



# Eni Grease LC 2

## Safety Data Sheet

According to Regulation (EU) No. 830/2015

Revision date: 25/07/2017

Version: 4.0

Supersedes: 07/08/2013

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

### 1.1. Product identifier

Product form : Mixture  
Trade name : Eni Grease LC 2  
Product code : 1191  
Type of product : Lubricant grease  
Formula : 2507-2017  
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  
Use of the substance/mixture : Lubricant grease  
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Do not use the product for any purposes that have not been advised by the manufacturer.  
Function or use category : Lubricants and additives

#### 1.2.2. Uses advised against

No additional information available

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

ENI S.p.A.  
P.le E. Mattei 1 - 00144 ROMA Italy  
Tel (+39) 06 59821  
www.eni.com

Contact:  
Refining & Marketing  
Via Laurentina 449 00142 ROMA Italy  
Tel (+39) 06 59881 Fax (+39) 06 59885700

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

### 1.4. Emergency telephone number

Emergency number : CNIT +39 0382 24444 (24h) (IT + EN)  
  
Poison centre (UK):  
National Poisons Information Service Edinburgh (24h)  
(+44) 844 892 0111  
0870 600 6266 (UK only)  
(Source: UN-WHO)

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

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

Eye Irrit. 2 H319  
Aquatic Chronic 3 H412

Full text of hazard classes and H-statements : see section 16

### Adverse physicochemical, human health and environmental effects

Prolonged and repeated skin contact may cause reddening, irritation and dermatitis. Causes serious eye irritation. 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]

Hazard pictograms (CLP) :



GHS07

CLP Signal word : Warning

Hazard statements (CLP) : H319 - Causes serious eye irritation  
H412 - Harmful to aquatic life with long lasting effects

Precautionary statements (CLP) : P264 - Wash hands, forearms and face thoroughly after handling  
P273 - Avoid release to the environment  
P280 - Wear eye protection  
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P337+P313 - If eye irritation persists: Get medical advice/attention  
P501 - Dispose of contents/container to according to national or local regulations

Security closing plug for children : Not applicable

Tactile warning : Not applicable

### Other:

General advice : (Not applicable - Classified as dangerous according to (EC) No 1272/2008)

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

Physical/chemical : Combustible product

Health : Any substance, in case of accidents involving pressurized circuits and the like, may be accidentally injected under the skin, even without external damage. In such a case, the victim should be brought to an hospital as soon as possible, to get specialized medical treatment.

Environment : May cause long-term adverse effects in the aquatic environment.

Contaminants : None

(air contaminants or other substances)

Other hazards not contributing to the classification : None under normal conditions.

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

## SECTION 3: Composition/information on ingredients

### 3.1. Substance

Not applicable

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### 3.2. Mixture

Composition/information on ingredients : Mineral base oil, severely refined  
Additives  
Thickeners.

Hazardous ingredients and/or with : See table  
relevant occupational exposure limits

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [EU-GHS / CLP]
Distillates (petroleum), hydrotreated heavy naphthenic (Component, see note [*])	(CAS No) 64742-52-5 (EC No) 265-155-0 (EC Index No) 649-465-00-7 (REACH-no) 01-2119467170-45	35 - 45	Not classified
Residual oils (petroleum,) solvent-refined, Baseoil - unspecified (Component, see note [*])	(CAS No) 64742-01-4 (EC No) 265-101-6 (EC Index No) 649-459-00-4 (REACH-no) 01-2119488707-21	35 - 40	Not classified
O,O,O-tris(2(or 4)-C9-10-isoalkylphenyl) phosphorothioate (Additive)	(CAS No) 126019-82-7 (EC No) 406-940-1 (EC Index No) 015-171-00-7 (REACH-no) 01-0000015643-71	1,5 - 2,5	Aquatic Chronic 2, H411
Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts (Additive)	(CAS No) 68457-79-4 (EC No) 270-608-0 (EC Index No) N/A (REACH-no) 01-2119493628-22	1,5 - 2,5	Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Chronic 2, H411
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene (Additive)	(CAS No) 68411-46-1 (EC No) 270-128-1 (EC Index No) N/A (REACH-no) 01-2119491299-23	0,5 - 1,5	Aquatic Chronic 3, H412
reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate (Additive)	(CAS No) 125643-61-0 (EC No) 406-040-9 (EC Index No) 607-530-00-7 (REACH-no) 01-0000015551-76	0,5 - 1,5	Aquatic Chronic 4, H413

[\*] 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.

