

Safety Data Sheet

SDS EU format according to COMMISSION REGULATION (EU) 2020/878 Revision date: 03/04/2023 Version: 1.0

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

1.1. Product identifier Product form : Mixture : Eni Rotra MP/S 80W-90 Trade name Product code : 1273 Type of product : Lubricants Formula : 0178-2020 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 : Gearbox lubricant 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 Sustainable Mobility S.p.A., Viale Giorgio Ribotta 51, 00144 Rom, ITALY, Tel. +39 06 59821, www.eni.com Competent person responsible for the safety data sheet (Reg. EC nr. 1907/2006): SDS.ESM.info@eni.com

Distributed by: Enilive Schmiertechnik GmbH, Paradiesstraße 14, 97080 Würzburg, GERMANY, www.oilproducts.eni.com Department responsible for information: Application Engineering & Product Management (AEPM), Tel. +49 (0)931-900 98-0 e-mail: technik.wuerzburg@enilive.com

1.4. Emergency telephone number	
Emergency number	: CNIT +39 0382 24444 (24h) (IT + EN)
	Poison 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]

Hazardous to the aquatic environment – Chronic Hazard, Category 2 H411 Full text of H- and EUH-statements: see section 16

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.

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2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP] Hazard pictograms (CLP) GHS09 CLP Signal word Hazard statements (CLP) H411 - Toxic to aquatic life with long lasting effects. Precautionary statements (CLP) : P273 - Avoid release to the environment. P391 - Collect spillage. P501 - Dispose of contents/container to according to national or local regulations. **FUH-statements** : EUH208 - Contains Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched), Reaction product of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and phenol, heptyl derivs.. May produce an allergic reaction.

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/vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

Component	
Residual oils (petroleum,) solvent-refined (64742-01- 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
Reaction products of bis(4-methylpentan-2- yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched)	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
C16-18-(even numbered, saturated and unsaturated)- alkylamines (1213789-63-9)	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
Reaction product of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and phenol, heptyl derivatives	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
Mineral base oil, severely refined (light) (64741-89-5)	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
Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)	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

The mixture contains substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

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Component		
Residual oils (petroleum,) solvent-refined(64742-01-4)	The substance is 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)	The substance is 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	
Reaction products of bis(4-methylpentan-2- yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched)	The substance is 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	
C16-18-(even numbered, saturated and unsaturated)- alkylamines(1213789-63-9)	The substance is 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	
Reaction product of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and phenol, heptyl derivatives	The substance is included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605	

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Notes

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

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [EU-GHS / CLP]
Residual oils (petroleum,) solvent-refined (see note [**], see note [***])	CAS-No.: 64742-01-4 EC-No.: 265-101-6 EC Index-No.: 649-459-00-4 REACH-no: 01-2119488707- 21	40 - 50	Not classified
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	40 – 50	Not classified
Reaction products of bis(4-methylpentan-2- yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched) (Additive)	EC-No.: 931-384-6 REACH-no: 01-2119493620- 38	1 - 1,5	Acute Tox. 4 (Oral), H302 (ATE=500 mg/kg bodyweight) Eye Irrit. 2, H319 Skin Sens. 1B, H317 Aquatic Chronic 2, H411

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [EU-GHS / CLP]
Reaction Products of alcohols, C14-18, C18 unsat., esterified with phosphorus pentoxide and salted with amines, C12-14,-tert-alkyl (Additive)	EC-No.: 939-591-3 EC Index-No.: N/A REACH-no: 01-2119978530- 33	1 - 1,5	Aquatic Chronic 3, H412
C16-18-(even numbered, saturated and unsaturated)- alkylamines (Additive)	CAS-No.: 1213789-63-9 EC-No.: 627-034-4 REACH-no: 01-2119473797- 19	0,1 - 0,9	Acute Tox. 4 (Oral), H302 (ATE=1689 mg/kg bodyweight) Skin Corr. 1B, H314 STOT SE 3, H335 STOT RE 2, H373 Asp. Tox. 1, H304 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=10)
Distillates (petroleum), solvent-refined light paraffinic (For identification of the substance, 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	0,065 – 0,65	Asp. Tox. 1, H304
Reaction product of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and phenol, heptyl derivs. (Additive, see note [****]) Substance included in REACH Candidate List substance identified as having endocrine disrupting properties	EC-No.: 939-460-0 EC Index-No.: N/A REACH-no: 01-2119971727- 23	0,1 - 0,2	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Chronic 3, H412

Specific concentration limits:		
Name	Product identifier	Specific concentration limits
Reaction products of bis(4-methylpentan-2- yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched) (Additive)	EC-No.: 931-384-6 REACH-no: 01-2119493620- 38	(9,39 <c 100)="" 1b,="" h317<br="" sens.="" skin="" ≤="">(50 <c 100)="" 2,="" eye="" h319<="" irrit.="" td="" ≤=""></c></c>

Notes

: [*] Note: this product may be formulated with one or more of the following severely refined mineral base oils (not classified as hazardous):

CAS 64742-54-7/EC 265-157-1/REACH Reg. # 01-2119484627-25-xxxx; CAS 64742-65-0/EC 265-169-7/REACH Reg. # 01-2119471299-27-xxxx; CAS 64742-70-7/EC 265-174-4/REACH Reg. # 01-2119487080-42-xxxx; CAS 64742-56-9/EC 2265-159-2/ REACH Reg. # 01-2119480132-48-xxxx.

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

Note [**]:

this product has a value of DMSO extract < 3 % wt, according to IP 346. According to the criteria laid out by the EU (note L, Annex VI of Regulation (CE) 1272/2008), this product must be regarded as non carcinogenic.

