



# Eni OSO S 46

## Safety Data Sheet

SDS EU format according to COMMISSION REGULATION (EU) 2020/878  
Revision date: 11/15/2024 Version: 1.0

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

#### 1.1. Product identifier

Product form : Mixture  
Trade name : Eni OSO S 46  
Product code : 7424  
Type of product : Lubricant  
Formula : 0026-2007  
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 : Industrial use, Professional use  
Industrial/Professional use spec : Wide dispersive use  
Used in closed systems  
Use of the substance/mixture : Hydraulic fluid  
----  
Do not use the product for any purposes that have not been advised by the manufacturer.  
Function or use category : Hydraulic fluids and additives

##### 1.2.2. Uses advised against

No additional information available

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

Manufacturer:

Enilive Iberia S.L.U., Avenida de Europa, 24, Edificio Torona B - Planta 1ª, 28108 Alcobendas (Madrid) Tel: (+34) 917 277 878

Competent person responsible for the Safety Data Sheet (Reg. EC nr. 1907/2006): SDS.Enilive@enilive.com

Distributed by: Enilive Schmiertechnik GmbH, Paradiesstraße 14, 97080 Würzburg, GERMANY, www.oilproducts.eni.com

Department responsible for information: Application Engineering & Product Management (AEPM), Tel. +49 (0)931-900 98-0

e-mail: technik.wuerzburg@enilive.com

#### 1.4. Emergency telephone number

Emergency number : CNIT +39 0382 24444 (24h) (IT + EN)  
Poison Center

### SECTION 2: Hazards identification

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

##### Classification according to Regulation (EC) No. 1272/2008 [EU-GHS / 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. For specific information about the toxicological/ecotoxicological properties and classification of this product, see Sect. 11 and/or Sect. 12.

#### 2.2. Label elements

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

CLP Signal word : -  
Hazard statements (CLP) : H412 - Harmful to aquatic life with long lasting effects.

# Eni OSO S 46

## Safety Data Sheet

SDS EU format according to COMMISSION REGULATION (EU) 2020/878

Precautionary statements (CLP) : P273 - Avoid release to the environment.  
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

### 2.3. Other hazards (not relevant for classification)

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

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

Component	
Substance(s) not meeting the PBT criteria of REACH regulation, in accordance with Annex XIII	Reaction Products of Diphosphorus Pentaoxide with Alcohols, C14-18 even, salted with Amines, C12-14, Tert-alkyl, 2,6-Di-tert-butylphenol (128-39-2), Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0), Distillates (petroleum), solvent-dewaxed heavy paraffinic; Baseoil— unspecified; [A complex combination of hydrocarbons obtained by removal of normal paraffins from a petroleum fraction by solvent crystallization. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C20 through C50 and produces a finished oil with a viscosity not less than 100 SUS at 100 °F (19cSt at 40 °C).] (64742-65-0)
Substance(s) not meeting the vPvB criteria of REACH regulation, in accordance with Annex XIII	Reaction Products of Diphosphorus Pentaoxide with Alcohols, C14-18 even, salted with Amines, C12-14, Tert-alkyl, 2,6-Di-tert-butylphenol (128-39-2), Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0), Distillates (petroleum), solvent-dewaxed heavy paraffinic; Baseoil— unspecified; [A complex combination of hydrocarbons obtained by removal of normal paraffins from a petroleum fraction by solvent crystallization. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C20 through C50 and produces a finished oil with a viscosity not less than 100 SUS at 100 °F (19cSt at 40 °C).] (64742-65-0)

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 substance(s) are 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	
Substance(s) not 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	Distillates (petroleum), solvent-dewaxed heavy paraffinic; Baseoil— unspecified; [A complex combination of hydrocarbons obtained by removal of normal paraffins from a petroleum fraction by solvent crystallization. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C20 through C50 and produces a finished oil with a viscosity not less than 100 SUS at 100 °F (19cSt at 40 °C).] (64742-65-0), Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0), Reaction Products of Diphosphorus Pentaoxide with Alcohols, C14-18 even, salted with Amines, C12-14, Tert-alkyl, 2,6-Di-tert-butylphenol (128-39-2)

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

# Eni OSO S 46

## Safety Data Sheet

SDS EU format according to COMMISSION REGULATION (EU) 2020/878

### 3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [EU-GHS / CLP]
Distillates (petroleum), solvent-dewaxed heavy paraffinic; Baseoil— unspecified; [A complex combination of hydrocarbons obtained by removal of normal paraffins from a petroleum fraction by solvent crystallization. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C20 through C50 and produces a finished oil with a viscosity not less than 100 SUS at 100 °F (19cSt at 40 °C).] substance with national workplace exposure limit(s) (AT, BE, DK, ES, GB, HU, NL, SE)	CAS-No.: 64742-65-0 EC-No.: 265-169-7 EC Index-No.: 649-474-00-6 REACH-no: 01-2119471299-27	60 – 70	Not classified
Distillates (petroleum), solvent-dewaxed heavy paraffinic; Baseoil— unspecified; [A complex combination of hydrocarbons obtained by removal of normal paraffins from a petroleum fraction by solvent crystallization. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C20 through C50 and produces a finished oil with a viscosity not less than 100 SUS at 100 °F (19cSt at 40 °C).] (see note [**])	CAS-No.: 64742-65-0 EC-No.: 265-169-7 EC Index-No.: 649-474-00-6 REACH-no: 01-2119471299-27	60 - 95	Not classified
Reaction Products of Diphosphorus Pentaoxide with Alcohols, C14-18 even, salted with Amines, C12-14, Tert-alkyl (Additive)	EC-No.: 943-540-0 REACH-no: 01-2120120371-74	0,1 - 0,9	Aquatic Acute 1, H400 Aquatic Chronic 2, H411 Skin Sens. 1B, H317
2,6-Di-tert-butylphenol (Additive)	CAS-No.: 128-39-2 EC-No.: 204-884-0 REACH-no: 01-2119490822-33	0,1 - 0,2	Skin Irrit. 2, H315 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)

#### Specific concentration limits:

Name	Product identifier	Specific concentration limits (%)
Reaction Products of Diphosphorus Pentaoxide with Alcohols, C14-18 even, salted with Amines, C12-14, Tert-alkyl (Additive)	EC-No.: 943-540-0 REACH-no: 01-2120120371-74	(13 < C ≤ 100) Skin Sens. 1B, H317

#### Comments

: [\*] Note: this product may be formulated with one or more of the following severely refined mineral base oils (not classified as hazardous):  
CAS 64742-54-7/EC 265-157-1/REACH Reg. # 01-2119484627-25-xxxx; CAS 64742-65-0/EC 265-169-7/REACH Reg. # 01-2119471299-27-xxxx; CAS 64742-70-7/EC 265-174-4/REACH Reg. # 01-2119487080-42-xxxx; CAS 64742-56-9/EC 2265-159-2/ REACH Reg. # 01-2119480132-48-xxxx.  
All these substances have a value < 3 % wt of DMSO extract, according to IP 346 (Nota L - Annex VI Reg (CE) 1272/2008, # 1.1.3)  
Note [\*\*]:  
this product has a value of DMSO extract < 3 % wt, according to IP 346. According to the criteria laid out by the EU (note L, Annex VI of Regulation (CE) 1272/2008), this product must be regarded as non carcinogenic.

