

Safety Data Sheet

SDS EU format according to COMMISSION REGULATION (EU) 2020/878 Revision date: 06/09/2023 Version: 1.0

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

1.1. Product identifier

Product form : Mixture

: Eni Rotra ATF II D Trade name

Product code : 1297 Type of product : Lubricants Formula : 0016-2022 : Trade product Product group

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

1.2.1. Relevant identified uses

Main use category : Industrial use, Professional use, Consumer use

Industrial/Professional use spec Non-dispersive use Use of the substance/mixture : Gearbox lubricant

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

Function or use category : Lubricants and additives

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Eni Sustainable Mobility S.p.A., Viale Giorgio Ribotta 51, 00144 Rom, ITALY, Tel. +39 06 59821, www.eni.com Competent person responsible for the safety data sheet (Reg. EC nr. 1907/2006): SDS.ESM.info@eni.com

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

1.4. Emergency telephone number

Emergency number : CNIT +39 0382 24444 (24h) (IT + EN)

Poison Center

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Hazardous to the aquatic environment - Chronic Hazard, H412

Category 3

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

Adverse physicochemical, human health and environmental effects

Contact with eyes may cause temporary reddening and irritation. Prolonged and repeated skin contact may cause reddening, irritation and dermatitis. May cause an allergic skin reaction. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. 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]

CLP Signal word : [None]

Hazard statements (CLP) : H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements (CLP) : P102 - Keep out of reach of children.

P273 - Avoid release to the environment.

P501 - Dispose of contents/container to according to national or local regulations.

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EUH-statements : EUH208 - Co

: EUH208 - Contains Benzene, polypropene derivs, sulfonated, calcium salts. May produce an allergic reaction.

Nordic countries regulation

Denmark

MAL code : 00-1 (Executive Order No. 301 from 1993)

2.3. Other hazards (not relevant for classification)

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	
Mineral base oil, severely refined (N/A)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
Distillates (petroleum), hydrotreated light naphthenic (64742-53-6)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
Distillates (petroleum), solvent-refined light paraffinic (64741-89-5)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

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 light paraffinic(64741-89-5)	The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605	
Distillates (petroleum), solvent-dewaxed heavy paraffinic(64742-65-0)	The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605	
Mineral base oil, severely refined(N/A)	The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605	
Distillates (petroleum), hydrotreated light naphthenic(64742-53-6)	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

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3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [EU-GHS / CLP]
Distillates (petroleum), solvent-refined light paraffinic (Component, For identification of the substance, see note [*])	CAS-No.: 64741-89-5 EC-No.: 265-091-3 EC Index-No.: 649-455-00-2 REACH-no: 01-2119487067- 30	70 – 80	Asp. Tox. 1, H304
Distillates (petroleum), solvent-dewaxed heavy paraffinic; Baseoil— unspecified; [A complex combination of hydrocarbons obtained by removal of normal paraffins from a petroleum fraction by solvent crystallization. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C20 through C50 and produces a finished oil with a viscosity not less than 100 SUS at 100 °F (19cSt at 40 °C).] (see note [**], see note [****])	CAS-No.: 64742-65-0 EC-No.: 265-169-7 EC Index-No.: 649-474-00-6 REACH-no: 01-2119471299- 27	10 – 15	Not classified
Mineral base oil, severely refined (Component, For identification of the substance, see note [*])	CAS-No.: N/A EC-No.: N/A	1 - 10	Asp. Tox. 1, H304
Distillates (petroleum), solvent-refined light paraffinic (Component, see note [**])	CAS-No.: 64742-53-6 EC-No.: 265-156-6 EC Index-No.: 649-466-00-2 REACH-no: 01-2119480375- 34	1 - 10	Asp. Tox. 1, H304
1-(tert-dodecylthio)propan-2-ol (Additive)	CAS-No.: 67124-09-8 EC-No.: 266-582-5 REACH-no: 01-2119953277- 30	0,1 - 0,6	Skin Sens. 1, H317 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)
Benzene, polypropene derivs., sulfonated, calcium salts (Additive)	CAS-No.: 75975-85-8 EC-No.: 616-278-7 EC Index-No.: N/A REACH-no: N/A	0,1 - 0,6	Skin Sens. 1B, H317
toluene (see note [***])	CAS-No.: 108-88-3 EC-No.: 203-625-9 EC Index-No.: 601-021-00-3	< 0,1	Flam. Liq. 2, H225 Repr. 2, H361d Asp. Tox. 1, H304 STOT RE 2, H373 Skin Irrit. 2, H315 STOT SE 3, H336
2,2'-(C16-18 (evennumbered, C18 unsaturated) alkyl imino) diethanol	CAS-No.: 1218787-32-6 EC-No.: 620-540-6 REACH-no: 01-2119510877- 33	0,01- 0,11	Acute Tox. 4 (Oral), H302 (ATE=500 mg/kg bodyweight) Skin Corr. 1C, H314 Eye Dam. 1, H318 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=1)
xylene	CAS-No.: 1330-20-7 EC-No.: 215-535-7 EC Index-No.: 601-022-00-9	< 0.01	Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation), H332 (ATE=1,5 mg/l/4h) Acute Tox. 4 (Dermal), H312 (ATE=1100 mg/kg bodyweight) Skin Irrit. 2, H315

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Specific concentration limits:		
Name	Product identifier	Specific concentration limits (%)
1-(tert-dodecylthio)propan-2-ol (Additive)	CAS-No.: 67124-09-8 EC-No.: 266-582-5 REACH-no: 01-2119953277- 30	(14,2 ≤ C < 100) Skin Sens. 1, H317

Notes

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

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

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

Note [**]:

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

Note [***]:

substance with a Community workplace exposure limit

Note [****]:

this product may be formulated with one or more of the following base oils (not classified as hazardous): CAS 64742-54-7/ REACH Reg. # 01-2119484627-25-XXXX; CAS 64742-65-0/ REACH Reg. # 01-2119471299-27-XXXX; CAS 64742-65-0/ EC 265-169-7/ REACH Reg # 01-2119471299-27-XXXX/ EC index No 649-474-00-6

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

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First-aid measures after skin contact

First-aid measures after eye contact

First-aid measures after ingestion

- : In case of disturbances owing to inhalation of vapours or mists, remove the victim from exposure; keep at rest; if necessary, seek medical attention. See also section 4.3.
- : Take off contaminated clothing and shoes. Wash thoroughly with soap and water. If skin irritation or rash occurs, get medical advice/attention. In case of burns, cool affected part with cold running water for at least 10 min. Cover with gauze or clean cloth. Ask for medical assistance or bring to a hospital. Do not apply salves or other substances, unless by doctor's advice. Body hypothermia must be avoided. Do not put ice on the burn.
- Rinse eyes thoroughly for at least 15 minutes. Keep eyelids well apart. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation, blurred vision or swelling occurs and persists, obtain medical advice from a specialist. In case of burns, cool affected part with cold running water for at least 10 min. Cover with gauze or clean cloth. Ask for medical assistance or bring to a hospital. Do not apply salves or other substances, unless by doctor's advice.

