Eni Grease CSX 2 TA

Safety Data Sheet

SDS EU format according to COMMISSION REGULATION (EU) 2020/878
Revision date: 11/10/2022 Supersedes: 09/06/2022 Version: 3.0

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

1.1. Product identifier

Product form	:	Mixture
Trade name	:	Eni Grease CSX 2 TA
Product code	:	4798
Type of product	:	Lubricant grease
Formula	:	1110-2022
Product group	:	Trade product

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

1.2.1. Relevant identified uses

Main use category	:	Professional use,Industrial use
Industrial/Professional use spec	:	Used in closed systems Wide dispersive use
Use of the substance/mixture	:	General purpose 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 S.p.A., P.le E. Mattei 1, 00144 Rom, ITALY, Tel. +39 06 59821, www.eni.com
Competent person responsible for the safety data sheet (Reg. EC nr. 1907/2006): SDSInfo@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]

Not classified

Adverse physicochemical, human health and environmental effects

Slightly irritant to eyes. Prolonged and repeated skin contact may cause reddening, irritation and dermatitis. 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 Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched). 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 : Thermal decomposition generates toxic vapours. Prolonged and repeated skin contact may cause reddening, irritation and dermatitis. In case of contact with eyes, this product may cause irritation. Ingestion may cause nausea, vomiting and diarrhea. May cause long-term adverse effects in the environment. 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. In exceptional cases (i.e prolunged 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 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	
Distillates (petroleum), solvent-refined heavy paraffinic, Baseoil - unspecified (64741-88-4)	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

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	
Distillates (petroleum), solvent-refined heavy paraffinic, Baseoil - unspecified(64741-88-4)	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
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

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Notes : Composition/ Information on ingredients:
Mixture of hydrocarbons
Thickeners
Additives

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [EU-GHS / CLP]
Distillates (petroleum), solvent-refined heavy paraffinic; Baseoil— unspecified; [A complex combination of hydrocarbons obtained as the raffinate from a solvent extraction process. It consists predominantly of saturated 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).] (see note [*])	CAS-No.: 64741-88-4 EC-No.: 265-090-8 EC Index-No.: 649-454-00-7 REACH-no: 01-2119488706-23	50 – 75	Asp. Tox. 1, H304
Residual oils (petroleum), solvent-dewaxed, Baseoil - unspecified (see note [*])	CAS-No.: 64742-62-7 EC-No.: 265-166-0 EC Index-No.: 649-471-00-X REACH-no: 01-2119480472-38	35 – 50	Not classified
2-methylpentane-2,4-diol	CAS-No.: 107-41-5 EC-No.: 203-489-0 EC Index-No.: N/A REACH-no: 01-2119539582-35	< 5	Skin Irrit. 2, H315 Eye Irrit. 2, H319
Alkaryl amine	CAS-No.: Supplier confidential EC-No.: Supplier confidential EC Index-No.: N/D REACH-no: N/D	< 5	Aquatic Chronic 4, H413
Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched)	EC-No.: 931-384-6 REACH-no: 01-2119493620-38	< 5	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318 Skin Sens. 1B, H317 Aquatic Chronic 2, H411
C16-18-(even numbered, saturated and unsaturated)-alkylamines	CAS-No.: 1213789-63-9 EC-No.: 627-034-4 EC Index-No.: N/A REACH-no: 01-2119473797-19	< 5	Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT SE 3, H335 STOT RE 2, H373 Asp. Tox. 1, H304 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=10)
Diphenylamine	CAS-No.: 122-39-4 EC-No.: 204-539-4 EC Index-No.: 612-026-00-5 REACH-no: N/D	< 5	Acute Tox. 3 (Inhalation), H331 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Oral), H301 STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

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)	EC-No.: 931-384-6 REACH-no: 01-2119493620-38	(9,39 <C ≤ 100) Skin Sens. 1B, H317 (50 <C ≤ 100) Eye Irrit. 2, H319

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

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

SECTION 4: First aid measures

4.1. Description of first aid measures

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

First-aid measures after skin contact : Take off contaminated clothing and shoes. Wash thoroughly with soap and water. If skin irritation occurs: Get medical advice/attention.

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

First-aid measures after ingestion : Do not induce vomiting to avoid aspiration into the lungs. If the person is conscious, rinse mouth with water without swallowing. Keep at rest. Call for medical assistance or bring to an hospital. If the casualty is inconscious, 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 : None under normal conditions at ambient temperatures.