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

# Eni OSO S 46

## Safety Data Sheet

SDS EU format according to COMMISSION REGULATION (EU) 2020/878

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

- First-aid measures after inhalation : In case of disturbances owing to inhalation of vapours or mists, remove the victim from exposure; keep at rest; if necessary, seek medical attention.
- First-aid measures after skin contact : Take off contaminated clothing and shoes. Wash thoroughly with soap and water. If inflammation or irritation persists, seek medical advice. In case of burns, cool affected part with cold running water for at least 10 min. Cover with gauze or clean cloth. Ask for medical assistance or bring to a hospital. Do not apply salves or other substances, unless by doctor's advice. Body hypothermia must be avoided. Do not put ice on the burn.
- First-aid measures after eye contact : Rinse eyes thoroughly for at least 15 minutes. Keep eyelids well apart. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation persists, seek medical advice. In case of burns, cool affected part with cold running water for at least 10 min. Cover with gauze or clean cloth. Ask for medical assistance or bring to a hospital. Do not apply salves or other substances, unless by doctor's advice.
- First-aid measures after ingestion : Do not induce vomiting to avoid aspiration into the lungs. Keep at rest. If the person is conscious, rinse mouth with water without swallowing. Keep at rest. Call for medical assistance or bring to an hospital. If the casualty is unconscious, place in the recovery position. In case of spontaneous vomiting, keep head low, to avoid the risk of aspiration into the lungs. Do not give anything by mouth to an unconscious person.

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

- Symptoms / injuries (general indications) : Not expected to present a significant hazard under anticipated conditions of normal use.
- Symptoms/effects after inhalation : This product has a low vapour pressure, and in normal conditions at ambient temperature the concentration in the air is negligible. A significant concentration may build up only if the product is used at high temperature, or in case of sprays and mists. In these cases overexposure to vapours may cause irritation to airways, nausea and dizziness.
- Symptoms/effects after skin contact : Prolonged and repeated skin contact may cause reddening, irritation and dermatitis. May cause sensitization by skin contact. Contact with hot product may cause thermal burns.
- Symptoms/effects after eye contact : Contact with hot product or vapours may cause burns.
- Symptoms/effects after ingestion : Accidental ingestion of small quantities of the product may cause irritation, nausea and gastric disturbances. Taking into account the taste of the product, however, ingestion of dangerous quantities is very unlikely.
- Symptoms/effects upon intravenous administration : No information available.
- Chronic symptoms : None to be reported, according to the present classification criteria.

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

Obtain medical attention if casualty has an altered state of consciousness or if symptoms do not resolve. If there is any suspicion of inhalation of H<sub>2</sub>S (hydrogen sulphide). The casualty should be sent immediately to hospital. Immediately begin artificial respiration if breathing has ceased. Administer oxygen if necessary.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

- Suitable extinguishing media : Small-size fires: carbon dioxide, dry chemicals, foam, sand or earth. Large fires: foam or water fog (mist). These means should be used by trained personnel only. Other extinguishing gases (according to regulations).
- Unsuitable extinguishing media : Do not use water jets. They could cause splattering, and spread the fire. Simultaneous use of foam and water on the same surface is to be avoided as water destroys the foam.

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

- Fire hazard : This product is combustible, but not classified as Flammable. The creation of flammable vapour mixtures takes place at temperatures which are higher than normal ambient levels.
- Explosion hazard : In case of losses from pressurized circuits, the sprays may form mists. Take into account that in this case the lower explosion limit for mists is about 45 g/m<sup>3</sup> of air.

# Eni OSO S 46

## Safety Data Sheet

SDS EU format according to COMMISSION REGULATION (EU) 2020/878

### 5.3. Advice for firefighters

- Firefighting instructions : Shut off source of product, if possible. Spilled product which is not burning should be covered with sand or foam. If possible, move containers and drums away from the danger area, if safe to do so. Use water sprays to cool containers and surfaces exposed to the flames. If the fire cannot be controlled, evacuate area.
- Special protective equipment for firefighters : Wear personal protection equipment. (see chapter 8). In case of a large fire or in confined or poorly ventilated spaces, wear full fire resistant protective clothing and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. EN 443. EN 469. EN 659.
- Other information : In case of fire, do not discharge residual product, waste materials and runoff water: collect separately and use a proper treatment.

## SECTION 6: Accidental release measures

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

- General measures : Stop or contain leak at the source, if safe to do so. Eliminate all ignition sources if safe to do so (e.g. electricity, sparks, fires, flares). Avoid accidental sprays on hot surfaces or electrical contacts. Avoid direct contact with released material. Keep upwind.

#### 6.1.1. For non-emergency personnel

- Protective equipment : See Section 8.
- Emergency procedures : Keep non-involved personnel away from the area of spillage. Alert emergency personnel. Except in case of small spillages, the feasibility of any actions should always be assessed and advised, if possible, by a trained, competent person in charge of managing the emergency.

#### 6.1.2. For emergency responders

- Protective equipment : Small spillages: normal antistatic working clothes are usually adequate. Large spillages: full body suit of chemically resistant and antistatic material. if necessary heat resistant and insulated. Work gloves providing adequate chemical resistance, specifically to aromatic hydrocarbons. Gloves made of PVA are not water-resistant, and are not suitable for emergency use. If contact with hot product is possible or anticipated, gloves should be heat-resistant and thermally insulated. Antistatic non-skid safety shoes or boots, chemical resistant, if necessary heat resistant and insulated. Work helmet. Goggles and /or face shield, if splashes or contact with eyes is possible or anticipated. Respiratory protection: A half or full-face respirator with filter(s) for organic vapours (A) (or A+B when applicable for H<sub>2</sub>S), or a Self-contained Breathing Apparatus (SCBA) can be used according to the extent of spill and predictable amount of exposure. If the situation cannot be completely assessed, or if an oxygen deficiency is possible, only SCBA's should be used.
- Emergency procedures : If required, notify relevant authorities according to all applicable regulations.

### 6.2. Environmental precautions

Do not let the product accumulate in confined or underground spaces. Do not let the product flow into sewers or water courses, or in any way contaminate the environment. In case of contamination of environment compartments (soil, subsoil, surface or underground waters), remove contaminated soil when possible, and in any case treat all involved compartments in accordance with local regulations. The site should have a spill plan to ensure that adequate safeguards are in place to minimize the impact of episodic releases.

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

- For containment : Contain spilled liquid with sand, earth or other suitable absorbents (non-flammable). Recover free liquid and waste materials in suitable waterproof and oil-resistant containers. Clean contaminated area. Dispose of according to local regulations. If in water: Confine the spillage. Remove from surface by skimming or suitable floating absorbents. Collect recovered product and other waste materials in suitable waterproof, oil resistant containers. Recover or dispose of according to local regulations. Do not use solvents or dispersants, unless specifically advised by an expert, and, if required, approved by local authorities.
- Other information : Recommended measures are based on the most likely spillage scenarios for this material; however, local conditions (wind, air/water temperature, wave/current direction and speed) may significantly influence the choice of appropriate actions. Local regulations may also prescribe or limit actions to be taken. For this reason, local experts should be consulted when necessary.

