



Eni Aquamet 500 FG ECO

Safety Data Sheet

According to Regulation (EU) No. 830/2015

Revision date: 29/05/2020 Supersedes: 13/10/2015 Version: 2.0

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

1.1. Product identifier

Product form : Mixture
Trade name : Eni Aquamet 500 FG ECO
Product code : 7086
Type of product : Refrigerant
Formula : 2905-2020
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 : Refrigerant
Metalworking fluid

Do not use the product for any purposes that have not been advised by the manufacturer.
Function or use category : Lubricants and additives

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

ENI S.p.A.
P.le E. Mattei 1 - 00144 Rome Italy
Phone: (+39) 06 59821
www.eni.com

Contact:
Refining & Marketing

Competent person responsible for the Safety Data Sheet (Reg. EC nr. 1907/2006): SDSInfo@eni.com

1.4. Emergency telephone number

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

Poison centre (UK):
National Poisons Information Service Edinburgh (24h)
(+44) 844 892 0111
0870 600 6266 (UK only)
(Source: UN-WHO)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Serious eye damage/eye irritation, Category 2 H319
Hazardous to the aquatic environment — Chronic Hazard, Category 3 H412
Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

Causes serious 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.

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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)

: P264 - Wash hands, forearms and face thoroughly after handling.
P273 - Avoid release to the environment.
P280 - Wear eye protection, protective gloves.
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.

2.3. Other hazards (not relevant for classification)

Other hazards not contributing to the classification

: Non flammable. If the product is handled or used at high temperature, contact with hot product or vapours may cause burns. 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

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Notes

: Composition/ Information on ingredients:

Mixture of hydrocarbons

alcohols

Additives

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [EU-GHS / CLP]
Distillates (petroleum), hydrotreated light naphthenic (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	>= 5 < 25	Asp. Tox. 1, H304
Sulfonic acids, petroleum, sodium salts	(CAS-No.) 68608-26-4 (EC-No.) 271-781-5 (EC Index-No.) N/A (REACH-no) 01-2119527859-22	>= 1 < 5	Eye Irrit. 2, H319
Triethanolamine (see note [**])	(CAS-No.) 102-71-6 (EC-No.) 203-049-8 (EC Index-No.) N/A (REACH-no) 01-2119486482-31	>= 1 < 5	Not classified
2,2'-(cyclohexylimino)bisethanol	(CAS-No.) 4500-29-2 (EC-No.) 224-809-5 (EC Index-No.) N/A (REACH-no) 01-2119962183-38	>= 1 < 5	Acute Tox. 4 (Oral), H302 Skin Corr. 1C, H314 STOT RE 2, H373
Alcohols, C16-18 and C18-unsatd., ethoxylated	(CAS-No.) 68920-66-1 (EC-No.) 500-236-9 (EC Index-No.) N/A (REACH-no) 01-2119489407-26	>= 1 < 5	Skin Irrit. 2, H315 Aquatic Chronic 2, H411
2-aminoethanol	(CAS-No.) 141-43-5 (EC-No.) 205-483-3 (EC Index-No.) 603-030-00-8 (REACH-no) 01-2119486455-28	>= 1 < 3	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Skin Corr. 1B, H314 STOT SE 3, H335 Aquatic Chronic 3, H412

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2-butylaminoethanol	(CAS-No.) 111-75-1 (EC-No.) 203-904-5 (EC Index-No.) N/D (REACH-no) 01-2119987315-28	$\geq 1 < 3$	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 Aquatic Chronic 3, H412
2-phenoxyethanol (see note [**])	(CAS-No.) 122-99-6 (EC-No.) 204-589-7 (EC Index-No.) 603-098-00-9 (REACH-no) 01-2119488943-21	$\geq 0,1 < 1$	Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319

Specific concentration limits:

Name	Product identifier	Specific concentration limits
2-aminoethanol	(CAS-No.) 141-43-5 (EC-No.) 205-483-3 (EC Index-No.) 603-030-00-8 (REACH-no) 01-2119486455-28	(C ≥ 5) STOT SE 3, H335

Notes : Note [*]:
this product has a value of DMSO extract < 3 % wt, according to IP 346/92. According to the criteria laid out by the EU (note L, Annex VI of Regulation (CE) 1272/2008), this product must be regarded as non carcinogenic.