All these substances have a value < 3 % wt of DMSO extract, according to IP 346/92 (Nota L - Annex VI Reg (CE) 1272/2008, # 1.1.3)

Full text of H-statements: see section 16

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures after inhalation : Remove to fresh air, keep the casualty warm and at rest. If breathing is difficult, give oxygen if possible, or assisted ventilation. Seek medical advice.

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.

First-aid measures after eye contact : Rinse immediately with plenty of water. If irritation persists, seek medical advice.

First-aid measures after ingestion : Do not induce vomiting to avoid aspiration into the lungs. 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 after inhalation : None under normal conditions at ambient temperatures.

Symptoms/injuries after skin contact	: Prolonged and repeated skin contact may cause reddening, irritation and dermatitis.
Symptoms/injuries after eye contact	: Contact with eyes may cause reddening and irritation.
Symptoms/injuries 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/injuries upon intravenous administration	: No information available.
Chronic symptoms	: None known.

#### 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.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media	: Carbon dioxide. Dry powder. Foaming agents. Sand. Water spray. Other extinguishing gases (according to regulations).
Unsuitable extinguishing media	: Do not use a heavy water stream. Use water stream to cool containers.

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

Fire hazard	: Flammable aerosols are released in thermal decomposition.
Combustion products	: Incomplete combustion is likely to give rise to a complex mixture of airborne solid and liquid particulates, gases, including carbon monoxide, NOx, H2S and SOx (harmful/toxic gases), Oxygenated compounds (aldehydes, etc.), HCl and other chlorine compounds, ZnOx, POx.

#### 5.3. Advice for firefighters

Firefighting instructions	: Shut off source of product, if possible. Move undamaged containers from immediate hazard area if it can be done safely. 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	: Personal protection equipment for firefighters (see also sect. 8). EN 443. EN 469. EN 659. Self-contained breathing apparatus.
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 direct contact with released material. Avoid accidental sprays on hot surfaces or electrical contacts. Keep upwind. Spill area may be slippery.
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##### 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	: Do not attempt to take action without suitable protective equipment. Personal protective equipment : Standard EN 469 - Protective clothing for firefighters. Standard - EN 659: Protective gloves for firefighters. 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 (AX), or a Self-contained Breathing Apparatus (SCBA) can be used according to the extent of spill and predictable amount of exposure. 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	: Notify local authorities according to relevant regulations.

**6.2. Environmental precautions**

Prevent product from entering sewers, rivers or other bodies of water. 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. Transfer collected product and other contaminated materials to suitable containers for recovery or safe disposal.
- Other information : Recommended measures are based on the most likely spillage scenarios for this material; however, local conditions (wind, air 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.

**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 proper housekeeping measures are in place. Avoid contact with skin, eyes and clothing. Do not use compressed air for filling, discharging, or handling operations. Keep away from heat/sparks/open flames/hot surfaces. Use and store only outdoors or in a well-ventilated area. 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.
- Hygiene measures : 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 oxidants.
- Storage temperature : < 50 °C
- Storage area : Storage area layout, tank design, equipment and operating procedures must comply with the relevant European, national or local legislation. Storage installations should be designed with adequate bunds so as to prevent ground and water pollution 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.

**7.3. Specific end use(s)**

No information available.