: Do NOT induce vomiting. If the person is conscious, rinse mouth with water without swallowing. Keep at rest. Call for medical assistance or bring to an hospital. If the casualty is unconscious, place in the recovery position. In case of spontaneous vomiting, keep head low, to avoid the risk of aspiration into the lungs. Do not give anything by mouth to an unconscious person.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms / injuries (general indications) Symptoms/effects after inhalation

- : Not expected to present a significant hazard under anticipated conditions of normal use.
- : This product has a low vapour pressure, and in normal conditions at ambient temperature the concentration in the air is negligible. A significant concentration may build up only in case of sprays and mists. In these cases overexposure to mists (e.g. through prolonged use in confined insufficiently ventilated spaces) may cause irritation to airways, nausea and dizziness.

Symptoms/effects after skin contact

: Prolonged and repeated skin contact may cause reddening, irritation and dermatitis. May cause sensitization by skin contact. Contact with hot product may cause thermal burns.

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Symptoms/effects after eye contact

: 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.

No information available.

Symptoms/effects upon intravenous administration

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. 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. Send the casualty immediately to hospital. Apply artificial respiration if victim is not breathing.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

: Small-size fires: carbon dioxide, dry chemicals, foam, sand or earth. Large fires: foam or water fog (mist). These means should be used by trained personnel only. Other

extinguishing gases (according to regulations).

Unsuitable extinguishing media

Do not use water jets. They could cause splattering, and spread the fire. Simultaneous use of foam and water on the same surface is to be avoided as water destroys the foam.

5.2. Special hazards arising from the substance or mixture

Fire hazard

: This product is combustible, but not classified as Flammable. The creation of flammable vapour mixtures takes place at temperatures which are higher than normal ambient levels.

Explosion hazard

: In case of losses from pressurized circuits, the sprays may form mists. Take into account that in this case the lower explosion limit for mists is about 45 g/m³ air.

5.3. Advice for firefighters

Firefighting instructions

: Shut off source of product, if possible. Move undamaged containers from immediate hazard area if it can be done safely. Spilled product which is not burning should be covered with sand or foam. Use water sprays to cool containers and surfaces exposed to the flames. If the fire cannot be controlled, evacuate area.

Special protective equipment for firefighters

Wear personal protection equipment. (see chapter 8). In case of a large fire or in confined or poorly ventilated spaces, wear full fire resistant protective clothing and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. EN 443. EN 469. EN 659.

Other information

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

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures

: Stop or contain leak at the source, if safe to do so. Eliminate all ignition sources if safe to do so (e.g. electricity, sparks, fires, flares). Avoid 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.

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6.1.2. For emergency responders

Protective equipment

: Small spillages: normal antistatic working clothes are usually adequate. Large spillages: full body suit of chemically resistant and antistatic material. if necessary heat resistant and insulated. Work gloves providing adequate chemical resistance, specifically to aromatic hydrocarbons. Gloves made of PVA are not water-resistant, and are not suitable for emergency use. If contact with hot product is possible or anticipated, gloves should be heat-resistant and thermally insulated. Antistatic non-skid safety shoes or boots, chemical resistant, if necessary heat resistant and insulated. Work helmet. Goggles and /or face shield, if splashes or contact with eyes is possible or anticipated. Respiratory protection: A half or full-face respirator with filter(s) for organic vapours (A) (or A+B when applicable for H2S), or a Self-contained Breathing Apparatus (SCBA) can be used according to the extent of spill and predictable amount of exposure. If the situation cannot be completely assessed, or if an oxygen deficiency is possible, only SCBA's should be used.

Emergency procedures

: If required, notify relevant authorities according to all applicable regulations.

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

For containment

: Contain spilled liquid with sand, earth or other suitable absorbents (non-flammable).

Recover free liquid and waste materials in suitable waterproof and oil-resistant containers.

Clean contaminated area. Dispose of according to local regulations. If in water: Confine the spillage. Remove from surface by skimming or suitable floating absorbents. Collect recovered product and other waste materials in suitable waterproof, oil resistant containers. Recover or dispose of according to local regulations. Do not use solvents or dispersants, unless specifically advised by an expert, and, if required, approved by local authorities.

Other information

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

6.4. Reference to other sections

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

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling

: 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".

Handling temperature Hygiene measures

- : This product can be handled at ambient temperatures.
- Avoid contact with skin. Do not breathe fume/ mist/ vapours. Do not ingest. Do not smoke. Do not eat and do not drink during use. Do not clean hands with dirty or oil-soaked rags. Do not re-use clothes, if they are still contaminated. Keep away from food and beverages.

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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.

Incompatible products : Keep away from strong oxidizers.
Storage temperature : This product can be stored at ambient temperatures.

Storage area : Storage area layout, tank design, equipment and operating procedures must comply with

the relevant European, national or local legislation. Storage installations/areas should be designed with adequate bunds in case of leaks or spills. Cleaning, inspection and maintenance of internal structure of storage tanks must be done only by properly equipped

and qualified personnel as defined by national, local or company regulations.

Packages and containers: : If the product is supplied in containers: Keep containers tightly closed and properly labelled.

Keep only in the original container or in a suitable container for this kind of product.

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

product. Compatibility should be checked with the manufacturer, according to the specific

use conditions.

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

Mineral base oil, severely refined (N/A)		
Austria - Occupational Exposure Limits		
MAK (OEL TWA)	5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	
Belgium - Occupational Exposure Limits		
OEL TWA	5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	
Denmark - Occupational Exposure Limits		
OEL TWA [1]	1 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	
OEL STEL	2 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	
Hungary - Occupational Exposure Limits		
AK (OEL TWA)	5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	
Netherlands - Occupational Exposure Limits		
MAC TGG 8h (mg/m³)	5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	
Spain - Occupational Exposure Limits		
VLA-ED (OEL TWA) [1]	5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	
VLA-EC (mg/m³)	10 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	
Sweden - Occupational Exposure Limits		
NGV (OEL TWA)	1 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	
KTV (OEL STEL)	3 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	
USA - ACGIH - Occupational Exposure Limits		
ACGIH OEL TWA	5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	
ACGIH OEL STEL	10 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	