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)

Note [***]:
substance with national workplace exposure limit(s)

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : 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 shoes. Wash thoroughly with soap and water. If skin irritation occurs: Get medical advice/attention.

First-aid measures after eye contact : Remove contact lenses, if present and easy to do so. Rinse eyes thoroughly for at least 15 minutes. Keep eyelids well apart. If irritation persists, seek medical advice.

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 : Contact with eyes may cause reddening and 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.

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 : The vapours are flammable and may form explosive mixtures with air.

Explosion hazard : None.

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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, NO_x (harmful/toxic gases). Combustion products include sulphur oxides (SO₂ and SO₃) and Hydrogen sulphide H₂S. NaOx.

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

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

SECTION 6: Accidental release 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 : Notify local authorities according to relevant 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.

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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. 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. 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.
- 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.

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)

Refrigerant. Metalworking fluid.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Distillates (petroleum), hydrotreated light naphthenic (64742-53-6)		
Austria	MAK (mg/m ³)	5 mg/m ³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
Belgium	Limit value (mg/m ³)	5 mg/m ³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
Denmark	Grænseværdi (langvarig) (mg/m ³)	1 mg/m ³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
Denmark	Grænseværdi (kortvarig) (mg/m ³)	2 mg/m ³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
Hungary	AK-érték	5 mg/m ³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
Netherlands	MAC TGG 8h (mg/m ³)	5 mg/m ³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
Spain	VLA-ED (mg/m ³)	5 mg/m ³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
Spain	VLA-EC (mg/m ³)	10 mg/m ³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
Sweden	Nivågränsvärde (NVG) (mg/m ³)	1 mg/m ³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
Sweden	Kortidsvärde (KTV) (mg/m ³)	3 mg/m ³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
United Kingdom	WEL TWA (mg/m ³)	5 mg/m ³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
United Kingdom	WEL STEL (mg/m ³)	10 mg/m ³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)