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters**

<b>Distillates (petroleum), hydrotreated heavy naphthenic (64742-52-5)</b>		
Austria	MAK (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup> (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
Belgium	Limit value (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup> (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
Denmark	Grænseværdi (langvarig) (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup> (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
Denmark	Grænseværdi (kortvarig) (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup> (Mineral base oil mist, severely refined, DMSO extract <3% m/m)

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Hungary	AK-érték	5 mg/m <sup>3</sup> (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
Netherlands	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	VLA-ED (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup> (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
Spain	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	Nivågränsvärde (NVG) (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup> (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
Sweden	Kortidsvärde (KTV) (mg/m <sup>3</sup> )	3 mg/m <sup>3</sup> (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
United Kingdom	WEL TWA (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup> (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
United Kingdom	WEL STEL (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
Canada (Quebec)	VECD (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
Canada (Quebec)	VEMP (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup> (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
USA - ACGIH	ACGIH TLV®-TWA (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup> (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
USA - ACGIH	ACGIH TLV®-STEL (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
USA - NIOSH	NIOSH REL (TWA) (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup> (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
USA - NIOSH	NIOSH REL (STEL) (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
USA - OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup> (Mineral base oil mist, severely refined, DMSO extract <3% m/m)

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#### DNEL/DMEL (additional information)

Additional information Not applicable

#### PNEC (additional information)

Additional information Not applicable

#### 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.

#### 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.

### 8.2. Exposure controls

#### Appropriate engineering controls

: Ensure good ventilation of the work station. Minimize exposure to mists/vapours/aerosol.

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

: Gloves. Protective clothing. Safety glasses. Safety shoes or boots.



Materials for protective clothing	: Protective apron. DIN EN 465. DIN EN 466
Hand protection	: Protective gloves. Adequate materials: nitrile (NBR) or neoprene with a protection index $\geq 5$ (permeation time $\geq 240$ 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.
Eye protection	: Chemical goggles or safety glasses. DIN EN 166. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure
Skin and body protection	: Non-skid safety shoes or boots, chemical resistant.
Respiratory protection	: Not necessary with sufficient ventilation. 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. In case there is a significant presence of vapours (e.g. through handling at high temperature), use full or half-face masks with filter for hydrocarbon vapours. (EN 136/140/145). Combination filter device (DIN EN 141)
Thermal hazard protection	: None in normal use conditions.
Environmental exposure controls	: Do not discharge the product into the environment. Prevent discharge of undissolved substance to or recover from onsite wastewater. Storage areas/installations should be designed with adequate bunds so as to prevent ground and water pollution in case of leaks or spills. Do not apply industrial sludge to natural soils. Sludge should be incinerated, contained or reclaimed.
Consumer exposure controls	: Not applicable.

### 8.3. Hygiene measures

General protective and hygienic measures	: Avoid contact with skin and eyes, Do not breathe vapours or mists, Do not clean hands with dirty or oil-soaked rags, Do not keep dirty rags in the overall pockets, Do not drink, eat or smoke with dirty hands, Wash hands with water and mild soap, do not use solvents or other irritant products which have a defatting effect on the skin, Do not re-use clothes, if they are still contaminated.
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## SECTION 9: Physical and chemical properties

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

Physical state	: Solid
Appearance	: Stiff paste.
Colour	: Amber.
Odour	: characteristic.
Odour threshold	: There are no data available on the preparation/mixture itself.
pH	: There are no data available on the preparation/mixture itself.
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: $> 210$ °C (ASTM D 93)
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available



Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 0,91 kg/l 15°C (ASTM D 1298)
Solubility	: Water: Immiscible and insoluble
Log Pow	: Not applicable for mixtures
Viscosity, kinematic	: 200 mm <sup>2</sup> /s (40°C, ASTM D 7042)
Viscosity, dynamic	: No data available
Explosive properties	: None.
Oxidising properties	: None.
Explosive limits	: No data available

## 9.2. Other information

Penetration	: 280 dmm (ASTM D 217, Class NLGI: 2)
Drop point / drop range	: 250 - 270 °C (ASTM D 566)

The above data (9.1 - 9.2) are typical values and do not constitute a specification.

## 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 (in normal conditions of storage and handling).

### 10.3. Possibility of hazardous reactions

None (in normal conditions of storage and handling).

### 10.4. Conditions to avoid

None in normal conditions.

### 10.5. Incompatible materials

Oxidizing agent. Strong acids. Strong bases.

