

#### Safety Data Sheet

SDS EU format according to COMMISSION REGULATION (EU) 2020/878 Revision date: 27/11/2023 Version: 1.0

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

#### 1.1. Product identifier

Product form : Mixture

Trade name : Eni i-Sigma ECO PLUS 5W-20

Product code : 1108 Type of product : Lubricants Formula : 0132-2023 : 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 · Wide dispersive use

Use of the substance/mixture : Lubricant for internal combustion engines

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

For specific information about the toxicological/ecotoxicological properties and classification of this product, see Sect. 11 and/or Sect. 12. Harmful to aquatic life with long lasting effects.

#### 2.2. Label elements

#### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

CLP Signal word

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

Precautionary statements (CLP) : P273 - Avoid release to the environment.

P501 - Dispose of contents/container to hazardous or special waste collection point, in

accordance with local, regional, national and/or international regulation.

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**EUH-statements** 

: EUH208 - Contains Reaction products of benzenesulfonic acid, mono-C20-24 (even)-secalkyl derivs. para-, calcium salts, N, N-bis(2-ethylhexyl)-((1,2,4- triazol-1-yl)methyl)amine. May produce an allergic reaction.

#### 2.3. Other hazards (not relevant for classification)

Other hazards not contributing to the classification

: This product is combustible, but not classified as Flammable. The creation of flammable vapour mixtures takes place at temperatures which are higher than normal ambient levels. If the product is handled or used at high temperature, contact with hot product or vapours may cause burns. Do not wait for symptoms to develop.

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
Contains no PBT and/or vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

Component	
Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)	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
Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)	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
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
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
Reaction products of benzenesulfonic acid, mono-C20-24 (even)-sec-alkyl derivs. para-, calcium salts	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-Di-tert-butylphenol (128-39-2)	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
Phenol, (tetrapropenyl) derivatives (74499-35-7)	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

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), hydrotreated heavy paraffinic(64742-54-7)	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 heavy paraffinic(64742-54-7)	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), solvent-dewaxed heavy paraffinic(64742-65-0)	The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605
Reaction products of benzenesulfonic acid, mono-C20-24 (even)-sec-alkyl derivs. para-, calcium salts	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

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Component	
2,6-Di-tert-butylphenol(128-39-2)	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
Phenol, (tetrapropenyl) derivatives(74499-35-7)	The substance is included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

## SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

Notes

: Composition/ Information on ingredients: Mixture of hydrocarbons

Additives

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [EU-GHS / CLP]
Distillates (petroleum), hydrotreated heavy paraffinic (see note [***], see note [***]) substance with national workplace exposure limit(s) (AT, BE, DK, ES, GB, HU, NL, SE)	CAS-No.: 64742-54-7 EC-No.: 265-157-1 EC Index-No.: 649-467-00-8 REACH-no: 01-2119484627- 25	70 - 80	Asp. Tox. 1, H304
Distillates (petroleum), hydrotreated heavy paraffinic (see note [***], see note [***]) substance with national workplace exposure limit(s) (AT, BE, DK, ES, GB, HU, NL, SE)	CAS-No.: 64742-54-7 EC-No.: 265-157-1 EC Index-No.: 649-467-00-8 REACH-no: 01-2119484627- 25	25 – 30	Not classified
Mineral base oil, severely refined (see note [*]) substance with national workplace exposure limit(s) (AT, BE, DK, ES, GB, HU, NL, SE)	CAS-No.: N/A EC-No.: N/A	4 - 11	Asp. Tox. 1, H304
Distillates (petroleum), solvent-dewaxed heavy paraffinic (see note [**], see note [***]) substance with national workplace exposure limit(s) (AT, BE, DK, ES, GB, HU, NL, SE)	CAS-No.: 64742-65-0 EC-No.: 265-169-7 EC Index-No.: 649-474-00-6 REACH-no: 01-2119471299- 27	0,21 – 2,1	Asp. Tox. 1, H304
Reaction products of benzenesulfonic acid, mono- C20-24 (even)-sec-alkyl derivs. para-, calcium salts	EC-No.: 947-519-7 EC Index-No.: N/A REACH-no: 01-2120765489- 36	0,2 - 1,1	Skin Sens. 1B, H317
2,6-Di-tert-butylphenol	CAS-No.: 128-39-2 EC-No.: 204-884-0 REACH-no: 01-2119490822- 33	0,05 - 0,21	Skin Irrit. 2, H315 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [EU-GHS / CLP]
N, N-bis(2-ethylhexyl)-((1,2,4- triazol-1-yl)methyl)amine	CAS-No.: 91273-04-0 EC-No.: 401-280-0 EC Index-No.: 613-072-00-9 REACH-no: 01-2119930450-	0 – 0,021	Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Chronic 1, H410
phenol, (tetrapropenyl) derivatives Substance included in REACH Candidate List (Phenol, alkylation products (mainly in para position) with C12-rich branched alkyl chains from oligomerisation, covering any individual isomers and/ or combinations thereof (PDDP))	CAS-No.: 74499-35-7 EC-No.: 310-154-3 EC Index-No.: 604-092-00-9 REACH-no: N/A	0,002 – 0,021	Skin Corr. 1C, H314 Eye Dam. 1, H318 Repr. 1B, H360F Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=10)

