

Safety Data Sheet

According to Regulation (EU) No. 830/2015 Revision date: 13/02/2019 Supersedes: 20/05/2014 Version: 2.0

SECTION 1: Identification of the	e substance/mixture and of the company/undertaking			
1.1. Product identifier				
Product form	: Mixture			
Trade name	: Eni Rotra Truck Gear 80W-90			
Product code	: 1288			
Type of product	: Lubricants			
Formula	: 0064-2012			
Product group	: Trade product			
1.2. Relevant identified uses of th	e 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 s	safety data sheet			
ENI S.p.A.				
P.le E. Mattei 1 - 00144 Rome Italy				
Phone: (+39) 06 59821				
www.eni.com				
Contact:				
Refining & Marketing				
Competent person responsible for the Sat	fety Data Sheet (Reg. EC nr. 1907/2006): SDSInfo@eni.com			
· · ·				
1.4. Emergency telephone numbe	r			
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)			

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Skin sensitisation, Category 1 H317

Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

Prolonged and repeated skin contact may cause reddening, irritation and dermatitis. May cause sensitization by skin contact. Contact with eyes may cause temporary reddening and irritation. For specific information about the toxicological/ecotoxicological properties and classification of this product, see Sect. 11 and/or Sect. 12.

(Source: UN-WHO)

Safety Data Sheet

According to Regulation (EU) No. 830/2015

2.2. Label elements	
Labelling according to Regulation (EC) No.	1272/2008 [CLP]
Hazard pictograms (CLP)	: GHS07
CLP Signal word	: Warning
Hazardous ingredients and/or with relevant occupational exposure limits	 Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched); Polysulfides, di-tert-Butyl; Magnesium metaborate
Hazard statements (CLP)	: H317 - May cause an allergic skin reaction.
Precautionary statements (CLP)	 P101 - If medical advice is needed, have product container or label at hand. P102 - Keep out of reach of children. P261 - Avoid breathing vapours, mist, spray. P272 - Contaminated work clothing should not be allowed out of the workplace. P280 - Wear protective gloves. P333+P313 - If skin irritation or rash occurs, get medical advice/attention. P362+P364 - Take off contaminated clothing and wash before reuse. P501 - Dispose of contents and container to according to national or local regulations.
2.3. Other hazards (not relevant for cla	assification)
Other hazards not contributing to the	: This product is combustible, but not classified as Flammable. The creation of flammable

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. An 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. A potential risk may arise from the release of hydrogen sulfide, when the product is stored or handled at high temperature. Hydrogen sulfide may accumulate in the tanks or other confined spaces, with danger to the workers that enter the spaces. In these cases overexposure to hydrogen sulfide may cause irritation to airways, nausea, dizziness, los of consciousness and death.
This substance/mixture does not meet the PBT of	riteria of REACH regulation, annex XIII

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

SECTION 3: Composition/information on ingredients

3.1.	Substances

Not applicable

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3.2. Mixtures
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Notes
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: Composition/ Information on ingredients: Mixture of hydrocarbons Additives

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [EU-GHS / CLP]
Residual oils (petroleum,) solvent-refined (see note [**])	(CAS-No.) 64742-01-4 (EC-No.) 265-101-6 (EC Index-No.) 649-459-00-4 (REACH-no) 01-2119488707-21	50 - 60	Not classified
Lubricating oils (petroleum), C24-50, solvent-extd., dewaxed, hydrogenated (see note [**])	(CAS-No.) 101316-72-7 (EC-No.) 309-877-7 (EC Index-No.) 649-530-00-X (REACH-no) 01-2119489969-06-0000	30 - 40	Not classified
Polysulfides, di-tert-Butyl (Additive)	(CAS-No.) 68937-96-2 (EC-No.) 273-103-3 (EC Index-No.) N/A (REACH-no) 01-2119540515-43	1 - 4	Skin Sens. 1B, H317 Aquatic Chronic 3, H412
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 (EC Index-No.) N/A (REACH-no) 01-2119493620-38	1 - 2	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Chronic 2, H411
Mineral base oil, severely refined (For identification of the substance, see note [*])		1 - 3	Asp. Tox. 1, H304

Safety Data Sheet

According to Regulation (EU) No. 830/2015

Magnesium metaborate	(CAS-No.) 13703-82-7 (EC-No.) 237-235-5 (EC Index-No.) N/A (REACH-no) 01-2120769073-53	0,1 - 0,5	Skin Sens. 1B, H317
O,O,O-triphenyl phosphorothioate (Additive)	(CAS-No.) 597-82-0 (EC-No.) 209-909-9 (EC Index-No.) N/A (REACH-no) N/D	0,1 - 0,5	Repr. 2, H361 Aquatic Chronic 4, H413
Specific concentration limits:		•	·
Name	Product identifier	Specific cond	centration limits
Polysulfides, di-tert-Butyl (Additive)	(CAS-No.) 68937-96-2 (EC-No.) 273-103-3 (EC Index-No.) N/A (REACH-no) 01-2119540515-43	(46 = <c 100)<="" <="" td=""><td>Skin Sens. 1, H317</td></c>	Skin Sens. 1, H317
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 (EC Index-No.) N/A (REACH-no) 01-2119493620-38	(50 <c 1,="" <="100)" dam.="" eye="" h318<="" td=""></c>	
miner CAS 265-1 Reg. All th Anne Note this p criteri	te: this product may be formulated with al base oils (not classified as hazardous 64742-54-7/EC 265-157-1/REACH Reg 69-7/REACH Reg. # 01-2119471299-2 # 01-2119487080-42-xxxx. ese substances have a value < 3 % wt of x VI Reg (CE) 1272/2008, # 1.1.3) [**]: roduct has a value of DMSO extract < 3 ia laid out by the EU (note L, Annex VI of garded as non carcinogenic.	s): . # 01-21194846 7-xxx; CAS 647 of DMSO extract, : % wt, according	27-25-xxxx; CAS 64742-65-0/EC 42-70-7/EC 265-174-4/REACH according to IP 346/92 (Nota L -