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Distillates (petroleum), hydrotreated light naphthenic (64742-53-6)		
USA - ACGIH	ACGIH TLV®-TWA (mg/m³)	5 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
USA - ACGIH	ACGIH TLV®-STEL (mg/m³)	10 mg/m³ (Mineral base oil mist, severely refined, DMSO extract <3% m/m)
Triethanolamine (102-71-6)		
Austria	MAK (mg/m³)	5 mg/m³ (Inhalable aerosol)
Austria	MAK (ppm)	0,8 ppm
Austria	MAK Short time value (mg/m³)	10 mg/m³ (Inhalable aerosol)
Austria	MAK Short time value (ppm)	1,6 ppm
Belgium	Limit value (mg/m³)	5 mg/m³
Czech Republic	Expoziční limity (NPK-P) (mg/m³)	5 mg/m³
Denmark	Grænseværdi (langvarig) (mg/m³)	3,1 mg/m³
Denmark	Grænseværdi (langvarig) (ppm)	0,5 ppm
Denmark	Grænseværdi (kortvarig) (mg/m³)	6,2 mg/m³
Denmark	Grænseværdi (kortvarig) (ppm)	1 ppm
Estonia	OEL TWA (mg/m³)	5 mg/m³
Estonia	OEL STEL (mg/m³)	10 mg/m³
Finland	HTP-arvo (8h) (mg/m³)	5 mg/m³
Germany	Occupational exposure limit value (mg/m³)	5 mg/m³ (Inhalable aerosol)
Germany	Limitation of exposure peaks (mg/m³)	10 mg/m³ (Inhalable aerosol)
Ireland	OEL (8 hours ref) (mg/m³)	5 mg/m³
Slovenia	OEL TWA (mg/m³)	5 mg/m³
Spain	VLA-ED (mg/m³)	5 mg/m³
Sweden	Nivågränsvärde (NVG) (mg/m3)	5 mg/m³
Sweden	Nivågränsvärde (NVG) (ppm)	0,8 ppm
Sweden	Kortidsvärde (KTV) (mg/m3)	10 mg/m³
Sweden	Kortidsvärde (KTV) (ppm)	1,6 ppm
Switzerland	MAK (mg/m³)	5 mg/m³ (Inhalable aerosol)
Switzerland	VLE (mg/m³)	10 mg/m³ (Inhalable aerosol)
Canada (Quebec)	VECD (mg/m³)	5 mg/m³
USA - ACGIH	ACGIH TLV®-TWA (mg/m³)	5 mg/m³
2-aminoethanol (141-43-5)		
EU	IOELV TWA (mg/m³)	2,5 mg/m³
EU	IOELV TWA (ppm)	1 ppm
EU	IOELV STEL (mg/m³)	7,6 mg/m³
EU	IOELV STEL (ppm)	3 ppm
Austria	MAK (mg/m³)	2,5 mg/m³
Austria	MAK (ppm)	1 ppm
Austria	MAK Short time value (mg/m³)	7,6 mg/m³
Austria	MAK Short time value (ppm)	3 ppm
Belgium	Limit value (mg/m³)	2,5 mg/m³
Belgium	Limit value (ppm)	1 ppm
Belgium	Short time value (mg/m³)	7,6 mg/m³
Belgium	Short time value (ppm)	3 ppm
Denmark	Grænseværdi (langvarig) (mg/m³)	2,5 mg/m³
Denmark	Grænseværdi (langvarig) (ppm)	1 ppm
Denmark	Grænseværdi (kortvarig) (mg/m³)	5 mg/m³
Denmark	Grænseværdi (kortvarig) (ppm)	2 ppm
Finland	HTP-arvo (8h) (mg/m³)	2,5 mg/m³
Finland	HTP-arvo (8h) (ppm)	1 ppm
Finland	HTP-arvo (15 min) (mg/m³)	7,6 mg/m³
Finland	HTP-arvo (15 min) (ppm)	3 ppm
France	VME (mg/m³)	7,6 mg/m³