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Distillates (petroleum), solvent-refined light paraffinic (64742-53-6)		
Austria - Occupational Exposure Limits		
MAK (OEL TWA)	5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	
Belgium - Occupational Exposure Limits		
OEL TWA	5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	
Denmark - Occupational Exposure Limits		
OEL TWA [1]	1 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	
OEL STEL	2 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	
Hungary - Occupational Exposure Limits		
AK (OEL TWA)	5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	
Netherlands - Occupational Exposure Limits		
MAC TGG 8h (mg/m³)	5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	
Spain - Occupational Exposure Limits		
VLA-ED (OEL TWA) [1]	5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	
VLA-EC (mg/m³)	10 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	
Sweden - Occupational Exposure Limits		
NGV (OEL TWA)	1 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	
KTV (OEL STEL)	3 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	
USA - ACGIH - Occupational Exposure Limits		
ACGIH OEL TWA	5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	
ACGIH OEL STEL	10 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	
toluene (108-88-3)		
EU - Indicative Occupational Exposure Limit (IOEL)		
IOELV TWA (ppm)	50 ppm	
IOELV STEL (ppm)	100 ppm	
Austria - Occupational Exposure Limits		
MAK [ppm]	50 ppm	
MAK Short time value [ppm]	100 ppm	
Belgium - Occupational Exposure Limits		
Limit value [ppm]	20 ppm	
Short time value [ppm]	100 ppm	
Denmark - Occupational Exposure Limits		
OEL TWA [2]	25 ppm	
Grænseværdi (kortvarig) (ppm)	50 ppm	
Finland - Occupational Exposure Limits		
HTP (OEL TWA) [2]	25 ppm	
HTP-arvo (15 min) (ppm)	100 ppm	
France - Occupational Exposure Limits		
VME [ppm]	100 ppm	
VLE [ppm]	20 ppm	

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toluene (108-88-3)		
Germany - Occupational Exposure Limits (TRGS 900)		
AGW (OEL TWA) [2]	50 ppm	
Limitation of exposure peaks (ppm)	200 ppm	
Hungary - Occupational Exposure Limits		
CK-érték	190 mg/m³	
Ireland - Occupational Exposure Limits		
OEL TWA [2]	50 ppm	
OEL (15 min ref) (ppm)	100 ppm	
Italy - Occupational Exposure Limits		
OEL TWA (mg/m³)	192 mg/m³	
OEL TWA (ppm)	50 ppm	
Latvia - Occupational Exposure Limits		
OEL TWA (ppm)	14 ppm	
OEL STEL [ppm]	40 ppm	
Netherlands - Occupational Exposure Limits		
MAC TGG 8h (mg/m³)	150 mg/m³	
MAC TGG 15 min (mg/m³)	384 mg/m³	
Poland - Occupational Exposure Limits		
NDS (OEL TWA)	100 mg/m³	
NDSP (mg/m³)	200 mg/m³	
Spain - Occupational Exposure Limits		
VLA-ED (OEL TWA) [2]	50 ppm	
VLA-EC (ppm)	100 ppm	
Sweden - Occupational Exposure Limits		
Nivågränsvärde (NVG) (ppm)	50 ppm	
KTV (OEL STEL) [ppm]	100 ppm	
USA - ACGIH - Occupational Exposure Limits	USA - ACGIH - Occupational Exposure Limits	
ACGIH TLV®-TWA (ppm)	50 ppm	
Distillates (petroleum), solvent-dewaxed heavy paraffinic; Baseoil— unspecified; [A complex combination of hydrocarbons obtained by removal of normal paraffins from a petroleum fraction by solvent crystallization. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C20 through C50 and produces a finished oil with a viscosity not less than 100 SUS at 100 °F (19cSt at 40 °C).] (64742-65-0)		
Austria - Occupational Exposure Limits		
MAK (OEL TWA)	5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	
Belgium - Occupational Exposure Limits		
OEL TWA	5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	
Denmark - Occupational Exposure Limits		
OEL TWA [1]	1 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	
OEL STEL	2 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	

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hydrocarbons obtained by removal of normal paraffins from a petroleum fraction by solvent crystallization. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C20 through C50 and produces a finished oil with a viscosity not less than 100 SUS at 100 °F (19cSt at 40 °C).] (64742-65-0) **Hungary - Occupational Exposure Limits** AK (OEL TWA) 5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m) **Netherlands - Occupational Exposure Limits** MAC TGG 8h (mg/m3) 5 mg/m3 (Mineral base oil mist, severely refined, DMSO extract <3% m/m) **Spain - Occupational Exposure Limits** VLA-ED (OEL TWA) [1] 5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m) VLA-EC (mg/m³) 10 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m) **Sweden - Occupational Exposure Limits** NGV (OEL TWA) 1 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m) KTV (OEL STEL) 3 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m) **USA - ACGIH - Occupational Exposure Limits** ACGIH OEL TWA 5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m) ACGIH OEL STEL 10 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m) xylene (1330-20-7) **EU - Indicative Occupational Exposure Limit (IOEL) IOEL TWA** 221 mg/m³ (Skin) IOELV TWA (ppm) 50 ppm (Skin) IOELV STEL (mg/m³) 442 mg/m³ (Skin) IOELV STEL (ppm) 100 ppm (Skin) **Austria - Occupational Exposure Limits** MAK [ppm] 50 ppm MAK Short time value [ppm] 100 ppm **Belgium - Occupational Exposure Limits** Limit value [ppm] 50 ppm Short time value [ppm] 100 ppm **Denmark - Occupational Exposure Limits** OEL TWA [2] 25 ppm Grænseværdi (kortvarig) (ppm) 50 ppm France - Occupational Exposure Limits VME [ppm] 100 ppm VLE [ppm] 50 ppm **Germany - Occupational Exposure Limits (TRGS 900)** AGW (OEL TWA) [2] 100 ppm Limitation of exposure peaks (ppm) 200 ppm **Hungary - Occupational Exposure Limits** CK-érték 221 mg/m³

Distillates (petroleum), solvent-dewaxed heavy paraffinic; Baseoil— unspecified; [A complex combination of