Full text of H-statements: see section 16

SECTION 4: First aid measures	
4.1. Description of first aid measures	
First-aid measures after inhalation	: Remove to fresh air, keep the casualty warm and at rest. If breathing is difficult, give oxygen if possible, or assisted ventilation. If necessary, give external cardiac massage and obtain medical advice. See also section 4.3.
First-aid measures after skin contact	: Remove contaminated clothing and shoes. Wash skin with soap and water. If skin irritation or rash occurs, get medical advice/attention. In case of contact with hot product, cool affected par with plenty of cold water, and cover with gauze or clean cloth. Call a doctor or bring to an hospital. Do not use salves or ointments, unless directed by doctor.
First-aid measures after eye contact	: Remove contact lenses, if present and easy to do so. Rinse eyes thoroughly for at least 15 minutes. Keep eyelids well apart. If irritation persists, seek medical advice. In case of contact with hot product, cool affected part with plenty of cold water, and cover with gauze or clean cloth. Call a doctor or bring to an hospital. Do not use salves or ointments, unless directed by doctor.
First-aid measures after ingestion	: Rinse mouth thoroughly with water. Give water to drink if victim completely conscious/alert. Do not induce vomiting.
4.2. Most important symptoms and effects	s, both acute and delayed
Symptoms/effects after inhalation	Inhalation of fumes or oil mists produced at high temperatures may cause irritation of the respiratory tract. Symptoms of overexposure to vapours include drowsiness, weakness, headache, dizziness, nausea, vomiting, dimming of vision.
Symptoms/effects after skin contact	: Prolonged and repeated skin contact may cause reddening, irritation and dermatitis. May cause sensitization by skin contact. Contact with hot product may cause thermal burns.
Symptoms/effects after eye contact	: Contact with eyes may cause temporary reddening and irritation. Contact with hot product or vapours may cause burns.
Symptoms/effects after ingestion	: Accidental ingestion of small quantities of the product may cause nausea, discomfort and gastric disturbances.
Symptoms/effects upon intravenous administration	: No information available.
Chronic symptoms	: None to be reported, according to the present classification criteria.

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

Obtain medical attention if casualty has an altered state of consciousness or if symptoms do not resolve. Seek medical attention in all cases of serious burns. If there is any suspicion of inhalation of H2S (hydrogen sulphide), Rescuers must wear breathing apparatus, belt and safety rope, and follow rescue procedures. Send patient to hospital. Immediately begin artificial respiration if breathing has ceased. Administer oxygen if necessary.

Safety Data Sheet

According to Regulation (EU) No. 830/2015

According to Regulation (EU) No. 830/2015	
SECTION 5: Firefighting measures	
5.1. Extinguishing media	
Suitable extinguishing media	: Small-size fires: carbon dioxide, dry chemicals, foam, sand or earth. Large fires: foam or wate 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 su	ibstance or mixture
Fire hazard	: This product is combustible, but not classified as Flammable. The creation of flammable vapour mixtures takes place at temperatures which are higher than normal ambient levels.
Explosion hazard	: In case of losses from pressurized circuits, the sprays may form mists. Take into account that i this case the lower explosion limit for mists is about 45 g/m ³ of air. Vapours are heavier than air, spread along floors and form explosive mixtures with air.
Hazardous decomposition products in case of fire	 Incomplete combustion will generate poisonous carbon monoxide, carbon dioxide and other toxic gases. Combustion products include sulphur oxides (SO2 and SO3) and Hydrogen sulphide H2S. Oxygenated compounds (aldehydes, etc.). POx. MgOx.
5.3. Advice for firefighters	
Firefighting instructions	: Shut off source of product, if possible. If possible, move containers and drums away from danger area. 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	Personal protection equipment for firefighters (see also sect. 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 mea	sures
	uipment and emergency procedures
General measures	: Stop or contain leak at the source, if safe to do so. Eliminate all ignition sources if safe to do so (e.g. electricity, sparks, fires, flares). Avoid accidental sprays on hot surfaces or electrical contacts. Avoid direct contact with released material. Keep upwind.
6.1.1. For non-emergency personnel	
Protective equipment	: See Section 8.
Emergency procedures	: Keep non-involved personnel away from the area of spillage. Alert emergency personnel. Except in case of small spillages, the feasibility of any actions should always be assessed and advised, if possible, by a trained, competent person in charge of managing the emergency.
6.1.2. For emergency responders	
Protective equipment	: Standard EN 469 - Protective clothing for firefighters. Standard - EN 659: Protective gloves for firefighters. Small spillages: normal antistatic working clothes are usually adequate. Large spillages: full body suit of chemically resistant and antistatic material. if necessary heat resistant and insulated. Work helmet. Antistatic non-skid safety shoes or boots. Goggles and /or face shield, if splashes or contact with eyes is possible or anticipated. Respiratory protection: A half or full-face respirator with combined dust/organic vapour filter(s), or a Self-Contained Breathing Apparatus (SCBA) can be used according to the extent of spill and predictable amount of exposure. If the situation cannot be completely assessed, or if an oxyger deficiency is possible, only SCBA's should be used.
Emergency procedures	: Notify local authorities according to relevant regulations.
6.2. Environmental precautions	
•	r underground spaces. Do not let the product flow into sewers or water courses, or in any way

