Eni i-Sigma performance E7 15W-40

Safety Data Sheet

SDS EU format according to COMMISSION REGULATION (EU) 2020/878
Revision date: 5/23/2024 Supersedes: 7/18/2023 Version: 1.1

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

1.1. Product identifier

Product form	:	Mixture
Trade name	:	Eni i-Sigma performance E7 15W-40
Product code	:	1080
Type of product	:	Lubricant
Formula	:	0218-2019
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,Consumer use
Industrial/Professional use spec	:	Used in closed systems Wide dispersive use
Use of the substance/mixture	:	Lubricant for internal combustion engines
Function or use category	:	Lubricants and additives

1.2.2. Uses advised against

Recommended use are listed above; other uses are not recommended unless an assessment has provided that risks are controlled.

1.3. Details of the supplier of the safety data sheet

Enilive S.p.A, Viale Giorgio Ribotta 51, 00144 Rome, ITALY, Tel. +39 06 59821

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

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

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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]

Not classified

Adverse physicochemical, human health and environmental effects

Prolonged and repeated skin contact may cause reddening, irritation and dermatitis. May produce an allergic reaction. 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]

EUH-statements	:	EUH208 - Contains Molybdenum polysulphide long chain alkyl dithiocarbamate complex. May produce an allergic reaction. EUH210 - Safety data sheet available on request.

2.3. Other hazards (not relevant for classification)

Other hazards not contributing to the classification : 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. In case of contact with eyes, this product may cause irritation. If the product is handled or used at high temperature, contact with hot product or vapours may cause burns. 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. Do not wait for symptoms to develop. 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 H2S. See Section 16.

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 ≥ 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	Distillates (petroleum), solvent-refined light paraffinic (64741-89-5), Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate) (93819-94-4), Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7), Distillates (petroleum), solvent-dewaxed light paraffinic (64742-56-9), Paraffin oils (petroleum), catalytic dewaxed heavy, Baseoil - unspecified (64742-70-7), Molybdenum polysulphide long chain alkyl dithiocarbamate complex, Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)
Substance(s) not meeting the vPvB criteria of REACH regulation, in accordance with Annex XIII	Distillates (petroleum), solvent-refined light paraffinic (64741-89-5), Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate) (93819-94-4), Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7), Distillates (petroleum), solvent-dewaxed light paraffinic (64742-56-9), Paraffin oils (petroleum), catalytic dewaxed heavy, Baseoil - unspecified (64742-70-7), Molybdenum polysulphide long chain alkyl dithiocarbamate complex, Distillates (petroleum), solvent-dewaxed heavy paraffinic (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 (64742-65-0), Distillates (petroleum), solvent-dewaxed light paraffinic (64742-56-9), Distillates (petroleum), solvent-refined light paraffinic (64741-89-5), Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate) (93819-94-4), Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7), Paraffin oils (petroleum), catalytic dewaxed heavy, Baseoil - unspecified (64742-70-7), Molybdenum polysulphide long chain alkyl dithiocarbamate complex

Other information : 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 %.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Comments : Composition/ Information on ingredients:
Mixture of hydrocarbons
Polymers
Additives

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [EU-GHS / CLP]
Distillates (petroleum), solvent-dewaxed heavy paraffinic (see note [*], see note [**])	CAS-No.: 64742-65-0 EC-No.: 265-169-7 EC Index-No.: 649-474-00-6 REACH-no: 01-2119471299-27	80 – 90	Not classified
Distillates (petroleum), solvent-dewaxed light paraffinic (see note [*], see note [**])	CAS-No.: 64742-56-9 EC-No.: 265-159-2 EC Index-No.: 649-469-00-9 REACH-no: 01-2119480132-48	1 - 3	Asp. Tox. 1, H304
Distillates (petroleum), solvent-refined light paraffinic (see note [*], see note [**])	CAS-No.: 64741-89-5 EC-No.: 265-091-3 EC Index-No.: 649-455-00-2 REACH-no: 01-2119487067-30	1 - 3	Asp. Tox. 1, H304
Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate) (Additive)	CAS-No.: 93819-94-4 EC-No.: 298-577-9 EC Index-No.: N/A REACH-no: 01-2119543726-33	1 - 2	Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Chronic 2, H411
Distillates (petroleum), hydrotreated heavy paraffinic (see note [*], see note [**])	CAS-No.: 64742-54-7 EC-No.: 265-157-1 EC Index-No.: 649-467-00-8 REACH-no: 01-2119484627-25	0,1 - 1,5	Asp. Tox. 1, H304
Paraffin oils (petroleum), catalytic dewaxed heavy, Baseoil - unspecified (see note [*], see note [**])	CAS-No.: 64742-70-7 EC-No.: 265-174-4 EC Index-No.: 649-477-00-2 REACH-no: 01-2119487080-42	0,1 - 1,5	Asp. Tox. 1, H304
Molybdenum polysulphide long chain alkyl dithiocarbamate complex (Additive)	EC-No.: 457-320-2 EC Index-No.: N/A REACH-no: 01-0000019337-66	0,01 - 0,15	Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chronic 3, H412