Specific concentration limits:		
Name	Product identifier	Specific concentration limits (%)
Reaction products of benzenesulfonic acid, mono-C20-24 (even)-sec-alkyl derivs. para-, calcium salts	EC-No.: 947-519-7 EC Index-No.: N/A REACH-no: 01-2120765489- 36	(10 ≤ C ≤ 100) Skin Sens. 1B, 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 occupational exposure limits for some EU countries affecting the category of mineral oils (finely refined mineral base oil mists; see section 8.1)

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

#### **SECTION 4: First aid measures**

#### 4.1. Description of first aid measures

First-aid measures after inhalation

: Remove person to fresh air and keep comfortable for breathing. In case of disturbances owing to inhalation of vapours or mists, remove the victim from exposure; keep at rest; if necessary, seek medical attention. See also section 4.3.

First-aid measures after skin contact

: Take off contaminated clothing and shoes. Wash thoroughly with soap and water. If skin irritation or rash occurs, get medical advice/attention. In case of 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. Do not put ice on the burn. Wash skin with plenty of water.

First-aid measures after eye contact

Rinse eyes thoroughly for at least 15 minutes. Keep eyelids well apart. If irritation, blurred vision or swelling occurs and persists, obtain medical advice from a specialist. In case of 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.

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First-aid measures after ingestion

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

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

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

Treat symptomatically.

#### **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 of air.

Hazardous decomposition products in case of fire

: Incomplete combustion is likely to give rise to a complex mixture of airborne solid and liquid particulates, gases, including carbon monoxide, NOx, H2S and SOx (harmful/toxic gases).

#### 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

: 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. Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

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

: Ventilate spillage area. 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

: Do not attempt to take action without suitable 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. For further information refer to section 8: "Exposure controls/personal protection".

**Emergency procedures** 

: Notify local authorities according to relevant regulations.

#### 6.2. Environmental precautions

Avoid release to the environment. 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.

Methods for cleaning up Other information

- : Take up liquid spill into absorbent material.
- : 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. Dispose of materials or solid residues at an authorized site.

#### 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

Ensure good ventilation of the work station. Wear personal protective equipment. 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".

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Handling temperature Hygiene measures

- : This product can be handled at ambient temperatures.
- : Ensure that proper housekeeping measures are in place. 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. Take off immediately all contaminated clothing and wash it before reuse. Contaminated materials should not be allowed to accumulate in the workplaces and should never be kept inside the pockets. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

#### 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. Keep cool.

Incompatible products : Keep away from: strong oxidants.

Storage temperature : This product can be stored at ambient temperatures.

Storage area

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

regulations.

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

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

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)

No information available.

