Eni Aquamet 104 Plus

Safety Data Sheet

SDS EU format according to COMMISSION REGULATION (EU) 2020/878
Revision date: 04/07/2023 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 Aquamet 104 Plus
UFI	:	ATTN-30AW-J00Q-DXST
Product code	:	7522
Type of product	:	Lubricants
Formula	:	0407-2023
Product group	:	Trade product

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

1.2.1. Relevant identified uses

Main use category	:	Industrial use,Professional use
Industrial/Professional use spec	:	Wide dispersive use
Use of the substance/mixture	:	Lubricant
Function or use category	:	Lubricants and additives

1.2.2. Uses advised against

Recommended use are listed above; other uses are not recommended unless an assessment has provided that risks are controlled.

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]

Serious eye damage/eye irritation, Category 2	H319
Hazardous to the aquatic environment – Chronic Hazard, Category 3	H412

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

Adverse physicochemical, human health and environmental effects

Causes eye irritation. 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]

Hazard pictograms (CLP) :

GHS07

CLP Signal word : Warning

Hazard statements (CLP) : H319 - Causes serious eye irritation.
H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements (CLP) : P273 - Avoid release to the environment.
P280 - Wear eye protection, face protection.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P501 - Dispose of contents and container to according to national or local regulations.

Nordic countries regulation

Denmark

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

2.3. Other hazards (not relevant for classification)

Other hazards not contributing to the classification : Non flammable. Any substance, in case of accidents involving pressurized circuits and the like, may be accidentally injected under the skin, even without external damage. In such a case, the victim should be brought to an hospital as soon as possible, to get specialized medical treatment. Do not wait for symptoms to develop.

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

Other information : 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 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
N,N-bis(2-hydroxyethyl)oleamide (93-83-4)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
Benzene, C10-12-alkyl derivatives, distillation residues, sulfonated, sodium salts (91844-64-3)	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
Alcohols, C14-18, ethoxylated propoxylated (68002-96-0)	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
2-aminoethanol; ethanolamine (141-43-5)	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
Pyridine-2-thiol 1-oxide, sodium salt (3811-73-2)	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

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 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
N,N-bis(2-hydroxyethyl)oleamide(93-83-4)	The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

Component	
Benzene, C10-12-alkyl derivatives, distillation residues, sulfonated, sodium salts(91844-64-3)	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
Alcohols, C14-18, ethoxylated propoxylated(68002-96-0)	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
2-aminoethanol; ethanolamine(141-43-5)	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
Pyridine-2-thiol 1-oxide, sodium salt(3811-73-2)	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

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Notes : Composition/ Information on ingredients:
Mixture of hydrocarbons
alcohols
Water
Additives

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [EU-GHS / CLP]
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.] (see note [*], see note [***])	CAS-No.: 64742-53-6 EC-No.: 265-156-6 EC Index-No.: 649-466-00-2 REACH-no: 01-2119480375-34	≥ 10 ≤ 25	Asp. Tox. 1, H304
N,N-bis(2-hydroxyethyl)oleamide	CAS-No.: 93-83-4 EC-No.: 202-281-7 REACH-no: N/D	≥ 1 ≤ 5	Skin Irrit. 2, H315 Eye Dam. 1, H318
Benzene, C10-12-alkyl derivatives, distillation residues, sulfonated, sodium salts	CAS-No.: 91844-64-3 EC-No.: 295-131-5 EC Index-No.: N/A REACH-no: N/A	≥ 1 ≤ 3	Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Chronic 3, H412
Alcohols, C14-18, ethoxylated propoxylated	CAS-No.: 68002-96-0 EC-No.: 614-209-5 EC Index-No.: N/A REACH-no: N/A	≥ 1 ≤ 3	Aquatic Chronic 3, H412