### 10.6. Hazardous decomposition products

Thermal decomposition generates : COx, HC, NOx, chlorinated compounds, Toxic fumes.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity	: Not classified (Based on available data, the classification criteria are not met) (according to composition)
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Distillates (petroleum), hydrotreated heavy naphthenic (64742-52-5)	
LD50 oral rat	> 5000 mg/kg (OECD 401)
LD50 dermal rat	> 5000 mg/kg (OECD 402)
LC50 inhalation rat (mg/l)	> 5 mg/l/4h (OECD 403)
O,O,O-tris(2(or 4)-C9-10-isoalkylphenyl) phosphorothioate (126019-82-7)	
LD50 oral rat	> 2000 mg/kg (OECD 401)
LD50 dermal rat	> 2000 mg/kg (OECD 402)
Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts (68457-79-4)	
LD50 oral rat	3600 mg/kg (OECD 401)
LD50 dermal rabbit	20000 mg/kg bodyweight (OECD 402)
LC50 inhalation rat (Dust/Mist - mg/l/4h)	> 5 mg/l/4h
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene (68411-46-1)	
LD50 oral rat	5000 mg/kg bodyweight
LD50 dermal rat	≈ 2000 mg/kg bodyweight



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<b>reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate (125643-61-0)</b>	
LD50 oral rat	500 - 2000 mg/kg bodyweight
LD50 dermal rat	2000 mg/kg bodyweight
Skin corrosion/irritation	: Not classified (Based on available data, the classification criteria are not met) (according to composition) pH: There are no data available on the preparation/mixture itself.
Serious eye damage/irritation	: Causes serious eye irritation. (according to composition) pH: There are no data available on the preparation/mixture itself.
Respiratory or skin sensitisation	: Not classified (Based on available data, the classification criteria are not met) (according to composition)
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met) (according to composition)
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met) (according to composition) This product contains : Distillates (petroleum), heavy naphthenic, Unrefined or mildly refined baseoil, [A complex combination of hydrocarbons produced by vacuum distillation of the residuum from atmospheric distillation of crude oil. It consists of hydrocarbons having carbon numbers predominantly in the range of C20 through C50 and produces a finished oil with a viscosity of at least 100 SUS at 100 °F (19cSt at 40 °C). It contains relatively few normal paraffins.], Residual oils (petroleum) solvent-refined, Baseoil - unspecified, [A complex combination by hydrocarbons obtained as the solvent insoluble fraction from solvent refining of a residuum using a polar organic solvent such as phenol or furfural. It consists of hydrocarbons having carbon numbers predominantly higher than C25 and boiling above approximately 400 °C (752 °F).] This product has a value of DMSO extract < 3 % wt, according to IP 346/92. 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.
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met) (according to composition)
Specific target organ toxicity (single exposure)	: Not classified (Based on available data, the classification criteria are not met) (according to composition)
<b>O,O,O-tris(2(or 4)-C9-10-isoalkylphenyl) phosphorothioate (126019-82-7)</b>	
NOAEL (oral, rat)	1000 mg/kg bodyweight
<b>Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene (68411-46-1)</b>	
NOAEL (oral, rat)	25 mg/kg bodyweight
<b>reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate (125643-61-0)</b>	
LOAEL (oral, rat)	5 mg/kg bw/day (28 d)
Specific target organ toxicity (repeated exposure)	: Not classified (Based on available data, the classification criteria are not met) (according to composition)
<b>Distillates (petroleum), hydrotreated heavy naphthenic (64742-52-5)</b>	
LOAEL (oral, rat, 90 days)	125 mg/kg bodyweight/day (OECD TG 408)
<b>O,O,O-tris(2(or 4)-C9-10-isoalkylphenyl) phosphorothioate (126019-82-7)</b>	
NOAEL (oral, rat, 90 days)	1000 mg/kg bodyweight/day
Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met) Viscosity, kinematic: > 20,5 mm <sup>2</sup> /s (40 °C) (ASTM D 445)
<b>Eni Grease LC 2</b>	
Viscosity, kinematic	200 mm <sup>2</sup> /s (40°C, ASTM D 7042)
Potential adverse human health effects and symptoms	: Prolonged and repeated skin contact may cause reddening, irritation and dermatitis. Contact with eyes may cause reddening and irritation. High concentration of vapours may induce: headache, nausea, dizziness. Inhalation of vapours may cause respiratory irritation.
Other information	: None.