Specific concentration limits:

Name	Product identifier	Specific concentration limits (%)
Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate) (Additive)	CAS-No.: 93819-94-4 EC-No.: 298-577-9 EC Index-No.: N/A REACH-no: 01-2119543726-33	(6.25 ≤ C < 100) Skin Irrit. 2, H315 (10 ≤ C < 12.5) Eye Irrit. 2, H319 (12.5 ≤ C < 100) Eye Dam. 1, H318

Comments	:	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. Note [**]: substance with occupational exposure limits for some EU countries affecting the category of mineral oils (finely refined mineral base oil mists; see section 8.1)

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

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation	:	In case of disturbances owing to inhalation of vapours or mists, remove the victim from exposure; keep at rest; if necessary, seek medical attention. See also section 4.3.
First-aid measures after skin contact	:	Take off contaminated clothing and shoes. Wash thoroughly with soap and water. If skin irritation or rash occurs, get medical advice/attention. 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. If irritation, blurred vision or swelling occurs and persists, obtain medical advice from a specialist. 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. 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/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 produce an allergic reaction. Contact with hot product may cause thermal burns.
Symptoms/effects after eye contact	:	Contact with eyes may cause temporary reddening and irritation. Contact with hot product or vapours may cause burns.
Symptoms/effects after ingestion	:	Accidental ingestion of small quantities of the product may cause nausea, discomfort and gastric disturbances.
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. Seek medical attention in all cases of serious burns. If there is any suspicion of inhalation of H2S (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.

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/m³ air.

Hazardous decomposition products in case of fire : 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.). POx. ZnOx. MoOx.

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. Spilled product which is not burning should be covered with sand or foam. 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 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 H2S), 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 : 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. Large spillages may be cautiously covered with foam, if available, to limit fire risk. Do not use direct jets. When inside buildings or confined spaces, ensure adequate ventilation. If in water: In case of small spillages in closed waters, contain product with floating barriers or other equipment. If possible, large spillages in open waters should be contained with floating barriers or other suitable mechanical means. Collect recovered product and other materials in suitable tanks or containers for recovery or safe disposal. Dispose of in accordance with relevant 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.

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 : This material is combustible, but will not ignite readily. Provide adequate ventilation. Use adequate personal protective equipment as needed. Due to the extremely slippery nature of this material, more care than usual must be exercised in material handling practices to keep off all walking surfaces. Floors, walls and other surfaces in the hazard area must be cleaned regularly. Avoid release to the environment. 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. The product may release Hydrogen Sulphide: a specific assessment of inhalation risks from the presence of hydrogen sulphide in tank headspaces, confined spaces, product residue, tank waste and waste water, and unintentional releases should be made to help determine controls appropriate to local circumstances. See also Section 16, "Other information".

Hygiene measures : Ensure that proper housekeeping measures are in place. Contaminated materials should not be allowed to accumulate in the workplaces and should never be kept inside the pockets. 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. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Separate working clothes from town clothes. Launder separately. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Incompatible products : Keep away from strong oxidizers.

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, according to the specific use conditions.