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [EU-GHS / CLP]
2-aminoethanol; ethanolamine (see note [**])	CAS-No.: 141-43-5 EC-No.: 205-483-3 EC Index-No.: 603-030-00-8 REACH-no: 01-2119486455-28	≥ 0,1 < 1	Acute Tox. 4 (Oral), H302 (ATE=500 mg/kg bodyweight) Acute Tox. 4 (Dermal), H312 (ATE=1100 mg/kg bodyweight) Acute Tox. 4 (Inhalation), H332 (ATE=1,5 mg/l/4h) Skin Corr. 1B, H314 STOT SE 3, H335 Aquatic Chronic 3, H412
Pyridine-2-thiol 1-oxide, sodium salt; pyrithione sodium; sodium pyrithione	CAS-No.: 3811-73-2 EC-No.: 223-296-5 EC Index-No.: 613-344-00-7 REACH-no: 01-2119493385-28	≥ 0,1 < 0,25	Acute Tox. 4 (Oral), H302 (ATE=500 mg/kg bodyweight) Acute Tox. 4 (Dermal), H312 (ATE=790 mg/kg bodyweight) Acute Tox. 4 (Inhalation), H332 (ATE=0,5 mg/l) Skin Irrit. 2, H315 Eye Irrit. 2, H319 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410 (M=10)

Specific concentration limits:		
Name	**Product identifier**	**Specific concentration limits (%)**
2-aminoethanol; ethanolamine (see note [**])	CAS-No.: 141-43-5 EC-No.: 205-483-3 EC Index-No.: 603-030-00-8 REACH-no: 01-2119486455-28	(5 ≤ C ≤ 100) STOT SE 3, H335

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

First-aid measures after inhalation : In case of disturbances owing to inhalation of vapours or mists, remove the victim from exposure; keep at rest; if necessary, seek medical attention. If casualty is unconscious and not breathing: ensure that there is no obstruction to breathing and give artificial respiration by trained personnel. If necessary, give external cardiac massage and obtain medical advice. If the casualty is breathing: Place in the recovery position. Administer oxygen if necessary.

First-aid measures after skin contact : Take off contaminated clothing and wash it before reuse. Wash skin with plenty of water. If skin irritation occurs: Get medical advice/attention. When using high-pressure equipment, injection of product can occur. Send the casualty immediately to hospital. Do not wait for symptoms to develop.

First-aid measures after eye contact : Remove contact lenses, if present and easy to do so. Rinse eyes thoroughly for at least 15 minutes. Keep eyelids well apart. Consult an eye specialist.

First-aid measures after ingestion : If the person is fully conscious, make him/her drink plenty of water. Never give an unconscious person anything to drink. Call immediately for medical assistance or transport the victim to an hospital. In case of spontaneous vomiting, keep head low, to avoid the risk of aspiration into the lungs. Do not give anything by mouth to an unconscious person.

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

Symptoms/effects after inhalation : Overexposure to vapours (e.g. through prolonged use in confined, insufficiently ventilated spaces) may cause irritation to airways, nausea and dizziness.

Symptoms/effects after skin contact : Prolonged or repeated contact may cause skin to become dry.

Symptoms/effects after eye contact : Causes serious eye irritation.

Symptoms/effects after ingestion : Accidental ingestion of small quantities of the product may cause nausea, discomfort and gastric disturbances.

Symptoms/effects upon intravenous administration : No information available.

Chronic symptoms : None known.

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

Obtain medical attention if casualty has an altered state of consciousness or if symptoms do not resolve.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Dry chemical, CO2, dry sand, or alcohol-resistant foam. Other extinguishing gases (according to regulations).

Unsuitable extinguishing media : Do not use water jets. They could cause splattering, and spread the fire. Use extinguishing media and procedures appropriate for the surrounding materials. 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 : Not flammable.

Explosion hazard : Heat may build pressure in tank and containers, rupturing closed vessels, spreading fire and increasing risk of burns and injuries. Vapours are heavier than air, spread along floors and form explosive mixtures with 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 (harmful/toxic gases). Combustion products include sulphur oxides (SO2 and SO3) and Hydrogen sulphide H2S. Carbonyl halogenides. Metallic oxides.

5.3. Advice for firefighters

Precautionary measures fire : Do not breathe fumes. In case of leakage, eliminate all ignition sources.

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 137. EN 443. EN 469. EN 659. Do not enter fire area without proper protective equipment, including respiratory protection.

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. Spill area may be slippery.

6.1.1. For non-emergency personnel

Protective equipment : See Section 8.