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2-aminoethanol (141-43-5)		
France	VME (ppm)	3 ppm
France	VLE (mg/m³)	2,5 mg/m³
France	VLE (ppm)	1 ppm
Germany	Occupational exposure limit value (mg/m³)	0,5 mg/m³
Germany	Occupational exposure limit value (ppm)	0,2 ppm
Germany	Limitation of exposure peaks (mg/m³)	0,5 mg/m³
Germany	Limitation of exposure peaks (ppm)	0,2 ppm
Hungary	CK-érték	2,5 mg/m³
Hungary	MK-érték	7,6 mg/m³
Ireland	OEL (8 hours ref) (mg/m³)	2,5 mg/m³
Ireland	OEL (8 hours ref) (ppm)	1 ppm
Ireland	OEL (15 min ref) (mg/m³)	7,6 mg/m³
Ireland	OEL (15 min ref) (ppm)	3 ppm
Italy	OEL TWA (mg/m³)	2,5 mg/m³
Italy	OEL TWA (ppm)	1 ppm
Italy	OEL STEL (mg/m³)	7,6 mg/m³
Italy	OEL STEL (ppm)	3 ppm
Latvia	OEL TWA (mg/m³)	0,5 mg/m³
Latvia	OEL TWA (ppm)	0,2 ppm
Latvia	OEL STEL (mg/m³)	7,6 mg/m³
Latvia	OEL STEL (ppm)	3 ppm
Netherlands	MAC TGG 15 min (mg/m³)	2,5 mg/m³
Netherlands	MAC C (mg/m³)	7,6 mg/m³
Poland	NDSch (mg/m³)	2,5 mg/m³
Poland	NDSP (mg/m³)	7,5 mg/m³
Spain	VLA-ED (mg/m³)	2,5 mg/m³
Spain	VLA-ED (ppm)	1 ppm
Spain	VLA-EC (mg/m³)	7,6 mg/m³
Spain	VLA-EC (ppm)	3 ppm
Spain	Notes	Skin
Sweden	Nivågränsvärde (NVG) (mg/m³)	2,5 mg/m³
Sweden	Nivågränsvärde (NVG) (ppm)	1 ppm
Sweden	Kortidsvärde (KTV) (mg/m³)	7,6 mg/m³
Sweden	Kortidsvärde (KTV) (ppm)	3 ppm
United Kingdom	WEL TWA (mg/m³)	2,5 mg/m³
United Kingdom	WEL TWA (ppm)	1 ppm
United Kingdom	WEL STEL (mg/m³)	7,6 mg/m³
United Kingdom	WEL STEL (ppm)	3 ppm
Switzerland	MAK (mg/m³)	5 mg/m³
Switzerland	MAK (ppm)	2 ppm
Switzerland	VLE (mg/m³)	10 mg/m³
Switzerland	VLE (ppm)	4 ppm
Canada (Quebec)	VECD (ppm)	6 ppm
Canada (Quebec)	VEMP (ppm)	3 ppm
USA - ACGIH	ACGIH TLV®-TWA (ppm)	3 ppm
USA - ACGIH	ACGIH TLV®-STEL (ppm)	6 ppm
USA - NIOSH	NIOSH REL (TWA) (ppm)	3 ppm
USA - NIOSH	NIOSH REL (STEL) (ppm)	6 ppm
2-phenoxyethanol (122-99-6)		
Austria	MAK (mg/m³)	110 mg/m³
Austria	MAK (ppm)	20 ppm
Austria	MAK Short time value (mg/m³)	110 mg/m³
Austria	MAK Short time value (ppm)	20 ppm

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2-phenoxyethanol (122-99-6)

Finland	HTP-arvo (8h) (mg/m³)	110 mg/m³
Finland	HTP-arvo (8h) (ppm)	20 ppm
Finland	HTP-arvo (15 min) (mg/m³)	290 mg/m³
Finland	HTP-arvo (15 min) (ppm)	50 ppm
Germany	Occupational exposure limit value (mg/m³)	110 mg/m³
Germany	Occupational exposure limit value (ppm)	20 ppm
Germany	Limitation of exposure peaks (mg/m³)	220 mg/m³
Germany	Limitation of exposure peaks (ppm)	40 ppm
Poland	NDS (mg/m³)	230 mg/m³
Switzerland	MAK (mg/m³)	110 mg/m³
Switzerland	MAK (ppm)	20 ppm
Switzerland	VLE (mg/m³)	220 mg/m³
Switzerland	VLE (ppm)	40 ppm

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.
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DNEL/DMEL (additional information)	
Additional information	Not applicable
PNEC (additional information)	
Additional information	Not applicable

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

DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	0,97 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	2,73 mg/m³
Long-term - local effects, inhalation	5,58 mg/m³
DNEL/DMEL (General population)	
Long-term - systemic effects, oral	0,74 mg/kg bodyweight/day
Long-term - local effects, inhalation	1,19 mg/m³

Sulfonic acids, petroleum, sodium salts (68608-26-4)

DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	3,33 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	0,66 mg/m³
DNEL/DMEL (General population)	
Long-term - systemic effects, oral	0,8333 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	0,33 mg/m³
Long-term - systemic effects, dermal	1,667 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	1 mg/l
PNEC aqua (marine water)	1 mg/l
PNEC aqua (intermittent, freshwater)	10 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	723500000 mg/kg dwt
PNEC sediment (marine water)	723500000 mg/kg dwt
PNEC (Soil)	
PNEC soil	868700000 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	100 mg/l

2,2'-(cyclohexylimino)bisethanol (4500-29-2)

DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	1,25 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	2,2 mg/m³
Long-term - local effects, inhalation	1 mg/m³
DNEL/DMEL (General population)	
Long-term - systemic effects, oral	0,893 mg/kg bodyweight/day