#### **SECTION 8: Exposure controls/personal protection**

#### 8.1. Control parameters

#### 8.1.1 National occupational exposure and biological limit values

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

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Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)		
Sweden - Occupational Exposure Limits		
NGV (OEL TWA)	1 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	
KTV (OEL STEL)	3 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	
USA - ACGIH - Occupational Exposure Limits		
ACGIH OEL TWA	5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	
ACGIH OEL STEL	10 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	
Distillates (petroleum), hydrotreated heavy pa	araffinic (64742-54-7)	
Austria - Occupational Exposure Limits		
MAK (OEL TWA)	5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	
Belgium - Occupational Exposure Limits		
OEL TWA	5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	
Denmark - Occupational Exposure Limits		
OEL TWA [1]	1 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	
OEL STEL	2 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	
Hungary - Occupational Exposure Limits		
AK (OEL TWA)	5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	
Netherlands - Occupational Exposure Limits		
MAC TGG 8h (mg/m³)	5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	
Spain - Occupational Exposure Limits		
VLA-ED (OEL TWA) [1]	5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	
VLA-EC (mg/m³)	10 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	
Sweden - Occupational Exposure Limits		
NGV (OEL TWA)	1 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	
KTV (OEL STEL)	3 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	
USA - ACGIH - Occupational Exposure Limits		
ACGIH OEL TWA	5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	
ACGIH OEL STEL	10 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	
Distillates (petroleum), solvent-dewaxed heav	y paraffinic (64742-65-0)	
Austria - Occupational Exposure Limits		
MAK (OEL TWA)	5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	
Belgium - Occupational Exposure Limits		
OEL TWA	5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	
Denmark - Occupational Exposure Limits		
OEL TWA [1]	1 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	
OEL STEL	2 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	
Hungary - Occupational Exposure Limits		
AK (OEL TWA)	5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)	

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

#### 8.1.2. Recommended monitoring procedures

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

#### 8.1.3. Air contaminants formed

No additional information available

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#### 8.1.4. DNEL and PNEC

Eni i-Sigma ECO PLUS 5W-20		
DNEL/DMEL (additional information)		
Additional information	Not applicable	
PNEC (additional information)		
Additional information	Not applicable	
Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)		
DNEL/DMEL (Workers)		
Long-term - systemic effects, dermal	50 mg/kg bodyweight/day	
Long-term - systemic effects, inhalation	140 mg/m³ (Aerosol)	
Long-term - local effects, inhalation	5,4 mg/m³	
DNEL/DMEL (General population)		
Long-term - systemic effects,oral	0,74 mg/kg bodyweight/day	
Long-term - local effects, inhalation	1,2 mg/m³/day	
PNEC (Oral)		
PNEC oral (secondary poisoning)	9,33 mg/kg food	
Distillates (petroleum), hydrotreated heavy	y paraffinic (64742-54-7)	
DNEL/DMEL (Workers)		
Long-term - systemic effects, dermal	1 mg/kg bodyweight/day	
Long-term - systemic effects, inhalation	2,7 mg/m³	
Long-term - local effects, inhalation	5,6 mg/m³	
DNEL/DMEL (General population)		
Long-term - systemic effects,oral	0,74 mg/kg bodyweight/day	
Long-term - local effects, inhalation	1,2 mg/m³/day (DNEL, Mineral base oil mist, severely refined, DMSO extract <3% m/m)	
PNEC (Oral)		
PNEC oral (secondary poisoning)	9,33 mg/kg food	
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:

Ensure good ventilation of the work station. Before entering storage tanks and commencing any operation in a confined area, 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".

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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. Dust/aerosol mask.

#### Personal protective equipment symbol(s):











#### 8.2.2.1. Eye and face protection

#### Eye protection:

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

#### 8.2.2.2. Skin protection

#### Skin and body protection:

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

#### Hand protection:

When there is a risk of contact with the skin, use hydrocarbon-resistant, felt-lined 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.