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

6.1.2. For emergency responders

Protective equipment : Small spillages: normal working clothes are usually adequate. Large spillages: full body suit of chemically resistant material. Work gloves (preferably gauntlets) providing adequate chemical resistance. Non-skid safety shoes or boots, chemical resistant. 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

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

6.3. Methods and material for containment and cleaning up

For containment : Confine the spillage. Remove from surface by skimming or suitable absorbents. Collect recovered product and other materials in suitable waterproof containers. Notify local authorities according to regulations. If necessary dike the product with dry earth, sand or similar non-combustible materials. When inside buildings or confined spaces, ensure adequate ventilation. Absorb spilled product with suitable non-combustible materials. Collect free liquid and waste materials in suitable waterproof and oil resistant containers. Clean the contaminated area. Dispose of in accordance with relevant 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 : Wash contaminated area with large amounts of water.

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

6.4. Reference to other sections

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

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	:	Storage area layout, tank design, equipment and operating procedures must comply with the relevant European, national or local legislation. Keep away from heat/sparks/open flames/hot surfaces. Do not use electrical equipment (mobile phones etc.) not approved for use, according to the risk rating of the area. Do not use compressed air for filling, discharging, or handling operations. Use and store only outdoors or in a well-ventilated area. Use adequate personal protective equipment as needed. 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. 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.
Hygiene measures	:	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. Contaminated materials should not be allowed to accumulate in the workplaces and should never be kept inside the pockets. Take off immediately all contaminated clothing and wash it before reuse. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Separate working clothes from town clothes. Launder separately.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	:	Store in dry, well-ventilated area. Keep away from open flames, hot surfaces and sources of ignition. Do not smoke. Protect against frost.
Incompatible products	:	Keep away from: strong acids and strong oxidants.
Storage temperature	:	5 – 40 °C
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 only in the original container or in a suitable container for this kind of product. Store in a well-ventilated place. Keep containers tightly closed and properly labelled. Empty containers may contain combustible product residues. Do not weld, solder, drill, cut or incinerate empty containers, unless they have been properly cleaned.
Packaging materials	:	For containers, or container linings use materials specifically approved for use with this product.

7.3. Specific end use(s)

Lubricating agent.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

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.] (64742-53-6)	
Austria - Occupational Exposure Limits	
MAK (OEL TWA)	5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)

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.] (64742-53-6)	
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)

2-aminoethanol; ethanolamine (141-43-5)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	2-Aminoethanol
IOEL TWA	2,5 mg/m³
IOELV TWA (ppm)	1 ppm
IOELV STEL (mg/m³)	7,6 mg/m³
IOELV STEL (ppm)	3 ppm
Notes	Skin
Regulatory reference	COMMISSION DIRECTIVE 2006/15/EC
Austria - Occupational Exposure Limits	
MAK (OEL TWA)	2,5 mg/m³
MAK [ppm]	1 ppm
MAK (OEL STEL)	7,6 mg/m³
MAK Short time value [ppm]	3 ppm
Belgium - Occupational Exposure Limits	
OEL TWA	2,5 mg/m³
Limit value [ppm]	1 ppm
Short time value [mg/m³]	7,6 mg/m³

2-aminoethanol; ethanolamine (141-43-5)	
Short time value [ppm]	3 ppm
Denmark - Occupational Exposure Limits	
OEL TWA [1]	2,5 mg/m³
OEL TWA [2]	1 ppm
OEL STEL	5 mg/m³
Grænseværdi (kortvarig) (ppm)	2 ppm
Finland - Occupational Exposure Limits	
HTP (OEL TWA) [1]	2,5 mg/m³
HTP (OEL TWA) [2]	1 ppm
HTP (OEL STEL)	7,6 mg/m³
HTP-arvo (15 min) (ppm)	3 ppm
France - Occupational Exposure Limits	
VME (OEL TWA)	7,6 mg/m³
VME [ppm]	3 ppm
VLE [mg/m³]	2,5 mg/m³
VLE [ppm]	1 ppm
Germany - Occupational Exposure Limits (TRGS 900)	
AGW (OEL TWA) [1]	0,5 mg/m³
AGW (OEL TWA) [2]	0,2 ppm
Limitation of exposure peaks (mg/m³)	0,5 mg/m³
Limitation of exposure peaks (ppm)	0,2 ppm
Hungary - Occupational Exposure Limits	
CK-érték	2,5 mg/m³
Ireland - Occupational Exposure Limits	
OEL TWA [1]	2,5 mg/m³
OEL TWA [2]	1 ppm
OEL (15 min ref) (mg/m3)	7,6 mg/m³
OEL (15 min ref) (ppm)	3 ppm
Italy - Occupational Exposure Limits	
Local name	2-Amminoetanolo
OEL TWA (mg/m³)	2,5 mg/m³
OEL TWA (ppm)	1 ppm
OEL STEL (mg/m³)	7,6 mg/m³
OEL STEL (ppm)	3 ppm
Remark	Cute
Regulatory reference	Allegato XXXVIII del D.Lgs. 9 aprile 2008, n. 81 e s.m.i.
Latvia - Occupational Exposure Limits	
OEL TWA	0,5 mg/m³
OEL TWA (ppm)	0,2 ppm