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2,2'-(cyclohexylimino)bisethanol (4500-29-2)

PNEC (Water)	
PNEC aqua (freshwater)	0,81 mg/l
PNEC aqua (marine water)	0,081 mg/l
PNEC aqua (intermittent, freshwater)	0,11 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	3,8 mg/kg dwt
PNEC sediment (marine water)	0,38 mg/kg dwt
PNEC (Soil)	
PNEC soil	0,28 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	50 mg/l

Triethanolamine (102-71-6)

DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	6,3 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	5 mg/m ³
Long-term - local effects, inhalation	5 mg/m ³
DNEL/DMEL (General population)	
Long-term - systemic effects, oral	3,3 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	1,25 mg/m ³
Long-term - systemic effects, dermal	2,66 mg/kg bodyweight/day
Long-term - local effects, dermal	0,07 mg/cm ²
Long-term - local effects, inhalation	0,4 mg/m ³
PNEC (Water)	
PNEC aqua (freshwater)	0,32 mg/l
PNEC aqua (marine water)	0,032 mg/l
PNEC aqua (intermittent, freshwater)	5,12 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	1,7 mg/kg dwt
PNEC sediment (marine water)	0,17 mg/kg dwt
PNEC (Soil)	
PNEC soil	0,151 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	10 mg/l

Alcohols, C16-18 and C18-unsatd., ethoxylated (68920-66-1)

DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	2080 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	294 mg/m ³
DNEL/DMEL (General population)	
Long-term - systemic effects, oral	25 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	87 mg/m ³
Long-term - systemic effects, dermal	1250 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	0,002 mg/l
PNEC aqua (marine water)	0,002 mg/l
PNEC aqua (intermittent, freshwater)	0,51 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	6,33 mg/kg dwt
PNEC sediment (marine water)	6,33 mg/kg dwt
PNEC (Soil)	
PNEC soil	1 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	10000 mg/l

2-aminoethanol (141-43-5)

DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	1 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	1 mg/m ³
Long-term - local effects, inhalation	3,3 mg/m ³
DNEL/DMEL (General population)	

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2-aminoethanol (141-43-5)	
Acute - local effects, inhalation	2 mg/m ³
Long-term - systemic effects, oral	3,75 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	0,18 mg/m ³
Long-term - systemic effects, dermal	1,5 mg/kg bodyweight/day
Long-term - local effects, inhalation	0,28 mg/m ³
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
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
2-butylaminoethanol (111-75-1)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	3,92 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	2,22 mg/m ³
Long-term - local effects, inhalation	1,14 mg/m ³
PNEC (Water)	
PNEC aqua (freshwater)	0,03 mg/l
PNEC aqua (marine water)	0,003 mg/l
PNEC aqua (intermittent, freshwater)	0,3 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	0,029 mg/kg dwt
PNEC sediment (marine water)	0,003 mg/kg dwt
PNEC (Soil)	
PNEC soil	0,008 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	35 mg/l
2-phenoxyethanol (122-99-6)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	34,72 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	8,07 mg/m ³
Long-term - local effects, inhalation	8,07 mg/m ³
DNEL/DMEL (General population)	
Acute - systemic effects, oral	9,23 mg/kg bodyweight
Long-term - systemic effects, oral	9,23 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	2,41 mg/m ³
Long-term - systemic effects, dermal	10,42 mg/kg bodyweight/day
Long-term - local effects, inhalation	2,41 mg/m ³
PNEC (Water)	
PNEC aqua (freshwater)	0,943 mg/l
PNEC aqua (marine water)	94,3 µg/l
PNEC aqua (intermittent, freshwater)	3,44 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	7,237 mg/kg dwt
PNEC sediment (marine water)	0,723 mg/kg dwt
PNEC (Soil)	
PNEC soil	1,31 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	36 mg/l

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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.
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8.2. Exposure 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. 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.

Personal protective equipment (for industrial or professional use):

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

Hand protection:

Chemical resistant gloves (according to European standard NF EN 374 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.