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)

Note [****]:

Substance included in REACH Candidate List

See Section 15

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

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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. Remove contact lenses, if present and easy to do so. Continue rinsing. 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 cause an allergic skin 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 Chronic symptoms	No information available.None to be reported, according to the present classification criteria.
4.3. Indication of any immediate medical at	tention 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 measure	es esta esta esta esta esta esta esta es
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	: Vapours are heavier than air, spread along floors and form explosive mixtures with air. Heat may build pressure in tank and containers, rupturing closed vessels, spreading fire and increasing risk of burns and injuries.

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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.
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		
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: ful 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 hear 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.	

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.

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

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 Handling temperature Hygiene measures	 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. 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. Before entering storage tanks and commencing any operation in a confined area (e.g. tunnels), carry out an adequate clean-up, and check the atmosphere for oxygen content, flammability, and the presence of sulphur compounds. See also Section 16, "Other information". This product can be handled at ambient temperatures. 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.
	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	
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 oxidizing agents.
Storage temperature	: This product can be stored at ambient temperatures.
Storage area	 Storage area layout, tank design, equipment and operating procedures must comply with the relevant European, national or local legislation. Storage installations 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.

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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

8.1.1 National occupational exposure and biological limit values

Residual oils (petroleum,) solvent-refined (64742-01-4)		
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]	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) [1]	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)	
KTV (OEL STEL)	3 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-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]	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)	

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Distillates (petroleum), solvent-refined ligh	t paraffinic (64741-89-5)	
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) [1]	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)	
KTV (OEL STEL)	3 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 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)	
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]	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) [1]	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)	
KTV (OEL STEL)	3 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		

8.1.2. Recommended monitoring procedures

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

8.1.3. Air contaminants formed

No additional information available

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8.1.4. DNEL and PNEC		
Eni Rotra MP/S 80W-90		
DNEL/DMEL (additional information)		
Additional information	Not applicable	
PNEC (additional information)		
Additional information	Not applicable	
Residual oils (petroleum,) solvent-refined (64	742-01-4)	
DNEL/DMEL (Workers)		
Long-term - systemic effects, dermal	0,97 mg/kg bodyweight/day	
Long-term - systemic effects, inhalation	2,73 mg/m ³	
Long-term - local effects, inhalation	5,58 mg/m ³	
DNEL/DMEL (General population)		
Long-term - systemic effects,oral	0,74 mg/kg bodyweight/day	
Long-term - local effects, inhalation	1,19 mg/m ³	
PNEC (Oral)		
PNEC oral (secondary poisoning)	9,33 mg/kg food	
Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched)		
DNEL/DMEL (Workers)		
Acute - local effects, dermal	160 µg/cm²	
Long-term - systemic effects, dermal	12,5 mg/kg bodyweight/day	
Long-term - local effects, dermal	160 µg/cm²	
Long-term - systemic effects, inhalation	4,28 mg/m ³	
DNEL/DMEL (General population)		
Acute - local effects, dermal	160 µg/cm²	
Long-term - systemic effects,oral	0,25 mg/kg bodyweight/day	
Long-term - systemic effects, inhalation	1,09 mg/m ³	
Long-term - systemic effects, dermal	6,25 mg/kg bodyweight/day	
Long-term - local effects, dermal	160 µg/cm²	
PNEC (Water)		
PNEC aqua (freshwater)	2,4 µg/l	
PNEC aqua (marine water)	0,24 µg/l	
PNEC aqua (intermittent, freshwater)	150 µg/l	
PNEC aqua (intermittent, marine water)	15 μg/l	
PNEC (Sediment)		
PNEC sediment (freshwater)	12,9 µg/kg dw	
PNEC sediment (marine water)	1,29 µg/kg dw	
PNEC (Soil)		
PNEC soil	1,17 μg/kg dw	

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Reaction products of bis(4-methylpentan amines, C12-14-alkyl (branched)	-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and
PNEC (Oral)	
PNEC oral (secondary poisoning)	10 mg/kg food
PNEC (STP)	
PNEC sewage treatment plant	24,33 mg/l
Reaction Products of alcohols, C14-18, C 14,-tert-alkyl	18 unsat., esterified with phosphorus pentoxide and salted with amines, C12-
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	2,5 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	1,76 mg/m³
DNEL/DMEL (General population)	
Long-term - systemic effects,oral	0,25 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	434 µg/m³
Long-term - systemic effects, dermal	1,25 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	2,4 µg/l
PNEC aqua (marine water)	240 ng/l
PNEC aqua (intermittent, freshwater)	24 µg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	1085,06 mg/kg dwt
PNEC sediment (marine water)	108,5 mg/kg dwt
PNEC (Soil)	
PNEC soil	880,82 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	32 mg/l
C16-18-(even numbered, saturated and unsaturated)-alkylamines (1213789-63-9)	
DNEL/DMEL (Workers)	
Acute - local effects, inhalation	1 mg/m ³
Long-term - systemic effects, dermal	0,09 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	0,38 mg/m ³
Long-term - local effects, inhalation	1 mg/m ³
DNEL/DMEL (General population)	
Long-term - systemic effects,oral	40 μg/kg bodyweight/day
Long-term - systemic effects, inhalation	0,035 mg/m ³
PNEC (Water)	
PNEC aqua (freshwater)	0,26 µg/l
	0,026 µg/l
PNEC aqua (marine water)	