#### 8.2.2.3. Respiratory protection

#### Respiratory protection:

Independently from other possible actions (technical modifications, operating procedures, and other means to limit the exposure of workers), personal protection equipment can be used according to necessity. Open or well ventilated spaces: in presence of oil mists and if the product is handled without adequate containment means: use full or half-face masks with filter for mists/aerosols. In case there is a significant presence of vapours (e.g. through handling at high temperature), use full or half-face masks with filter for hydrocarbon vapours. (EN 136/140/145). Combination filter device (DIN EN 141). Closed or confined areas (e.g. tank interiors): the use of protection measures for airways (masks or self-contained breathing apparatus), must be assessed according to the specific activity, as well as level and duration of predicted exposure. (EN 136/140/145)

#### 8.2.2.4. Thermal hazards

#### Thermal hazard protection:

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. Onsite wastewater treatment required. Do not apply industrial sludge to natural soils. Avoid release to the environment.

#### Consumer exposure controls:

Wear protective gloves. Avoid excessive or improper use.

#### **SECTION 9: Physical and chemical properties**

#### 9.1. Information on basic physical and chemical properties

Physical state : Liquid

Colour : Yellow to amber.

Appearance : Clear liquid.

Odour : Not available

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

Melting point : Not determined Freezing point : Not applicable

Boiling point :  $\geq$  200 °C (ASTM D1160)

Flammability : Not flammable Lower explosion limit : Not determined

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Upper explosion limit : Not determined

Flash point : ≥ 190 °C (ASTM D 93)

Auto-ignition temperature : Not determined

Decomposition temperature : Not determined

pH : Not applicable.

Viscosity, kinematic : 6,9 - 9,3 mm²/s (100 °C) (ASTM D445)
Solubility : Water: Immiscible and insoluble

Log Kow : 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 : Not determined
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

Critical temperature : Not applicable for mixtures

9.2.2. Other safety characteristics

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 (in normal conditions of storage and handling).

#### 10.3. Possibility of hazardous reactions

None (in normal conditions of storage and handling).

#### 10.4. Conditions to avoid

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

#### 10.5. Incompatible materials

Strong oxidants.

#### 10.6. Hazardous decomposition products

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

#### **SECTION 11: Toxicological information**

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

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

Additional information : (according to composition)

Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)	
LD50 oral rat	> 5000 mg/kg (OECD 401)
LD50 dermal rat	> 5000 mg/kg (OECD 402)

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Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)		
LD50 dermal rabbit	> 2000 mg/kg bodyweight	
LC50 Inhalation - Rat	> 5,53 mg/l/4h (EBSI, 1988)	
Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)		
LD50 oral rat	> 5000 mg/kg (OECD 401)	
LD50 dermal rat	> 5000 mg/kg (OECD 402)	
LC50 Inhalation - Rat	> 5 mg/l/4h (OECD 403)	
Distillates (petroleum), solvent-dewaxed heav	y paraffinic (64742-65-0)	
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)	
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)	
Reaction products of benzenesulfonic acid, m	nono-C20-24 (even)-sec-alkyl derivs. para-, calcium salts	
LD50 oral rat	10000 – 20000 mg/kg bodyweight	
LD50 dermal rat	> 2000 mg/kg bodyweight (OECD 402)	
LC50 Inhalation - Rat	> 1,9 mg/l air (EPA OPP 81-3)	
2,6-Di-tert-butylphenol (128-39-2)		
LD50 oral rat	> 5000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)	
LD50 dermal rabbit	> 0,5 ml/kg	
N, N-bis(2-ethylhexyl)-((1,2,4- triazol-1-yl)meth	ıyl)amine (91273-04-0)	
LD50 oral rat	2238 – 2505 mg/kg bodyweight	
LD50 dermal rat	> 2000 mg/kg bodyweight	
phenol, (tetrapropenyl) derivatives (74499-35-	7)	
LD50 oral rat	2100 – 2200 mg/kg bodyweight	
LD50 dermal rabbit	15000 mg/kg bodyweight	
	Not classified (Based on available data, the classification criteria are not met) pH: Not applicable.	
	(according to composition)	
Distillates (petroleum), hydrotreated heavy pa		
рН	Not applicable	
Distillates (petroleum), hydrotreated heavy pa		
pH	Not applicable	
Distillates (petroleum), solvent-dewaxed heav	y paraffinic (64742-65-0)	
рН	Not applicable	
Mineral base oil, severely refined (N/A)		
рН	Not applicable	