Eye protection:

Chemical goggles or face shield. DIN EN 166

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.

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). 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). 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)

Personal protective equipment symbol(s):



Thermal hazard protection:

None in normal use conditions.

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
Appearance	: Liquid, bright & clear.
Colour	: Amber.
Odour	: characteristic.
Odour threshold	: There are no data available on the preparation/mixture itself.

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pH	: 8,5 - 11 (5%)
Relative evaporation rate (butylacetate=1)	: Negligible.
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: Not applicable
Critical temperature	: Not applicable for mixtures
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not applicable
Vapour pressure	: No data available
Critical pressure	: Not applicable for mixtures
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 0,94 - 1,04 g/ml (15°C)
Solubility	: Emulsifies in water.
Log Pow	: Not applicable for mixtures
Log Kow	: Not applicable for mixtures
Viscosity, kinematic	: ≈ 25 mm²/s (40°C)
Viscosity, dynamic	: No data available
Explosive properties	: None (according to composition).
Oxidising properties	: None (according to composition).
Explosive limits	: Not applicable

9.2. Other information

VOC content	: 3 %
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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). Reacts vigorously with strong oxidizers and acids.

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 toxicological effects

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

Eni Aquamet 500 FG ECO	
LC50 inhalation rat (mg/l)	≥ 5 mg/l/4h
ATE CLP (vapours)	5 mg/l/4h
ATE (dust,mist)	5 mg/l/4h
Distillates (petroleum), hydrotreated light naphthenic (64742-53-6)	
LD50 oral	5000 mg/kg bodyweight
LD50 dermal rabbit	2000 - 5000 mg/kg bodyweight
LC50 inhalation rat (mg/l)	2,18 - 5,53 mg/l/4h

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Sulfonic acids, petroleum, sodium salts (68608-26-4)	
LD50 dermal rabbit	5000 mg/kg bodyweight
LC50 inhalation rat (mg/l)	1,9 mg/l/4h
Triethanolamine (102-71-6)	
LD50 oral rat	6400 mg/kg bodyweight (OECD 401)
LD50 dermal rabbit	≥ 2000 mg/kg bodyweight (OECD 402)
LC50 inhalation rat (mg/l)	> 1,8 mg/l/4h Saturation concentration
2-aminoethanol (141-43-5)	
LD50 oral rat	1089 - 1515 mg/kg bodyweight
LD50 dermal rat	2504 - 2881 mg/kg bodyweight
LC50 inhalation rat (mg/l)	1,3 mg/l/4h
2-phenoxyethanol (122-99-6)	
LD50 oral rat	1840 - 4070 mg/kg bodyweight
LD50 dermal rabbit	2214 mg/kg bodyweight
Skin corrosion/irritation	: Not classified (Based on available data, the classification criteria are not met) pH: 8,5 - 11 (5%)
Additional information	: (according to composition) According to the results (considering test outcomes, bridging principles and expert judgement), this product is NOT classified as corrosive/irritant for skin. Prolonged and repeated skin contact may cause reddening, irritation and dermatitis. The statement is derived from products of similar structure or composition.
Serious eye damage/irritation	: Causes serious eye irritation. pH: 8,5 - 11 (5%)
Additional information	: (according to composition) According to the results (considering test outcomes, bridging principles and expert judgement), this product is classified as irritant for eyes (H319) The statement is derived from products of similar structure or composition.
Respiratory or skin sensitisation	: Not classified (Based on available data, the classification criteria are not met)
Additional information	: (according to composition)
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
Additional information	: (according to composition)
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met)
Additional information	: (according to composition) This product contains : Distillates (petroleum), solvent-refined light paraffinic; Baseoil—unspecified; [A complex combination of hydrocarbons obtained as the raffinate from a solvent extraction process. It consists predominantly of saturated hydrocarbons having carbon numbers predominantly in the range of C15 through C30 and produces a finished oil with a viscosity of less than 100 SUS at 100 °F (19cSt at 40 °C).] this product has a value of DMSO extract < 3 % wt, according to IP 346/92. According to the criteria laid out by the EU (note L, Annex VI of Regulation (CE) 1272/2008), this product must be regarded as non carcinogenic.
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)
Additional information	: (according to composition)
STOT-single exposure	: Not classified (Based on available data, the classification criteria are not met)
Additional information	: (according to composition)
Sulfonic acids, petroleum, sodium salts (68608-26-4)	
NOAEL (oral, rat)	500 mg/kg bodyweight
NOAEL (dermal, rat/rabbit)	1000 mg/kg bodyweight
NOAEC (inhalation, rat, vapour)	49,5 mg/l/4h
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 (64742-53-6)	
LOAEL (oral, rat, 90 days)	125 mg/kg bodyweight/day
NOAEL (dermal, rat/rabbit, 90 days)	30 - 2000 mg/kg bodyweight/day
NOAEC (inhalation, rat, vapour, 90 days)	980 mg/m³
2-aminoethanol (141-43-5)	
NOAEL (oral, rat, 90 days)	300 mg/kg bodyweight/day
NOAEC (inhalation, rat, vapour, 90 days)	10 mg/m³