2-aminoethanol; ethanolamine (141-43-5)	
OEL STEL	7,6 mg/m³
OEL STEL [ppm]	3 ppm
Netherlands - Occupational Exposure Limits	
MAC TGG 15 min (mg/m³)	2,5 mg/m³
MAC C (mg/m³)	7,6 mg/m³
Poland - Occupational Exposure Limits	
NDSCh (OEL STEL)	2,5 mg/m³
NDSP (mg/m³)	7,5 mg/m³
Spain - Occupational Exposure Limits	
VLA-ED (OEL TWA) [1]	2,5 mg/m³
VLA-ED (OEL TWA) [2]	1 ppm
VLA-EC (mg/m³)	7,6 mg/m³
VLA-EC (ppm)	3 ppm
Notes	Skin
Sweden - Occupational Exposure Limits	
NGV (OEL TWA)	2,5 mg/m³
Nivågränsvärde (NVG) (ppm)	1 ppm
KTV (OEL STEL)	7,6 mg/m³
KTV (OEL STEL) [ppm]	3 ppm
USA - ACGIH - Occupational Exposure Limits	
ACGIH TLV®-TWA (ppm)	3 ppm
ACGIH TLV®-STEL (ppm)	6 ppm

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

Applicable OEL and BLV for air contaminants : None known

8.1.4. DNEL and PNEC

Eni Aquamet 104 Plus	
DNEL/DMEL (additional information)	
Additional information	Not applicable
PNEC (additional information)	
Additional information	Not applicable

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.] (64742-53-6)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, inhalation	5,4 mg/m³
PNEC (additional information)	
Additional information	Not applicable (UVCB)

N,N-bis(2-hydroxyethyl)oleamide (93-83-4)	
DNEL/DMEL (additional information)	
Additional information	No-threshold effect and/or no dose-response information available
PNEC (additional information)	
Additional information	No information available

Benzene, C10-12-alkyl derivatives, distillation residues, sulfonated, sodium salts (91844-64-3)	
DNEL/DMEL (additional information)	
Additional information	Not yet determined.
PNEC (additional information)	
Additional information	Not yet determined.

Alcohols, C14-18, ethoxylated propoxylated (68002-96-0)	
DNEL/DMEL (additional information)	
Additional information	Not yet determined.
PNEC (additional information)	
Additional information	Not yet determined.

2-aminoethanol; ethanolamine (141-43-5)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	1 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	1 mg/m³
Long-term - local effects, inhalation	3,3 mg/m³
DNEL/DMEL (General population)	
Acute - local effects, inhalation	2 mg/m³
Long-term - systemic effects,oral	3,75 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	0,18 mg/m³
Long-term - systemic effects, dermal	1,5 mg/kg bodyweight/day
Long-term - local effects, inhalation	0,28 mg/m³
PNEC (Water)	
PNEC aqua (freshwater)	0,085 mg/l
PNEC aqua (marine water)	0,0085 mg/l
PNEC aqua (intermittent, freshwater)	0,025 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	0,425 mg/kg dwt

2-aminoethanol; ethanolamine (141-43-5)	
PNEC sediment (marine water)	0,0425 mg/kg dwt
PNEC (Soil)	
PNEC soil	1,29 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	100 mg/l

Pyridine-2-thiol 1-oxide, sodium salt; pyrithione sodium; sodium pyrithione (3811-73-2)	
DNEL/DMEL (additional information)	
Additional information	No-threshold effect and/or no dose-response information available
PNEC (additional information)	
Additional information	Not yet determined.