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

6.3.	Methods and material for e	containment and cleaning up
For cor	ntainment	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.
Method	ls for cleaning up	: Transfer recovered product and other materials to suitable tanks or containers and store/dispose according to relevant regulations.
01/03/2	019	EN (English) 4/16

Safety Data Sheet

According to Regulation (EU) No. 830/2015

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 stor		
7.1. Precautions for safe handlin	g	
Precautions for safe handling	: This material is combustible, but will not ignite readily. Provide adequate ventilation. Use adequate personal protective equipment as needed. Due to the extremely slippery nature of this material, more care than usual must be exercised in material handling practices to keep off all walking surfaces. Floors, walls and other surfaces in the hazard area must be cleaned regularly. Avoid release to the environment. Emptied containers can contain combustible product residues. Do not cut, weld, drill, burn or incinerate empty containers or drums, unless they have been drained and cleaned. 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".	
Hygiene measures	Avoid contact with skin. Do not breathe fume/ mist/ vapours. Do not ingest. Do not smoke. Do not eat and do not drink during use. Do not clean hands with dirty or oil-soaked rags. Do not reuse 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. Contaminated work clothing should not be allowed out of the workplace. 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 open flames, hot surfaces and sources of ignition. Do not smoke.	
Incompatible products	: Strong oxidizing agents.	
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. Cleanii 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 regulation	
Packages and containers:	: If the product is supplied in containers: Keep containers tightly closed and properly labelled. Keep only in the original container or in a suitable container for this kind of product.	
Packaging materials	: For containers, or container linings use materials specifically approved for use with this product Compatibility should be checked with the manufacturer.	

7.3. Specific end use(s)

SECTION 8: Exposure controls/personal protection					
8.1. Control para	8.1. Control parameters				
Residual oils (petrol	eum,) solvent-refined (64742-01-4)				
Austria	MAK (mg/m³)	5 mg/m ³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)			
Belgium	Limit value (mg/m³)	5 mg/m ³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)			
Denmark	Grænseværdi (langvarig) (mg/m³)	1 mg/m ³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)			
Denmark	Grænseværdi (kortvarig) (mg/m ³)	2 mg/m ³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)			
Hungary	AK-érték	5 mg/m ³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)			
Netherlands	MAC TGG 8h (mg/m³)	5 mg/m ³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)			
Spain	VLA-ED (mg/m³)	5 mg/m ³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)			

Sweden

Spain

VLA-EC (mg/m³)

Nivågränsvärde (NVG) (mg/m3)

10 mg/m³ (Mineral base oil mist, severely refined,

1 mg/m³ (Mineral base oil mist, severely refined,

DMSO extract <3% m/m)

DMSO extract <3% m/m)

No information available.

Safety Data Sheet

According to Regulation (EU) No. 830/2015

Residual oils (petroleur	n,) solvent-refined (64742-01-4)	
Sweden	Kortidsvärde (KTV) (mg/m3)	3 mg/m ³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
United Kingdom	WEL TWA (mg/m³)	5 mg/m ³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
United Kingdom	WEL STEL (mg/m³)	10 mg/m ³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
USA - ACGIH	ACGIH TLV®-TWA (mg/m ³)	5 mg/m ³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
USA - ACGIH	ACGIH TLV®-STEL (mg/m ³)	10 mg/m ³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
Lubricating oils (petrol	eum), C24-50, solvent-extd., dewaxed, hydrogena	ted (101316-72-7)
Austria	MAK (mg/m³)	5 mg/m ³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
Belgium	Limit value (mg/m ³)	5 mg/m ³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
Denmark	Grænseværdi (langvarig) (mg/m³)	1 mg/m ³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
Denmark	Grænseværdi (kortvarig) (mg/m³)	2 mg/m ³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
Hungary	AK-érték	5 mg/m ³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
Netherlands	MAC TGG 8h (mg/m ³)	5 mg/m ³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
Spain	VLA-ED (mg/m³)	5 mg/m ³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
Spain	VLA-EC (mg/m³)	10 mg/m ³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
Sweden	Nivågränsvärde (NVG) (mg/m3)	1 mg/m ³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
Sweden	Kortidsvärde (KTV) (mg/m3)	3 mg/m ³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
United Kingdom	WEL TWA (mg/m³)	5 mg/m ³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
United Kingdom	WEL STEL (mg/m ³)	10 mg/m ³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
Canada (Quebec)	VECD (mg/m ³)	10 mg/m ³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
Canada (Quebec)	VEMP (mg/m ³)	5 mg/m ³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
USA - ACGIH	ACGIH TLV®-TWA (mg/m ³)	5 mg/m ³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
USA - ACGIH	ACGIH TLV®-STEL (mg/m ³)	10 mg/m ³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
USA - NIOSH	NIOSH REL (TWA) (mg/m ³)	5 mg/m ³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
USA - NIOSH	NIOSH REL (STEL) (mg/m ³)	10 mg/m ³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
USA - OSHA	OSHA PEL (TWA) (mg/m ³)	5 mg/m ³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
Mineral base oil, severe	aly refined	
Austria	MAK (mg/m ³)	5 mg/m ³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
Belgium	Limit value (mg/m ³)	5 mg/m ³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
Denmark	Grænseværdi (langvarig) (mg/m ³)	1 mg/m ³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
Denmark	Grænseværdi (kortvarig) (mg/m³)	2 mg/m ³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
Hungary	AK-érték	5 mg/m ³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
Netherlands	MAC TGG 8h (mg/m³)	5 mg/m ³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)