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SDS EU format according to COMMISSION REGULATION (EU) 2020/878 Serious eve damage/irritation : Not classified (Based on available data, the classification criteria are not met) pH: Not applicable. Additional information : (according to composition) Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7) Not applicable pН Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7) Not applicable Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0) рН Not applicable Mineral base oil, severely refined (N/A) Not applicable pН Respiratory or skin sensitisation Not classified (Based on available data, the classification criteria are not met) Additional information (according to composition) Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met) Additional information (according to composition) Carcinogenicity : Not classified (Based on available data, the classification criteria are not met) Additional information : (according to composition) This product contains: Distillates (petroleum), hydrotreated heavy paraffinic; Baseoil unspecified; [A complex combination of hydrocarbons obtained by treating a petroleum fraction with hydrogen in the presence of a catalyst. It consists of hydrocarbons having carbon numbers predominantly in the range of C20 through C50 and produces a finished oil of at least 100 SUS at 100°F (19cSt at 40°C). It contains a relatively large proportion of saturated hydrocarbons.], 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. According to the criteria laid out by the EU (note L, Annex VI of Regulation (CE) 1272/2008), this product must be regarded as non carcinogenic. All the mineral base oils contained in this product have a value < 3 % wt of DMSO extract, according to IP 346 (Nota L - Annex VI Reg (CE) 1272/2008, # 1.1.3) No carcinogenic effect Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met) Additional information (according to composition) Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7) NOAEL (animal/male, F0/P) 1000 mg/kg bodyweight STOT-single exposure : Not classified (Based on available data, the classification criteria are not met) Additional information (according to composition) STOT-repeated exposure : Not classified (Based on available data, the classification criteria are not met) Additional information : (according to composition) Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7) LOAEL (oral, rat, 90 days) 125 mg/kg bodyweight/day (OECD TG 408) Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7) LOAEL (oral, rat, 90 days) 125 mg/kg bodyweight/day (OECD TG 408)

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125 mg/kg bodyweight/day (OECD TG 408)

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

LOAEL (oral, rat, 90 days)

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Mineral base oil, severely refined (N/A)			
LOAEL (oral, rat, 90 days)	125 mg/kg bodyweight/day (OECD TG 408)		
Reaction products of benzenesulfonic acid, mono-C20-24 (even)-sec-alkyl derivs. para-, calcium salts			
NOAEL (oral, rat, 90 days)	> 500 mg/kg bodyweight		
NOAEL (dermal, rat/rabbit, 90 days)	> 1000 mg/kg bodyweight (21/28d, OECD 410)		
2,6-Di-tert-butylphenol (128-39-2)			
NOAEL (subacute, oral, animal/male, 28 days)	> 100 mg/kg bodyweight (100 mg / d)		
N, N-bis(2-ethylhexyl)-((1,2,4- triazol-1-yl)meth	ıyl)amine (91273-04-0)		
NOAEL (oral, rat, 90 days)	60 mg/kg bodyweight/day		
Aspiration hazard : Not classified (Based on available data, the classification criteria are not met) Additional information : (according to composition)			
Eni i-Sigma ECO PLUS 5W-20			
Viscosity, kinematic	6,9 - 9,3 mm²/s (100 °C) (ASTM D445)		
Distillates (petroleum), hydrotreated heavy pa	raffinic (64742-54-7)		
Viscosity, kinematic	36,82 mm²/s (40 °C) (ASTM D 445)		
Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)			
Viscosity, kinematic	17,9 mm²/s (40 °C) (ASTM D 445)		
Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)			
Viscosity, kinematic	< 20,5 mm²/s (40 °C) (ASTM D 445)		
Mineral base oil, severely refined (N/A)			
Viscosity, kinematic	> 21 mm²/s		
Hydrocarbon	Yes		

#### 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 %

Component		
phenol, (tetrapropenyl) derivatives(74499-35-7)	The substance is identified for having endocrine disrupting properties but there is no additional data available (see section 2.3)	

#### 11.2.2. Other information

Other information : None

#### **SECTION 12: Ecological information**

#### 12.1. Toxicity

Ecology - general

: Harmful to aquatic life with long lasting effects. An uncontrolled release to the environment may nevertheless produce a contamination of different environmental compartments (soil, underground, surface water bodies, aquifers). Handle according to general working hygiene practices to avoid pollution and release into the environment.