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Intelligence	xylene (1330-20-7)		
DEL (15 min ref) (ppm) 100 ppm 101 ppm 102 ppm 103 ppm 104 ppm 221 mg/m² (Skin) 221 ppm	Ireland - Occupational Exposure Limits		
Italy - Occupational Exposure Limits	OEL TWA [2]	50 ppm	
OEL TWA (mg/m²) 221 mg/m² (Skin) OEL TWA (ppm) 50 ppm (Skin) OEL TWA (ppm) 50 ppm (Skin) OEL STEL (mg/m²) 442 mg/m² (Skin) OEL STEL (ppm) 100 ppm (Skin) OEL STEL (ppm) 100 ppm (Skin) OEL STEL (ppm) 221 ppm MAC TGG 8h (ppm) 242 ppm MAC TGG 9h (ppm) 442 ppm OEL STEL (ppm) 00 mg/m² OEL STEL (ppm) 100 mg/m² OEL TWA) 100 mg/m² OEL TWA) 100 mg/m² OEL TWA) 100 ppm OEL TWA) 100 ppm OEL TWA) 100 ppm OEL TWA (ppm) OEL TWA) 100 ppm OEL TWA (ppm) OEL TWA) OEL TWA (ppm) OE	OEL (15 min ref) (ppm)	100 ppm	
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OEL STEL (ppm) 100 ppm (Skin) Netherlands - Occupational Exposure Limits 221 ppm MAC TGG 8m (ppm) 442 ppm Poland - Occupational Exposure Limits 100 mg/m² NDS (OEL TWA) 100 mg/m² Spain - Occupational Exposure Limits VLA-ED (OEL TWA) [2] VLA-ED (OEL TWA) [2] 50 ppm VLA-EC (ppm) 100 ppm Sweden - Occupational Exposure Limits Nivágránsvárde (NYG) (ppm) KTV (OEL STEL) [ppm] 100 ppm USA - ACGIH - Occupational Exposure Limits ACGIH TUNA ACGIH TUNA (ppm) 100 ppm ACGIH TUNA (ppm) 100 ppm ACGIH TUNA (ppm) 150 ppm DIStillates (petroleum), solvent-refined light paraffinic (64741-89-5) Austria - Occupational Exposure Limits MAK (OEL TWA) 5 mg/m² (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	OEL TWA (ppm)	50 ppm (Skin)	
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USA - ACGIH - Occupational Exposure Limits ACGIH OEL TWA 434 mg/m³ ACGIH TLV®-TWA (ppm) 100 ppm ACGIH OEL STEL 651 mg/m³ ACGIH TLV®-STEL (ppm) 150 ppm Distillates (petroleum), solvent-refined light paraffinic (64741-89-5) Austria - Occupational Exposure Limits MAK (OEL TWA) 5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m) Belgium - Occupational Exposure Limits OEL TWA 5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m) Denmark - Occupational Exposure Limits OEL TWA [1] 1 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m) OEL STEL 2 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m) Hungary - Occupational Exposure Limits AK (OEL TWA) 5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m) 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)	Nivågränsvärde (NVG) (ppm)	50 ppm	
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ACGIH OEL STEL ACGIH TLV®-STEL (ppm) Distillates (petroleum), solvent-refined light paraffinic (64741-89-5) Austria - Occupational Exposure Limits MAK (OEL TWA) 5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m) Belgium - Occupational Exposure Limits OEL TWA 5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m) Denmark - Occupational Exposure Limits OEL TWA [1] 1 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m) OEL STEL 2 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m) Hungary - Occupational Exposure Limits AK (OEL TWA) 5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m) 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)	ACGIH OEL TWA	434 mg/m³	
ACGIH TLV®-STEL (ppm) Distillates (petroleum), solvent-refined light paraffinic (64741-89-5) Austria - Occupational Exposure Limits MAK (OEL TWA) S mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m) Belgium - Occupational Exposure Limits OEL TWA S 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)	ACGIH TLV®-TWA (ppm)	100 ppm	
Distillates (petroleum), solvent-refined light paraffinic (64741-89-5) Austria - Occupational Exposure Limits MAK (OEL TWA) 5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m) Belgium - Occupational Exposure Limits OEL TWA 5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m) Denmark - Occupational Exposure Limits OEL TWA [1] 1 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m) OEL STEL 2 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m) Hungary - Occupational Exposure Limits AK (OEL TWA) 5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m) 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)	ACGIH OEL STEL	651 mg/m³	
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)	ACGIH TLV®-STEL (ppm)	150 ppm	
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)	Distillates (petroleum), solvent-refined light p	araffinic (64741-89-5)	
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)	Austria - 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)	MAK (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)	Belgium - Occupational Exposure Limits		
OEL TWA [1] 1 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m) 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)	OEL TWA	5 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)	Denmark - Occupational Exposure Limits		
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)	OEL TWA [1]	1 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	
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)	OEL STEL	2 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)	Hungary - 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)	AK (OEL TWA)	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)	Netherlands - Occupational Exposure Limits		
VLA-ED (OEL TWA) [1] 5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	MAC TGG 8h (mg/m³)	5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	
	Spain - Occupational Exposure Limits		
VLA-EC (mg/m³) 10 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	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)	

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Distillates (petroleum), solvent-refined light paraffinic (64741-89-5)		
Sweden - Occupational Exposure Limits		
NGV (OEL TWA) 1 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)		
(TV (OEL STEL) 3 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)		
USA - ACGIH - Occupational Exposure Limits		
ACGIH OEL TWA	5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	
ACGIH OEL STEL	10 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	

8.1.2. Recommended monitoring procedures

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

5.1.4. DNEL ditt PNEC		
Eni Rotra ATF II D		
DNEL/DMEL (additional information)		
Not applicable		
Not applicable		
= 5,4 mg/m³/day (DNEL, Mineral base oil mist, severely refined, DMSO extract <3% m/m)		
= 1,2 mg/m³/day (DNEL, Mineral base oil mist, severely refined, DMSO extract <3% m/m)		
araffinic (64742-53-6)		
0,97 mg/kg bodyweight/day		
2,73 mg/m³		
5,58 mg/m³		
0,74 mg/kg bodyweight/day		
1,19 mg/m³		
1-(tert-dodecylthio)propan-2-ol (67124-09-8)		
DNEL/DMEL (Workers)		
215,4 μg/cm²		
3,34 mg/kg bodyweight/day		
11,8 mg/m³		
DNEL/DMEL (General population)		
107,7 μg/cm²		

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4 (
1-(tert-dodecylthio)propan-2-ol (67124-09-8)		
Long-term - systemic effects,oral	0,84 mg/kg bodyweight/day	
Long-term - systemic effects, inhalation	2,9 mg/m³	
Long-term - systemic effects, dermal	1,67 mg/kg bodyweight/day	
PNEC (Water)		
PNEC aqua (freshwater)	0,0064 mg/l	
PNEC aqua (marine water)	0,00064 mg/l	
PNEC aqua (intermittent, freshwater)	0,0058 mg/l	
PNEC (Sediment)		
PNEC sediment (freshwater)	8,28 mg/kg dwt	
PNEC sediment (marine water)	0,828 mg/kg dwt	
PNEC (Soil)		
PNEC soil	0,244 mg/kg dwt	
PNEC (Oral)		
PNEC oral (secondary poisoning)	33,33 mg/kg food	
PNEC (STP)		
PNEC sewage treatment plant	100 mg/l	
Distillates (petroleum), solvent-refined light paraffinic (64741-89-5)		
DNEL/DMEL (Workers)		
Long-term - systemic effects, dermal	0,97 mg/kg bodyweight/day	
Long-term - systemic effects, inhalation	2,73 mg/m³	
Long-term - local effects, inhalation	5,58 mg/m³	
DNEL/DMEL (General population)		
Long-term - systemic effects,oral	0,74 mg/kg bodyweight/day	
Long-term - local effects, inhalation	1,19 mg/m³	
PNEC (Oral)		
PNEC oral (secondary poisoning)	9,33 mg/kg food	
Note	The Derived No Effect Level (DNEL) is an estimated safe level of exposure that is derived	

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:

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".

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8.2.2. Personal protection equipment

Personal protective equipment (for industrial or professional use):

Face shield. Gloves. Protective clothing. Safety glasses. Safety shoes or boots.