Germany

Storage class (LGK, TRGS 510)	:	LGK 10 - 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

Distillates (petroleum), solvent-refined light paraffinic (64741-89-5)	
Austria - Occupational Exposure Limits	
MAK (OEL TWA)	5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
Belgium - Occupational Exposure Limits	
OEL TWA	5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
Denmark - Occupational Exposure Limits	
OEL TWA	1 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
OEL STEL	2 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
Hungary - Occupational Exposure Limits	
AK (OEL TWA)	5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
Netherlands - Occupational Exposure Limits	
MAC TGG 8h (mg/m³)	5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
Spain - Occupational Exposure Limits	
VLA-ED (OEL TWA)	5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
VLA-EC (mg/m³)	10 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
Sweden - Occupational Exposure Limits	
NGV (OEL TWA)	1 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
KGV (OEL STEL)	3 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
United Kingdom - Occupational Exposure Limits	
WEL TWA (OEL TWA)	5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
WEL STEL (OEL STEL)	10 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA	5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
ACGIH OEL STEL	10 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)

Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)	
Austria - Occupational Exposure Limits	
MAK (OEL TWA)	5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)

Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)	
Belgium - Occupational Exposure Limits	
OEL TWA	5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
Denmark - Occupational Exposure Limits	
OEL TWA	1 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
OEL STEL	2 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
Hungary - Occupational Exposure Limits	
AK (OEL TWA)	5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
Netherlands - Occupational Exposure Limits	
MAC TGG 8h (mg/m³)	5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
Spain - Occupational Exposure Limits	
VLA-ED (OEL TWA)	5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
VLA-EC (mg/m³)	10 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
Sweden - Occupational Exposure Limits	
NGV (OEL TWA)	1 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
KGV (OEL STEL)	3 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
United Kingdom - Occupational Exposure Limits	
WEL TWA (OEL TWA)	5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
WEL STEL (OEL STEL)	10 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA	5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
ACGIH OEL STEL	10 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)

Distillates (petroleum), solvent-dewaxed light paraffinic (64742-56-9)	
Austria - Occupational Exposure Limits	
MAK (OEL TWA)	5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
Belgium - Occupational Exposure Limits	
OEL TWA	5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
Denmark - Occupational Exposure Limits	
OEL TWA	1 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
OEL STEL	2 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
Hungary - Occupational Exposure Limits	
AK (OEL TWA)	5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
Netherlands - Occupational Exposure Limits	
MAC TGG 8h (mg/m³)	5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
Spain - Occupational Exposure Limits	
VLA-ED (OEL TWA)	5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
VLA-EC (mg/m³)	10 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
Sweden - Occupational Exposure Limits	
NGV (OEL TWA)	1 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
KGV (OEL STEL)	3 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)

Distillates (petroleum), solvent-dewaxed light paraffinic (64742-56-9)	
United Kingdom - Occupational Exposure Limits	
WEL TWA (OEL TWA)	5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
WEL STEL (OEL STEL)	10 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA	5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
ACGIH OEL STEL	10 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)

Molybdenum polysulphide long chain alkyl dithiocarbamate complex	
Austria - Occupational Exposure Limits	
MAK (OEL TWA)	15 mg/m³ Molybdenum (insoluble compounds)
MAK (OEL STEL)	30 mg/m³ Molybdenum (insoluble compounds)
Belgium - Occupational Exposure Limits	
OEL TWA	10 mg/m³ Molybdenum (insoluble compounds)
Denmark - Occupational Exposure Limits	
OEL TWA	10 mg/m³ Molybdenum (insoluble compounds)
OEL STEL	20 mg/m³ Molybdenum (insoluble compounds)
Hungary - Occupational Exposure Limits	
AK (OEL TWA)	15 mg/m³ Molybdenum (insoluble compounds)
CK-érték	60 mg/m³ Molybdenum (insoluble compounds)
Ireland - Occupational Exposure Limits	
OEL TWA	10 mg/m³ Molybdenum (insoluble compounds)
Poland - Occupational Exposure Limits	
NDS (OEL TWA)	4 mg/m³ Molybdenum (insoluble compounds)
NDSCh (OEL STEL)	10 mg/m³ Molybdenum (insoluble compounds)
Spain - Occupational Exposure Limits	
VLA-ED (OEL TWA)	10 mg/m³ Molybdenum (insoluble compounds)
Sweden - Occupational Exposure Limits	
NGV (OEL TWA)	10 mg/m³ Molybdenum (insoluble compounds)
United Kingdom - Occupational Exposure Limits	
WEL TWA (OEL TWA)	10 mg/m³ Molybdenum (insoluble compounds)
WEL STEL (OEL STEL)	20 mg/m³ Molybdenum (insoluble compounds)
Switzerland - Occupational Exposure Limits	
MAK (OEL TWA)	10 mg/m³ Molybdenum (insoluble compounds)
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA	10 mg/m³ Molybdenum (insoluble compounds)

Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)	
Austria - Occupational Exposure Limits	
MAK (OEL TWA)	5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)

Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)	
Belgium - Occupational Exposure Limits	
OEL TWA	5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
Denmark - Occupational Exposure Limits	
OEL TWA	1 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
OEL STEL	2 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
Hungary - Occupational Exposure Limits	
AK (OEL TWA)	5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
Netherlands - Occupational Exposure Limits	
MAC TGG 8h (mg/m³)	5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
Spain - Occupational Exposure Limits	
VLA-ED (OEL TWA)	5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
VLA-EC (mg/m³)	10 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
Sweden - Occupational Exposure Limits	
NGV (OEL TWA)	1 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
KGV (OEL STEL)	3 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
United Kingdom - Occupational Exposure Limits	
WEL TWA (OEL TWA)	5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
WEL STEL (OEL STEL)	10 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA	5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
ACGIH OEL STEL	10 mg/m³ (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

Applicable OEL and BLV for air contaminants : None known

8.1.4. DNEL and PNEC

Eni i-Sigma performance E7 15W-40	
DNEL/DMEL (additional information)	
Additional information	Not applicable
PNEC (additional information)	
Additional information	Not applicable

Distillates (petroleum), solvent-refined light paraffinic (64741-89-5)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	0.97 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	2.79 mg/m³
Long-term - local effects, inhalation	5.58 mg/m³

Distillates (petroleum), solvent-refined light paraffinic (64741-89-5)	
DNEL/DMEL (General population)	
Long-term - systemic effects,oral	0.74 mg/kg bodyweight/day
Long-term - local effects, inhalation	1.19 mg/m³
PNEC (Oral)	
PNEC oral (secondary poisoning)	9.33 mg/kg food
PNEC (additional information)	
Additional information	Not derived - Not classified as hazardous for environment

Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate) (93819-94-4)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	0.58 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	8.31 mg/m³
DNEL/DMEL (General population)	
Long-term - systemic effects,oral	0.24 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	2.11 mg/m³
Long-term - systemic effects, dermal	0.29 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	0.004 mg/l
PNEC aqua (marine water)	0.0046 mg/l
PNEC aqua (intermittent, freshwater)	0.021 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	0.0116 mg/kg dwt
PNEC sediment (marine water)	0.00116 mg/kg dwt
PNEC (Soil)	
PNEC soil	0.00528 mg/kg dwt
PNEC (Oral)	
PNEC oral (secondary poisoning)	10.67 mg/kg
PNEC (STP)	
PNEC sewage treatment plant	100 mg/l

Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	1 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	2.7 mg/m³
Long-term - local effects, inhalation	5.6 mg/m³
DNEL/DMEL (General population)	
Long-term - systemic effects,oral	0.74 mg/kg bodyweight/day
Long-term - local effects, inhalation	1.2 mg/m³/day (DNEL, Mineral base oil mist, severely refined, DMSO extract <3% m/m)
PNEC (Oral)	
PNEC oral (secondary poisoning)	9.33 mg/kg food

Distillates (petroleum), solvent-dewaxed light paraffinic (64742-56-9)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	0.97 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	2.73 mg/m³
Long-term - local effects, inhalation	5.58 mg/m³
DNEL/DMEL (General population)	
Long-term - systemic effects,oral	0.74 mg/kg bodyweight/day
Long-term - local effects, inhalation	1.19 mg/m³
PNEC (Oral)	
PNEC oral (secondary poisoning)	9.33 mg/kg food

Paraffin oils (petroleum), catalytic dewaxed heavy, Baseoil - unspecified (64742-70-7)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	0.97 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	2.73 mg/m³
Long-term - local effects, inhalation	5.58 mg/m³
DNEL/DMEL (General population)	
Long-term - systemic effects,oral	0.74 mg/kg bodyweight/day
Long-term - local effects, inhalation	1.19 mg/m³
PNEC (Oral)	
PNEC oral (secondary poisoning)	9.33 mg/kg food