Symptoms/effects after skin contact : Prolonged and repeated skin contact may cause reddening, irritation and dermatitis. Contact with hot product may cause thermal burns.

Symptoms/effects after eye contact : Contact with eyes may cause a light transient irritation. Contact with hot product or vapours may cause burns.

Symptoms/effects after ingestion : Accidental ingestion of small quantities of the product may cause irritation, nausea and gastric disturbances. Taking into account the taste of the product, however, ingestion of dangerous quantites is very unlikely.

Symptoms/effects upon intravenous administration : No information available.

Chronic symptoms : None known.

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

Obtain medical attention if casualty has an altered state of consciousness or if symptoms do not resolve. Seek medical attention in all cases of serious burns.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Dry chemical, CO2, or water spray or regular foam. Other extinguishing gases (according to regulations).

Unsuitable extinguishing media : Do not use a heavy water stream. Use water stream to cool containers.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Flammable aerosols are released in thermal decomposition.

Explosion hazard : No direct explosion hazard.

Hazardous decomposition products in case of fire : Incomplete combustion will generate poisonous carbon monoxide, carbon dioxide and other toxic gases. Oxygenated compounds (aldehydes, etc.).

5.3. Advice for firefighters

Firefighting instructions : Shut off source of product, if possible. Move undamaged containers from immediate hazard area if it can be done safely. Use water sprays to cool containers and surfaces exposed to the flames. If the fire cannot be controlled, evacuate area.

Special protective equipment for firefighters : Personal protection equipment for firefighters (see also sect. 8). EN 443. EN 469. EN 659. 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.

Other information : In case of fire, do not discharge residual product, waste materials and runoff water: collect separately and use a proper treatment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

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

6.1.1. For non-emergency personnel

Protective equipment : See Section 8.

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

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. Personal protective equipment Standard EN 469 - Protective clothing for firefighters. Standard - EN 659: Protective gloves for firefighters. If contact with hot product is possible or anticipated, gloves should be heat-resistant and thermally insulated. Antistatic non-skid safety shoes or boots, chemical resistant, if necessary heat resistant and insulated. Work helmet. Goggles and /or face shield, if splashes or contact with eyes is possible or anticipated. Respiratory protection: a half or full-face respirator with filter(s) for organic vapours (AX), or a Self-contained Breathing Apparatus (SCBA) can be used according to the extent of spill and predictable amount of exposure. A Self Contained Breathing Apparatus (SCBA) can be used according to the extent of spill and predictable amount of exposure. If the situation cannot be completely assessed, or if an oxygen deficiency is possible, only SCBA's should be used.

Emergency procedures : Notify local authorities according to relevant regulations.

6.2. Environmental precautions

Prevent product from entering sewers, rivers or other bodies of water. In case of contamination of environment compartments (soil, subsoil, surface or underground waters), remove contaminated soil when possible, and in any case treat all involved compartments in accordance with local regulations. The site should have a spill plan to ensure that adequate safeguards are in place to minimize the impact of episodic releases.

6.3. Methods and material for containment and cleaning up

For containment : Contain spilled liquid with sand, earth or other suitable absorbents (non-flammable). Recover free liquid and waste materials in suitable waterproof and oil-resistant containers. Clean contaminated area. Dispose of according to local regulations. Transfer collected product and other contaminated materials to suitable containers for recovery or safe disposal.

Other information : Recommended measures are based on the most likely spillage scenarios for this material; however, local conditions (wind, air temperature, wave/current direction and speed) may significantly influence the choice of appropriate actions. Local regulations may also prescribe or limit actions to be taken. For this reason, local experts should be consulted when necessary.

6.4. Reference to other sections

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

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : This material is combustible, but will not ignite readily. 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 contact with skin, eyes and clothing. Do not use compressed air for filling, discharging, or handling operations. Keep away from heat/sparks/open flames/hot surfaces. Use and store only outdoors or in a well-ventilated area. Emptied containers can contain combustible product residues. Do not cut, weld, drill, burn or incinerate empty containers or drums, unless they have been drained and cleaned.

Hygiene measures : Ensure that proper housekeeping measures are in place. 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. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Separate working clothes from town clothes. Launder separately.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in dry, well ventilated area. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not smoke.