# Eni OSO S 46

## Safety Data Sheet

SDS EU format according to COMMISSION REGULATION (EU) 2020/878

### 6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For further information refer to section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling	: Ensure that all relevant regulations regarding handling and storage facilities of flammable products are followed. Do not use compressed air for filling, discharging, or handling operations. Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Use and store only outdoors or in a well-ventilated area. During transfer operations, ensure that all equipment and containers are correctly grounded. Avoid the build-up of electric charges. Emptied containers can contain combustible product residues. Do not cut, weld, drill, burn or incinerate empty containers or drums, unless they have been drained and cleaned. Before entering storage tanks and commencing any operation in a confined area (e.g. tunnels), carry out an adequate clean-up, and check the atmosphere for oxygen content, flammability, and the presence of sulphur compounds. See also Section 16, "Other information".
Handling temperature	: This product can be handled at ambient temperatures.
Hygiene measures	: Avoid contact with skin. Do not breathe fume/ mist/ vapours. Do not ingest. Do not smoke. Do not eat and do not drink during use. Do not clean hands with dirty or oil-soaked rags. Do not re-use clothes, if they are still contaminated. Keep away from food and beverages.

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

Storage conditions	: Store in dry, well-ventilated area. Keep away from open flames, hot surfaces and sources of ignition. Do not smoke.
Incompatible products	: Keep away from strong oxidizers.
Storage temperature	: This product can be stored at ambient temperatures.
Storage area	: Storage area layout, tank design, equipment and operating procedures must comply with the relevant European, national or local legislation. Storage installations/areas should be designed with adequate bunds in case of leaks or spills. Cleaning, inspection and maintenance of internal structure of storage tanks must be done only by properly equipped and qualified personnel as defined by national, local or company regulations.
Packages and containers:	: If the product is supplied in containers: Keep containers tightly closed and properly labelled. Keep only in the original container or in a suitable container for this kind of product.
Packaging materials	: For containers, or container linings use materials specifically approved for use with this product. Compatibility should be checked with the manufacturer.

#### Germany

Storage class (LGK, TRGS 510) : LGK 12 - Non-combustible liquids

#### Switzerland

Storage class (LK) : LK 10/12 - Liquids

### 7.3. Specific end use(s)

No information available.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

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

# Eni OSO S 46

## Safety Data Sheet

SDS EU format according to COMMISSION REGULATION (EU) 2020/878

<b>Distillates (petroleum), solvent-dewaxed heavy paraffinic; Baseoil— unspecified; [A complex combination of hydrocarbons obtained by removal of normal paraffins from a petroleum fraction by solvent crystallization. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C20 through C50 and produces a finished oil with a viscosity not less than 100 SUS at 100 °F (19cSt at 40 °C).] (64742-65-0)</b>	
<b>Austria - Occupational Exposure Limits</b>	
MAK (OEL TWA)	5 mg/m <sup>3</sup> (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
<b>Belgium - Occupational Exposure Limits</b>	
OEL TWA	5 mg/m <sup>3</sup> (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
<b>Denmark - Occupational Exposure Limits</b>	
OEL TWA	1 mg/m <sup>3</sup> (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
OEL STEL	2 mg/m <sup>3</sup> (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
<b>Hungary - Occupational Exposure Limits</b>	
AK (OEL TWA)	5 mg/m <sup>3</sup> (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
<b>Netherlands - Occupational Exposure Limits</b>	
MAC TGG 8h (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup> (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
<b>Spain - Occupational Exposure Limits</b>	
VLA-ED (OEL TWA)	5 mg/m <sup>3</sup> (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
VLA-EC (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
<b>Sweden - Occupational Exposure Limits</b>	
NGV (OEL TWA)	1 mg/m <sup>3</sup> (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
KGV (OEL STEL)	3 mg/m <sup>3</sup> (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
<b>United Kingdom - Occupational Exposure Limits</b>	
WEL TWA (OEL TWA)	5 mg/m <sup>3</sup> (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
WEL STEL (OEL STEL)	10 mg/m <sup>3</sup> (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
<b>USA - ACGIH - Occupational Exposure Limits</b>	
ACGIH OEL TWA	5 mg/m <sup>3</sup> (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
ACGIH OEL STEL	10 mg/m <sup>3</sup> (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
<b>Distillates (petroleum), solvent-dewaxed heavy paraffinic; Baseoil— unspecified; [A complex combination of hydrocarbons obtained by removal of normal paraffins from a petroleum fraction by solvent crystallization. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C20 through C50 and produces a finished oil with a viscosity not less than 100 SUS at 100 °F (19cSt at 40 °C).] (64742-65-0)</b>	
<b>Austria - Occupational Exposure Limits</b>	
MAK (OEL TWA)	5 mg/m <sup>3</sup> (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
<b>Belgium - Occupational Exposure Limits</b>	
OEL TWA	5 mg/m <sup>3</sup> (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
<b>Denmark - Occupational Exposure Limits</b>	
OEL TWA	1 mg/m <sup>3</sup> (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
OEL STEL	2 mg/m <sup>3</sup> (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
<b>Hungary - Occupational Exposure Limits</b>	
AK (OEL TWA)	5 mg/m <sup>3</sup> (Mineral base oil mist, severely refined, DMSO extract <3% m/m)

# Eni OSO S 46

## Safety Data Sheet

SDS EU format according to COMMISSION REGULATION (EU) 2020/878

**Distillates (petroleum), solvent-dewaxed heavy paraffinic; Baseoil— unspecified; [A complex combination of hydrocarbons obtained by removal of normal paraffins from a petroleum fraction by solvent crystallization. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C20 through C50 and produces a finished oil with a viscosity not less than 100 SUS at 100 °F (19cSt at 40 °C).] (64742-65-0)**

### Netherlands - Occupational Exposure Limits

MAC TGG 8h (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup> (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
---------------------------------	---

### Spain - Occupational Exposure Limits

VLA-ED (OEL TWA)	5 mg/m <sup>3</sup> (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
------------------	---

VLA-EC (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
-----------------------------	--

### Sweden - Occupational Exposure Limits

NGV (OEL TWA)	1 mg/m <sup>3</sup> (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
---------------	---

KGV (OEL STEL)	3 mg/m <sup>3</sup> (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
----------------	---

### United Kingdom - Occupational Exposure Limits

WEL TWA (OEL TWA)	5 mg/m <sup>3</sup> (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
-------------------	---

WEL STEL (OEL STEL)	10 mg/m <sup>3</sup> (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
---------------------	--

### USA - ACGIH - Occupational Exposure Limits

ACGIH OEL TWA	5 mg/m <sup>3</sup> (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
---------------	---

ACGIH OEL STEL	10 mg/m <sup>3</sup> (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
----------------	--

## 8.1.2. Recommended monitoring procedures

### Monitoring methods

Monitoring methods	Monitoring procedures should be chosen according to the indications set by national authorities or labour contracts. Refer to relevant legislation and in any case to the good practice of industrial hygiene.
--------------------	--

## 8.1.3. Air contaminants formed

No additional information available

## 8.1.4. DNEL and PNEC

### Eni OSO S 46

#### DNEL/DMEL (additional information)

Additional information	Not applicable
------------------------	----------------

#### PNEC (additional information)

Additional information	Not applicable
------------------------	----------------

### Reaction Products of Diphosphorus Pentaoxide with Alcohols, C14-18 even, salted with Amines, C12-14, Tert-alkyl

#### DNEL/DMEL (Workers)

Long-term - local effects, dermal	199.8 µg/cm <sup>2</sup>
-----------------------------------	--------------------------

#### DNEL/DMEL (General population)

Long-term - local effects, dermal	199.8 µg/cm <sup>2</sup>
-----------------------------------	--------------------------

#### PNEC (Water)

PNEC aqua (freshwater)	0.75 µg/l
------------------------	-----------

PNEC aqua (marine water)	0.075 µg/l
--------------------------	------------

PNEC aqua (intermittent, freshwater)	7.5 µg/l
--------------------------------------	----------