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0,	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)  Not classified (Based on available data, the classification criteria are not met)	
(acute) Hazardous to the aquatic environment, long-term : (chronic)	Harmful to aquatic life with long lasting effects. (Based on available data, the classification criteria are not met)	
Distillates (petroleum), hydrotreated heavy pa	raffinic (64742-54-7)	
LC50 fish 1	> 100 mg/l (LL 50)	
EC50 Daphnia 1	> 10000 mg/l WAF, 48 h (OECD 202)	
Distillates (petroleum), hydrotreated heavy pa	rraffinic (64742-54-7)	
LC50 fish 1	> 100 mg/l (LL 50)	
EC50 Daphnia 1	> 10000 mg/l WAF, 48 h (OECD 202)	
Distillates (petroleum), solvent-dewaxed heav	y paraffinic (64742-65-0)	
LC50 fish 1	> 100 mg/l (LL 50)	
EC50 Daphnia 1	> 10000 mg/l WAF, 48 h (OECD 202)	
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)	
Reaction products of benzenesulfonic acid, n	nono-C20-24 (even)-sec-alkyl derivs. para-, calcium salts	
LC50 fish 1 100 mg/l (LL50)		
EC50 Daphnia 1	100 – 1000 (EL50)	
EC50 72h - Algae [1]	100 – 1000 mg/l	
EC50 96h - Algae [1]	1000 mg/l	
2,6-Di-tert-butylphenol (128-39-2)		
LC50 fish 1	1,4 mg/l Test organisms (species): Pimephales promelas	
LC50 other aquatic organisms 1	0,45 mg/l	
EC50 Daphnia 1	0,45 mg/l Test organisms (species): Daphnia magna	
EC50 72h - Algae [1]	3,6 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)	
EC50 72h - Algae [2]	1,4 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)	
EC50 96h - Algae [1]	3,9 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)	
EC50 96h - Algae [2]	1,2 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)	
LOEC (chronic)	0,086 mg/l Test organisms (species): Daphnia magna Duration: '21 d'	
NOEC (chronic)	0,035 mg/l Test organisms (species): Daphnia magna Duration: '21 d'	
NOEC chronic crustacea	0,035 mg/l (21d)	
N, N-bis(2-ethylhexyl)-((1,2,4- triazol-1-yl)meth	yl)amine (91273-04-0)	
LC50 fish 1	1,1 mg/l	
EC50 Daphnia 1	2,2 mg/l	
EC50 72h - Algae [1]	0,6 – 1 mg/l	

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Phenol, (tetrapropenyl) derivatives (74499-35-7)	
LC50 fish 1	40 mg/l (Pimephales promelas)
EC50 Daphnia 1	37 – 92,7 μg/l
EC50 Daphnia 2	0,037 mg/l
EC50 other aquatic organisms 1	> 0,58 mg/l (96h, Mysidopsis Bahia)
ErC50 (algae)	0,36 mg/l (21d)
NOEC (chronic)	0,0037 mg/l (21d)

#### 12.2. Persistence and degradability

Eni i-Sigma ECO PLUS 5W-20		
Persistence and degradability	The most significant constituents of the product should be considered as "inherently biodegradable", but not "readily biodegradable", and they may be moderately persistent, particularly in anaerobic conditions.	
Distillates (petroleum), hydrotreated heavy pa	araffinic (64742-54-7)	
Persistence and degradability	The most significant constituents of the product should be considered as "inherently biodegradable", but not "readily biodegradable", and they may be moderately persistent, particularly in anaerobic conditions.	
Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)		
Persistence and degradability	The most significant constituents of the product should be considered as "inherently biodegradable", but not "readily biodegradable", and they may be moderately persistent, particularly in anaerobic conditions.	
Distillates (petroleum), solvent-dewaxed 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.	
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.	
2,6-Di-tert-butylphenol (128-39-2)		
Biodegradation	24 % (Zahn-Wellens, 10-20 %)	