Incompatible products : Keep away from: strong oxidants.

Storage area : Storage area layout, tank design, equipment and operating procedures must comply with the relevant European, national or local legislation. Storage installations should be designed with adequate bunds so as to prevent ground and water pollution in case of leaks or spills. Cleaning, inspection and maintenance of internal structure of storage tanks must be done only by properly equipped and qualified personnel as defined by national, local or company regulations.

Packages and containers: : If the product is supplied in containers: Keep containers tightly closed and properly labelled. Keep only in the original container or in a suitable container for this kind of product.

Packaging materials : For containers, or container linings use materials specifically approved for use with this product.

7.3. Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

Distillates (petroleum), solvent-refined heavy paraffinic; Baseoil— unspecified; [A complex combination of hydrocarbons obtained as the raffinate from a solvent extraction process. It consists predominantly of saturated 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).] (64741-88-4)	
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)

Distillates (petroleum), solvent-refined heavy paraffinic; Baseoil— unspecified; [A complex combination of hydrocarbons obtained as the raffinate from a solvent extraction process. It consists predominantly of saturated 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).] (64741-88-4)	
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)
United Kingdom - Occupational Exposure Limits	
WEL TWA (OEL TWA) [1]	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)

Residual oils (petroleum), solvent-dewaxed, Baseoil - unspecified (64742-62-7)	
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)
United Kingdom - Occupational Exposure Limits	
WEL TWA (OEL TWA) [1]	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)

Residual oils (petroleum), solvent-dewaxed, Baseoil - unspecified (64742-62-7)	
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)

2-methylpentane-2,4-diol (107-41-5)	
Austria - Occupational Exposure Limits	
MAK (OEL TWA)	49 mg/m³
MAK [ppm]	10 ppm
MAK (OEL STEL)	49 mg/m³
MAK Short time value [ppm]	10 ppm
Belgium - Occupational Exposure Limits	
OEL TWA	123 mg/m³
Limit value [ppm]	25 ppm
Denmark - Occupational Exposure Limits	
OEL TWA [1]	125 mg/m³
OEL TWA [2]	25 ppm
OEL STEL	125 mg/m³
Grænseværdi (kortvarig) (ppm)	25 ppm
Finland - Occupational Exposure Limits	
HTP (OEL TWA) [1]	120 mg/m³
HTP (OEL TWA) [2]	25 ppm
HTP (OEL STEL)	200 mg/m³
HTP-arvo (15 min) (ppm)	40 ppm
France - Occupational Exposure Limits	
VLE [mg/m³]	125 mg/m³
VLE [ppm]	25 ppm
Germany - Occupational Exposure Limits (TRGS 900)	
AGW (OEL TWA) [1]	49 mg/m³
AGW (OEL TWA) [2]	10 ppm
Limitation of exposure peaks (mg/m³)	98 mg/m³
Limitation of exposure peaks (ppm)	20 ppm
Ireland - Occupational Exposure Limits	
OEL (15 min ref) (mg/m3)	125 mg/m³
OEL (15 min ref) (ppm)	25 ppm
Poland - Occupational Exposure Limits	
NDSP (mg/m³)	121 mg/m³ Ceiling value
Spain - Occupational Exposure Limits	
VLA-EC (mg/m³)	123 mg/m³
VLA-EC (ppm)	25 ppm

2-methylpentane-2,4-diol (107-41-5)	
Sweden - Occupational Exposure Limits	
KTV (OEL STEL)	120 mg/m³
KTV (OEL STEL) [ppm]	25 ppm
United Kingdom - Occupational Exposure Limits	
WEL TWA (OEL TWA) [1]	123 mg/m³
WEL TWA (OEL TWA) [2]	25 ppm
WEL STEL (OEL STEL)	123 mg/m³
WEL STEL (OEL STEL) [ppm]	25 ppm
Switzerland - Occupational Exposure Limits	
MAK (OEL TWA) [1]	49 mg/m³
MAK (OEL TWA) [2]	10 ppm
VLE [mg/m³]	98 mg/m³
VLE [ppm]	20 ppm
USA - ACGIH - Occupational Exposure Limits	
ACGIH TLV®-STEL Ceiling (ppm)	25 ppm