Personal protective equipment symbol(s):











8.2.2.1. Eye and face protection

Eye protection:

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

8.2.2.2. Skin protection

Skin and body protection:

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

Hand protection:

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

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 (P). In case there is a significant presence of vapours (e.g. through handling at high temperature), use full or half-face masks with a filter for organic vapours (A), and H2S (B) where applicable. (EN 136/140/145). Combined gas/dust mask with filter type: EN 14387. Closed or confined areas (e.g. tank interiors): the use of protection measures for airways (masks or self-contained breathing apparatus), must be assessed according to the specific activity, as well as level and duration of predicted exposure. Approved respiratory protection equipment shall be used in spaces where hydrogen sulphide may accumulate: full face mask with cartridge/filter type "B" (grey for inorganic vapours including H2S) or self-contained breathing apparatus (SCBA). (EN 136/140/145)

8.2.2.4. Thermal hazards

Thermal hazard protection:

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

8.2.3. Environmental exposure controls

Environmental exposure controls:

Do not discharge the product into the environment. Storage areas/installations should be designed with adequate bunds so as to prevent ground and water pollution in case of leaks or spills. Prevent discharge of undissolved substance to or recover from onsite wastewater. Onsite wastewater treatment required. Do not apply industrial sludge to natural soils. Sludge should be incinerated, contained or reclaimed.

Consumer exposure controls:

No special requirements.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid Colour : Red.

Appearance : Liquid, bright & clear.

Molecular mass : Not applicable for mixtures

Odour : Slight odour of petroleum.

Odour threshold : There are no data available on the preparation/mixture itself.

Melting point : -42 °C (pour point) (ASTM D 97)

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: Not applicable Freezing point : Not available Boiling point Flammability : Not flammable Lower explosion limit Not determined Upper explosion limit Not determined 200 °C (ASTM D 92) Flash point Auto-ignition temperature 300 °C (DIN 51794) Decomposition temperature Not determined рΗ Not applicable

Viscosity, kinematic : 28 mm²/s (40 °C) (ASTM D 445)
Solubility : Water: Immiscible and insoluble
Log Kow : Not applicable for mixtures
Log Pow : Not applicable for mixtures

Vapour pressure : 0,1 hPa (20 °C) (Mineral oil, ASTM D 5191) (CONCAWE, 2010)

Vapour pressure at 50°C : Not determined

Critical pressure : Not applicable for mixtures

Density : 861 kg/m³ (15 °C) (ASTM D 4052)

Relative density : Not determined Relative vapour density at 20°C : Not determined Particle characteristics : Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

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

9.2.2. Other safety characteristics

Relative evaporation rate (butylacetate=1) : Negligible.
Additional information : No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

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

10.2. Chemical stability

Stable product, according to its intrinsic properties.

10.3. Possibility of hazardous reactions

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

10.4. Conditions to avoid

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

10.5. Incompatible materials

Strong oxidizing agents.

10.6. Hazardous decomposition products

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

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

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

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: Not classified (Based on available data, the classification criteria are not met) Acute toxicity (dermal) Acute toxicity (inhalation) : Not classified (Based on available data, the classification criteria are not met) Additional information : (according to composition) Mineral base oil, severely refined (N/A) LD50 oral rat ≥ 5000 mg/kg bodyweight (OECD 401) LD50 dermal rat ≥ 5000 mg/kg bodyweight (OECD 402) Distillates (petroleum), solvent-refined light paraffinic (64742-53-6) I D50 oral rat > 5000 mg/kg bodyweight LD50 dermal rat > 5000 mg/kg bodyweight LD50 dermal rabbit 2000 - 5000 mg/kg bodyweight LC50 Inhalation - Rat > 5 mg/l/4h 1-(tert-dodecylthio)propan-2-ol (67124-09-8) I D50 oral rat > 5000 mg/kg bodyweight Animal: rat, Guideline: other: LD50 dermal rabbit > 2000 mg/kg bodyweight Animal: rabbit, Guideline: OECD Guideline 434 (Acute Dermal Toxicity - Fixed Dose Procedure) 2,2'-(C16-18 (evennumbered, C18 unsaturated) alkyl imino) diethanol (1218787-32-6) LD50 oral rat 1200 - 2000 mg/kg bodyweight Distillates (petroleum), solvent-dewaxed heavy paraffinic; Baseoil— unspecified; [A complex combination of hydrocarbons obtained by removal of normal paraffins from a petroleum fraction by solvent crystallization. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C20 through C50 and produces a finished oil with a viscosity not less than 100 SUS at 100 °F (19cSt at 40 °C).] (64742-65-0) LD50 oral rat > 5000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity) LD50 dermal rabbit 2000 - 5000 mg/kg bodyweight (API 1982, UBTL 1984 - OECD 402) LC50 Inhalation - Rat 3,9 - 5,3 mg/l/4h (Bio-Research Laboratories, Ltd. 1984 - OECD 403) xylene (1330-20-7) LD50 oral rat 3500 - 4000 mg/kg bodyweight LD50 dermal rabbit ≥ 4200 mg/kg bodyweight LC50 Inhalation - Rat [ppm] 28 ppm/4h Distillates (petroleum), solvent-refined light paraffinic (64741-89-5) LD50 oral rat > 5000 mg/kg (OECD 401) LD50 dermal rat > 5000 mg/kg (OECD 402) LC50 Inhalation - Rat > 5 mg/l/4h (OECD 403) Skin corrosion/irritation : Not classified (Based on available data, the classification criteria are not met) pH: Not applicable Additional information (according to composition) Mineral base oil, severely refined (N/A) pН Not applicable Distillates (petroleum), solvent-dewaxed heavy paraffinic; Baseoil— unspecified; [A complex combination of hydrocarbons obtained by removal of normal paraffins from a petroleum fraction by solvent crystallization. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C20 through C50 and produces a finished oil with a viscosity not less than 100 SUS at 100 °F (19cSt at 40 °C).] (64742-65-0) Not applicable