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

8.1.5. Control banding

Control banding : None known

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:
Ensure good ventilation of the work station. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Measure concentrations regularly, and at the time of any change occuring in conditions likely to have consequences on workers exposure. 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 and flammability.

8.2.2. Personal protection equipment

Personal protective equipment (for industrial or professional use):
Protective clothing. Gloves. Safety glasses. Safety shoes or boots. High gas/vapour concentration: gas mask with filter for organic vapours (A) or organic vapours/H2S (A+B).

Personal protective equipment symbol(s):

8.2.2.1. Eye and face protection

Eye protection:
Chemical goggles or face shield. ISO 16321-1

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. Non-skid safety shoes or boots, chemical resistant.

Hand protection:
Chemical resistant gloves (according to European standard NF ISO 374-1 or equivalent). Adequate materials: nitrile (NBR) or neoprene with a protection index ≥ 5 (permeation time ≥ 240 mins). Protective gloves made of PVC. Butyl rubber. Thickness of glove material: > 0,4 mm. 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. 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.

8.2.2.3. Respiratory protection

Respiratory protection:
Not necessary with sufficient ventilation. Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. Open or well ventilated spaces: if the product is handled without adequate containment means for the vapours: full or half-face gas mask with filter for organic vapours (A) or organic vapours/H2S (A+B). (EN 136/140/145). Combined gas/dust mask with filter type: EN 14387. Closed or confined areas (e.g. tank interiors): the use of protection measures for airways (masks or self-contained breathing apparatus), must be assessed according to the specific activity, as well as level and duration of predicted exposure. (EN 136/140/145). Approved respiratory protection equipment shall be used in spaces where hydrogen sulphide may accumulate: full face mask with cartridge/filter type “B” (grey for inorganic vapours including H2S) or self-contained breathing apparatus (SCBA). (EN 136/140/145)

8.2.2.4. Thermal hazards

Thermal hazard protection:
None in normal use conditions.

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. Prevent discharge of undissolved substance to or recover from onsite wastewater. Do not apply industrial sludge to natural soils. Sludge should be incinerated, contained or reclaimed.

Consumer exposure controls:
Not applicable.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Colour	:	Gold.
Appearance	:	Liquid, bright & clear.
Odour	:	amine.
Odour threshold	:	There are no data available on the preparation/mixture itself.
Melting point	:	Lack of data (on mixture / components of the mixture) - Data not available
Freezing point	:	Lack of data (on mixture / components of the mixture) - Data not available
Softening point	:	Lack of data (on mixture / components of the mixture) - Data not available
Boiling point	:	110 °C
Flammability	:	Not flammable
Explosive properties	:	None (according to composition).
Oxidising properties	:	None (according to composition).
Lower explosion limit	:	Lack of data (on mixture / components of the mixture) - Data not available
Upper explosion limit	:	Lack of data (on mixture / components of the mixture) - Data not available
Flash point	:	Lack of data (on mixture / components of the mixture) - Data not available
Auto-ignition temperature	:	Lack of data (on mixture / components of the mixture) - Data not available
Decomposition temperature	:	200 °C
pH	:	8 – 11 (5%)
Viscosity, kinematic	:	≈ 50 mm²/s (40°C)
Viscosity, dynamic	:	Lack of data (on mixture / components of the mixture) - Data not available
Solubility	:	Water: Lack of data (on mixture / components of the mixture) - Data not available
Log Kow	:	Not applicable for mixtures
Log Pow	:	Not applicable for mixtures
Vapour pressure	:	Lack of data (on mixture / components of the mixture) - Data not available
Vapour pressure at 50°C	:	Lack of data (on mixture / components of the mixture) - Data not available
Critical pressure	:	Not applicable for mixtures
Density	:	0,98 – 1,08 g/ml (15°C)
Relative density	:	Lack of data (on mixture / components of the mixture) - Data not available
Relative vapour density at 20°C	:	Lack of data (on mixture / components of the mixture) - Data not available

Particle characteristics : Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Critical temperature : Not applicable for mixtures

9.2.2. Other safety characteristics

Relative evaporation rate (butylacetate=1) : There are no data available on the preparation/mixture itself.

SECTION 10: Stability and reactivity

10.1. Reactivity

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

10.2. Chemical stability

Stable product, according to its intrinsic properties.