Diphenylamine (122-39-4)	
Austria - Occupational Exposure Limits	
MAK (OEL TWA)	< 5 mg/m³
MAK [ppm]	0,7 ppm
MAK (OEL STEL)	10 mg/m³
MAK Short time value [ppm]	1,4 ppm
Belgium - Occupational Exposure Limits	
OEL TWA	10 mg/m³
Denmark - Occupational Exposure Limits	
OEL TWA [1]	5 mg/m³
France - Occupational Exposure Limits	
VLE [mg/m³]	10 mg/m³
Germany - Occupational Exposure Limits (TRGS 900)	
AGW (OEL TWA) [1]	5 mg/m³ (Inhalable aerosol)
Limitation of exposure peaks (mg/m³)	10 mg/m³ (Inhalable aerosol)
Ireland - Occupational Exposure Limits	
OEL TWA [1]	20 mg/m³
OEL (15 min ref) (mg/m3)	10 mg/m³
Spain - Occupational Exposure Limits	
VLA-ED (OEL TWA) [1]	10 mg/m³
Sweden - Occupational Exposure Limits	
NGV (OEL TWA)	4 mg/m³
KTV (OEL STEL)	12 mg/m³

Diphenylamine (122-39-4)	
United Kingdom - Occupational Exposure Limits	
WEL TWA (OEL TWA) [1]	10 mg/m³
WEL STEL (OEL STEL)	20 mg/m³
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA	10 mg/m³

8.1.2. Recommended monitoring procedures

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

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

Eni Grease CSX 2 TA	
DNEL/DMEL (additional information)	
Additional information	Not applicable
PNEC (additional information)	
Additional information	Not applicable

Distillates (petroleum), solvent-refined heavy paraffinic; Baseoil— unspecified; [A complex combination of hydrocarbons obtained as the raffinate from a solvent extraction process. It consists predominantly of saturated 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).] (64741-88-4)	
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
PNEC (Oral)	
PNEC oral (secondary poisoning)	9,33 mg/kg food

Residual oils (petroleum), solvent-dewaxed, Baseoil - unspecified (64742-62-7)	
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

Residual oils (petroleum), solvent-dewaxed, Baseoil - unspecified (64742-62-7)	
PNEC (additional information)	
Additional information	Not applicable (UVCB)

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/m³
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/m³
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
PNEC (Oral)	
PNEC oral (secondary poisoning)	10 mg/kg food
PNEC (STP)	
PNEC sewage treatment plant	24,33 mg/l

C16-18-(even numbered, saturated and unsaturated)-alkylamines (1213789-63-9)	
DNEL/DMEL (Workers)	
Acute - local effects, inhalation	1 mg/m³
Long-term - systemic effects, dermal	0,09 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	0,38 mg/m³
Long-term - local effects, inhalation	1 mg/m³
DNEL/DMEL (General population)	
Long-term - systemic effects,oral	40 µg/kg bodyweight/day
Long-term - systemic effects, inhalation	0,035 mg/m³

C16-18-(even numbered, saturated and unsaturated)-alkylamines (1213789-63-9)	
PNEC (Water)	
PNEC aqua (freshwater)	0,26 µg/l
PNEC aqua (marine water)	0,026 µg/l
PNEC aqua (intermittent, freshwater)	1,6 µg/l
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

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

8.1.5. Control banding

No additional information available

8.2. Exposure controls

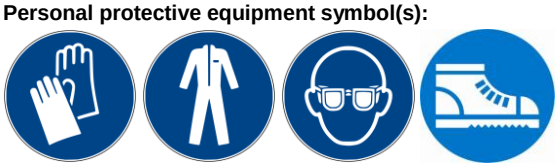
8.2.1. Appropriate engineering controls

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

8.2.2. Personal protection equipment

Personal protective equipment (for industrial or professional use):
Gloves. Protective clothing. Safety glasses. Safety shoes or boots.

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection:
Not required for normal conditions of use. 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:
Non-skid safety shoes or boots, chemical resistant.

Hand protection:
Protective gloves. Adequate materials: nitrile (NBR) or neoprene 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.

Other skin protection

Materials for protective clothing:
Protective apron. DIN EN 465. DIN EN 466

8.2.2.3. Respiratory protection

Respiratory protection:
Independently from other possible actions (technical modifications, operating procedures, and other means to limit the exposure of workers), personal protection equipment can be used according to necessity. Open or well ventilated spaces: in presence of oil mists and if the product is handled without adequate containment means: use full or half-face masks with filter for mists/aerosols. In case there is a significant presence of vapours (e.g. through handling at high temperature), use full or half-face masks with filter for hydrocarbon vapours. (EN 136/140/145). Combination filter device (DIN EN 141). 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)

8.2.2.4. Thermal hazards

Thermal hazard protection:
None in normal use conditions.