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SDS EO IOITHAL ACCORDING TO COMMINISSION REGULATION (EU) 2020/070		
Distillates (petroleum), solvent-refined light paraffinic (64741-89-5)		
pH	Not applicable	
Serious eye damage/irritation	: Not classified (Based on available data, the classification criteria are not met) pH: Not applicable	
Additional information	: (according to composition)	
Mineral base oil, severely refined (N/A)		
pH	Not applicable	
Distillates (petroleum), solvent-dewaxed heavy paraffinic; Baseoil— unspecified; [A complex combination of hydrocarbons obtained by removal of normal paraffins from a petroleum fraction by solvent crystallization. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C20 through C50 and produces a finished oil with a viscosity not less than 100 SUS at 100 °F (19cSt at 40 °C).] (64742-65-0)		
pH	Not applicable	
Distillates (petroleum), solvent-refined light	paraffinic (64741-89-5)	
pH	Not applicable	
Respiratory or skin sensitisation Additional information	 Not classified (Based on available data, the classification criteria are not met) (according to composition) 	
Germ cell mutagenicity Additional information Carcinogenicity Additional information	Exposure may produce an allergic reaction Not classified (Based on available data, the classification criteria are not met) (according to composition) Not classified (Based on available data, the classification criteria are not met) (according to composition) This product contains: Distillates (petroleum), solvent-refined light 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 C15 through C30 and produces a finished oil with a viscosity of less than 100 SUS at 100 °F (19cSt at 40 °C).], 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).], Distillates (petroleum), hydrotreated light naphthenic; Baseoil— unspecified; [A complex combination of hydrocarbons obtained by treating a petroleum fraction with hydrogen in the presence of a catalyst. It consists of hydrocarbons having carbon numbers predominantly in the range of C15 through C30 and produces a finished oil with a viscosity of less than 100 SUS at 100 °F (19cSt at 40 °C). It contains relatively few normal paraffins.] this product has a value of DMSO extract < 3 % wt, according to IP 346. According to the criteria laid out by the EU (note L, Annex VI of Regulation (CE) 1272/2008), this product must be regarded as non carcinogenic. All the mineral base oils contained in this product have a value < 3 % wt of DMSO extract, according to IP 346 (Nota L - Annex VI Reg (CE) 1272/2008, # 1.1.3)	
Reproductive toxicity Additional information STOT-single exposure	 Not classified (Based on available data, the classification criteria are not met) (according to composition) Not classified (Based on available data, the classification criteria are not met) 	
Additional information	: (according to composition)	
toluene (108-88-3)		
STOT-single exposure	May cause drowsiness or dizziness.	
2,2'-(C16-18 (evennumbered, C18 unsatural	ed) alkyl imino) diethanol (1218787-32-6)	
NOAEL (acute, oral, animal/male)	13 mg/kg bodyweight	
STOT-repeated exposure	: Not classified (Based on available data, the classification criteria are not met)	

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	(according to composition) This product contains: toluene Prolonged exposure for long periods to toluene may also cause damages to the auditory nerves (ototoxicity). These effects are shown at level 10-20 times the exposure limits.	
Mineral base oil, severely refined (N/A)		
LOAEL (oral, rat, 90 days)	125 mg/kg bodyweight/day (OECD TG 408)	
Distillates (petroleum), solvent-refined light paraffinic (64742-53-6)		
LOAEL (oral, rat, 90 days)	125 mg/kg bodyweight/day	
NOAEL (dermal, rat/rabbit, 90 days)	30 – 2000 mg/kg bodyweight/day	
NOAEC (inhalation,rat, vapour, 90 days)	980 mg/m³	
1-(tert-dodecylthio)propan-2-ol (67124-09-8)		
NOAEL (oral, rat, 90 days)	167 mg/kg bodyweight Animal: rat, Guideline: other:	
toluene (108-88-3)		
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.	
Distillates (petroleum), solvent-dewaxed heavy paraffinic; Baseoil— unspecified; [A complex combination of hydrocarbons obtained by removal of normal paraffins from a petroleum fraction by solvent crystallization. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C20 through C50 and produces a finished oil with a viscosity not less than 100 SUS at 100 °F (19cSt at 40 °C).] (64742-65-0)		
LOAEL (oral, rat, 90 days)	125 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)	
LOAEL (dermal, rat/rabbit, 90 days)	100 mg/kg bodyweight/day	
NOAEL (oral, rat, 90 days)	< 125 mg/kg bodyweight/day (CAS 64742-04-7, Mobil 1990) (OECD 408)	
NOAEL (dermal, rat/rabbit, 90 days)	1000 – 2000 mg/kg bodyweight/day (API 1982, Mobil Environmental and Health Science Laboratory 1983 - OECD 410)	
NOAEC (inhalation,rat, vapour, 90 days)	220 – 980 mg/m³ (Dalbey W, Osimitz T, Kommineni C, Roy T, Feuston M and Yang J 1991 - OECD 412)	
NOAEC (inhalation, rat, dust/mist/fume, 90 days)	> 0,98 mg/l air Animal: rat, Guideline: OECD Guideline 412 (Subacute Inhalation Toxicity: 28-Day Study)	
Distillates (petroleum), solvent-refined light paraffinic (64741-89-5)		
LOAEL (oral, rat, 90 days)	125 mg/kg bodyweight/day (OECD TG 408)	
•	Not classified (Based on available data, the classification criteria are not met) Viscosity, kinematic: > 20,5 mm2/s (40 °C) (ASTM D 445)	
Eni Rotra ATF II D		
Viscosity, kinematic	28 mm ² /s (40 °C) (ASTM D 445)	
Mineral base oil, severely refined (N/A)		
Viscosity, kinematic	> 21 mm²/s	
Hydrocarbon	Yes	
Distillates (petroleum), solvent-refined light paraffinic (64742-53-6)		
Viscosity, kinematic	< 20,5 mm²/s	

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Distillates (petroleum), solvent-dewaxed heavy paraffinic; Baseoil— unspecified; [A complex combination of hydrocarbons obtained by removal of normal paraffins from a petroleum fraction by solvent crystallization. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C20 through C50 and produces a finished oil with a viscosity not less than 100 SUS at 100 °F (19cSt at 40 °C).] (64742-65-0)

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

12,5 - 14,5 mm²/s (40°C, ASTM D 445) Viscosity, kinematic

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

: Contact with eyes may cause temporary reddening and irritation, Prolonged and repeated skin contact may cause reddening, irritation and dermatitis, May cause sensitization by skin contact.

Other information : None

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Harmful to aquatic life. An uncontrolled release to the environment may produce a contamination of different environmental compartments (air, soil, underground, surface

water bodies, aquifers). Handle according to general working hygiene practices to avoid pollution and release into the environment. Notify authorities if product enters sewers or

public waters. Ecology - air

: This product has a low vapour pressure, and in normal conditions at ambient temperature the concentration in the air is negligible. A significant concentration may build up only in

case of sprays and mists. In these cases overexposure to mists (e.g. through prolonged use in confined insufficiently ventilated spaces) may cause irritation to airways, nausea and

Ecology - water This product is not soluble in water. It floats on water and forms a film on the surface. The damage to aquatic organisms is of mechanical kind (immobilization and entrapment)

Hazardous to the aquatic environment, short-term (acute)

: Not classified

Hazardous to the aquatic environment, long-term

: Harmful to aquatic life with long lasting effects.