# Eni OSO S 46

## Safety Data Sheet

SDS EU format according to COMMISSION REGULATION (EU) 2020/878

<b>Reaction Products of Diphosphorus Pentaoxide with Alcohols, C14-18 even, salted with Amines, C12-14, Tert-alkyl</b>	
<b>PNEC (Sediment)</b>	
PNEC sediment (freshwater)	4.8 mg/kg dwt
PNEC sediment (marine water)	0.48 mg/kg dwt
<b>PNEC (Soil)</b>	
PNEC soil	7.09 mg/kg dwt
<b>PNEC (STP)</b>	
PNEC sewage treatment plant	7.4 mg/l
<b>2,6-Di-tert-butylphenol (128-39-2)</b>	
<b>DNEL/DMEL (Workers)</b>	
Long-term - systemic effects, dermal	11.25 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	70.61 mg/m <sup>3</sup>
<b>DNEL/DMEL (General population)</b>	
Long-term - systemic effects, oral	6.75 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	20.9 mg/m <sup>3</sup>
Long-term - systemic effects, dermal	6.75 mg/kg bodyweight/day
<b>PNEC (Water)</b>	
PNEC aqua (freshwater)	0.0007 mg/l
PNEC aqua (marine water)	0.00007 mg/l
PNEC aqua (intermittent, freshwater)	0.0045 mg/l
<b>PNEC (Sediment)</b>	
PNEC sediment (freshwater)	0.317 mg/kg dwt
PNEC sediment (marine water)	0.0317 mg/kg dwt
<b>PNEC (Soil)</b>	
PNEC soil	0.697 mg/kg dwt
<b>PNEC (Oral)</b>	
PNEC oral (secondary poisoning)	60 mg/kg food
<b>PNEC (STP)</b>	
PNEC sewage treatment plant	10 mg/l
<b>Distillates (petroleum), solvent-dewaxed heavy paraffinic; Baseoil— unspecified; [A complex combination of hydrocarbons obtained by removal of normal paraffins from a petroleum fraction by solvent crystallization. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C20 through C50 and produces a finished oil with a viscosity not less than 100 SUS at 100 °F (19cSt at 40 °C).] (64742-65-0)</b>	
<b>DNEL/DMEL (Workers)</b>	
Long-term - systemic effects, dermal	0.97 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	2.73 mg/m <sup>3</sup>
Long-term - local effects, inhalation	5.58 mg/m <sup>3</sup>
<b>DNEL/DMEL (General population)</b>	
Long-term - systemic effects, oral	0.74 mg/kg bodyweight/day

# Eni OSO S 46

## Safety Data Sheet

SDS EU format according to COMMISSION REGULATION (EU) 2020/878

**Distillates (petroleum), solvent-dewaxed heavy paraffinic; Baseoil— unspecified; [A complex combination of hydrocarbons obtained by removal of normal paraffins from a petroleum fraction by solvent crystallization. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C20 through C50 and produces a finished oil with a viscosity not less than 100 SUS at 100 °F (19cSt at 40 °C).] (64742-65-0)**

### PNEC (Oral)

PNEC oral (secondary poisoning)	9.33 mg/kg food
---------------------------------	-----------------

### PNEC (additional information)

Additional information	Not derived - Not classified as hazardous for environment
------------------------	---

**Note** : The Derived No Effect Level (DNEL) is an estimated safe level of exposure that is derived from toxicity data in accord with specific guidance within the European REACH regulation. The DNEL may differ from an Occupational Exposure Limit (OEL) for the same chemical. OELs may be recommended by an individual company, a governmental regulatory body or an expert organization, such as the Scientific Committee for Occupational Exposure Limits (SCOEL) or the American Conference of Governmental Industrial Hygienists (ACGIH). OELs are considered to be safe exposure levels for a typical worker in an occupational setting for an 8-hour work shift, 40 hour work week, as a time weighted average (TWA) or a 15 minute short-term exposure limit (STEL). While also considered to be protective of health, OELs are derived by a process different from that of REACH.

### 8.1.5. Control banding

No additional information available

## 8.2. Exposure controls

### 8.2.1. Appropriate engineering controls

#### Appropriate engineering controls:

Before entering storage tanks and commencing any operation in a confined area (e.g. tunnels), carry out an adequate clean-up, and check the atmosphere for oxygen content and flammability. See also Section 16, "Other information".

### 8.2.2. Personal protection equipment

#### Personal protective equipment (for industrial or professional use):

Gloves. Safety glasses.

#### Personal protective equipment symbol(s):



#### 8.2.2.1. Eye and face protection

##### Eye protection:

When there is a risk of contact with the eyes, use safety goggles or other means of protection (face shield). If necessary, refer to national standards or to the EN 166 standard.

#### 8.2.2.2. Skin protection

##### Skin and body protection:

Long-sleeved overalls. If necessary, refer to the EN 340 and related standards, for definition of characteristics and performance according to the risk rating of the area. Antistatic non-skid safety shoes or boots, chemical resistant, if necessary heat resistant and insulated.

##### Hand protection:

Protective gloves. Adequate materials: nitrile (NBR) or PVC with a protection index > 5 (permeation time > 240 mins). Use gloves respecting all the conditions and within the limits set by the manufacturer. Replace gloves immediately in case of cuts, holes or other signs of damages or degradation. If necessary, refer to the EN 374 standard. Personal hygiene is a key element for an effective hand care. Gloves must be worn only with clean hands. After wearing gloves, hands must be carefully washed and dried.

# Eni OSO S 46

## Safety Data Sheet

SDS EU format according to COMMISSION REGULATION (EU) 2020/878

### 8.2.2.3. Respiratory protection

#### Respiratory protection:

Independently from other possible actions (technical modifications, operating procedures, and other means to limit the exposure of workers), personal protection equipment can be used according to necessity. Open or well ventilated spaces: in presence of oil mists and if the product is handled without adequate containment means: use full or half-face masks with filter for mists/aerosols (P). In case there is a significant presence of vapours (e.g. through handling at high temperature), use full or half-face masks with a filter for organic vapours (A), and H<sub>2</sub>S (B) where applicable. (EN 136/140/145). Combination filter device (DIN EN 141). Closed or confined areas (e.g. tank interiors): the use of protection measures for airways (masks or self-contained breathing apparatus), must be assessed according to the specific activity, as well as level and duration of predicted exposure. (EN 136/140/145). Approved respiratory protection equipment shall be used in spaces where hydrogen sulphide may accumulate: full face mask with cartridge/filter type "B" (grey for inorganic vapours including H<sub>2</sub>S) or self-contained breathing apparatus (SCBA). (EN 136/140/145)

### 8.2.2.4. Thermal hazards

#### Thermal hazard protection:

If contact with hot product is possible or anticipated, gloves should be heat-resistant and thermally insulated.

### 8.2.3. Environmental exposure controls

#### Environmental exposure controls:

Do not discharge the product into the environment. Storage areas/installations should be designed with adequate bunds so as to prevent ground and water pollution in case of leaks or spills. Prevent discharge of undissolved substance to or recover from onsite wastewater. Onsite wastewater treatment required. Do not apply industrial sludge to natural soils. Sludge should be incinerated, contained or reclaimed.

#### Consumer exposure controls:

Not applicable.