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C16-18-(even numbered, saturated and unsaturated)-alkylamines (1213789-63-9)	
PNEC (Sediment)	
PNEC sediment (freshwater)	3,76 mg/kg dwt
PNEC sediment (marine water)	0,376 mg/kg dwt
PNEC (Soil)	
PNEC soil	10 mg/kg dwt
PNEC (Oral)	
PNEC oral (secondary poisoning)	0,22 mg/kg food
PNEC (STP)	
PNEC sewage treatment plant	550 µg/l
Reaction product of 1,3,4-thiadiazolidine-2,5-0	dithione, formaldehyde and phenol, heptyl derivs.
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	66,7 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	2,35 mg/m³
DNEL/DMEL (General population)	
Long-term - systemic effects,oral	0,33 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	0,58 mg/m³
Long-term - systemic effects, dermal	33,33 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	26 μg/l
PNEC aqua (marine water)	2,6 µg/l
PNEC aqua (intermittent, freshwater)	260 µg/l
PNEC (Sediment)	·
PNEC sediment (freshwater)	1108,6 mg/kg dwt
PNEC sediment (marine water)	110,86 mg/kg dwt
PNEC (Soil)	
PNEC soil	221,48 mg/kg dwt
PNEC (Oral)	
PNEC oral (secondary poisoning)	6,7 mg/kg food
PNEC (STP)	
PNEC sewage treatment plant	45,5 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/m ³
Long-term - local effects, inhalation	5,58 mg/m³
DNEL/DMEL (General population)	
Long-term - systemic effects,oral	0,74 mg/kg bodyweight/day

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Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)	
PNEC (Oral)	
PNEC oral (secondary poisoning)	9,33 mg/kg food
PNEC (additional information)	
Additional information	Not derived - Not classified as hazardous for environment
	The Derived No Effect Level (DNEL) is an estimated safe level of exposure that is derived from toxicity data in accord with specific guidance within the European REACH regulation. The DNEL may differ from an Occupational Exposure Limit (OEL) for the same chemical. OELs may be recommended by an individual company, a governmental regulatory body or an expert organization, such as the Scientific Committee for Occupational Exposure Limits (SCOEL) or the American Conference of Governmental Industrial Hygienists (ACGIH). OELs are considered to be safe exposure levels for a typical worker in an occupational setting for an 8-hour work shift, 40 hour work week, as a time weighted average (TWA) or a 15 minute short-term exposure limit (STEL). While also considered to be protective of health, OELs are derived by a process different from that of REACH.

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure that there is a suitable ventilation system. Before entering storage tanks and commencing any operation in a confined area (e.g. tunnels), check the atmosphere for oxygen content, presence of hydrogen sulphide (H2S) and SOx, and flammability. See also Section 16, "Other information".

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. Dust/aerosol mask.

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection:

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

8.2.2.2. Skin protection

Skin and body protection:

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

Hand protection:

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

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8.2.2.3. Respiratory protection

Respiratory protection:

Independently from other possible actions (technical modifications, operating procedures, and other means to limit the exposure of workers), personal protection equipment can be used according to necessity. Open or well ventilated spaces: if the product is handled without adequate containment: use full or half-face masks with adequate filter for organic vapours. (EN 136/140/145). Combined gas/dust mask with filter type: EN 14387. Closed or confined areas (e.g. tank interiors): the use of protection measures for airways (masks or self-contained breathing apparatus), must be assessed according to the specific activity, as well as level and duration of predicted exposure. (EN 136/140/145). Approved respiratory protection equipment shall be used in spaces where hydrogen sulphide may accumulate: full face mask with cartridge/filter type "B" (grey for inorganic vapours including H2S) or self-contained breathing apparatus (SCBA). (EN 136/140/145)

8.2.2.4. Thermal hazards

Thermal hazard protection:

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

8.2.3. Environmental exposure controls

Environmental exposure controls:

Do not discharge the product into the environment. 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:

Wear protective gloves. Ensure adequate ventilation.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	Yellow-brown.
Appearance	: Liquid, bright & clear.
Odour	: Slight odour of petroleum.
Odour threshold	: There are no data available on the preparation/mixture itself.
Melting point	: -30 °C (pour point) (ASTM D 97)
Freezing point	: Not determined
Softening point	: Not determined
Boiling point	: Not available
Flammability (solid, gas)	: Not flammable
Explosive properties	: None (according to composition).
Oxidising properties	: None (according to composition).
Explosive limits	: ≥ 45 g/m³ (Aerosol)
Lower explosion limit	: ≥ 45 g/m³ (Aerosol)
Upper explosion limit	: Not determined
Flash point	: ≥ 205 °C (ASTM D 92)
Auto-ignition temperature	: Not determined
Decomposition temperature	: Not determined
рН	: Lack of data (on mixture / components of the mixture) - Data not available
Viscosity, kinematic	: 124,1 mm²/s (40 °C) (ASTM D 445)
Viscosity, dynamic	: Not determined
Solubility	: Water: Immiscible and insoluble
Log Kow	: Not applicable for mixtures
Log Pow	: Not applicable for mixtures
Vapour pressure	: < 0,1 hPa (20 °C) (Mineral oil, ASTM D 5191) (CONCAWE, 2010)
Vapour pressure at 50°C	: Lack of data (on mixture / components of the mixture) - Data not available
Critical pressure	: Not applicable for mixtures
Density	: 880 kg/m³ (15°C) (ASTM D 4052)
Relative density	: Lack of data (on mixture / components of the mixture) - Data not available
Relative vapour density at 20°C	: Lack of data (on mixture / components of the mixture) - Data not available
Particle characteristics	: Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

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Critical temperature	: Not applicable for
9.2.2. Other safety characteristics	
Relative evaporation rate (butylacetate=1) Additional information	: Negligible. : No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

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

10.2. Chemical stability

Stable product, according to its intrinsic properties.

10.3. Possibility of hazardous reactions

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

mixtures

10.4. Conditions to avoid

Keep away from open flames, hot surfaces and sources of ignition.

10.5. Incompatible materials

Strong oxidants.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Thermal decomposition may produce : Toxic fumes. In exceptional cases (i.e prolonged storage in tanks contaminated with water, and presence of anaerobic sulfate-reducing microbial colonies), the product may undergo a degradation and generate small amounts of sulfur compounds, including H2S.