(chronic)		
Mineral base oil, severely refined (N/A)		
LC50 fish 1	> 100 mg/l (LL 50)	
EC50 Daphnia 1	> 10000 mg/l WAF, 48 h (OECD 202)	
Distillates (petroleum), hydrotreated light naphthenic (64742-53-6)		
LC50 fish 1	> 100 mg/l (Pimephales promelas)	
LC50 other aquatic organisms 1	> 10 g/l (LL50)	
EC50 Daphnia 1	> 10 g/l	
NOEC chronic fish	> 5000 mg/l (7d)	
NOEC chronic crustacea	> 1000 mg/l (21d)	

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20 10 10 11 11 11 11 11 11 11 11 11 11 11		
1-(tert-dodecylthio)propan-2-ol (67124-09-8)		
LC50 fish 1	750 μg/l	
EC50 Daphnia 1	580 μg/l	
EC50 96h - Algae [1]	> 100 mg/l	
2,2'-(C16-18 (evennumbered, C18 unsaturated) alkyl imino) diethanol (1218787-32-6)		
LC50 fish 1	0,1 mg/l (Brachydanio rerio)	
EC50 Daphnia 1	0,043 mg/l (Daphnia Magna)	
EC50 72h - Algae [1]	0,0538 mg/l (Pseudokirchneriella subcapitata)	
NOEC chronic algae	0,0158 mg/l (Pseudokirchneriella subcapitata)	
Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)		
LC50 fish 1	> 100 mg/l (LL 50, Exxon 1995 - OECD 203)	
EC50 Daphnia 1	> 10000 mg/l (EL50, Shell 1988 - OECD 202)	
NOEC (acute)	≥ 100 mg/l (Pseudokirchneriella subcapitata, 72h, OECD 201 - Petro-Canada 2008)	
NOEC chronic fish	≥ 1000 mg/l (Oncorhynchus mykiss, NOELR, 14d - QSAR, Redman, A. et al. 2010)	
NOEC chronic crustacea	≥ 1000 mg/l (21d, OECD 211 - Shell 1994)	
NOEC chronic algae	≥ 100 mg/l (Pseudokirchneriella subcapitata, 72h)	
xylene (1330-20-7)		
LC50 fish 1	2,6 (read-across)	
EC50 Daphnia 1	1 mg/l (IC50)	
ErC50 (algae)	0,44 mg/l (Read-across; 73h)	
Distillates (petroleum), solvent-refined light paraffinic (64741-89-5)		
LC50 fish 1	> 100 mg/l (LL 50)	
EC50 Daphnia 1	> 10000 mg/l WAF, 48 h (OECD 202)	
12.2. Persistence and degradability		
Eni Rotra ATF II D		
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.	

Eni Rotra ATF II D		
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.	
Mineral base oil, severely refined (N/A)		
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.	
1-(tert-dodecylthio)propan-2-ol (67124-09-8)		
Biodegradation	5,9 % (28d, OECD TG 301 F)	
2,2'-(C16-18 (evennumbered, C18 unsaturated) alkyl imino) diethanol (1218787-32-6)		
Biodegradation	63 % (28 d, OECD TG 301 D)	
Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)		
Persistence and degradability	The most significant constituents of the product should be considered as "inherently biodegradable", but not "readily biodegradable", and they may be moderately persistent, particularly in anaerobic conditions.	

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Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)		
Biodegradation	31 % (28d, Exxon 1995)	
Distillates (petroleum), solvent-refined light paraffinic (64741-89-5)		
Persistence and degradability	The most significant constituents of the product should be considered as "inherently biodegradable", but not "readily biodegradable", and they may be moderately persistent particularly in anaerobic conditions.	
Biodegradation	31 % (28d, Exxon 1995)	

12.3. Bioaccumulative potential

·		
Eni Rotra ATF II D		
Log Pow	Not applicable for mixtures	
Log Kow	Not applicable for mixtures	
Bioaccumulative potential	Not established.	
1-(tert-dodecylthio)propan-2-ol (67124-09-8)		
Log Kow	5,7	
2,2'-(C16-18 (evennumbered, C18 unsaturated) alkyl imino) diethanol (1218787-32-6)		
Bioconcentration factor (BCF REACH)	110,2	
Log Kow	3,6	
Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)		
BCF fish 1	0,4 – 6280 l/kg	
BCF fish 2	3,16 – 71100 l/kg	
Log Pow	1,99 – 18,02	
Log Kow	Not applicable (UVCB)	
Bioaccumulative potential	The test methods for this endpoint are not applicable to UVCB substances.	
xylene (1330-20-7)		
Bioconcentration factor (BCF REACH)	> 5,5 (5.5 - 12.2)	
Distillates (petroleum), solvent-refined light paraffinic (64741-89-5)		
Log Kow	Not determined	
Bioaccumulative potential	The test methods for this endpoint are not applicable to UVCB substances.	

12.4. Mobility in soil

Eni Rotra ATF II D		
Ecology - soil	No data available.	
Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)		
Log Koc	1,71 – 14,7	
Ecology - soil	The test methods for this endpoint are not applicable to UVCB substances.	
Distillates (petroleum), solvent-refined light paraffinic (64741-89-5)		
cology - soil This product is not soluble in water. It floats on water and forms a film on the surface.		

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12.5. Results of PBT and vPvB assessment

Eni Rotra ATF II D		
This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII		
This substance/mixture does not meet the vPvB criteria	a 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		
Mineral base oil, severely refined (N/A)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII This substance does not meet the criteria for classification as PBT or vPvB. The product should be considered prudentially as "Persistent" in the environment, according to the REACH Annex XIII criteria (point 1.1)	
Distillates (petroleum), hydrotreated light naphthenic (64742-53-6)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII This substance does not meet the criteria for classification as PBT or vPvB. The product should be considered prudentially as "Persistent" in the environment, according to the REACH Annex XIII criteria (point 1.1)	
Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII This substance does not meet the criteria for classification as PBT or vPvB. The product should be considered prudentially as "Persistent" in the environment, according to the REACH Annex XIII criteria (point 1.1)	
Distillates (petroleum), solvent-refined light paraffinic (64741-89-5)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII This substance does not meet the criteria for classification as PBT or vPvB. The product should be considered prudentially as "Persistent" in the environment, according to the REACH Annex XIII criteria (point 1.1)	

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 Additional information

: None.

: This product has no specific properties for inhibition of bacterial activity. In any case, wastewater containing this product should be treated in plants that are suited for the specific purpose.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods

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

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Product/Packaging disposal recommendations : European Waste Catalogue code(s) (Decision 2001/118/CE): 13 02 05* (mineral-based

non-chlorinated engine, gear and lubricating oils). This EWC code is only a general indication, and takes into account the original composition of the product and its intended use. The user has the responsibility of choosing the right EWC code, considering the actual

use of the product, alterations and contaminations.

Additional information : Empty containers may contain combustible product residues. Do not cut, weld, bore, burn or

incinerate emptied containers, unless they have been cleaned and declared safe.