Molybdenum polysulphide long chain alkyl dithiocarbamate complex	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	2.24 mg/kg bodyweight/day
Long-term - local effects, dermal	0.112 mg/cm²
Long-term - systemic effects, inhalation	3.52 mg/m³
DNEL/DMEL (General population)	
Long-term - systemic effects,oral	0.5 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	1.76 mg/m³
Long-term - local effects, dermal	0.056 mg/cm²
PNEC (Water)	
PNEC aqua (freshwater)	81 µg/l
PNEC aqua (marine water)	8.1 µg/l
PNEC aqua (intermittent, freshwater)	96.2 µg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	195 mg/kg dwt
PNEC sediment (marine water)	19.5 mg/kg dwt
PNEC (Soil)	
PNEC soil	872 µg/kg

Molybdenum polysulphide long chain alkyl dithiocarbamate complex	
PNEC (Oral)	
PNEC oral (secondary poisoning)	20 mg/kg food
PNEC (STP)	
PNEC sewage treatment plant	10 mg/l

Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	0.97 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	2.73 mg/m³
Long-term - local effects, inhalation	5.58 mg/m³
DNEL/DMEL (General population)	
Long-term - systemic effects,oral	0.74 mg/kg bodyweight/day
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

Control banding : None known

8.2. Exposure controls

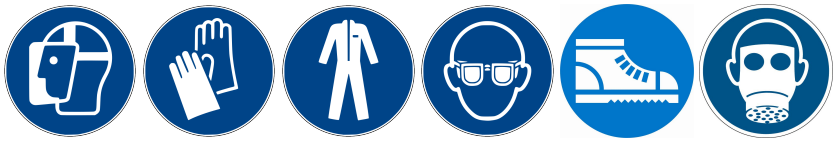
8.2.1. Appropriate engineering controls

No additional information available

8.2.2. Personal protection equipment

Personal protective equipment (for industrial or professional use):
Face shield. Gloves. Protective clothing. Safety glasses. Safety shoes or boots. High gas/vapour concentration: gas mask with filter for organic vapours (A) or organic vapours/H2S (A+B).

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

No additional information available

8.2.2.2. Skin protection

No additional information available

8.2.2.3. Respiratory protection

No additional information available

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. Do not apply industrial sludge to natural soils. Sludge should be incinerated, contained or reclaimed.

Consumer exposure controls:
Wear protective gloves. Avoid excessive or improper use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Colour	:	Yellow-brown.
Appearance	:	Clear liquid.
Odour	:	Slight odour of petroleum.
Odour threshold	:	Not determined
Melting point	:	Not applicable
Freezing point	:	Not determined
Softening point	:	-27 °C (ASTM D 97)
Boiling point	:	≥ 200 °C (ASTM 1160)
Flammability	:	Not flammable
Explosive properties	:	Not explosive.
Oxidising properties	:	Not oxidising.
Lower explosion limit	:	Not determined
Upper explosion limit	:	Not determined
Flash point	:	≥ 190 °C (ASTM D93)
Auto-ignition temperature	:	≥ 300 °C (DIN 51794)
Decomposition temperature	:	Not determined
pH	:	Not determined
Viscosity, kinematic	:	102 mm²/s (40 °C) (ASTM D445)
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	:	880 kg/m³ (15 °C) (ASTM D 4052)
Relative density	:	Not determined
Relative vapour density at 20°C	:	> 1 (according to composition)
Particle characteristics	:	Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Explosion limits	:	≥ 45 g/m³ (Aerosol)
Critical temperature	:	Not applicable for mixtures

9.2.2. Other safety characteristics

Relative evaporation rate (butylacetate=1)	:	Negligible.

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

No additional information available

10.3. Possibility of hazardous reactions

None (in normal conditions of storage and handling). Contact with strong oxidizers (peroxides, chromates, etc.) or alkali metals 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.

10.5. Incompatible materials

Strong oxidizing agents.

10.6. Hazardous decomposition products

No additional information available

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)

Eni i-Sigma performance E7 15W-40	
ATE (oral)	2000 mg/kg bodyweight
ATE (dermal)	2000 mg/kg bodyweight
ATE CLP (vapours)	5 mg/l/4h
ATE (dust,mist)	5 mg/l/4h

Distillates (petroleum), solvent-refined light paraffinic (64741-89-5)	
LD50 oral rat	> 5000 mg/kg (OECD 401)
LD50 dermal rat	> 5000 mg/kg (OECD 402)
LC50 Inhalation - Rat	> 5 mg/l/4h (OECD 403)

Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate) (93819-94-4)	
LD50 oral rat	2600 mg/kg bodyweight
LD50 dermal rabbit	> 3160 mg/kg bodyweight (OECD 402)
LC50 Inhalation - Rat	> 2 mg/l/4h

Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)	
LD50 oral rat	> 5000 mg/kg (OECD 401)
LD50 dermal rat	> 5000 mg/kg (OECD 402)
LC50 Inhalation - Rat	> 5 mg/l/4h (OECD 403)

Distillates (petroleum), solvent-dewaxed light paraffinic (64742-56-9)	
LD50 oral rat	> 5000 mg/kg (OECD 401)
LD50 dermal rat	> 5000 mg/kg (OECD 402)
LC50 Inhalation - Rat	> 5 mg/l/4h (OECD 403)

Paraffin oils (petroleum), catalytic dewaxed heavy, Baseoil - unspecified (64742-70-7)	
LD50 oral rat	5000 mg/kg bodyweight
LD50 dermal rat	2000 – 5000 mg/kg bodyweight
LC50 Inhalation - Rat	2.18 – 5.53 mg/l/4h

Distillates (petroleum), solvent-dewaxed heavy paraffinic (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 determined

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

Distillates (petroleum), solvent-refined light paraffinic (64741-89-5)	
pH	Not applicable

Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)	
pH	Not applicable

Distillates (petroleum), solvent-dewaxed light paraffinic (64742-56-9)	
pH	Not applicable

Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)	
pH	Not applicable

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

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

Distillates (petroleum), solvent-refined light paraffinic (64741-89-5)	
pH	Not applicable

Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)	
pH	Not applicable

Distillates (petroleum), solvent-dewaxed light paraffinic (64742-56-9)	
pH	Not applicable

Distillates (petroleum), solvent-dewaxed heavy paraffinic (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)
Exposure may produce an allergic reaction

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)

Additional information : (according to composition)
This product contains : Distillates (petroleum), solvent-dewaxed heavy paraffinic, Paraffin oils (petroleum), catalytic dewaxed heavy; Baseoil— unspecified; [A complex combination of hydrocarbons obtained from a catalytic dewaxing process. It consists predominantly 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).], Distillates (petroleum), solvent-dewaxed light paraffinic, Distillates (petroleum), hydrotreated heavy paraffinic, Distillates (petroleum), solvent-refined light 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.

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

Additional information : (according to composition)

Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate) (93819-94-4)	
NOAEL (animal/male, F0/P)	160 mg/kg (OECD TG 422)

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)

Distillates (petroleum), solvent-refined light paraffinic (64741-89-5)	
LOAEL (oral, rat, 90 days)	125 mg/kg bodyweight/day (OECD TG 408)

Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)	
LOAEL (oral, rat, 90 days)	125 mg/kg bodyweight/day (OECD TG 408)

Distillates (petroleum), solvent-dewaxed light paraffinic (64742-56-9)	
LOAEL (oral, rat, 90 days)	125 mg/kg bodyweight/day (OECD TG 408)

Paraffin oils (petroleum), catalytic dewaxed heavy, Baseoil - unspecified (64742-70-7)	
LOAEL (oral, rat, 90 days)	125 mg/kg bodyweight/day
NOAEL (dermal, rat/rabbit, 90 days)	30 – 2000 mg/kg bodyweight/day
NOAEC (inhalation,rat, vapour, 90 days)	980 mg/m³

Distillates (petroleum), solvent-dewaxed heavy paraffinic (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/m³ (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 : (according to composition)
Viscosity, kinematic: > 20,5 mm2/s (40 °C) (ASTM D 445)

Eni i-Sigma performance E7 15W-40	
Viscosity, kinematic	102 mm²/s (40 °C) (ASTM D445)

Distillates (petroleum), solvent-refined light paraffinic (64741-89-5)	
Viscosity, kinematic	14.5 – 16.5 mm²/s (40°C, ASTM D 445)

Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)	
Viscosity, kinematic	17.9 mm²/s (40 °C) (ASTM D 445)

Distillates (petroleum), solvent-dewaxed light paraffinic (64742-56-9)	
Viscosity, kinematic	15 – 16.5 mm²/s (40 °C) (ASTM D 445)

Molybdenum polysulphide long chain alkyl dithiocarbamate complex	
Viscosity, kinematic	> 21 mm²/s

Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)	
Viscosity, kinematic	91 – 99 mm²/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 an allergic skin reaction,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 : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment. 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 - 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 (Based on available data, the classification criteria are not met)

Hazardous to the aquatic environment, long–term (chronic) : Not classified (Based on available data, the classification criteria are not met)

Distillates (petroleum), solvent-refined light paraffinic (64741-89-5)	
LC50 fish 1	> 100 mg/l (LL 50)
EC50 Daphnia 1	> 10000 mg/l WAF, 48 h (OECD 202)

Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate) (93819-94-4)	
LC50 fish 1	4.5 mg/l (96h - Oncorhynchus mykiss) (OECD 203)
EC50 Daphnia 1	5.4 mg/l (48h)
EC50 96h - Algae [1]	2.1 mg/l (Selenastrum capricornutum)
ErC50 (algae)	2.1 mg/l (96h - Selenastrum capricornutum) (OECD 201)

Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)	
LC50 fish 1	> 100 mg/l (LL 50)
EC50 Daphnia 1	> 10000 mg/l WAF, 48 h (OECD 202)

Distillates (petroleum), solvent-dewaxed light paraffinic (64742-56-9)	
LC50 fish 1	> 100 mg/l (LL 50)

Distillates (petroleum), solvent-dewaxed light paraffinic (64742-56-9)	
EC50 Daphnia 1	> 10000 mg/l WAF, 48 h (OECD 202)

Paraffin oils (petroleum), catalytic dewaxed heavy, Baseoil - unspecified (64742-70-7)	
LC50 fish 1	100 mg/l (LL50)
EC50 Daphnia 1	10 g/l (EL50)
NOEC chronic fish	1 g/l (NOELR, 14d)

Molybdenum polysulphide long chain alkyl dithiocarbamate complex	
EC50 Daphnia 1	50 mg/l (Daphnia magna)
EC50 72h - Algae [1]	9.62 mg/l (Pseudokirchneriella subcapitata)
NOEC (acute)	94.8 mg/l (Oncorhynchus mykiss, 96h)
NOEC chronic crustacea	100 mg/l (Daphnia magna, 21d)

Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)	
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

Eni i-Sigma performance E7 15W-40	
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.

Distillates (petroleum), solvent-refined light paraffinic (64741-89-5)	
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)

Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate) (93819-94-4)	
Persistence and degradability	Rapidly degradable
Biodegradation	1.5 % (28d) (OECD 301 B)

Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)	
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..

Distillates (petroleum), solvent-dewaxed light paraffinic (64742-56-9)	
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..

Paraffin oils (petroleum), catalytic dewaxed heavy, Baseoil - unspecified (64742-70-7)	
Persistence and degradability	Rapidly degradable

Molybdenum polysulphide long chain alkyl dithiocarbamate complex	
Persistence and degradability	Rapidly degradable
Biodegradation	22.75 % (29d) (OECD TG 301)

Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)	
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

Eni i-Sigma performance E7 15W-40	
Log Pow	Not applicable for mixtures
Log Kow	Not applicable for mixtures
Bioaccumulative potential	Not established.

Distillates (petroleum), solvent-refined light paraffinic (64741-89-5)	
Bioaccumulative potential	The test methods for this endpoint are not applicable to UVCB substances.

Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate) (93819-94-4)	
Log Pow	0.9 (23 °C)

Molybdenum polysulphide long chain alkyl dithiocarbamate complex	
Bioconcentration factor (BCF REACH)	88 (Cyprinus carpio) (OECD TG 305)

Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)	
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

Eni i-Sigma performance E7 15W-40	
Ecology - soil	No data available.

Distillates (petroleum), solvent-refined light paraffinic (64741-89-5)	
Ecology - soil	This product is not soluble in water. It floats on water and forms a film on the surface.