Safety Data Sheet

According to Regulation (EU) No. 830/2015

Mineral base oil, seve	rely refined			
Spain	VLA-ED (mg/m³)		5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	
Spain	VLA-EC (mg/m ³)	10 mg/m ³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	
Sweden	Nivågränsvärde	(NVG) (mg/m3)	1 mg/m ³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	
Sweden	Kortidsvärde (K	ΓV) (mg/m3)	3 mg/m ³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	
United Kingdom	WEL TWA (mg/r	m³)	5 mg/m ³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	
United Kingdom	WEL STEL (mg/	′m³)	10 mg/m ³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	
Canada (Quebec)	VECD (mg/m ³)		10 mg/m ³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	
Canada (Quebec)	VEMP (mg/m ³)		5 mg/m ³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	
USA - ACGIH	ACGIH TLV®-T		5 mg/m ³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	
USA - ACGIH	ACGIH TLV®-S	TEL (mg/m³)	10 mg/m ³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	
USA - NIOSH	NIOSH REL (TV	VA) (mg/m³)	5 mg/m ³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	
USA - NIOSH	NIOSH REL (ST	EL) (mg/m³)	10 mg/m ³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	
USA - OSHA	OSHA PEL (TW	A) (mg/m³)	5 mg/m ³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	
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.		
Eni Rotra Truck Gear	80W-90			
DNEL/DMEL (additiona	l information)			
Additional information		Not applicable		
PNEC (additional inform	nation)			
Additional information		Not applicable		
lote		toxicity data in accord with specifi DNEL may differ from an Occupa be recommended by an individua organization, such as the Scientif the American Conference of Gov considered to be safe exposure le hour work shift, 40 hour work wee	EL) is an estimated safe level of exposure that is derived fror ic guidance within the European REACH regulation. The tional Exposure Limit (OEL) for the same chemical. OELs m I company, a governmental regulatory body or an expert ic Committee for Occupational Exposure Limits (SCOEL) or ernmental Industrial Hygienists (ACGIH). OELs are evels for a typical worker in an occupational setting for an 8- ek, as a time weighted average (TWA) or a 15 minute short- e also considered to be protective of health, OELs are derive f REACH.	
.2. Exposure con	trols			

Appropriate engineering controls:

Ensure good ventilation of the work station. 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".

Personal protective equipment (for industrial or professional use):

Gloves. Protective clothing. Safety glasses. Safety shoes or boots. Dust/aerosol mask.

Hand protection:

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

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.

Safety Data Sheet

According to Regulation (EU) No. 830/2015

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.

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). Combination filter device (DIN EN 141). 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). 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)

Personal protective equipment symbol(s):



Thermal hazard protection:

None in normal use conditions.

Environmental exposure controls:

Do not discharge the product into the environment. Do not apply industrial sludge to natural soils. Sludge should be incinerated, contained or reclaimed. 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.

Consumer exposure controls:

Wear protective gloves.

SECTION 9: Physical and chemical	properties
9.1. Information on basic physical and	chemical properties
Physical state	: Liquid
Appearance	: Liquid, bright & clear.
Colour	: Yellow-brown.
Odour	: characteristic.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: -30 °C (pour point) (ASTM D 97)
Freezing point	: No data available
Boiling point	: No data available
Flash point	: 215 °C (ASTM D 92)
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not applicable
Vapour pressure	: 0,1 hPa (20 °C) (Mineral oil, ASTM D 5191) (CONCAWE, 2010)
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 900 kg/m³ (15°C) (ASTM D 4052)
Solubility	: Water: Immiscible and insoluble
Log Pow	: Not applicable for mixtures
Log Kow	: Not applicable for mixtures
Viscosity, kinematic	: 16 mm²/s (100°C); Viscosity, kinematic: > 20,5 mm2/s (40 °C) (ASTM D 445)
Viscosity, dynamic	: No data available
Explosive properties	: None (according to composition).
Oxidising properties	: None (according to composition).
Explosive limits	: LEL ≥ 45 g/m³ (Aerosol)
9.2. Other information	
Additional information	: No data available

Safety Data Sheet

According to Regulation (EU) No. 830/2015

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). Contact with strong oxidizers (peroxides, chromates, etc.) may cause a fire hazard. Sensitivity to heat, friction or shock cannot be assessed in advance.

10.4. Conditions to avoid

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

10.5. Incompatible materials

Strong oxidants.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Thermal decomposition may produce : Carbon dioxide, Carbon monoxide. 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 also Section 16, "Other information".