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:
Not applicable.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Solid
Colour	:	brown.
Odour	:	characteristic.
Odour threshold	:	There are no data available on the preparation/mixture itself.
Melting point	:	Not determined
Freezing point	:	Not determined
Boiling point	:	Not determined
Flammability	:	Not flammable
Explosive properties	:	None.
Oxidising properties	:	None.
Explosive limits	:	Not determined Not determined
Lower explosion limit	:	Not determined
Upper explosion limit	:	Not determined
Flash point	:	Not determined
Auto-ignition temperature	:	Not determined
Decomposition temperature	:	Not determined
pH	:	There are no data available on the preparation/mixture itself.
pH solution	:	Not available
Viscosity, kinematic	:	Not determined
Solubility	:	insoluble in water. Water: Immiscible and insoluble
Log Kow	:	Not available
Log Pow	:	Not applicable for mixtures
Vapour pressure	:	Not determined
Vapour pressure at 50 °C	:	Not determined
Density	:	Not determined

Relative density	:	Not determined
Relative vapour density at 20 °C	:	Not determined
Particle size	:	Not available
Particle size distribution	:	Not available
Particle shape	:	Not available
Particle aspect ratio	:	Not available
Particle aggregation state	:	Not available
Particle agglomeration state	:	Not available
Particle specific surface area	:	Not available
Particle dustiness	:	Not available

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

Penetration	:	((25°C) (ASTM D 217), Class NLGI: 2)
Drop point / drop range	:	> 300°C (ASTM D 566)

SECTION 10: Stability and reactivity

10.1. Reactivity

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

10.2. Chemical stability

Stable product, according to its intrinsic properties (in normal conditions of storage and handling).

10.3. Possibility of hazardous reactions

None (in normal conditions of storage and handling).

10.4. Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

10.5. Incompatible materials

Strong oxidants.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Thermal decomposition generates : Toxic fumes.

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)

Distillates (petroleum), solvent-refined heavy paraffinic; Baseoil— unspecified; [A complex combination of hydrocarbons obtained as the raffinate from a solvent extraction process. It consists predominantly of saturated 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).] (64741-88-4)

LD50 oral rat	5000 mg/kg bodyweight
LD50 dermal rabbit	2000 – 5000 mg/kg bodyweight
LC50 Inhalation - Rat	2,18 – 5,53 mg/l/4h

Residual oils (petroleum), solvent-dewaxed, Baseoil - unspecified (64742-62-7)	
LD50 oral rat	5000 mg/kg bodyweight
LD50 dermal rabbit	2000 – 5000 mg/kg bodyweight
LC50 Inhalation - Rat	2,18 – 5,53 mg/l/4h

2-methylpentane-2,4-diol (107-41-5)	
LD50 oral rat	2000 mg/kg bodyweight
LD50 dermal rat	2000 mg/kg bodyweight

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

C16-18-(even numbered, saturated 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

Skin corrosion/irritation : Not classified (Based on available data, the classification criteria are not met)
pH: There are no data available on the preparation/mixture itself.

Additional information : (according to composition)

Serious eye damage/irritation : Not classified (Based on available data, the classification criteria are not met)
pH: There are no data available on the preparation/mixture itself.

Additional information : (according to composition)

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

Additional information : (according to composition)

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 : Residual oils (petroleum), solvent-dewaxed; Baseoil— unspecified; [A complex combination of hydrocarbons obtained by removal of ong, branched chain hydrocarbons from a residual oil by solvent crystalli zation. It consists of hydrocarbons having carbon numbers predominantly greater than C25 and boiling above approxi mately 400 °C (752 °F).]
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)

STOT-single exposure : Not classified (Based on available data, the classification criteria are not met)

Additional information : (according to composition)

Residual oils (petroleum), solvent-dewaxed, Baseoil - unspecified (64742-62-7)	
LOAEL (oral, rat)	125 mg/kg bw/day
NOAEL (dermal, rat/rabbit)	1000 – 2000 mg/kg bodyweight
NOAEC (inhalation, rat, vapour)	980 mg/m³

C16-18-(even numbered, saturated and unsaturated)-alkylamines (1213789-63-9)	
STOT-single exposure	May cause respiratory irritation.