SECTION 11: Toxicological information		
11.1. Information on hazard classes as defined	d in Regulation (EC) No 1272/2008	
Acute toxicity (dermal):Acute toxicity (inhalation):	Not classified (Based on available data, the classification criteria are not met) Not classified (Based on available data, the classification criteria are not met) Not classified (Based on available data, the classification criteria are not met) (according to composition)	
Residual oils (petroleum,) solvent-refined (64742-01-4)		
LD50 oral rat	> 5000 mg/kg bodyweight	
LD50 dermal rat	> 2000 mg/kg bodyweight	
LC50 Inhalation - Rat	> 5 mg/l/4h	
Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched)		
LD50 oral rat	≈ 2000 mg/kg bodyweight	
Reaction Products of alcohols, C14-18, C18 unsat., esterified with phosphorus pentoxide and salted with amines, C12- 14,-tert-alkyl		
LD50 oral rat	≥ 2000 mg/kg bodyweight	
LD50 dermal rat	≥ 2000 mg/kg bodyweight	
LC50 Inhalation - Rat	≥ 5 g/m³	

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	and unsaturated)-alkylamines (1213789-63-9)	
LD50 oral rat	1689 mg/kg bodyweight (OECD 401)	
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)	
LD50 dermal rabbit	2000 mg/kg bodyweight	
Reaction product of 1,3,4-thiadiazo	lidine-2,5-dithione, formaldehyde and phenol, heptyl derivs.	
LD50 oral rat	2000 – 5000 mg/kg bodyweight	
LD50 dermal rat	2000 mg/kg bodyweight	
Distillates (petroleum), solvent-refi	ned 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)	
Distillates (petroleum), solvent-dew	vaxed heavy paraffinic (64742-65-0)	
LD50 oral rat	> 5000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity), Guideline: OECD Guideline 420 (Acute Oral Toxicity - Fixed Dose Method)	
Skin corrosion/irritation	: Not classified (Based on available data, the classification criteria are not met) pH: Lack of data (on mixture / components of the mixture) - Data not available	
Additional information	: (according to composition) and unsaturated)-alkylamines (1213789-63-9)	
pH	11,7 Temp.: 20 °C	
•		
Distillates (petroleum), solvent-refi		
pH	Not applicable	
Distillates (petroleum), solvent-dew		
pH	Not applicable	
Serious eye damage/irritation Additional information	 Not classified (Based on available data, the classification criteria are not met) pH: Lack of data (on mixture / components of the mixture) - Data not available (according to composition) This product contains components with a Specific Concentration Limit (SCL). 	
C16-18-(even numbered, saturated	and unsaturated)-alkylamines (1213789-63-9)	
рН	11,7 Temp.: 20 °C	
Distillates (petroleum), solvent-refined light paraffinic (64741-89-5)		
pH	Not applicable	
Distillates (petroleum), solvent-dew	vaxed heavy paraffinic (64742-65-0)	
pH	Not applicable	
Respiratory or skin sensitisation Additional information	 Not classified (Based on available data, the classification criteria are not met) (according to composition) Contains {0 message=<name of="" sensitizing<br="" the="">substance> fieldvalue=_SENSITIZER_COMPONENTS}. May produce an allergic reaction On basis of test data. not sensitising. This evaluation is based on the information provided by the suppliers. Exposure may produce an allergic reaction</name> 	
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)	
Additional information	: (according to composition) : Not classified (Based on available data, the classification criteria are not met)	
Carcinogenicity	. זיטר טומשאוויבע (שמשבע טון מעמוומשוב עמנמ, נווב טומשאווטמנוטרו טוונפווא אופ רוטנ ווופנ)	

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	(according to composition) This product contains : 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).], Distillates (petroleum), solvent-dewaxed heavy paraffinic, Distillates (petroleum), hydrotreated heavy naphthenic; Baseoil— unspecified; [A complex combination of hydrocarbons obtained by treating a petroleum fraction with hydrogen in the presence of a catalyst. It consists of hydrocarbons having carbon numbers predominantly in the range of C20 through C50 and produces a finished oil of at least 100 SUS at 100°F (19cSt at 40 °C). It contains relatively few normal paraffins.] this product has a value of DMSO extract < 3 % wt, according to IP 346. According to the criteria laid out by the EU (note L, Annex VI of Regulation (CE) 1272/2008), this product must be regarded as non carcinogenic. All the mineral base oils contained in this product have a value < 3 % wt of DMSO extract, according to IP 346 (Nota L - Annex VI Reg (CE) 1272/2008, # 1.1.3) No carcinogenic effect	
	Not classified (Based on available data, the classification criteria are not met)	
	(according to composition) Not classified (Based on available data, the classification criteria are not met)	
	(according to composition)	
C16-18-(even numbered, saturated and unsaturated)-alkylamines (1213789-63-9)		
STOT-single exposure	May cause respiratory irritation.	
	Not classified (Based on available data, the classification criteria are not met) (according to composition)	
Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched)		
NOAEL (oral, rat, 90 days)	150 mg/kg bodyweight Animal: rat	
NOAEL (subacute, oral, animal/male, 28 days)	150 mg/kg bodyweight	
Reaction Products of alcohols, C14-18, C18 unsat., esterified with phosphorus pentoxide and salted with amines, C12- 14,-tert-alkyl		
NOAEL (oral, rat, 90 days)	150 – 1000 mg/kg bodyweight/day	
C16-18-(even numbered, saturated and unsatu	urated)-alkylamines (1213789-63-9)	
NOAEL (oral, rat, 90 days)	3,25 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 407 (Repeated Dose 28- Day Oral Toxicity Study in Rodents)	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.	
Reaction product of 1,3,4-thiadiazolidine-2,5-0	dithione, formaldehyde and phenol, heptyl derivs.	
NOAEL (oral, rat, 90 days)	200 mg/kg bodyweight/day	
Distillates (petroleum), solvent-refined light paraffinic (64741-89-5)		
LOAEL (oral, rat, 90 days)	= 125 mg/kg bodyweight/day (OECD TG 408)	
Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)		
LOAEL (oral, rat, 90 days)	125 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)	
LOAEL (dermal, rat/rabbit, 90 days)	100 mg/kg bodyweight/day	
NOAEL (oral, rat, 90 days)	< 125 mg/kg bodyweight/day (CAS 64742-04-7, Mobil 1990) (OECD 408)	
NOAEL (dermal, rat/rabbit, 90 days)	≈ 1000 mg/kg bodyweight Animal: rabbit, Guideline: OECD Guideline 410 (Repeated Dose Dermal Toxicity: 21/28-Day Study)	
NOAEC (inhalation,rat, vapour, 90 days)	220 – 980 mg/m³ (Dalbey W, Osimitz T, Kommineni C, Roy T, Feuston M and Yang J 1991 - OECD 412)	