#### 12.3. Bioaccumulative potential

Eni i-Sigma ECO PLUS 5W-20	
Log Kow	Not applicable for mixtures
Bioaccumulative potential	Not established.
2,6-Di-tert-butylphenol (128-39-2)	
Log Kow	4,5 (0.1 d, 10-20 %)
Phenol, (tetrapropenyl) derivatives (74499-35-7)	
Bioconcentration factor (BCF REACH)	2,9
Log Kow	71

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#### 12.4. Mobility in soil

Eni i-Sigma ECO PLUS 5W-20	
Ecology - soil	No data available.

#### 12.5. Results of PBT and vPvB assessment

Eni i-Sigma ECO PLUS 5W-20		
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		
Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)	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)	
Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)	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)	
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)	
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)	
Reaction products of benzenesulfonic acid, mono-C20-24 (even)-sec-alkyl derivs. para-, calcium salts	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)	
2,6-Di-tert-butylphenol (128-39-2)	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	
Phenol, (tetrapropenyl) derivatives (74499-35-7)	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	

#### 12.6. Endocrine disrupting properties

Adverse effects on the environment caused by endocrine disrupting properties

: The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %.

Component		
Phenol, (tetrapropenyl) derivatives(74499-35-7)		The substance is identified for having endocrine disrupting properties but there is no
		additional data available (see section 2.3)

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#### 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 discharging into sewers, tunnels, lakes or water courses. Deliver to a qualified official collector.

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.

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 use of the product, alteratio

Empty containers may cont

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

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	14.1. UN number or ID number			
Not regulated for transport				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.2. UN proper shippin	g name			
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.3. Transport hazard	14.3. Transport hazard class(es)			
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.4. Packing group				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.5. Environmental hazards				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
None.				

#### 14.6. Special precautions for user

#### Overland transport

Not regulated

#### Transport by sea

Not regulated

#### Air transport

Not regulated

#### **Inland waterway transport**

Not regulated

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#### Rail transport

Not regulated

#### 14.7. Maritime transport in bulk according to IMO instruments

Not applicable

#### **SECTION 15: Regulatory information**

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

#### 15.1.1. EU-Regulations

Other information, restriction and prohibition regulations

: Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH). (et sequens). Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (et sequens). Directives 89/391/CEE, 89/654/CEE, 89/655/CEE, 89/656/CEE, 90/269/CEE, 90/270/CEE, 90/394/CEE, 90/679/CEE, 93/88/CEE, 95/63/CE, 97/42/CE, 98/24/CE, 99/38/CE, 99/92/CE, 2001/45/CE, 2003/10/CE, 2003/18/CE (Health and safety on the workplace). Directive 2012/18/CE (Control of major-accident hazards involving dangerous substances). Directive 2004/42/CE (Limitation of emissions of Volatile Organic Compounds). Directive 98/24/EC (protection of the health and safety of workers from the risks related to chemical agents at work). Directive 92/85/CE (measures to encourage improvements in the safety and health at work of pregnant workers and workers who have recently given birth or are breastfeeding). Substances Depleting the Ozone layer (1005/2009) - Annex I Substances (ODP). Regulation (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).

#### **REACH Annex XVII (Restriction List)**

EU restriction list (REACH Annex XVII)			
Reference code	Applicable on	Entry title or description	
3(b)	Distillates (petroleum), hydrotreated heavy paraffinic; Distillates (petroleum), solvent- dewaxed heavy paraffinic; Mineral base oil, severely refined; N, N- bis(2-ethylhexyl)-((1,2,4- triazol-1-yl)methyl)amine	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 i-Sigma ECO PLUS 5W-20; N, N-bis(2- ethylhexyl)-((1,2,4- triazol- 1-yl)methyl)amine	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	
30.	phenol, (tetrapropenyl) derivatives	Substances which are classified as reproductive toxicant category 1A or 1B in Part 3 of Annex VI to Regulation (EC) No 1272/2008 and are listed in Appendix 5 or Appendix 6, respectively.	