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 ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID n	umber			
Not regulated for transport				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.2. UN proper shipping	14.2. UN proper shipping name			
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.3. Transport hazard o	class(es)			
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.4. Packing group				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.5. Environmental hazards				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
None.	1			

14.6. Special precautions for user

Overland transport

Not regulated

Transport by sea

Not regulated

Air transport

Not regulated

Inland waterway transport

Not regulated

Rail transport

Not regulated

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

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SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

EU restriction list (REACH Annex XVII)		
Reference code	Applicable on	Entry title or description
3(a)	toluene ; xylene	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F
3(b)	Mineral base oil, severely refined; Distillates (petroleum), solvent-refined light paraffinic; 1-(tert-dodecylthio)propan-2-ol; Benzene, polypropene derivs., sulfonated, calcium salts; toluene; 2,2'-(C16-18 (evennumbered, C18 unsaturated) alkyl imino) diethanol; xylene; Distillates (petroleum), solvent-refined light paraffinic	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)	Eni Rotra ATF II D; 1- (tert-dodecylthio)propan- 2-ol; 2,2'-(C16-18 (evennumbered, C18 unsaturated) alkyl imino) diethanol	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard class 4.1
40.	toluene ; xylene	Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or not.
48.	toluene	Toluene

REACH Annex XIV (Authorisation List)

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

REACH Candidate List (SVHC)

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

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

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

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

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Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.1.2. National regulations

National adoption of EU Directives concerning health and safety on the workplace.

National adoption of EU Directives concerning control of major-accident hazards involving dangerous substances (2012/18/CE).

Relevant national laws on prevention of water pollution.

Relevant national laws on protection of the health of pregnant workers (National adoption of Dir. 92/85/EEC).

National adoption of Directive 2008/98/CE concerning disposal of used oils.

France

Maladies professionelles (F)			
Code	Description		
RG 4 BIS	Gastrointestinal disorders caused by benzene, toluene, xylenes and all products containing them		
RG 36	Diseases caused by oils and fats of mineral or synthetic origin		
RG 84	Conditions caused by liquid organic solvents for professional use: saturated or unsaturated aliphatic or cyclic liquid hydrocarbons and mixtures thereof; liquid halogenated hydrocarbons; nitrated derivatives of aliphatic hydrocarbons; alcohols; glycols, glycol ethers; ketones; aldehydes; aliphatic and cyclic ethers, including tetrahydrofuran; esters; dimethylformamide and dimethylacetamine; acetonitrile and propionitrile; pyridine; dimethylsulfone and dimethylsulfoxide		

Germany

Employment restrictions : Employment prohibitions or restrictions on the protection of young people at work according

to § 22 JArbSchG in the case of formation of hazardous substances have to be observed.

National Rules and Recommendations TRGS 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.

VbF class (D) : Not applicable.

Water hazard class (WGK) (D) WGK 1, Slightly hazardous to water (Classification according to AwSV, Annex 1).

WGK remark Classification based on the components in compliance with Verwaltungsvorschrift

wassergefährdender Stoffe (VwVwS).

Storage class (LGK, TRGS 510) : LGK 12 - Non-combustible liquids.

Hazardous Incident Ordinance (12. BImSchV) Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

Netherlands

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

environment

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 : None of the components are listed

SZW-lijst van reprotoxische stoffen -Vruchtbaarheid

SZW-lijst van reprotoxische stoffen - Ontwikkeling : toluene xvlene are listed

Denmark

MAL code : 00-1 (Executive Order No. 301 from 1993)

Danish National Regulations Young people under 18 years are not allowed to use the product

Pregnant/breastfeeding women working with the product must not be in direct contact with it

15.2. Chemical safety assessment

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

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

2,2'-(C16-18 (evennumbered, C18 unsaturated) alkyl imino) diethanol

Distillates (petroleum), solvent-refined light paraffinic

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SECTION 16: Other information

Indication of changes				
Section	Changed item	Change	Notes	
	First issue.			

Abbreviations and acronyms:			
	Complete text of the H phrases quoted in this Safety Data Sheet. These phrases are reported here for information only, and MAY NOT correspond to the classification of the product.		
	N/D = not available N/A = not applicable		
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways		
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road		
ATE	Acute Toxicity Estimate		
BCF	Bioconcentration factor		
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008		
DMEL	Derived Minimal Effect level		
DNEL	Derived-No Effect Level		
EC50	Effective concentration for 50 percent of test population (median effective concentration)		
IARC	International Agency for Research on Cancer		
IATA	International Air Transport Association		
IMDG	International Maritime Dangerous Goods		
LC50	Lethal concentration for 50 percent of test population (median lethal concentration)		
LD50	Lethal dose for 50 percent of test population (median lethal dose)		
LOAEL	Lowest Observed Adverse Effect Level		
NOAEC	No-Observed Adverse Effect Concentration		
NOAEL	No-Observed Adverse Effect Level		
NOEC	No-Observed Effect Concentration		
OECD	Organisation for Economic Co-operation and Development		
PBT	Persistent Bioaccumulative Toxic		
PNEC	Predicted No-Effect Concentration		
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals, Regulation (EC) No 1907/2006		
RID	Regulation concerning the International Carriage of Dangerous Goods by Railways		
SDS	Safety Data Sheet		
STP	Sewage treatment plant		
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.

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Other information

: Do not use the product for any purposes that have not been advised by the manufacturer. In exceptional cases (i.e prolonged storage in tanks contaminated with water, and presence of anaerobic sulfate-reducing microbial colonies), the product may undergo a degradation and generate small amounts of sulfur compounds, including H2S. This situation is especially relevant in all those circumstances which require to enter a confined space, with direct exposure to the vapours. If this possibility is suspected, a specific assessment of inhalation risks from the presence of H2S in confined spaces must be made, to help determine prevention measures and controls (i.e. PPE) appropriate to local circumstances, and adequate emergency procedures. 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.

Full text of H- and EUH-statements:			
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4		
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4		
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		
Asp. Tox. 1	Aspiration hazard, Category 1		
EUH208	Contains Benzene, polypropene derivs, sulfonated, calcium salts. May produce an allergic reaction.		
Eye Dam. 1	Serious eye damage/eye irritation, Category 1		
Flam. Liq. 2	Flammable liquids, Category 2		
Flam. Liq. 3	Flammable liquids, Category 3		
H225	Highly flammable liquid and vapour.		
H226	Flammable liquid and vapour.		
H302	Harmful if swallowed.		
H304	May be fatal if swallowed and enters airways.		
H312	Harmful in contact with skin.		
H314	Causes severe skin burns and eye damage.		
H315	Causes skin irritation.		
H317	May cause an allergic skin reaction.		
H318	Causes serious eye damage.		
H332	Harmful if inhaled.		
H336	May cause drowsiness or dizziness.		
H361d	Suspected of damaging the unborn child.		
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.		
H412	Harmful to aquatic life with long lasting effects.		
Repr. 2	Reproductive toxicity, Category 2		
Skin Corr. 1C	Skin corrosion/irritation, Category 1, Sub-Category 1C		
Skin Irrit. 2	Skin corrosion/irritation, Category 2		
Skin Sens. 1	Skin sensitisation, Category 1		

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Full text of H- and EUH-statements:		
Skin Sens. 1B	Skin sensitisation, category 1B	
STOT RE 2	Specific target organ toxicity – Repeated exposure, Category 2	
STOT SE 3	SE 3 Specific target organ toxicity – Single exposure, Category 3, Narcosis	

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:				
Aquatic Chronic 3	H412	Calculation method		

Safety Data Sheet (SDS), EU

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