SECTION 11: Toxicological information	on de la constant de	
11.1. Information on toxicological effects		
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)	
Residual oils (petroleum,) solvent-refined (64	742-01-4)	
LD50 oral rat	5000 mg/kg bodyweight	
LD50 dermal rat	2000 - 5000 mg/kg bodyweight	
LC50 inhalation rat (mg/l)	2,18 - 5,53 mg/l/4h	
Lubricating oils (petroleum), C24-50, solvent-	extd., dewaxed, hydrogenated (101316-72-7)	
LD50 oral rat	> 5000 mg/kg (API 1986, UBTL 1983 - OECD 401)	
LD50 dermal rabbit	> 2000 mg/kg bodyweight (API 1986, UBTL 1984 - OECD 402)	
LC50 inhalation rat (mg/l)	2,18 - 5,53 mg/l/4h (API 1987, Exxon Biomedical Sciences, Inc. 1988, BioResearch Laboratories, Ltd. 1984 - OECD 403)	
Polysulfides, di-tert-Butyl (68937-96-2)		
LD50 oral rat	2000 mg/kg bodyweight	
LD50 dermal rat	2000 mg/kg bodyweight	
Mineral base oil, severely refined		
LD50 oral rat	≥ 5000 mg/kg bodyweight (OECD 401)	
LD50 dermal rat	≥ 5000 mg/kg bodyweight (OECD 402)	
LC50 inhalation rat (mg/l)	≥ 5 mg/l/4h (OECD 403)	
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	
Magnesium metaborate (13703-82-7)		
LD50 oral rat	2000 mg/kg bodyweight	
LD50 dermal rat	2000 mg/kg bodyweight	
O,O,O-triphenyl phosphorothioate (597-82-0)		
LD50 oral rat	10000 mg/kg bodyweight	
LD50 dermal rat	2000 mg/kg bodyweight	
Skin corrosion/irritation	: Not classified (Based on available data, the classification criteria are not met)	
Additional information	: (according to composition)	
Serious eye damage/irritation	: Not classified (Based on available data, the classification criteria are not met)	
Additional information	: (according to composition)	
Respiratory or skin sensitisation	: May cause an allergic skin reaction.	