#### **REACH Annex XIV (Authorisation List)**

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

#### **REACH Candidate List (SVHC)**

Contains substance(s) listed on the REACH Candidate List in concentrations  $\geq$  0.1 % or SCL: phenol, (tetrapropenyl) derivatives (EC 310-154-3, CAS 74499-35-7)

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#### **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)

#### **Drug Precursors Regulation (273/2004)**

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

#### 15.1.2. National regulations

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

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

Relevant national laws on prevention of water pollution.

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

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

#### France

Maladies professionelles (F)		
Code	Description	
RG 36	Diseases caused by oils and fats of mineral or synthetic origin	

#### Germany

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

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

National Rules and Recommendations : TRGS 400: Hazard assessment for activities involving Hazardous Substances.

TRGS 401: Risks resulting from skin contact - identification, assessment, measures. TRGS 402: Identification and Assessment of the Risks from Activities involving Hazardous

Substances: Inhalation Exposure.

TRGS 555: Working instruction and information for workers.

TRGS 800: Fire protection measures.

TRGS 900: Occupational Exposure Limits.

VbF class (D) : Not applicable.

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

WGK remark : Classification based on the components in compliance with Verwaltungsvorschrift

wassergefährdender Stoffe (VwVwS).

Storage class (LGK, TRGS 510) : LGK 10 - Combustible liquids.

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

#### Netherlands

Saneringsinspanningen : C - Minimize discharge

SZW-lijst van kankerverwekkende stoffen : None of the components are listed SZW-lijst van mutagene stoffen : None of the components are listed SZW-lijst van reprotoxische stoffen – Borstvoeding : None of the components are listed

Vruchtbaarheid

SZW-lijst van reprotoxische stoffen – Ontwikkeling : None of the components are listed

#### Denmark

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

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

#### 15.2. Chemical safety assessment

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

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

Distillates (petroleum), hydrotreated heavy paraffinic

Distillates (petroleum), hydrotreated heavy paraffinic

Distillates (petroleum), solvent-dewaxed heavy paraffinic

Reaction products of benzenesulfonic acid, mono-C20-24 (even)-sec-alkyl derivs. para-, calcium salts

2,6-Di-tert-butylphenol

### **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	

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Abbreviations and acronyms:		
BLV	Biological limit value	
BOD	Biochemical oxygen demand (BOD)	
COD	Chemical oxygen demand (COD)	
EC-No.	European Community number	
EN	European Standard	
OEL	Occupational Exposure Limit	
ThOD	Theoretical oxygen demand (ThOD)	
TLM	Median Tolerance Limit	
VOC	Volatile Organic Compounds	
CAS-No.	Chemical Abstract Service number	
N.O.S.	Not Otherwise Specified	
ED	Endocrine disrupting properties	

Data sources

Training advice

Other information

- : 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.
- : Provide adequate training to professional operators for the use of PPEs, according to the information contained in this Safety Data Sheet.
- : 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 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:		
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 Reaction products of benzenesulfonic acid, mono-C20-24 (even)-sec-alkyl derivs. para-, calcium salts, N, N-bis(2-ethylhexyl)-((1,2,4- triazol-1-yl)methyl)amine. May produce an allergic reaction.	
Eye Dam. 1	Serious eye damage/eye irritation, Category 1	
H304	May be fatal if swallowed and enters airways.	
H314	Causes severe skin burns and eye damage.	
H315	Causes skin irritation.	
H317	May cause an allergic skin reaction.	
H318	Causes serious eye damage.	
H360F	May damage fertility.	
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.	

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Full text of H- and EUH-statements:		
Repr. 1B	Reproductive toxicity, Category 1B	
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B	
Skin Corr. 1C	Skin corrosion/irritation, Category 1, Sub-Category 1C	
Skin Irrit. 2	Skin corrosion/irritation, Category 2	
Skin Sens. 1A	Skin sensitisation, category 1A	
Skin Sens. 1B	Skin sensitisation, category 1B	

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

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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.