10.3. Possibility of hazardous reactions

None (in normal conditions of storage and handling). Contact with strong oxidizers (peroxides, chromates, etc.) may cause a fire hazard. Heating up due to reaction with acids is possible.

10.4. Conditions to avoid

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

10.5. Incompatible materials

Strong oxidants and strong acids.

10.6. Hazardous decomposition products

No hazardous decomposition products known at room temperature. 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)

Eni Aquamet 104 Plus	
LC50 Inhalation - Rat	≥ 5 mg/l/4h
ATE (dermal)	142857,14 mg/kg bodyweight

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.] (64742-53-6)	
LD50 oral rat	> 5000 mg/kg (OECD 401)
LD50 dermal rat	> 5000 mg/kg (OECD 402)
LC50 Inhalation - Rat	> 5,53 mg/l/4h (OECD 403)

2-aminoethanol; ethanolamine (141-43-5)	
LD50 oral rat	1089 – 1515 mg/kg bodyweight
LD50 dermal rat	2504 – 2881 mg/kg bodyweight

2-aminoethanol; ethanolamine (141-43-5)	
LC50 Inhalation - Rat	1,3 mg/l/4h

Pyridine-2-thiol 1-oxide, sodium salt; pyrithione sodium; sodium pyrithione (3811-73-2)	
LD50 oral rat	1208 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 401 (Acute Oral Toxicity), Guideline: EU Method B.1 (Acute Toxicity (Oral))
LD50 dermal rabbit	1800 – 1900 mg/kg bodyweight
LC50 Inhalation - Rat	1,08 mg/l air Animal: rat, Guideline: EPA OPP 81-3 (Acute inhalation toxicity), Guideline: EU Method B.2 (Acute Toxicity (Inhalation))

Skin corrosion/irritation : Not classified (Based on available data, the classification criteria are not met)
pH: 8 – 11 (5%)

Additional information : (according to composition)
Prolonged and repeated skin contact may cause reddening, irritation and dermatitis.

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.] (64742-53-6)	
pH	Not applicable

Serious eye damage/irritation : Causes serious eye irritation.
pH: 8 – 11 (5%)

Additional information : This product is formulated with a component which contains substances classified as Eye Dam.1, H318. The component itself has been tested by the manufacturer and has been assessed as moderately irritant to eyes (H 319). This result has been used for classification of the final mixture (Bridging principle "Dilution").
On basis of test data: In vitro test data on mixture itself

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.] (64742-53-6)	
pH	Not applicable

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 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.

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

Additional information : (according to composition)

Pyridine-2-thiol 1-oxide, sodium salt; pyrithione sodium; sodium pyrithione (3811-73-2)	
LOAEL (animal/male, F1)	2,8 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: EPA OPPTS 870.3800 (Reproduction and Fertility Effects)
LOAEL (animal/female, F1)	1,4 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: EPA OPPTS 870.3800 (Reproduction and Fertility Effects)

Pyridine-2-thiol 1-oxide, sodium salt; pyrithione sodium; sodium pyrithione (3811-73-2)	
NOAEL (animal/male, F1)	1,4 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: EPA OPPTS 870.3800 (Reproduction and Fertility Effects)
NOAEL (animal/female, F1)	0,7 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: EPA OPPTS 870.3800 (Reproduction and Fertility Effects)

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

2-aminoethanol; ethanolamine (141-43-5)	
STOT-single exposure	May cause respiratory irritation.

Pyridine-2-thiol 1-oxide, sodium salt; pyrithione sodium; sodium pyrithione (3811-73-2)	
LOAEL (oral, rat)	1,5 mg/kg bodyweight
LOAEC (inhalation, rat, vapour)	8,1 mg/m³
NOAEL (oral, rat)	0,5 mg/kg bodyweight
NOAEL (dermal, rat/rabbit)	5 – 15 mouse

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

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.] (64742-53-6)	
LOAEL (oral, rat, 90 days)	125 mg/kg bodyweight/day (OECD TG 408)

2-aminoethanol; ethanolamine (141-43-5)	
NOAEL (oral, rat, 90 days)	300 mg/kg bodyweight/day
NOAEC (inhalation,rat, vapour, 90 days)	10 mg/m³

Pyridine-2-thiol 1-oxide, sodium salt; pyrithione sodium; sodium pyrithione (3811-73-2)	
LOAEL (oral, rat, 90 days)	1,5 mg/kg bodyweight Animal: rat, Guideline: other:
NOAEL (oral, rat, 90 days)	0,5 mg/kg bodyweight Animal: rat, Guideline: other:

Aspiration hazard : Not classified (Based on available data, the classification criteria are not met)
Additional information : (according to composition)
Viscosity, kinematic: > 20,5 mm2/s (40 °C) (ASTM D 445)

Eni Aquamet 104 Plus	
Viscosity, kinematic	≈ 50 mm²/s (40°C)

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.] (64742-53-6)	
Viscosity, kinematic	9 mm²/s (40 °C) (ASTM D 445)

Pyridine-2-thiol 1-oxide, sodium salt; pyrithione sodium; sodium pyrithione (3811-73-2)	
Viscosity, kinematic	6687 mm²/s Temp.: '20°C' Parameter: 'kinematic viscosity (in mm²/s)'

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Adverse health effects caused by endocrine disrupting properties : None known,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 : Irritating to eyes,Inhalation of vapours may cause respiratory irritation,Avoid all eye and skin contact and do not breathe vapour and mist

Other information : Likely routes of exposure: skin and eye.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. 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.

Ecology - water : Harmful to aquatic life. Forms emulsion in presence of water.

Hazardous to the aquatic environment, short–term (acute) : Not classified (Based on available data, the classification criteria are not met)

Hazardous to the aquatic environment, long–term (chronic) : Harmful to aquatic life with long lasting effects.

Distillates (petroleum), hydrotreated light naphthenic (64742-53-6)	
LC50 fish 1	> 100 mg/l (LL 50)
EC50 Daphnia 1	> 10000 mg/l WAF, 48 h (OECD 202)

2-aminoethanol; ethanolamine (141-43-5)	
LC50 fish 1	349 mg/l
EC50 Daphnia 1	65 mg/l
EC50 72h - Algae [1]	2,1 – 2,8 mg/l
LOEC (chronic)	3,55 mg/l (41d)
NOEC chronic fish	1,24 mg/l (41d)
NOEC chronic algae	1 mg/l (72h)

Pyridine-2-thiol 1-oxide, sodium salt (3811-73-2)	
LC50 fish 1	7,3 µg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
LC50 fish 2	0,0066 mg/l
EC50 Daphnia 1	0,6 mg/l Test organisms (species): Daphnia magna
EC50 Daphnia 2	0,022 mg/l (EL50)
EC50 72h - Algae [1]	0,22 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)

12.2. Persistence and degradability

Eni Aquamet 104 Plus	
Persistence and degradability	Product is biodegradable with difficulty.

Distillates (petroleum), hydrotreated light naphthenic (64742-53-6)	
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.

12.3. Bioaccumulative potential

Eni Aquamet 104 Plus	
Log Pow	Not applicable for mixtures
Log Kow	Not applicable for mixtures
Bioaccumulative potential	Low bioaccumulation potential.

12.4. Mobility in soil

Eni Aquamet 104 Plus	
Ecology - soil	No data available.

12.5. Results of PBT and vPvB assessment

Eni Aquamet 104 Plus	
This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII	
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII	
Results of PBT-vPvB assessment	The components in this formulation do not meet the criteria for classification as PBT or vPvB. The product should be considered prudentially as "Persistent" in the environment, according to the REACH Annex XIII criteria (point 1.1)

Component	
Distillates (petroleum), 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
N,N-bis(2-hydroxyethyl)oleamide (93-83-4)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
Benzene, C10-12-alkyl derivatives, distillation residues, sulfonated, sodium salts (91844-64-3)	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
Alcohols, C14-18, ethoxylated propoxylated (68002-96-0)	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
2-aminoethanol; ethanolamine (141-43-5)	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
Pyridine-2-thiol 1-oxide, sodium salt (3811-73-2)	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

12.6. Endocrine disrupting properties

Adverse effects on the environment caused by endocrine disrupting properties : Endocrine disrupting properties (Article 57(f) — environment): None known. The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %.

12.7. Other adverse effects

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

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Do not dispose of the product, either new or used, by 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 : Do not apply industrial sludge to natural soils. Sludge should be incinerated, contained or reclaimed. Dispose of in a safe manner in accordance with local/national regulations.