STOT-repeated exposure : Not classified (Based on available data, the classification criteria are not met)

Additional information : (according to composition)

2-methylpentane-2,4-diol (107-41-5)	
NOAEL (oral, rat, 90 days)	450 mg/kg bodyweight/day

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

C16-18-(even numbered, saturated and unsaturated)-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.

Diphenylamine (122-39-4)	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard : Not classified (Based on available data, the classification criteria are not met)
Additional information : (according to composition)

Eni Grease CSX 2 TA	
Viscosity, kinematic	Not determined

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 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 %

11.2.2. Other information

Potential adverse human health effects and symptoms : Irritation: may cause irritation to the respiratory system,Contact with eyes may cause temporary reddening and irritation,Prolonged and repeated skin contact may cause reddening, irritation and dermatitis.

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.

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 heavy paraffinic, Baseoil - unspecified (64741-88-4)	
LC50 fish 1	100 mg/l
EC50 Daphnia 1	10 g/l

Residual oils (petroleum), solvent-dewaxed, Baseoil - unspecified (64742-62-7)	
LC50 fish 1	100 mg/l

Residual oils (petroleum), solvent-dewaxed, Baseoil - unspecified (64742-62-7)	
EC50 Daphnia 1	> 1000 mg/l
NOEC chronic crustacea	10 mg/l (Test Organism: Daphnia magna)
2-methylpentane-2,4-diol (107-41-5)	
LC50 fish 1	8,51 – 13,5 g/l
EC50 Daphnia 1	5,41 g/l
EC50 72h - Algae [1]	429 mg/l
Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched)	
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)
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)
Diphenylamine (122-39-4)	
LC50 fish 1	3,79 mg/l (96h; Pimephales promelas)
LC50 fish 2	5,1 mg/l (48h; Oryzias latipes)
EC50 Daphnia 1	2,3 mg/l (24h)
ErC50 (algae)	0,18 mg/l (72h)

12.2. Persistence and degradability

Eni Grease CSX 2 TA	
Persistence and degradability	A fraction of the constituents of the product should be considered as "inherently biodegradable", but not "readily biodegradable", and they may be moderately persistent, particularly in anaerobic conditions.

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)

C16-18-(even numbered, saturated and unsaturated)-alkylamines (1213789-63-9)	
Persistence and degradability	Readily biodegradable.
Biodegradation	66 % (28d) (OECD 301B)

Diphenylamine (122-39-4)	
Biodegradation	26 % (28d)

12.3. Bioaccumulative potential

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

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)

C16-18-(even numbered, saturated and unsaturated)-alkylamines (1213789-63-9)	
Bioconcentration factor (BCF REACH)	> 500
Log Kow	4,33

12.4. Mobility in soil

Eni Grease CSX 2 TA	
Ecology - soil	Product adsorbs onto the soil.

12.5. Results of PBT and vPvB assessment

Eni Grease CSX 2 TA	
This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII	
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII	
Results of PBT-vPvB assessment	The components in this formulation do not meet the criteria for classification as PBT or vPvB. The product should be considered prudentially as "Persistent" in the environment, according to the REACH Annex XIII criteria (point 1.1)

Component	
Distillates (petroleum), solvent-refined heavy paraffinic, Baseoil - unspecified (64741-88-4)	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)

Component	
Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched)	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 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 %

12.7. Other adverse effects

Other adverse effects : None
Additional information : No other effects known

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Do not dispose of the product, either new or used, by discharging into sewers, tunnels, lakes or water courses. Deliver to a qualified official collector.

Sewage disposal recommendations : Do not apply industrial sludge to natural soils. Sludge should be incinerated, contained or reclaimed. Dispose of in a safe manner in accordance with local/national regulations.

Product/Packaging disposal recommendations : European Waste Catalogue code(s) (Decision 2001/118/CE): 13 08 99* (oil wastes not otherwise specified - wastes not otherwise specified). This EWC code is only a general indication, and takes into account the original composition of the product and its intended use. The user has the responsibility of choosing the right EWC code, considering the actual use of the product, alterations and contaminations.