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Aspiration hazard : Additional information :	Not classified (Based on available data, the classification criteria are not met) (according to composition) Viscosity, kinematic: > 20,5 mm2/s (40 °C) (ASTM D 445)
Eni Rotra MP/S 80W-90	
Viscosity, kinematic	124,1 mm²/s (40 °C) (ASTM D 445)
Residual oils (petroleum,) solvent-refined (64	1742-01-4)
Viscosity, kinematic	490 mm²/s (40 °C) (ASTM D 445)
C16-18-(even numbered, saturated and unsat	turated)-alkylamines (1213789-63-9)
Viscosity, kinematic	5,245 mm²/s
Distillates (petroleum), solvent-refined light p	paraffinic (64741-89-5)
Viscosity, kinematic	15 – 16,5 mm²/s (40 °C) (ASTM D 445)
Distillates (petroleum), solvent-dewaxed hea	vy paraffinic (64742-65-0)
Viscosity, kinematic	91 – 99 mm²/s (40 °C) (ASTM D 445)
11.2.1. Endocrine disrupting properties Adverse health effects caused by endocrine : disrupting properties Component	The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %
Reaction product of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and phenol, heptyl derivs.	The substance is identified for having endocrine disrupting properties but there is no additional data available
symptoms	Contact with eyes may cause temporary reddening and irritation,Prolonged and repeated skin contact may cause reddening, irritation and dermatitis,May produce an allergic reaction,Avoid all eye and skin contact and do not breathe vapour and mist
Potential adverse human health effects and symptoms : Other information : SECTION 12: Ecological information 12.1. Toxicity	skin contact may cause reddening, irritation and dermatitis, May produce an allerg
Ecology - general :	An uncontrolled release to the environment may nevertheless produce a contamination
	different environmental compartments (air, soil, underground, surface water bodies,

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)
Hazardous to the aquatic environment, long-term
(chronic):Not classifiedResidual oils (petroleum,) solvent-refined (64742-01-4)I00 mg/l

10 g/l

EC50 Daphnia 1

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Reaction products of bis(4-methylp amines, C12-14-alkyl (branched)	eentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and
LC50 fish 1	24 mg/l (Rainbow Trout)
LC50 fish 2	8,5 mg/l (Fathead Minnow)
EC50 Daphnia 1	91,4 mg/l
EC50 96h - Algae [1]	6,4 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
EC50 96h - Algae [2]	15 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
NOEC (acute)	1,7 – 3,3
NOEC chronic fish	3,2 mg/l (Rainbow Trout - 4d)
NOEC chronic crustacea	0,12 mg/l (Daphnia magna - 21 d)
Reaction Products of alcohols, C14 14,-tert-alkyl	-18, C18 unsat., esterified with phosphorus pentoxide and salted with amines, C12-
LC50 fish 1	10 – 100 mg/l
LC50 fish 2	1 g/l (LL50)
EC50 Daphnia 1	10 – 100 mg/l
EC50 Daphnia 2	91 mg/l (EL50)
ErC50 (algae)	10 – 100 mg/l
C16-18-(even numbered, saturated	and unsaturated)-alkylamines (1213789-63-9)
LC50 fish 1	0,84 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)
LC50 fish 2	4,21 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)
EC50 Daphnia 1	0,32 mg/l Test organisms (species): Daphnia magna
EC50 Daphnia 2	0,98 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	0,46 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
EC50 72h - Algae [2]	0,38 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
LOEC (chronic)	0,032 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	0,013 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic crustacea	0,013 mg/l (21d)
NOEC chronic algae	0,01 mg/l (3d)
Reaction product of 1,3,4-thiadiazo	lidine-2,5-dithione, formaldehyde and phenol, heptyl derivatives
LC50 fish 1	26 mg/l (LL50)
EC50 Daphnia 1	75 mg/l (EL50)
EC50 72h - Algae [1]	25 mg/l (Selenastrum capricornutum)
EC50 96h - Algae [1]	79 mg/l
NOEC chronic algae	8,1 mg/l
Mineral base oil, severely refined (I	ight) (64741-89-5)
LC50 fish 1	> 100 mg/l (LL 50)
EC50 Daphnia 1	> 10000 mg/l WAF, 48 h (OECD 202)