Safety Data Sheet

According to Regulation (EU) No. 830/2015

Additional information	 : (according to composition) Contains Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched), Polysulfides, di-tert-Butyl, Magnesium metaborate. Causes sensitisation
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-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).], Lubricating oils (petroleum), C24-50, solvent-extd, dewaxed, hydrogenated; Baseoil— unspecified; [A complex combination of hydrocarbons obtained by solvent extraction and hydrogenation of atmospheric distillation residues. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C24 through C50 and produces a finished oil with a viscosity in the order of 16cSt to 75cSt at 40 °C (104 °F).] this product has a value of DMSO extract < 3 % wt, according to IP 346/92. According to the criteria laid out by the EU (note L, Annex VI of Regulation (CE) 1272/2008), this product must be regarded as non carcinogenic. All the mineral base oils contained in this product have a value < 3 % wt of DMSO extract, according to IP 346/92 (Nota L - Annex VI Reg (CE) 1272/2008, # 1.1.3) No carcinogenic effect
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)
Additional information	 : (according to composition) This product contains : 0,0,0-tris(2(or 4)-C9-10-isoalkylphenyl) phosphorothioate Suspected of damaging fertility or the unborn child.
STOT-single exposure	: Not classified (Based on available data, the classification criteria are not met)
Additional information	: (according to composition)
O,O,O-triphenyl phosphorothioate (597-82-0	
NOAEL (oral, rat)	50 mg/kg bodyweight
STOT-repeated exposure	: Not classified (Based on available data, the classification criteria are not met)
Additional information	: (according to composition)
Lubricating oils (petroleum), C24-50, solver	nt-extd., dewaxed, hydrogenated (101316-72-7)
LOAEL (oral, rat, 90 days)	125 mg/kg bodyweight/day (Mobil 1990 - OECD TG 408)
LOAEL (dermal, rat/rabbit, 90 days)	100 mg/kg bodyweight/day (mouse, Chasey, K.L. and McKee, R.H. 1993 - OECD 453)
NOAEL (dermal, rat/rabbit, 90 days)	1000 - 2000 mg/kg bodyweight/day (API 1986, Mobil Environmental and Health Science Laboratory 1983 - OECD 410)
NOAEC (inhalation,rat, vapour, 90 days)	220 - 1500 mg/m ³ (Exxon Biomedical Sciences, Inc. 1991, Dalbey W, Osimitz T, Kommineni C, Roy T, Feuston M and Yang J 1991 - OECD 412)
Polysulfides, di-tert-Butyl (68937-96-2)	
Polysulfides, di-tert-Butyl (68937-96-2) LOAEL (oral, rat, 90 days)	200 - 300 mg/kg bodyweight/day
Polysulfides, di-tert-Butyl (68937-96-2) LOAEL (oral, rat, 90 days) NOAEL (oral, rat, 90 days)	200 - 300 mg/kg bodyweight/day 50 - 100 mg/kg bodyweight/day
LOAEL (oral, rat, 90 days)	
LOAEL (oral, rat, 90 days) NOAEL (oral, rat, 90 days) NOAEC (inhalation,rat, vapour, 90 days)	50 - 100 mg/kg bodyweight/day
LOAEL (oral, rat, 90 days) NOAEL (oral, rat, 90 days) NOAEC (inhalation,rat, vapour, 90 days) Mineral base oil, severely refined	50 - 100 mg/kg bodyweight/day 196 ppm
LOAEL (oral, rat, 90 days) NOAEL (oral, rat, 90 days) NOAEC (inhalation,rat, vapour, 90 days) Mineral base oil, severely refined LOAEL (oral, rat, 90 days)	50 - 100 mg/kg bodyweight/day 196 ppm 125 mg/kg bodyweight/day (OECD TG 408)
LOAEL (oral, rat, 90 days) NOAEL (oral, rat, 90 days) NOAEC (inhalation,rat, vapour, 90 days) Mineral base oil, severely refined LOAEL (oral, rat, 90 days) Reaction products of bis(4-methylpentan-2- (branched)	50 - 100 mg/kg bodyweight/day 196 ppm 125 mg/kg bodyweight/day (OECD TG 408) yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl
LOAEL (oral, rat, 90 days) NOAEL (oral, rat, 90 days) NOAEC (inhalation, rat, vapour, 90 days) Mineral base oil, severely refined LOAEL (oral, rat, 90 days) Reaction products of bis(4-methylpentan-2-	50 - 100 mg/kg bodyweight/day 196 ppm 125 mg/kg bodyweight/day (OECD TG 408) yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl
LOAEL (oral, rat, 90 days) NOAEL (oral, rat, 90 days) NOAEC (inhalation,rat, vapour, 90 days) Mineral base oil, severely refined LOAEL (oral, rat, 90 days) Reaction products of bis(4-methylpentan-2- (branched)	50 - 100 mg/kg bodyweight/day 196 ppm 125 mg/kg bodyweight/day (OECD TG 408) yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl
LOAEL (oral, rat, 90 days) NOAEL (oral, rat, 90 days) NOAEC (inhalation,rat, vapour, 90 days) Mineral base oil, severely refined LOAEL (oral, rat, 90 days) Reaction products of bis(4-methylpentan-2- (branched) NOAEL (subacute, oral, animal/male, 28 days)	50 - 100 mg/kg bodyweight/day 196 ppm 125 mg/kg bodyweight/day (OECD TG 408) yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl
LOAEL (oral, rat, 90 days) NOAEL (oral, rat, 90 days) NOAEC (inhalation, rat, vapour, 90 days) Mineral base oil, severely refined LOAEL (oral, rat, 90 days) Reaction products of bis(4-methylpentan-2- (branched) NOAEL (subacute, oral, animal/male, 28 days) Magnesium metaborate (13703-82-7) NOAEL (oral, rat, 90 days)	50 - 100 mg/kg bodyweight/day 196 ppm 125 mg/kg bodyweight/day (OECD TG 408) ryl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl 150 mg/kg bodyweight
LOAEL (oral, rat, 90 days) NOAEL (oral, rat, 90 days) NOAEC (inhalation,rat, vapour, 90 days) Mineral base oil, severely refined LOAEL (oral, rat, 90 days) Reaction products of bis(4-methylpentan-2- (branched) NOAEL (subacute, oral, animal/male, 28 days) Magnesium metaborate (13703-82-7) NOAEL (oral, rat, 90 days) Aspiration hazard	50 - 100 mg/kg bodyweight/day 196 ppm 125 mg/kg bodyweight/day (OECD TG 408) yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl 150 mg/kg bodyweight 125 mg/kg bodyweight/day
LOAEL (oral, rat, 90 days) NOAEL (oral, rat, 90 days) NOAEC (inhalation,rat, vapour, 90 days) Mineral base oil, severely refined LOAEL (oral, rat, 90 days) Reaction products of bis(4-methylpentan-2- (branched) NOAEL (subacute, oral, animal/male, 28 days) Magnesium metaborate (13703-82-7) NOAEL (oral, rat, 90 days) Aspiration hazard Additional information Eni Rotra Truck Gear 80W-90	50 - 100 mg/kg bodyweight/day 196 ppm 125 mg/kg bodyweight/day (OECD TG 408) yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl 150 mg/kg bodyweight 125 mg/kg bodyweight/day 125 mg/kg bodyweight/day 125 mg/kg bodyweight/day : 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)
LOAEL (oral, rat, 90 days) NOAEL (oral, rat, 90 days) NOAEC (inhalation,rat, vapour, 90 days) Mineral base oil, severely refined LOAEL (oral, rat, 90 days) Reaction products of bis(4-methylpentan-2- (branched) NOAEL (subacute, oral, animal/male, 28 days) Magnesium metaborate (13703-82-7) NOAEL (oral, rat, 90 days) Aspiration hazard Additional information	50 - 100 mg/kg bodyweight/day 196 ppm 125 mg/kg bodyweight/day (OECD TG 408) yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl 150 mg/kg bodyweight 125 mg/kg bodyweight/day 125 mg/kg bodyweight/day : Not classified (Based on available data, the classification criteria are not met) : (according to composition)
LOAEL (oral, rat, 90 days) NOAEL (oral, rat, 90 days) NOAEC (inhalation,rat, vapour, 90 days) Mineral base oil, severely refined LOAEL (oral, rat, 90 days) Reaction products of bis(4-methylpentan-2- (branched) NOAEL (subacute, oral, animal/male, 28 days) Magnesium metaborate (13703-82-7) NOAEL (oral, rat, 90 days) Aspiration hazard Additional information Eni Rotra Truck Gear 80W-90	50 - 100 mg/kg bodyweight/day 196 ppm 125 mg/kg bodyweight/day (OECD TG 408) yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl 150 mg/kg bodyweight 125 mg/kg bodyweight/day 125 mg/kg bodyweight/day 125 mg/kg bodyweight/day : 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)