Additional information : Empty containers may contain combustible product residues. Do not cut, weld, drill, burn or incinerate empty containers or drums, unless they have been cleaned, and declared safe.

Ecology - waste materials : The product as it is does not contain halogenated substances.

EURAL code (EWC) : 13 08 99* - wastes not otherwise specified

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	Not regulated	Not regulated	Not regulated	Not regulated
14.2. UN proper shipping name				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
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

ADR	IMDG	IATA	ADN	RID
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

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

EU restriction list (REACH Annex XVII)

Reference code	Applicable on	Entry title or description
3(b)	Distillates (petroleum), solvent-refined heavy paraffinic; Baseoil—unspecified; [A complex combination of hydrocarbons obtained as the raffinate from a solvent extraction process. It consists predominantly of saturated 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).] ; 2-methylpentane-2,4-diol ; 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	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)	Alkaryl amine ; 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	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

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

Contains no REACH Annex XIV substances

Substances subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 july 2012 concerning the export and import of hazardous chemicals: Diphenylamine (122-39-4)

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

Contains no substance subject to REGULATION (EU) No 1005/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 September 2009 on substances that deplete the ozone layer.

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

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 (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC. Regulation EU (649/2012) - Export and Import of hazardous chemicals (PIC).

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on drug precursors)

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.
Water hazard class (WGK) (D)	:	WGK 3, Highly hazardous to water (Classification according to AwSV, Annex 1)
WGK remark	:	Classification based on the components in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS)
Hazardous Incident Ordinance (12. BImSchV)	:	Is not subject of the Hazardous Incident Ordinance (12. BImSchV)
National Rules and Recommendations	:	TRGS 900: Occupational Exposure Limits TRGS 800: Fire protection measures TRGS 555: Working instruction and information for workers TRGS 402: Identification and Assessment of the Risks from Activities involving Hazardous Substances: Inhalation Exposure TRGS 401: Risks resulting from skin contact - identification, assessment, measures TRGS 400: Hazard assessment for activities involving Hazardous Substances TRGS 905: List of mutagenic, carcinogenic or teratogenic substances
Storage class (LGK, TRGS 510)	:	LGK 11 - Combustible solids
VbF class (D)	:	Not applicable.

Netherlands

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

Denmark

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

Switzerland
Storage class (LK) : NG - Non-hazardous

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::
Residual oils (petroleum), solvent-dewaxed, Baseoil - unspecified
2-methylpentane-2,4-diol
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

SECTION 16: Other information

Indication of changes

Section	Changed item	Change	Notes
1.1	Formula	Modified	
1.1	UFI	Removed	
2.1	Classification according to Regulation (EC) No. 1272/2008 [EU-GHS / CLP]	Removed	
2.2	EUH-statements	Added	
3	Composition/information on ingredients	Modified	
9.1	Colour	Modified	
9.1	Physical state	Modified	
9.1	Explosive limits (vol %)	Added	
9.1	Relative density	Modified	
9.1	Melting point	Modified	
9.1	Viscosity, kinematic	Modified	
9.1	Flash point	Modified	
15.1	Water hazard class (WGK) (D)	Modified	

Abbreviations and acronyms:

	N/A = not applicable
	N/D = not available
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC50	Effective concentration for 50 percent of test population (median effective concentration)
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods

Abbreviations and acronyms:	
LC50	Lethal concentration for 50 percent of test population (median lethal concentration)
LD50	Lethal dose for 50 percent of test population (median lethal dose)
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals, Regulation (EC) No 1907/2006
RID	Regulation concerning the International Carriage of Dangerous Goods by Railways
SDS	Safety Data Sheet
STP	Sewage treatment plant
vPvB	Very Persistent and Very Bioaccumulative

Data sources : This Safety Data Sheet is based on the real characteristics of the components and their combination, taking into account the information provided by the suppliers.

Training advice : Provide adequate training to professional operators for the use of PPEs, according to the information contained in this Safety Data Sheet.

Other information : Do not use the product for any purposes that have not been advised by the manufacturer.

Full text of H- and EUH-statements:	
Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3
Acute Tox. 3 (Inhalation)	Acute toxicity (inhal.), Category 3
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
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 4	Hazardous to the aquatic environment – Chronic Hazard, Category 4
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). 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
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.

Full text of H- and EUH-statements:	
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
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.
H411	Toxic to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
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

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.