Product/Packaging disposal recommendations : European Waste Catalogue code(s) (Decision 2001/118/CE): 12 01 08* (machining emulsions and solutions containing halogens) (as emulsion/solution) (Ref: 2001/118/CE), 12 01 06* (mineral-based machining oils containing halogens (except emulsions and solutions)) (Rif: 2001/118/CE). 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. Dispose of empty, not cleaned containers safely, according to local regulations.

Ecology - waste materials : The product as it is CONTAINS HALOGENATED SUBSTANCES.

EURAL code (EWC) : 12 01 06* - Mineral-based machining oils containing halogens (except emulsions and solutions)
12 01 08* - machining emulsions and solutions containing halogens

SECTION 14: Transport information

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

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
Not regulated for transport				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.2. UN proper shipping name				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.4. Packing group				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.5. Environmental hazards				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
No supplementary information available				

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

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). POP (2019/1021) - Persistent Organic Pollutants. Regulation EU (649/2012) - Export and Import of hazardous chemicals (PIC). Commission Delegated Regulation (EU) 2017/2100. Commission Regulation (EU) 2018/605.

REACH Annex XVII (Restriction List)

EU restriction list (REACH Annex XVII)		
Reference code	**Applicable on**	**Entry title or description**
3(b)	Eni Aquamet 104 Plus ; 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.] ; N,N-bis(2-hydroxyethyl)oleamide ; Benzene, C10-12-alkyl derivatives, distillation residues, sulfonated, sodium salts ; 2-aminoethanol; ethanolamine	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 Aquamet 104 Plus ; Benzene, C10-12-alkyl derivatives, distillation residues, sulfonated, sodium salts ; Alcohols, C14-18, ethoxylated propoxylated ; 2-aminoethanol; ethanolamine	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

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)

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.

Finland

Finnish National Regulations : Occupational Safety and Health Act No. 738/2002.

France

Maladies professionelles (F)	
Code	Description
RG 36	Diseases caused by oils and fats of mineral or synthetic origin
RG 49	Skin disorders caused by aliphatic, alicyclic amines or ethanolamines
RG 49 BIS	Respiratory disorders caused by aliphatic amines, ethanolamines or isophoronediamine

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.
Employment prohibitions and restrictions according to § 11 and § 12 MuSchG 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 500: Protective measures.
TRGS 510: Storage of hazardous substances in non-stationary containers.
TRGS 555: Working instruction and information for workers.
TRGS 900: Occupational Exposure Limits.

VbF class (D) : Not applicable.

Water hazard class (WGK) (D) : WGK 2, Significantly hazardous to water (Classification according to AwSV, Annex 1).

WGK remark : Classification is carried out on the basis of the Ordinance on facilities for handling substances that are hazardous to water (Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (AwSV)) of 18 April 2017 (BGBl 2017, Teil I, Nr. 22, Seite 905).

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

List of sensitizing substances (TRGS 907) : Contains sensitizing substances according TRGS 907.

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
9 - Harmful to aquatic organisms

Saneringsinspanningen : C - Minimize discharge

SZW-lijst van kankerverwekkende stoffen : None of the components are listed

SZW-lijst van mutagene stoffen : None of the components are listed

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

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

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

Denmark

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

Norway

Norwegian National Regulations : Working Environment Act (LOV-2005-06-17 NO. 62).
People under the age of 18 may not work with this product at all.

Sweden

Swedish National Regulations : This product is in compliance with Ordinance 1998:944.
Work Environment Act (1977: 1160).
Chemical Hazards in the Working Environment (AFS 2011:19).

15.2. Chemical safety 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-aminoethanol; ethanolamine
Pyridine-2-thiol 1-oxide, sodium salt; pyrithione sodium; sodium pyrithione

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
CAS-No.	Chemical Abstract Service number
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)
EC-No.	European Community number
ED	Endocrine disrupting properties
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

Abbreviations and acronyms:	
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
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
VOC	Volatile Organic Compounds
vPvB	Very Persistent and Very Bioaccumulative
WGK	Water Hazard Class

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

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

Other information : Do not use the product for any purposes that have not been advised by the manufacturer. 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
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
Asp. Tox. 1	Aspiration hazard, Category 1
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
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.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.

Full text of H- and EUH-statements:	
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:		
Eye Irrit. 2	H319	On basis of test data: In vitro test data on mixture itself
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.