Safety Data Sheet

According to Regulation (EU) No. 830/2015

Other information : None. **SECTION 12: Ecological information** Toxicity 12.1. 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 (air, soil, underground, surface water bodies, aquifers). Handle according to general working hygiene practices to avoid pollution and release into the environment. Ecology - water This product is not soluble in water. It floats on water and forms a film on the surface. The damage to aquatic organisms is of mechanical kind (immobilization and entrapment) Ecology - water This product is not soluble in water. It floats on water and forms a film on the surface. : Not classified (Based on available data, the classification criteria are not met) Acute aquatic toxicity Chronic aquatic toxicity : Not classified (Based on available data, the classification criteria are not met) Eni Rotra Truck Gear 80W-90 > 100 mg/l (OECD 211) EC50 Daphnia 1 100 mg/l (21d) NOEC chronic algae Residual oils (petroleum,) solvent-refined (64742-01-4) LC50 fish 1 100 mg/l EC50 Daphnia 1 10 g/l Lubricating oils (petroleum), C24-50, solvent-extd., dewaxed, hydrogenated (101316-72-7) > 100 mg/l (LL 50, Exxon 1995 - OECD 203) LC50 fish 1 > 10000 mg/l (WAF, 48 h, Shell 1988 - OECD 202) EC50 Daphnia 1 >= 100 mg/l (Pseudokirchneriella subcapitata, 72h, OECD 201 - Petro-Canada 2008) NOEC (acute) 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) Polysulfides, di-tert-Butyl (68937-96-2) LC50 fish 1 88 µg/l EC50 Daphnia 1 63 mg/l EC50 72h algae (1) > 100 mg/l Mineral base oil, severely refined LC50 fish 1 > 100 mg/l (LL 50) > 10000 mg/I WAF, 48 h (OECD 202) EC50 Daphnia 1 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 (Fathead Minnow) EC50 Daphnia 1 91,4 mg/l EC50 72h algae (1 64 15 ma/

EC50 72h algae (1)	6,4 - 15 mg/l
EC50 96h algae (1)	6,4 mg/l (Selenastrum Capricomutum)
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)
Magnesium metaborate (13703-82-7	
LC50 fish 1	50 mg/l (LL50)
EC50 Daphnia 1	50 mg/l (EL50)
EC50 72h algae (1)	50 ma/l (EL50)

12.2. Persistence and degradability

Eni Rotra Truck Gear 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 (64742-01-4)		
Persistence and degradability	Substance is complex UVCB. The test methods for this endpoint are not applicable to UVCB substances.	
Lubricating oils (petroleum), C24-50, solvent-extd., dewaxed, hydrogenated (101316-72-7)		
Persistence and degradability	The most significant constituents of the product should be considered as "inherently biodegradable", but not "readily biodegradable", and they may be moderately persistent, particularly in anaerobic conditions.	

Safety Data Sheet

According to Regulation (EU) No. 830/2015

Mineral base oil, severely refined	1
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.
Reaction products of bis(4-methylpentan-2-y (branched)	l)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alky
Biodegradation	3,6 - 7,4 % (28d - OECD 301 B)
2.3. Bioaccumulative potential	
Eni Rotra Truck Gear 80W-90	
Log Pow	Not applicable for mixtures
Log Kow	Not applicable for mixtures
Bioaccumulative potential	Not established.
Residual oils (petroleum,) solvent-refined (64	742-01-4)
Bioaccumulative potential	The test methods for this endpoint are not applicable to UVCB substances.
Lubricating oils (petroleum), C24-50, solvent	
Bioaccumulative potential	The test methods for this endpoint are not applicable to UVCB substances.
•	
Polysulfides, di-tert-Butyl (68937-96-2) Log Kow	6
-	
(branched)	I)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alky
Log Kow	5,14 (25°C)
2.4. Mobility in soil	
Eni Rotra Truck Gear 80W-90	
Ecology - soil	No data available.
Residual oils (petroleum,) solvent-refined (64	1742-01-4)
Ecology - soil	The test methods for this endpoint are not applicable to UVCB substances.
Lubricating oils (petroleum), C24-50, solvent	extd., dewaxed, hydrogenated (101316-72-7)
Ecology - soil	This product is not soluble in water. It floats on water and forms a film on the surface.
2.5. Results of PBT and vPvB assessmen	
Eni Rotra Truck Gear 80W-90	
This substance/mixture does not meet the PBT	
This substance/mixture does not meet the PBT	
Component Mineral base oil, severely refined ()	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)
Lubricating oils (petroleum), C24-50, solvent- extd., dewaxed, hydrogenated (101316-72-7)	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)
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
2.6. Other adverse effects	
Other adverse effects	: None.
Additional information	: No other effects known

13.1. Waste treatment methods	
Regional legislation (waste)	: Disposal must be done according to official regulations.
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. Dispose of empty containers and wastes safely.
Sewage disposal recommendations	: Dispose of in a safe manner in accordance with local/national regulations. Do not apply industrial sludge to natural soils. Sludge should be incinerated, contained or reclaimed.