**SECTION 12: Ecological information****12.1. Toxicity**

Ecology - general

: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. An uncontrolled release to the environment may produce a contamination of different environmental compartments (air, soil, underground, surface water bodies, aquifers). Handle according to general working hygiene practices to avoid pollution and release into the environment. Notify authorities if product enters sewers or public waters.

Ecology - water

: This product is not soluble in water. It floats on water and forms a film on the surface.

<b>Distillates (petroleum), hydrotreated heavy naphthenic (64742-52-5)</b>	
LC50 fish 1	> 100 mg/l (LL 50)
EC50 Daphnia 1	> 10000 mg/l WAF, 48 h (OECD 202)
<b>O,O,O-tris(2(or 4)-C9-10-isoalkylphenyl) phosphorothioate (126019-82-7)</b>	
LC50 fish 1	> 25 mg/l (OECD 203; 96h; Brachydanio rerio)
EC50 Daphnia 1	5,5 mg/l (OECD 202; 24h)
ErC50 (algae)	> 100 mg/l (OECD 201; ErC50 72h)
<b>Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts (68457-79-4)</b>	
LC50 fish 1	4,5 mg/l (Cyprinodon variegatus)
EC50 Daphnia 1	23 mg/l (Daphnia Magna)
<b>Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene (68411-46-1)</b>	
LC50 fish 1	920 mg/l (96 h; read-across)
EC50 Daphnia 1	51 mg/l
ErC50 (algae)	600 mg/l (OECD 201; 96h; Scenedesmus capricornutum; read-across)
<b>reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate (125643-61-0)</b>	
LC50 fish 1	> 74 mg/l
ErC50 (algae)	> 33,7 mg/l (OECD 201, 72 h, Pseudokirchnerella subspicata)
NOEC (acute)	33,7 mg/l (72 h, Pseudokirchnerella subspicata)
NOEC (chronic)	< 0,01 mg/l (21 d, Daphnia magna)

**12.2. Persistence and degradability**

<b>Eni Grease LC 2</b>	
Persistence and degradability	A fraction of the 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	> 80 %
<b>Distillates (petroleum), hydrotreated heavy naphthenic (64742-52-5)</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>O,O,O-tris(2(or 4)-C9-10-isoalkylphenyl) phosphorothioate (126019-82-7)</b>	
Persistence and degradability	Not biodegradable.
Biodegradation	2 - 4 % (OECD 301B; 28d)
<b>Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts (68457-79-4)</b>	
Persistence and degradability	Inherently biodegradable.
Biodegradation	1,5 % (28 d) (OECD TG 301 B)
<b>Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene (68411-46-1)</b>	
Biodegradation	8 % (OECD 301; Read-across)

**12.3. Bioaccumulative potential**

<b>Eni Grease LC 2</b>	
Log Pow	Not applicable for mixtures
Bioaccumulative potential	Not established. According to the characteristics of the components, the product has a low biodegradability in anaerobic conditions, and may be persistent. Some of the chemical compounds that are present in the product have a potential for bioaccumulation, and may be harmful to aquatic organisms.

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### Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts (68457-79-4)

Log Pow 0,69

#### 12.4. Mobility in soil

##### Eni Grease LC 2

Ecology - soil Product adsorbs onto the soil.

### Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts (68457-79-4)

Ecology - soil Product adsorbs onto the soil.

#### 12.5. Results of PBT and vPvB assessment

##### Eni Grease LC 2

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

Distillates (petroleum), hydrotreated heavy naphthenic (64742-52-5)	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 This substance does 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)
Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts (68457-79-4)	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. Other adverse effects

Other adverse effects : None.

Additional information : No other effects known

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Waste treatment methods	: Do not dispose of the product, either new or used, by discharging into sewers, tunnels, lakes or water courses. Deliver to a qualified official collector.
Sewage disposal recommendations	: Do not apply industrial sludge to natural soils. Sludge should be incinerated, contained or reclaimed. Dispose of in a safe manner in accordance with local/national regulations.
Product/Packaging disposal recommendations	: European Waste Catalogue code(s) (Decision 2001/118/CE): 13 08 99* (oil wastes not otherwise specified - wastes not otherwise specified). 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, drill, burn or incinerate empty containers or drums, unless they have been cleaned, and declared safe.
EURAL code (EWC)	: 13 08 99* - wastes not otherwise specified

### SECTION 14: Transport information

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

ADR	IMDG	IATA	ADN	RID
<b>14.1. UN number</b>				
Not regulated for transport				
<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
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

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14.4. Packing group				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards				
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No	Dangerous for the environment : No	Dangerous for the environment : No
Other information : None.				