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Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met)
Additional information	: Viscosity, kinematic: > 20,5 mm ² /s (40 °C) (ASTM D 445)

Eni Aquamet 500 FG ECO	
Viscosity, kinematic	≈ 25 mm ² /s (40°C)

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. Notify authorities if product enters sewers or public waters.
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 (LL50)
LC50 other aquatic organisms 1	10 g/l (LL50)
EC50 Daphnia 1	10 g/l (EL50)

Sulfonic acids, petroleum, sodium salts (68608-26-4)	
EC50 72h algae (1)	1000 mg/l

Triethanolamine (102-71-6)	
LC50 fish 1	≥ 11800 mg/l (96h - APHA method - 1980)
EC50 other aquatic organisms 1	609,8 mg/l (48h - Ceriodaphnia dubia)
ErC50 (algae)	512 mg/l (72h - DIN 38412 part 9 - Scenedesmus subspicatus)

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)

2-phenoxyethanol (122-99-6)	
LC50 fish 1	220 - 460 mg/l
EC50 Daphnia 1	500 mg/l
EC50 72h algae (1)	443 - 625 mg/l
LOEC (chronic)	50 - 215 mg/l (34d)
NOEC (chronic)	23 - 105,5 mg/l (34d)

12.2. Persistence and degradability

Eni Aquamet 500 FG ECO	
Persistence and degradability	Product is biodegradable with difficulty.

Triethanolamine (102-71-6)	
Persistence and degradability	Readily biodegradable.
Biodegradation	ca 100 % (5d)

12.3. Bioaccumulative potential

Eni Aquamet 500 FG ECO	
Log Pow	Not applicable for mixtures
Log Kow	Not applicable for mixtures
Bioaccumulative potential	Low bioaccumulation potential.

12.4. Mobility in soil

Eni Aquamet 500 FG ECO	
Ecology - soil	Slightly soluble product, readily forms deposits.

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12.5. Results of PBT and vPvB assessment

Eni Aquamet 500 FG ECO	
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	
Triethanolamine (102-71-6)	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

12.6. Other adverse effects

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

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods	: Do not dispose of the product, either new or used, by discharging into sewers, tunnels, lakes or water courses. Deliver to a qualified official collector. 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 07* (mineral-based machining oils free of halogens (except emulsions and solutions)), 12 01 09* (machining emulsions and solutions free of halogens). This EWC code is only a general indication, and takes into account the original composition of the product and its intended use. The user has the responsibility of choosing the right EWC code, considering the actual use of the product, alterations and contaminations.
Additional information	: Empty containers may contain combustible product residues. Do not cut, weld, drill, burn or incinerate empty containers or drums, unless they have been cleaned, and declared safe. Dispose of empty, not cleaned containers safely, according to local regulations.
Ecology - waste materials	: The product as it is does not contain halogenated substances.
EURAL code (EWC)	: 12 01 07* - mineral-based machining oils free of halogens (except emulsions and solutions) 12 01 09* - machining emulsions and solutions free of halogens

SECTION 14: Transport information

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

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.2. UN proper shipping name				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.4. Packing group				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.5. Environmental hazards				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
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. Transport in bulk according to Annex II of Marpol and the IBC Code

IBC code : Not applicable.