Safety Data Sheet

According to Regulation (EU) No. 830/2015

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.
Ecology - waste materials	: The product as it is does not contain halogenated substances.
EURAL code (EWC)	: 13 02 05* - Mineral-based non-chlorinated engine, gear and lubricating oils

SECTION 14: Transport information

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

In accordance with ADN / ADN / IATA / IMDG / KID				
ADR	IMDG	IATA	ADN	RID
14.1. UN number				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.2. UN proper shippi	ng 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	14.4. Packing group			
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.5. Environmental hazards				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
None.				

14.6. Special precautions for user

- Overland transport

Not regulated

- Transport by sea

Not regulated

- Air transport

Not regulated

- Inland waterway transport

Not regulated

- Rail transport

Not regulated

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

IBC code

: Not applicable.

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

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

3. Liquid substances or mixtures which are regarded as dangerous in accordance with Directive 1999/45/EC or are fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008	Reaction products of bis(4-methylpentan-2- yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched) - Polysulfides, di-tert-Butyl - O,O,O- triphenyl phosphorothioate
3(b) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10	Eni Rotra Truck Gear 80W-90 - Reaction products of bis(4-methylpentan-2- yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched) - Polysulfides, di-tert-Butyl - Mineral base oil, severely refined - O,O,O-triphenyl phosphorothioate - Magnesium metaborate
3(c) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard class 4.1	Reaction products of bis(4-methylpentan-2- yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched) - Polysulfides, di-tert-Butyl - O,O,O- triphenyl phosphorothioate

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

Contains no REACH Annex XIV substances

Safety Data Sheet

According to Regulation (EU) No. 830/2015

: Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December Other information, restriction and prohibition 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals regulations (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). 15.1.2. National regulations National adoption of EU Directives concerning health and safety on the workplace. National adoption of EU Directives concerning control of major-accident hazards involving dangerous substances (2012/18/CE). Relevant national laws on prevention of water pollution. Relevant national laws on protection of the health of pregnant workers (National adoption of Dir. 92/85/EEC). National adoption of Directives 75/439/CEE - 87/101/CEE concerning disposal of used oils. France Maladies professionelles (F) : RG 36 - Affections provoquées par les huiles et graisses d'origine minérale ou de synthèse Germany Reference to AwSV : Water hazard class (WGK) (D) 1, low hazard to water (Classification according to AwSV, Annex 1) WGK remark Classification based on the components in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS) VbF class (D) : Not applicable. Storage class (LGK) (D) : LGK 10 - Combustible liquids 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. 12th Ordinance Implementing the Federal : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance) Immission Control Act - 12.BImSchV Other information, restrictions and prohibition : TRGS 900: Occupational Exposure Limits regulations 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 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 NIET-limitatieve lijst van voor de voortplanting : None of the components are listed giftige stoffen - Borstvoeding NIET-limitatieve lijst van voor de voortplanting : None of the components are listed giftige stoffen - Vruchtbaarheid NIET-limitatieve lijst van voor de voortplanting : None of the components are listed giftige stoffen - Ontwikkeling Denmark **Danish National Regulations** : Young people under 18 years are not allowed to use the product Pregnant/breastfeeding women working with the product must not be in direct contact with it The requirements from the Danish Working Environment Authorities regarding work with carcinogens must be followed during use and disposal

15.2. Chemical safety assessment

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

Safety Data Sheet

According to Regulation (EU) No. 830/2015

A chemical safety assessment has been carried out for the following components of this mixture:
Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched)
Polysulfides, di-tert-Butyl
Mineral base oil, severely refined
Magnesium metaborate
Lubricating oils (petroleum), C24-50, solvent-extd., dewaxed, hydrogenated
Residual oils (petroleum,) solvent-refined

SECTION 16: Other information

Indication of changes:

All sections.

Abbreviations and acronyms:

Appreviations and	•								
	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								
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.								
raining 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 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 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. This situation is especially relevant for those operations whic involve direct exposure to the vapours in the interior of tanks or other confined spaces. If this possibility is suspected, a specific assessment of inhalation risks from the presence of H2S in possibility is suspected. 								

Full text of H- and EUH-statements:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4			
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2			
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3			
Aquatic Chronic 4	Hazardous to the aquatic environment — Chronic Hazard, Category 4			

confined spaces must be made, to help determine prevention measures and controls (i.e. PPE)

appropriate to local circumstances, and adequate emergency procedures.

Safety Data Sheet

According to Regulation (EU) No. 830/2015

Asp. Tox. 1	Aspiration hazard, Category 1					
Eye Dam. 1	Serious eye damage/eye irritation, Category 1					
Repr. 2	Reproductive toxicity, Category 2					
Skin Sens. 1	Skin sensitisation, Category 1					
Skin Sens. 1B	Skin sensitisation, category 1B					
H302	Harmful if swallowed.					
H304	May be fatal if swallowed and enters airways.					
H317	May cause an allergic skin reaction.					
H318	Causes serious eye damage.					
H361	Suspected of damaging fertility or the unborn child.					
H411	Toxic to aquatic life with long lasting effects.					
H412	Harmful to aquatic life with long lasting effects.					
H413	May cause long lasting harmful effects to aquatic life.					

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

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Skin Sens. 1	H317	Concentration limits					

SDS EU (REACH Annex II)

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