### 14.6. Special precautions for user

Special transport precautions : None.

#### - Overland transport

Transport regulations (ADR) : Not subject

#### - Transport by sea

Transport regulations (IMDG) : Not subject

Limited quantities (IMDG) : Not applicable

#### - Air transport

Transport regulations (IATA) : Not subject

#### - Inland waterway transport

Transport regulations (ADN) : Not subject

#### - Rail transport

Transport regulations (RID) : Not subject

### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

IBC code : Not applicable.

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:

3. Liquid substances or mixtures which are regarded as dangerous in accordance with Directive 1999/45/EC or are fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008	Eni Grease LC 2 - O,O,O-tris(2(or 4)-C9-10-isoalkylphenyl) phosphorothioate - Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene - reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate
3(b) 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	Eni Grease LC 2 - Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts
3(c) 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	Eni Grease LC 2 - O,O,O-tris(2(or 4)-C9-10-isoalkylphenyl) phosphorothioate - Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts - Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene - reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate

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

Contains no REACH Annex XIV substances

Relevant EU Legislation	: Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH). (et sequens). Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (et sequens). Directives 89/391/CEE, 89/654/CEE, 89/655/CEE, 89/656/CEE, 90/269/CEE, 90/270/CEE, 90/394/CEE, 90/679/CEE, 93/88/CEE, 95/63/CE, 97/42/CE, 98/24/CE, 99/38/CE, 99/92/CE, 2001/45/CE, 2003/10/CE, 2003/18/CE (Health and safety on the workplace) Directive 98/24/EC (protection of the health and safety of workers from the risks related to chemical agents at work). Directive 92/85/CE (measures to encourage improvements in the safety and health at work of pregnant workers and workers who have recently given birth or are breastfeeding) Directive 2012/18/CE (Control of major-accident hazards involving dangerous substances) Directive 2004/42/CE (Limitation of emissions of Volatile Organic Compounds)
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### 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 Directives 75/439/CEE - 87/101/CEE concerning disposal of used oils.

#### France

Maladies professionnelles (F) : RG 36 - Affections provoquées par les huiles et graisses d'origine minérale ou de synthèse

#### Germany

VwVwS Annex reference : Water hazard class (WGK) (D) 1, low hazard to waters (Classification according to VwVwS, Annex 4)

WGK remark : Classification based on the components in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS)

VbF class (D) : Not applicable.

Storage class (LGK) (D) : LGK 12 - Non-combustible liquids

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

#### Netherlands

Waterbezwaarlijkheid : 8 - Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Saneringsinspanningen : C - Lozing minimaliseren

SZW-lijst van kankerverwekkende stoffen : None of the components are listed

SZW-lijst van mutagene stoffen : None of the components are listed

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

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

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

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

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

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

#### Denmark

Recommendations Danish Regulation :

**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:**

Residual oils (petroleum,) solvent-refined, Baseoil - unspecified  
 Distillates (petroleum), hydrotreated heavy naphthenic  
 O,O,O-tris(2(or 4)-C9-10-isoalkylphenyl) phosphorothioate  
 Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts  
 Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene  
 reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate

**SECTION 16: Other information**

Indication of changes:

Formula. Modification according to Regulation (EC) 830/2015.

Abbreviations and acronyms:

	N/A = not applicable
	N/D = not available
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
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.

Full text of H- and EUH-statements:

Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
Aquatic Chronic 4	Hazardous to the aquatic environment — Chronic Hazard, Category 4
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
H315	Causes skin irritation
H318	Causes serious eye damage
H319	Causes serious eye irritation

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H411	Toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects
H413	May cause long lasting harmful effects to aquatic life

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

Eye Irrit. 2	H319	Calculation method
Aquatic Chronic 3	H412	Calculation method

SDS EU (REACH Annex II) eni 2015

*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*