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

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

3(b) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10	Eni Aquamet 500 FG ECO - Sulfonic acids, petroleum, sodium salts - 2-aminoethanol - Distillates (petroleum), hydrotreated light naphthenic - 2,2'-(cyclohexylimino)bisethanol - Alcohols, C16-18 and C18-unsatd., ethoxylated - 2-phenoxyethanol - 2-butylaminoethanol
3(c) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard class 4.1	Eni Aquamet 500 FG ECO - 2-aminoethanol - Alcohols, C16-18 and C18-unsatd., ethoxylated - 2-butylaminoethanol

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

Contains no REACH Annex XIV substances

VOC content : 3 %

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).

15.1.2. National regulations

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

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

Relevant national laws on prevention of water pollution.

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

National adoption of Directives 75/439/CEE - 87/101/CEE concerning disposal of used oils.

France

Maladies professionnelles (F) : RG 36 - Affections provoquées par les huiles et graisses d'origine minérale ou de synthèse

Germany

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

WGK remark : Classification based on the components in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS)

VbF class (D) : Not applicable.

Storage class (LGK) (D) : LGK 10 - Combustible liquids

Employment restrictions : Employment prohibitions or restrictions on the protection of young people at work according to § 22 JArbSchG in the case of formation of hazardous substances have to be observed.
Employment prohibitions and restrictions according to § 11 and § 12 MuSchG have to be observed.

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

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Other information, restrictions and prohibition regulations : 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 510: Storage of hazardous substances in non-stationary containers
TRGS 555: Working instruction and information for workers
TRGS 800: Fire protection measures
TRGS 900: Occupational Exposure Limits
TRGS 905: List of carcinogenic, mutagenic or toxic for reproduction substances

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
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : None of the components are listed

Denmark

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

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:

Sulfonic acids, petroleum, sodium salts
Triethanolamine
2,2'-(cyclohexylimino)bisethanol
Distillates (petroleum), hydrotreated light naphthenic
Alcohols, C16-18 and C18-unsatd., ethoxylated
2-aminoethanol
2-butylaminoethanol
2-phenoxyethanol

SECTION 16: Other information

Indication of changes:

SECTION 1 : Identification of the substance/mixture and of the company/undertaking. SECTION 2 : Hazards identification. SECTION 3 : Composition/information on ingredients. SECTION 4 : First aid measures. SECTION 5: Firefighting measures. SECTION 6: Accidental release measures. SECTION 7 : Precautions for safe handling. SECTION 8 : Exposure controls/personal protection. SECTION 9: Physical and chemical properties. SECTION 10: Stability and reactivity. SECTION 11: Toxicological information. SECTION 12: Ecological information. SECTION 13: Disposal considerations. SECTION 14: Transport information. SECTION 15: Regulatory information. SECTION 16: Other information.

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

Eni Aquamet 500 FG ECO

Safety Data Sheet

According to Regulation (EU) No. 830/2015

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

Data sources	: This Safety Data Sheet is based on the real characteristics of the components and their combination, taking into account the information provided by the suppliers.
Training advice	: Provide adequate training to professional operators for the use of PPEs, according to the information contained in this Safety Data Sheet.
Other information	: Do not use the product for any purposes that have not been advised by the manufacturer. If there is any suspicion of inhalation of H ₂ S (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 Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
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
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
Skin Corr. 1C	Skin corrosion/irritation, Category 1C
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
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.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

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

Eye Irrit. 2	H319	Calculation method
Aquatic Chronic 3	H412	Calculation method

SDS EU (REACH Annex II)

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