## SECTION 9: Physical and chemical properties

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

Physical state	: Liquid
Colour	: Yellow-brown.
Appearance	: Liquid, bright & clear.
Molecular mass	: Not applicable for mixtures
Odour	: Slight odour of petroleum.
Odour threshold	: There are no data available on the preparation/mixture itself.
Melting point	: -27 °C (pour point) (ASTM D 97)
Freezing point	: Not determined
Boiling point	: Not determined
Flammability	: Not flammable
Explosive properties	: None (according to composition).
Oxidising properties	: None (according to composition).
Lower explosion limit	: > 45 g/m <sup>3</sup> (Aerosol)
Upper explosion limit	: Not determined
Flash point	: 227 °C (ASTM D 92)
Auto-ignition temperature	: Not determined
Decomposition temperature	: Not determined
pH	: Not applicable.
Viscosity, kinematic	: 46 mm <sup>2</sup> /s (40 °C) (ASTM D 445)
Viscosity, dynamic	: Not determined
Solubility	: Water: Immiscible and insoluble
Log Kow	: Not applicable for mixtures
Log Pow	: Not applicable for mixtures
Vapour pressure	: 0.1 hPa (20 °C) (Mineral oil, ASTM D 5191) (CONCAWE, 2010)
Vapour pressure at 50°C	: Not determined
Critical pressure	: Not applicable for mixtures
Density	: 881 kg/m <sup>3</sup> (15 °C) (ASTM D 4052)
Relative density	: Not determined
Relative vapour density at 20°C	: Not determined
Particle characteristics	: Not applicable

# Eni OSO S 46

## Safety Data Sheet

SDS EU format according to COMMISSION REGULATION (EU) 2020/878

### 9.2. Other information

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

Explosion limits :  $\geq 45 \text{ g/m}^3$  (Aerosol)  
Critical temperature : Not applicable for mixtures

#### 9.2.2. Other safety characteristics

Relative evaporation rate (butylacetate=1) : Negligible.  
Additional information : No data available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

This mixture does not offer any further hazard for reactivity, except what is reported in the following paragraphs.

### 10.2. Chemical stability

Stable product, according to its intrinsic properties.

### 10.3. Possibility of hazardous reactions

None (in normal conditions of storage and handling). Contact with strong oxidizers (peroxides, chromates, etc.) may cause a fire hazard. Sensitivity to heat, friction or shock cannot be assessed in advance.

### 10.4. Conditions to avoid

Keep away from open flames, hot surfaces and sources of ignition. Avoid the build-up of electrostatic charge.

### 10.5. Incompatible materials

Strong oxidants.

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Thermal decomposition generates : Toxic fumes. In exceptional cases (i.e prolonged storage in tanks contaminated with water, and presence of anaerobic sulfate-reducing microbial colonies), the product may undergo a degradation and generate small amounts of sulfur compounds, including H<sub>2</sub>S.

## SECTION 11: Toxicological information

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

Acute toxicity (oral) : Not classified (Based on available data, the classification criteria are not met)  
Acute toxicity (dermal) : Not classified (Based on available data, the classification criteria are not met)  
Acute toxicity (inhalation) : Not classified (Based on available data, the classification criteria are not met)  
Additional information : (according to composition)

#### Reaction Products of Diphosphorus Pentaoxide with Alcohols, C14-18 even, salted with Amines, C12-14, Tert-alkyl

LD50 oral rat	2000 – 5000 mg/kg bodyweight
---------------	------------------------------

LD50 dermal rat	2000 mg/kg bodyweight
-----------------	-----------------------

#### 2,6-Di-tert-butylphenol (128-39-2)

LD50 oral rat	> 5000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
---------------	--

LD50 dermal rabbit	> 0.5 ml/kg
--------------------	-------------

# Eni OSO S 46

## Safety Data Sheet

SDS EU format according to COMMISSION REGULATION (EU) 2020/878

**Distillates (petroleum), solvent-dewaxed heavy paraffinic; Baseoil— unspecified; [A complex combination of hydrocarbons obtained by removal of normal paraffins from a petroleum fraction by solvent crystallization. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C20 through C50 and produces a finished oil with a viscosity not less than 100 SUS at 100 °F (19cSt at 40 °C).] (64742-65-0)**

LD50 oral rat	> 5000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity), Guideline: OECD Guideline 420 (Acute Oral Toxicity - Fixed Dose Method)
---------------	---

**Distillates (petroleum), solvent-dewaxed heavy paraffinic; Baseoil— unspecified; [A complex combination of hydrocarbons obtained by removal of normal paraffins from a petroleum fraction by solvent crystallization. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C20 through C50 and produces a finished oil with a viscosity not less than 100 SUS at 100 °F (19cSt at 40 °C).] (64742-65-0)**

LD50 oral rat	> 5000 mg/kg (API 1982, UBTL 1983 - OECD 401)
LD50 dermal rabbit	2000 – 5000 mg/kg bodyweight (API 1982, UBTL 1984 - OECD 402)
LC50 Inhalation - Rat	3.9 – 5.3 mg/l/4h (Bio-Research Laboratories, Ltd. 1984 - OECD 403)

Skin corrosion/irritation : Not classified (Based on available data, the classification criteria are not met)  
pH: Not applicable.

Additional information : (according to composition)

**Distillates (petroleum), solvent-dewaxed heavy paraffinic; Baseoil— unspecified; [A complex combination of hydrocarbons obtained by removal of normal paraffins from a petroleum fraction by solvent crystallization. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C20 through C50 and produces a finished oil with a viscosity not less than 100 SUS at 100 °F (19cSt at 40 °C).] (64742-65-0)**

pH	Not applicable
----	----------------

**Distillates (petroleum), solvent-dewaxed heavy paraffinic; Baseoil— unspecified; [A complex combination of hydrocarbons obtained by removal of normal paraffins from a petroleum fraction by solvent crystallization. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C20 through C50 and produces a finished oil with a viscosity not less than 100 SUS at 100 °F (19cSt at 40 °C).] (64742-65-0)**

pH	Not applicable
----	----------------

Serious eye damage/irritation : Not classified (Based on available data, the classification criteria are not met)  
pH: Not applicable.

Additional information : (according to composition)

**Distillates (petroleum), solvent-dewaxed heavy paraffinic; Baseoil— unspecified; [A complex combination of hydrocarbons obtained by removal of normal paraffins from a petroleum fraction by solvent crystallization. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C20 through C50 and produces a finished oil with a viscosity not less than 100 SUS at 100 °F (19cSt at 40 °C).] (64742-65-0)**

pH	Not applicable
----	----------------

**Distillates (petroleum), solvent-dewaxed heavy paraffinic; Baseoil— unspecified; [A complex combination of hydrocarbons obtained by removal of normal paraffins from a petroleum fraction by solvent crystallization. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C20 through C50 and produces a finished oil with a viscosity not less than 100 SUS at 100 °F (19cSt at 40 °C).] (64742-65-0)**

pH	Not applicable
----	----------------

Respiratory or skin sensitisation : Not classified (Based on available data, the classification criteria are not met)

Additional information : (according to composition)  
This product contains components with a Specific Concentration Limit (SCL).

Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met)

Additional information : (according to composition)

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

# Eni OSO S 46

## Safety Data Sheet

SDS EU format according to COMMISSION REGULATION (EU) 2020/878

Additional information	: (according to composition) This product contains : Distillates (petroleum), solvent-dewaxed heavy paraffinic this product has a value of DMSO extract < 3 % wt, according to IP 346. According to the criteria laid out by the EU (note L, Annex VI of Regulation (CE) 1272/2008), this product must be regarded as non carcinogenic. All the mineral base oils contained in this product have a value < 3 % wt of DMSO extract, according to IP 346 (Nota L - Annex VI Reg (CE) 1272/2008, # 1.1.3)
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)
Additional information	: (according to composition)
STOT-single exposure	: Not classified (Based on available data, the classification criteria are not met)
Additional information	: (according to composition)
STOT-repeated exposure	: Not classified (Based on available data, the classification criteria are not met)
Additional information	: (according to composition)

### 2,6-Di-tert-butylphenol (128-39-2)

NOAEL (subacute, oral, animal/male, 28 days)	> 100 mg/kg bodyweight (100 mg / d)
--	-------------------------------------

**Distillates (petroleum), solvent-dewaxed heavy paraffinic; Baseoil— unspecified; [A complex combination of hydrocarbons obtained by removal of normal paraffins from a petroleum fraction by solvent crystallization. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C20 through C50 and produces a finished oil with a viscosity not less than 100 SUS at 100 °F (19cSt at 40 °C).] (64742-65-0)**

LOAEL (oral, rat, 90 days)	125 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)
LOAEL (dermal, rat/rabbit, 90 days)	100 mg/kg bodyweight/day
NOAEL (oral, rat, 90 days)	< 125 mg/kg bodyweight/day (CAS 64742-04-7, Mobil 1990) (OECD 408)
NOAEL (dermal, rat/rabbit, 90 days)	≈ 1000 mg/kg bodyweight Animal: rabbit, Guideline: OECD Guideline 410 (Repeated Dose Dermal Toxicity: 21/28-Day Study)
NOAEC (inhalation, rat, vapour, 90 days)	220 – 980 mg/m <sup>3</sup> (Dalbey W, Osimitz T, Kommineni C, Roy T, Feuston M and Yang J 1991 - OECD 412)

**Distillates (petroleum), solvent-dewaxed heavy paraffinic; Baseoil— unspecified; [A complex combination of hydrocarbons obtained by removal of normal paraffins from a petroleum fraction by solvent crystallization. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C20 through C50 and produces a finished oil with a viscosity not less than 100 SUS at 100 °F (19cSt at 40 °C).] (64742-65-0)**

LOAEL (oral, rat, 90 days)	125 mg/kg bodyweight/day (CAS 64742-04-7, Mobil 1990) (OECD 408)
LOAEL (dermal, rat/rabbit, 90 days)	100 mg/kg bodyweight/day
NOAEL (oral, rat, 90 days)	< 125 mg/kg bodyweight/day (CAS 64742-04-7, Mobil 1990) (OECD 408)
NOAEL (dermal, rat/rabbit, 90 days)	1000 – 2000 mg/kg bodyweight/day (API 1982, Mobil Environmental and Health Science Laboratory 1983 - OECD 410)
NOAEC (inhalation, rat, vapour, 90 days)	220 – 980 mg/m <sup>3</sup> (Dalbey W, Osimitz T, Kommineni C, Roy T, Feuston M and Yang J 1991 - OECD 412)

Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met)
Additional information	: Viscosity, kinematic: > 20,5 mm <sup>2</sup> /s (40 °C) (ASTM D 445)

### Eni OSO S 46

Viscosity, kinematic	46 mm <sup>2</sup> /s (40 °C) (ASTM D 445)
----------------------	--

**Distillates (petroleum), solvent-dewaxed heavy paraffinic; Baseoil— unspecified; [A complex combination of hydrocarbons obtained by removal of normal paraffins from a petroleum fraction by solvent crystallization. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C20 through C50 and produces a finished oil with a viscosity not less than 100 SUS at 100 °F (19cSt at 40 °C).] (64742-65-0)**

Viscosity, kinematic	91 – 99 mm <sup>2</sup> /s (40 °C) (ASTM D 445)
----------------------	---

# Eni OSO S 46

## Safety Data Sheet

SDS EU format according to COMMISSION REGULATION (EU) 2020/878

**Distillates (petroleum), solvent-dewaxed heavy paraffinic; Baseoil— unspecified; [A complex combination of hydrocarbons obtained by removal of normal paraffins from a petroleum fraction by solvent crystallization. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C20 through C50 and produces a finished oil with a viscosity not less than 100 SUS at 100 °F (19cSt at 40 °C).] (64742-65-0)**

Viscosity, kinematic	30 – 32 mm <sup>2</sup> /s (40 °C) (ASTM D 445)
----------------------	---

### 11.2. Information on other hazards

#### 11.2.1. Endocrine disrupting properties

Adverse health effects caused by endocrine disrupting properties : 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 substance(s) are 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 %

#### 11.2.2. Other information

Potential adverse human health effects and symptoms : Contact with eyes may cause temporary reddening and irritation, Prolonged and repeated skin contact may cause reddening, irritation and dermatitis, May cause sensitization by skin contact, Avoid all eye and skin contact and do not breathe vapour and mist

Other information : None

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general : An uncontrolled release to the environment may nevertheless produce a contamination of different environmental compartments (soil, underground, surface water bodies, aquifers). Handle according to general working hygiene practices to avoid pollution and release into the environment.

Ecology - air : This product has a low vapour pressure, and in normal conditions at ambient temperature the concentration in the air is negligible. A significant concentration may build up only in case of sprays and mists. In these cases overexposure to mists (e.g. through prolonged use in confined insufficiently ventilated spaces) may cause irritation to airways, nausea and dizziness.

Ecology - water : This product is not soluble in water. It floats on water and forms a film on the surface. The damage to aquatic organisms is of mechanical kind (immobilization and entrapment)

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.

### Reaction Products of Diphosphorus Pentaoxide with Alcohols, C14-18 even, salted with Amines, C12-14, Tert-alkyl

LC50 fish 1	750 µg/l (LL50)
EC50 Daphnia 1	8.3 mg/l
EC50 other aquatic organisms 1	340 mg/l Mud, slime
EC50 72h - Algae [1]	0.45 – 0.75 mg/l
NOEC chronic algae	0.32 mg/l (72h, Pseudokirchneriella subcapitata)

### 2,6-Di-tert-butylphenol (128-39-2)

LC50 fish 1	1.4 mg/l Test organisms (species): Pimephales promelas
LC50 other aquatic organisms 1	0.45 mg/l
EC50 Daphnia 1	0.45 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	3.6 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)

# Eni OSO S 46

## Safety Data Sheet

SDS EU format according to COMMISSION REGULATION (EU) 2020/878

<b>2,6-Di-tert-butylphenol (128-39-2)</b>	
EC50 72h - Algae [2]	1.4 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
EC50 96h - Algae [1]	3.9 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
EC50 96h - Algae [2]	1.2 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
LOEC (chronic)	0.086 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	0.035 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic crustacea	0.035 mg/l (21d)

<b>Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)</b>	
LC50 fish 1	> 100 mg/l (LL 50, Exxon 1995 - OECD 203)
EC50 Daphnia 1	> 10000 mg/l (EL50, Shell 1988 - OECD 202)
NOEC (acute)	≥ 100 mg/l (Pseudokirchneriella subcapitata, 72h, OECD 201 - Petro-Canada 2008)
NOEC chronic fish	≥ 1000 mg/l (Oncorhynchus mykiss, NOELR, 14d - QSAR, Redman, A. et al. 2010)
NOEC chronic crustacea	≥ 1000 mg/l (21d, OECD 211 - Shell 1994)
NOEC chronic algae	≥ 100 mg/l (Pseudokirchneriella subcapitata, 72h)