Distillates (petroleum), solvent-dewaxed heavy paraffinic (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 i-Sigma performance E7 15W-40
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

Eni i-Sigma performance E7 15W-40	
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	Distillates (petroleum), solvent-refined light paraffinic (64741-89-5), Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate) (93819-94-4), Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7), Distillates (petroleum), solvent-dewaxed light paraffinic (64742-56-9), Paraffin oils (petroleum), catalytic dewaxed heavy, Baseoil - unspecified (64742-70-7), Molybdenum polysulphide long chain alkyl dithiocarbamate complex, Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)
Substance(s) not meeting the vPvB criteria of REACH regulation, in accordance with Annex XIII	Distillates (petroleum), solvent-refined light paraffinic (64741-89-5), Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate) (93819-94-4), Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7), Distillates (petroleum), solvent-dewaxed light paraffinic (64742-56-9), Paraffin oils (petroleum), catalytic dewaxed heavy, Baseoil - unspecified (64742-70-7), Molybdenum polysulphide long chain alkyl dithiocarbamate complex, Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)

12.6. Endocrine disrupting properties

Adverse effects on the environment caused by endocrine disrupting properties : Endocrine disrupting properties (Article 57(f) — environment): 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

No additional information available

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 : 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 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.

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
14.1. UN number or ID number				
Not regulated for transport				
14.2. UN proper shipping name				
Not regulated.	Not regulated.	Not regulated.	Not regulated.	Not regulated.

ADR	IMDG	IATA	ADN	RID
14.3. Transport hazard class(es)				
Not regulated.	Not regulated.	Not regulated.	Not regulated.	Not regulated.
14.4. Packing group				
Not regulated.	Not regulated.	Not regulated.	Not regulated.	Not regulated.
14.5. Environmental hazards				
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

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Other information, restriction and prohibition regulations : 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 2012/18/CE (Control of major-accident hazards involving dangerous substances). Directive 2004/42/CE (Limitation of emissions of Volatile Organic Compounds). 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). Substances Depleting the Ozone layer (1005/2009) - Annex I Substances (ODP). Regulation EU (649/2012) - Export and Import of hazardous chemicals (PIC). POP (2019/1021) - Persistent Organic Pollutants.

REACH Annex XVII (Restriction List)

EU restriction list (REACH Annex XVII)		
Reference code	**Applicable on**	**Entry title or description**
3(b)	Distillates (petroleum), solvent-refined light paraffinic ; Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate) ; Distillates (petroleum), hydrotreated heavy paraffinic ; Distillates (petroleum), solvent-dewaxed light paraffinic ; Paraffin oils (petroleum), catalytic dewaxed heavy, Baseoil - unspecified ; Molybdenum polysulphide long chain alkyl dithiocarbamate complex	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
3(c)	Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate) ; Molybdenum polysulphide long chain alkyl dithiocarbamate complex	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

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 professionelles (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.

National Rules and Recommendations : TRGS 400: Hazard assessment for activities involving Hazardous Substances.
TRGS 401: Risks resulting from skin contact - identification, assessment, measures.
TRGS 402: Identification and Assessment of the Risks from Activities involving Hazardous Substances: Inhalation Exposure.
TRGS 555: Working instruction and information for workers.
TRGS 800: Fire protection measures.
TRGS 900: Occupational Exposure Limits.

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 is carried out on the basis of the Ordinance on facilities for handling substances that are hazardous to water (Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (AwSV)) of 18 April 2017 (BGBl 2017, Teil I, Nr. 22, Seite 905).

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 : Young people under 18 years are not allowed to use the product
Pregnant/breastfeeding women working with the product must not be in direct contact with it

15.2. Chemical safety assessment

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]
No chemical safety assessment has been carried out

A chemical safety assessment has been carried out for the following components of this mixture::
Distillates (petroleum), solvent-refined light paraffinic
Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate)
Distillates (petroleum), hydrotreated heavy paraffinic
Distillates (petroleum), solvent-dewaxed light paraffinic
Paraffin oils (petroleum), catalytic dewaxed heavy, Baseoil - unspecified
Molybdenum polysulphide long chain alkyl dithiocarbamate complex
Distillates (petroleum), solvent-dewaxed heavy paraffinic

SECTION 16: Other information

Indication of changes			
Section	**Changed item**	**Change**	**Comments**
1.3	Supplier information	Modified	

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
CAS-No.	Chemical Abstract Service number
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)
EC-No.	European Community number
ED	Endocrine disrupting properties
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
OEL	Occupational Exposure Limit
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
VOC	Volatile Organic Compounds
vPvB	Very Persistent and Very Bioaccumulative
WGK	Water Hazard Class

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.

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
Asp. Tox. 1	Aspiration hazard, Category 1
EUH208	Contains Molybdenum polysulphide long chain alkyl dithiocarbamate complex. May produce an allergic reaction.
EUH210	Safety data sheet available on request.
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
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. 1	Skin sensitisation, Category 1

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.