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Distillates (petroleum), solvent-dewaxed heav	vy 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 Rotra MP/S 80W-90			
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.		
Residual oils (petroleum,) solvent-refined (64	742-01-4)		
Persistence and degradability	Substance is complex UVCB. The test methods for this endpoint are not applicable to UVCB substances.		
Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched)			
Biodegradation	3,6 - 7,4 % (28d - OECD 301 B)		
Reaction Products of alcohols, C14-18, C18 unsat., esterified with phosphorus pentoxide and salted with amines, C12- 14,-tert-alkyl			
Biodegradation	0 % (28d - Sturm test)		
C16-18-(even numbered, saturated and unsaturated)-alkylamines (1213789-63-9)			
Persistence and degradability	Readily biodegradable.		
Biodegradation	66 % (28d) (OECD 301B)		
Reaction product of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and phenol, heptyl derivatives			
Biodegradation	17,4 % (28d - Sturm test)		
Mineral base oil, severely refined (light) (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.		
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.		
Persistence and degradability Biodegradation	biodegradable", but not "readily biodegradable", and they may be moderately persistent,		
	biodegradable", but not "readily biodegradable", and they may be moderately persistent, particularly in anaerobic conditions.		
Biodegradation	biodegradable", but not "readily biodegradable", and they may be moderately persistent, particularly in anaerobic conditions.		
Biodegradation 12.3. Bioaccumulative potential	biodegradable", but not "readily biodegradable", and they may be moderately persistent, particularly in anaerobic conditions.		
Biodegradation 12.3. Bioaccumulative potential Eni Rotra MP/S 80W-90	 biodegradable", but not "readily biodegradable", and they may be moderately persistent, particularly in anaerobic conditions. 31 % (28d, Exxon 1995) 		

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Residual oils (petroleum,) solvent-refined (64)	Residual oils (petroleum,) solvent-refined (64742-01-4)		
Bioaccumulative potential	The test methods for this endpoint are not applicable to UVCB substances.		
Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched)			
Log Kow	5,14 (25°C)		
Reaction Products of alcohols, C14-18, C18 unsat., esterified with phosphorus pentoxide and salted with amines, C12- 14,-tert-alkyl			
Bioconcentration factor (BCF REACH)	1,9 (0,1d)		
Log Kow	8 (0,1d)		
C16-18-(even numbered, saturated and unsaturated)-alkylamines (1213789-63-9)			
Bioconcentration factor (BCF REACH)	> 500		
Reaction product of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and phenol, heptyl derivatives			
Bioconcentration factor (BCF REACH)	9,4 (0,1d)		
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 Rotra MP/S 80W-90			
Mobility in soil	Not determined		
Ecology - soil	No data available.		
Residual oils (petroleum,) solvent-refined (64742-01-4)			
Ecology - soil	The test methods for this endpoint are not applicable to UVCB substances.		
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 Rotra MP/S 80W-90			

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII
This substance/mixture does not meet the r br chiena of REAOT regulation, annex Am

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

Component

Residual oils (petroleum,) solvent-refined (64742-01-	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII
4)	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)

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Component			
Reaction products of bis(4-methylpentan-2- yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched)	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)		
C16-18-(even numbered, saturated and unsaturated)- alkylamines (1213789-63-9)	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)		
Reaction product of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and phenol, heptyl derivatives	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		
Mineral base oil, severely refined (light) (64741-89-5)	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)		
Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)	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)		
12.6. Endocrine disrupting properties			
Adverse effects on the environment caused by : endocrine disrupting properties	The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %.		
Component			
Reaction product of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and phenol, heptyl derivatives	The substance is identified for having endocrine disrupting properties but there is no additional data available		
12.7. Other adverse effects			
Other adverse effects : Additional information :	None. This product has no specific properties for inhibition of bacterial activity. In any case, wastewater containing this product should be treated in plants that are suited for the specific purpose.		

SECTION 13: Disposal considerations			
13.1. Waste treatment methods			
Waste treatment methods	: Do not dispose of the product, either new or used, by dumping on the ground, or discharging into sewers, tunnels, lakes or water courses. Deliver to a qualified official collector.		
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.		
Additional information	: Empty containers may contain combustible product residues. Do not cut, weld, bore, burn or incinerate emptied containers, unless they have been cleaned and declared safe.		

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Ecology - waste materials

EURAL code (EWC)

: The product as it is does not contain halogenated substances.

: 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 ΙΑΤΑ ADN RID 14.1. UN number or ID number UN 3082 UN 3082 UN 3082 UN 3082 UN 3082 14.2. UN proper shipping name ENVIRONMENTALLY ENVIRONMENTALLY Environmentally hazardous ENVIRONMENTALLY ENVIRONMENTALLY HAZARDOUS HAZARDOUS substance, liquid, n.o.s. HAZARDOUS HAZARDOUS SUBSTANCE, LIQUID. SUBSTANCE, LIQUID. SUBSTANCE, LIQUID. SUBSTANCE, LIQUID. N.O.S. N.O.S. N.O.S. N.O.S. Transport document description UN 3082 UN 3082 UN 3082 Environmentally UN 3082 UN 3082 ENVIRONMENTALLY ENVIRONMENTALLY hazardous substance. ENVIRONMENTALLY ENVIRONMENTALLY HAZARDOUS HAZARDOUS liquid. n.o.s. (C16-18-(even HAZARDOUS HAZARDOUS SUBSTANCE, LIQUID, SUBSTANCE, LIQUID, numbered, saturated and SUBSTANCE, LIQUID, SUBSTANCE, LIQUID, N.O.S. (C16-18-(even N.O.S. (C16-18-(even unsaturated)-alkylamines; N.O.S. (C16-18-(even N.O.S. (C16-18-(even numbered, saturated and numbered, saturated and Reaction products of bis(4numbered, saturated and numbered, saturated and unsaturated)-alkylamines; unsaturated)-alkylamines; methylpentan-2unsaturated)-alkylamines; unsaturated)-alkylamines; Reaction products of bis(4-Reaction products of bis(4yl)dithiophosphoric acid Reaction products of bis(4-Reaction products of bis(4methylpentan-2methylpentan-2with phosphorus oxide, methylpentan-2methylpentan-2yl)dithiophosphoric acid yl)dithiophosphoric acid propylene oxide and yl)dithiophosphoric acid yl)dithiophosphoric acid with phosphorus oxide, with phosphorus oxide, amines, C12-14-alkyl with phosphorus oxide, with phosphorus oxide, propylene oxide and (branched)), 9, III propylene oxide and propylene oxide and propylene oxide and amines, C12-14-alkyl amines, C12-14-alkyl amines, C12-14-alkyl amines, C12-14-alkyl (branched)), 9, III, MARINE (branched)), 9, III, (-) (branched)), 9, III (branched)), 9, III POLLUTANT 14.3. Transport hazard class(es) 9 9 9 9 9 14.4. Packing group ш Ш Ш Ш Ш 14.5. Environmental hazards Dangerous for the environment: Yes environment: Yes environment: Yes environment: Yes environment: Yes Marine pollutant: Yes None. 14.6. Special precautions for user