<b>Distillates (petroleum), solvent-dewaxed heavy paraffinic; Baseoil— unspecified; [A complex combination of hydrocarbons obtained by removal of normal paraffins from a petroleum fraction by solvent crystallization. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C20 through C50 and produces a finished oil with a viscosity not less than 100 SUS at 100 °F (19cSt at 40 °C).] (64742-65-0)</b>	
LC50 fish 1	> 100 mg/l (LL 50, Exxon 1995 - OECD 203)
EC50 Daphnia 1	> 10000 mg/l (EL50, Shell 1988 - OECD 202)
NOEC (acute)	≥ 100 mg/l (Pseudokirchneriella subcapitata, 72h, OECD 201 - Petro-Canada 2008)
NOEC chronic fish	≥ 1000 mg/l (Oncorhynchus mykiss, NOELR, 14d - QSAR, Redman, A. et al. 2010)
NOEC chronic crustacea	≥ 1000 mg/l (21d, OECD 211 - Shell 1994)
NOEC chronic algae	≥ 100 mg/l (Pseudokirchneriella subcapitata, 72h)

## 12.2. Persistence and degradability

<b>Eni OSO S 46</b>	
Persistence and degradability	The most significant constituents of the product should be considered as "inherently biodegradable", but not "readily biodegradable", and they may be moderately persistent, particularly in anaerobic conditions.

<b>Reaction Products of Diphosphorus Pentaoxide with Alcohols, C14-18 even, salted with Amines, C12-14, Tert-alkyl</b>	
Persistence and degradability	Rapidly degradable
Biodegradation	24 % (28d, OECD TG 301 B)

<b>2,6-Di-tert-butylphenol (128-39-2)</b>	
Persistence and degradability	Rapidly degradable
Biodegradation	24 % (Zahn-Wellens, 10-20 %)

<b>Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)</b>	
Persistence and degradability	The most significant constituents of the product should be considered as "inherently biodegradable", but not "readily biodegradable", and they may be moderately persistent, particularly in anaerobic conditions..

# Eni OSO S 46

## Safety Data Sheet

SDS EU format according to COMMISSION REGULATION (EU) 2020/878

<b>Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)</b>	
Biodegradation	31 % (28d, Exxon 1995)
<b>Distillates (petroleum), solvent-dewaxed heavy paraffinic; Baseoil— unspecified; [A complex combination of hydrocarbons obtained by removal of normal paraffins from a petroleum fraction by solvent crystallization. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C20 through C50 and produces a finished oil with a viscosity not less than 100 SUS at 100 °F (19cSt at 40 °C).] (64742-65-0)</b>	
Persistence and degradability	The most significant constituents of the product should be considered as "inherently biodegradable", but not "readily biodegradable", and they may be moderately persistent, particularly in anaerobic conditions..
Biodegradation	31 % (28d, Exxon 1995)

### 12.3. Bioaccumulative potential

<b>Eni OSO S 46</b>	
Log Pow	Not applicable for mixtures
Log Kow	Not applicable for mixtures
Bioaccumulative potential	Not established.

### Reaction Products of Diphosphorus Pentaoxide with Alcohols, C14-18 even, salted with Amines, C12-14, Tert-alkyl

Log Kow	5.14 (25°C)
---------	-------------

### 2,6-Di-tert-butylphenol (128-39-2)

Log Kow	4.5 (0.1 d, 10-20 %)
---------	----------------------

<b>Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)</b>	
BCF fish 1	0.4 – 6280 l/kg
BCF fish 2	3.16 – 71100 l/kg
Log Pow	1.99 – 18.02
Log Kow	Not applicable (UVCB)
Bioaccumulative potential	The test methods for this endpoint are not applicable to UVCB substances.

<b>Distillates (petroleum), solvent-dewaxed heavy paraffinic; Baseoil— unspecified; [A complex combination of hydrocarbons obtained by removal of normal paraffins from a petroleum fraction by solvent crystallization. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C20 through C50 and produces a finished oil with a viscosity not less than 100 SUS at 100 °F (19cSt at 40 °C).] (64742-65-0)</b>	
BCF fish 1	0.4 – 6280 l/kg
BCF fish 2	3.16 – 71100 l/kg
Log Pow	1.99 – 18.02
Log Kow	Not applicable (UVCB)
Bioaccumulative potential	The test methods for this endpoint are not applicable to UVCB substances.

### 12.4. Mobility in soil

<b>Eni OSO S 46</b>	
Ecology - soil	No data available.

<b>Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)</b>	
Log Koc	1.71 – 14.7
Ecology - soil	The test methods for this endpoint are not applicable to UVCB substances.

# Eni OSO S 46

## Safety Data Sheet

SDS EU format according to COMMISSION REGULATION (EU) 2020/878

**Distillates (petroleum), solvent-dewaxed heavy paraffinic; Baseoil— unspecified; [A complex combination of hydrocarbons obtained by removal of normal paraffins from a petroleum fraction by solvent crystallization. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C20 through C50 and produces a finished oil with a viscosity not less than 100 SUS at 100 °F (19cSt at 40 °C).] (64742-65-0)**

Log Koc	1.71 – 14.7
Ecology - soil	The test methods for this endpoint are not applicable to UVCB substances.

### 12.5. Results of PBT and vPvB assessment

#### Eni OSO S 46

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

Results of PBT-vPvB assessment	The components in this formulation do not meet the criteria for classification as PBT or vPvB. The product should be considered prudentially as "Persistent" in the environment, according to the REACH Annex XIII criteria (point 1.1)
--------------------------------	---

#### Component

Substance(s) not meeting the PBT criteria of REACH regulation, in accordance with Annex XIII	Reaction Products of Diphosphorus Pentaoxide with Alcohols, C14-18 even, salted with Amines, C12-14, Tert-alkyl, 2,6-Di-tert-butylphenol (128-39-2), Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0), Distillates (petroleum), solvent-dewaxed heavy paraffinic; Baseoil— unspecified; [A complex combination of hydrocarbons obtained by removal of normal paraffins from a petroleum fraction by solvent crystallization. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C20 through C50 and produces a finished oil with a viscosity not less than 100 SUS at 100 °F (19cSt at 40 °C).] (64742-65-0)
Substance(s) not meeting the vPvB criteria of REACH regulation, in accordance with Annex XIII	Reaction Products of Diphosphorus Pentaoxide with Alcohols, C14-18 even, salted with Amines, C12-14, Tert-alkyl, 2,6-Di-tert-butylphenol (128-39-2), Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0), Distillates (petroleum), solvent-dewaxed heavy paraffinic; Baseoil— unspecified; [A complex combination of hydrocarbons obtained by removal of normal paraffins from a petroleum fraction by solvent crystallization. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C20 through C50 and produces a finished oil with a viscosity not less than 100 SUS at 100 °F (19cSt at 40 °C).] (64742-65-0)

### 12.6. Endocrine disrupting properties

Adverse effects on the environment caused by endocrine disrupting properties	: 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 substance(s) are 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 %.
--	---

### 12.7. Other adverse effects

Other adverse effects	: None.
Additional information	: This product has no specific properties for inhibition of bacterial activity. In any case, wastewater containing this product should be treated in plants that are suited for the specific purpose.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste treatment methods	: Do not dispose of the product, either new or used, by dumping on the ground, or discharging into sewers, tunnels, lakes or water courses. Deliver to a qualified official collector. Dispose of empty containers and wastes safely.
Sewage disposal recommendations	: Dispose of in a safe manner in accordance with local/national regulations. Do not apply industrial sludge to natural soils. Sludge should be incinerated, contained or reclaimed.

