toxicity, Category 1B
Skin Corr. 1C	Skin corrosion/irritation, Category 1, Sub-Category 1C

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:		
Aquatic Chronic 3	H412	Calculation method

The classification complies with : ATP 12

Safety Data Sheet (SDS), EU

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.