Overland transport

e renanna a anopert	
Transport regulations (ADR)	: Subject to the provisions
Classification code (UN)	: M6
Special provisions (ADR)	: 274, 335, 375, 601
Limited quantities (ADR)	: 51
Excepted quantities (ADR)	: E1
Packing instructions (ADR)	: P001, IBC03, LP01, R001

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Mixed packing provisions (ADR) Portable tank and bulk container instructions (ADR) Portable tank and bulk container special provisions (ADR)	:	MP19 T4 TP1, TP29
Tank code (ADR)	:	LGBV
Vehicle for tank carriage	:	AT
Transport category (ADR)	:	3
Special provisions for carriage - Packages (ADR)	:	V12
Special provisions for carriage - Loading, unloading	:	CV13
and handling (ADR)		
Hazard identification number (Kemler No.)	:	90
Orange plates	:	00



: Subject to the provisions

: Subject to the provisions

: 274, 335, 375, 601

: M6

: 5 L

: E1 : PP

: 0

: 274, 335, 969

1 -

: 5 L : E1 : LP01, P001 : IBC03 : T4 : TP1, TP29 : F-A : S-F : A

Tunnel restriction code

Transport by sea

Transport regulations (IMDG)		
Special provisions (IMDG)		
Limited quantities (IMDG)		
Excepted quantities (IMDG)		
Packing instructions (IMDG)		
IBC packing instructions (IMDG)		
Tank instructions (IMDG)		
Tank special provisions (IMDG)		
EmS-No. (Fire)		
EmS-No. (Spillage)		
Stowage category (IMDG)		

Air transport

Transport regulations (IATA)	: Subject to the provisions
PCA Excepted quantities (IATA)	: E1
PCA Limited quantities (IATA)	: Y964
PCA limited quantity max net quantity (IATA)	: 30kgG
PCA packing instructions (IATA)	: 964
PCA max net quantity (IATA)	: 450L
CAO packing instructions (IATA)	: 964
CAO max net quantity (IATA)	: 450L
Special provisions (IATA)	: A97, A158, A197, A215
ERG code (IATA)	: 9L

Inland waterway transport

Transport regulations (ADN) Classification code (ADN) Special provisions (ADN) Limited quantities (ADN) Excepted quantities (ADN) Equipment required (ADN) Number of blue cones/lights (ADN)

Rail transport

Transport regulations (RID)	:	Subject to the provisions
Classification code (RID)	:	M6
Special provisions (RID)	:	274, 335, 375, 601
Limited quantities (RID)	:	5L
Excepted quantities (RID)	:	E1
Packing instructions (RID)	:	P001, IBC03, LP01, R001
Mixed packing provisions (RID)	:	MP19
Portable tank and bulk container instructions (RID)	:	Τ4
Portable tank and bulk container special provisions	:	TP1, TP29
(RID)		

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Tank codes for RID tanks (RID)	: LGBV
Transport category (RID)	: 3
Special provisions for carriage – Packages (RID)	: W12
Special provisions for carriage - Loading and	: CW13, CW31
unloading (RID)	
Colis express (express parcels) (RID)	: CE8
Hazard identification number (RID)	: 90

14.7. Maritime transport in bulk according to IMO instruments

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

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

REACH Annex XVII (Restriction List)

EU restriction list (REA	U restriction list (REACH Annex XVII)		
Reference code	Applicable on	Entry title or description	
3(a)	Reaction product of 1,3,4- thiadiazolidine-2,5- dithione, formaldehyde and phenol, heptyl derivs.	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 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F	
3(b)	Reaction products of bis(4-methylpentan-2- yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched) ; C16-18- (even numbered, saturated and unsaturated)-alkylamines ; Reaction product of 1,3,4-thiadiazolidine-2,5- dithione, formaldehyde and phenol, heptyl derivs.	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	

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EU restriction list (REACH Annex XVII)		
Reference code	Applicable on	Entry title or description
3(c)	Eni Rotra MP/S 80W-90 ; Reaction products of bis(4-methylpentan-2- yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched) ; Reaction Products of alcohols, C14-18, C18 unsat., esterified with phosphorus pentoxide and salted with amines, C12-14,-tert-alkyl ; C16-18-(even numbered, saturated and unsaturated)-alkylamines ; Reaction product of 1,3,4-thiadiazolidine-2,5- dithione, formaldehyde and phenol, heptyl derivs.	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
40.	Reaction product of 1,3,4- thiadiazolidine-2,5- dithione, formaldehyde and phenol, heptyl derivs.	Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or not.