# Eni OSO S 46

## Safety Data Sheet

SDS EU format according to COMMISSION REGULATION (EU) 2020/878

Product/Packaging disposal recommendations	: European Waste Catalogue code(s) (Decision 2001/118/CE): 13 02 05* (mineral-based non-chlorinated engine, gear and lubricating oils). This EWC code is only a general indication, and takes into account the original composition of the product and its intended use. The user has the responsibility of choosing the right EWC code, considering the actual use of the product, alterations and contaminations.
Additional information	: Empty containers may contain combustible product residues. Do not cut, weld, bore, burn or incinerate emptied containers, unless they have been cleaned and declared safe.
Ecology - waste materials	: The product as it is does not contain halogenated substances.
EURAL code (EWC)	: 13 02 05* - Mineral-based non-chlorinated engine, gear and lubricating oils

### 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 regulated for transport				
<b>14.2. UN proper shipping name</b>				
Not regulated.	Not regulated.	Not regulated.	Not regulated.	Not regulated.
<b>14.3. Transport hazard class(es)</b>				
Not regulated.	Not regulated.	Not regulated.	Not regulated.	Not regulated.
<b>14.4. Packing group</b>				
Not regulated.	Not regulated.	Not regulated.	Not regulated.	Not regulated.
<b>14.5. Environmental hazards</b>				
Not regulated.	Not regulated.	Not regulated.	Not regulated.	Not regulated.
None.				

### 14.6. Special precautions for user

#### Overland transport

Not regulated.

#### Transport by sea

Not regulated.

#### Air transport

Not regulated.

#### Inland waterway transport

Not regulated.

#### Rail transport

Not regulated.

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

Not applicable

# Eni OSO S 46

## Safety Data Sheet

SDS EU format according to COMMISSION REGULATION (EU) 2020/878

### 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)

EU restriction list (REACH Annex XVII)		
Reference code	Applicable on	Entry title or description
3(c)	Reaction Products of Diphosphorus Pentaoxide with Alcohols, C14-18 even, salted with Amines, C12-14, Tert-alkyl	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard class 4.1
3(b)	Reaction Products of Diphosphorus Pentaoxide with Alcohols, C14-18 even, salted with Amines, C12-14, Tert-alkyl	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10

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

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

###### REACH Candidate List (SVHC)

No ingredients are included in the REACH Candidate list (> 0,1 % m/m).

###### 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)

###### Council Regulation (EC) for the control of dual-use items

Contains no substance subject to the COUNCIL REGULATION (EC) for the control of dual-use items

###### 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

National adoption of EU Directives concerning health and safety on the workplace.

National adoption of EU Directives concerning control of major-accident hazards involving dangerous substances (2012/18/CE).

Relevant national laws on prevention of water pollution.

Relevant national laws on protection of the health of pregnant workers (National adoption of Dir. 92/85/EEC).

National adoption of Directive 2008/98/CE concerning disposal of used oils.

###### France

Maladies professionnelles (F)	
Code	Description
RG 36	Diseases caused by oils and fats of mineral or synthetic origin

###### Germany

Employment restrictions : Employment prohibitions or restrictions on the protection of young people at work according to § 22 JArbSchG in the case of formation of hazardous substances have to be observed.

# Eni OSO S 46

## Safety Data Sheet

SDS EU format according to COMMISSION REGULATION (EU) 2020/878

National Rules and Recommendations	: TRGS 900: Occupational Exposure Limits. TRGS 800: Fire protection measures. TRGS 555: Working instruction and information for workers. TRGS 402: Identification and Assessment of the Risks from Activities involving Hazardous Substances: Inhalation Exposure. TRGS 401: Risks resulting from skin contact - identification, assessment, measures. TRGS 400: Hazard assessment for activities involving Hazardous Substances.
VbF class (D)	: Not applicable.
Water hazard class (WGK) (D)	: WGK 1, Slightly hazardous to water (Classification according to AwSV, Annex 1).
WGK remark	: Classification based on the components in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS).
Hazardous Incident Ordinance (12. BImSchV)	: Is not subject to the Hazardous Incident Ordinance (12. BImSchV)

### Netherlands

Saneringsinspanningen	: C - Minimize discharge
SZW-lijst van kankerverwekkende stoffen	: None of the components are listed
SZW-lijst van mutagene stoffen	: None of the components are listed
SZW-lijst van reprotoxische stoffen – Borstvoeding	: None of the components are listed
SZW-lijst van reprotoxische stoffen – Vruchtbaarheid	: None of the components are listed
SZW-lijst van reprotoxische stoffen – Ontwikkeling	: None of the components are listed

### Denmark

Danish National Regulations	: Pregnant/breastfeeding women working with the product must not be in direct contact with it
-----------------------------	---

## 15.2. Chemical safety assessment

For this mixture a chemical safety assessment has been not carried out

**A chemical safety assessment has been carried out for the following components of this mixture::**

Reaction Products of Diphosphorus Pentaoxide with Alcohols, C14-18 even, salted with Amines, C12-14, Tert-alkyl 2,6-Di-tert-butylphenol

## SECTION 16: Other information

Indication of changes			
Section	Changed item	Change	Comments
	First issue.		

### Abbreviations and acronyms:

	Complete text of the H phrases quoted in this Safety Data Sheet. These phrases are reported here for information only, and MAY NOT correspond to the classification of the product.
	N/D = not available
	N/A = not applicable
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
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC50	Effective concentration for 50 percent of test population (median effective concentration)
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association

# Eni OSO S 46

## Safety Data Sheet

SDS EU format according to COMMISSION REGULATION (EU) 2020/878

Abbreviations and acronyms:	
IMDG	International Maritime Dangerous Goods
LC50	Lethal concentration for 50 percent of test population (median lethal concentration)
LD50	Lethal dose for 50 percent of test population (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
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals, Regulation (EC) No 1907/2006
RID	Regulation concerning the International Carriage of Dangerous Goods by Railways
SDS	Safety Data Sheet
STP	Sewage treatment plant
vPvB	Very Persistent and Very Bioaccumulative

Data sources	: This Safety Data Sheet is based on the real characteristics of the components and their combination, taking into account the information provided by the suppliers.
Training advice	: Provide adequate training to professional operators for the use of PPEs, according to the information contained in this Safety Data Sheet.
Other information	: Do not use the product for any purposes that have not been advised by the manufacturer. In exceptional cases (i.e. prolonged storage in tanks contaminated with water, and presence of anaerobic sulfate-reducing microbial colonies), the product may undergo a degradation and generate small amounts of sulfur compounds, including H <sub>2</sub> S. This situation is especially relevant in all those circumstances which require to enter a confined space, with direct exposure to the vapours. If this possibility is suspected, a specific assessment of inhalation risks from the presence of H <sub>2</sub> S in confined spaces must be made, to help determine prevention measures and controls (i.e. PPE) appropriate to local circumstances, and adequate emergency procedures. If there is any suspicion of inhalation of H <sub>2</sub> S (hydrogen sulphide), Rescuers must wear breathing apparatus, belt and safety rope, and follow rescue procedures. Send patient to hospital. Immediately begin artificial respiration if breathing has ceased. Administer oxygen if necessary.

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
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1B	Skin sensitisation, category 1B

# Eni OSO S 46

## Safety Data Sheet

SDS EU format according to COMMISSION REGULATION (EU) 2020/878

### Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Aquatic Chronic 3	H412	Calculation method
-------------------	------	--------------------

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.