REACH Annex XIV (Authorisation List)

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

REACH Candidate List (SVHC)

Contains substance(s) listed on the REACH Candidate List in concentrations \geq 0.1 % or SCL: Reaction product of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and phenol, heptyl derivs. (EC 939-460-0)

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)

Seveso Directive (Disaster Risk Reduction)

Seveso Additional information

: E2

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.

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Finland

Finnish National Regulations

: Occupational Safety and Health Act No. 738/2002.

France			
Maladies professionelles (F)			
Code	Description		
RG 36	Diseases caused by oils and fats of mineral or synthetic origin		
Germany			
Employment restrictions National Rules and Recomn	nendations	 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. 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 500: Protective measures. TRGS 555: Working instruction and information for workers. TRGS 800: Fire protection measures. TRGS 900: Occupational Exposure Limits. TRGS 905: List of mutagenic, carcinogenic or teratogenic substances. 	
VbF class (D)		: Not applicable.	
Water hazard class (WGK) (WGK remark	(D)	 WGK 3, Highly hazardous to water (Classification according to AwSV, Annex 1). 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 (BGBI 2017, Teil I, Nr. 22, Seite 905). 	
Storage class (LGK, TRGS Hazardous Incident Ordinan	,	 : LGK 10 - Combustible liquids. : Is not subject of the Hazardous Incident Ordinance (12. BImSchV) 	
Netherlands			
Saneringsinspanningen SZW-lijst van kankerverwek SZW-lijst van mutagene stol SZW-lijst van reprotoxische SZW-lijst van reprotoxische Vruchtbaarheid SZW-lijst van reprotoxische	ffen stoffen – Borstvoeding stoffen –	 C - Minimize discharge None of the components are listed 	
Denmark			
Danish National Regulations	3	: 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	
Norway			
Norwegian National Regulat	lions	: Working Environment Act (LOV-2005-06-17 NO. 62). People under the age of 18 may not work with this product at all.	
Sweden			
Swedish National Regulation	ns	 This product is in compliance with Ordinance 1998:944. Work Environment Act (1977: 1160). Chemical Hazards in the Working Environment (AFS 2011:19). 	
15.2. Chemical safety a	ssessment		

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

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

Residual oils (petroleum,) solvent-refined

Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched) Reaction Products of alcohols, C14-18, C18 unsat., esterified with phosphorus pentoxide and salted with amines, C12-14,-tert-alkyl C16-18-(even numbered, saturated and unsaturated)-alkylamines

Reaction product of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and phenol, heptyl derivs.

Distillates (petroleum), solvent-refined light paraffinic

SECTION 16: Other information

Indication of changes			
Section	Changed item	Change	Notes
	First issue.		

Abbreviations	and acronyms:		
	Complete text of the H phrases quoted in this Safety Data Sheet. These phrases are reported here for information only, and MAY NOT correspond to the classification of the product.		
	N/D = not available		
	N/A = not applicable		
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways		
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road		
ATE	Acute Toxicity Estimate		
BCF	Bioconcentration factor		
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008		
DMEL	Derived Minimal Effect level		
DNEL	Derived-No Effect Level		
EC50	Effective concentration for 50 percent of test population (median effective concentration)		
IARC	International Agency for Research on Cancer		
IATA	International Air Transport Association		
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		

Safety Data Sheet

Abbreviations and acronyms:		
vPvB	Very Persistent and Very Bioaccumulative	
Data sources	: This Safety Data Sheet is based on the real characteristics of the components and their combination, taking into account the information provided by the suppliers.	
Training advice	 Provide adequate training to professional operators for the use of PPEs, according to the information contained in this Safety Data Sheet. 	
Other information	Do not use the product for any purposes that have not been advised by the manufacturer. In exceptional cases (i.e prolonged storage in tanks contaminated with water, and presence of anaerobic sulfate-reducing microbial colonies), the product may undergo a degradation and generate small amounts of sulfur compounds, including H2S. This situation is especially relevant in all those circumstances which require to enter a confined space, with direct exposure to the vapours. 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. If this possibility is suspected, a specific assessment of inhalation risks from the presence of H2S in confined spaces must be made, to help determine prevention measures and controls (i.e. PPE) appropriate to local circumstances, and adequate emergency procedures. This situation is especially relevant for those operations which involve direct exposure to the vapours in the interior of tanks or other confined spaces. Therefore, it is very important to follow the above mentioned precautionary measures also with used oils.	

Full text of H- and E	UH-statements:		
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4		
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1		
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1		
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2		
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3		
Asp. Tox. 1	Aspiration hazard, Category 1		
EUH208	Contains Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched), Reaction product of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and phenol, heptyl derivs May produce an allergic reaction.		
Eye Dam. 1	Serious eye damage/eye irritation, Category 1		
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2		
Flam. Liq. 3	Flammable liquids, Category 3		
H226	Flammable liquid and vapour.		
H302	Harmful if swallowed.		
H304	May be fatal if swallowed and enters airways.		
H314	Causes severe skin burns and eye damage.		
H315	Causes skin irritation.		
H317	May cause an allergic skin reaction.		
H318	Causes serious eye damage.		
H319	Causes serious eye irritation.		
H335	May cause respiratory irritation.		
H373	May cause damage to organs through prolonged or repeated exposure.		
H400	Very toxic to aquatic life.		
H410	Very toxic to aquatic life with long lasting effects.		

Safety Data Sheet

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

Full text of H- and EUH-statements:			
H411	Toxic to aquatic life with long lasting effects.		
H412	Harmful to aquatic life with long lasting effects.		
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B		
Skin Irrit. 2	Skin corrosion/irritation, Category 2		
Skin Sens. 1	Skin sensitisation, Category 1		
Skin Sens. 1B	Skin sensitisation, category 1B		
STOT RE 2	Specific target organ toxicity – Repeated exposure, Category 2		
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation		

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]		
Aquatic Chronic 2	H411	Calculation method

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.