



Eni Arnica 104/FR

Safety Data Sheet

SDS EU format according to COMMISSION REGULATION (EU) 2020/878
Revision date: 09/05/2023 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 Arnica 104/FR
UFI	: AEUG-5Y5C-UH0Q-67TM
Product code	: 2580
Formula	: 0905-2023
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, Consumer use
Industrial/Professional use spec	: Wide dispersive use Used in closed systems
Use of the substance/mixture	: Hydraulic 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 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
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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Specific target organ toxicity – Repeated exposure, Category 2 H373
Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

May cause damage to organs through prolonged or repeated exposure. 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)



GHS08

CLP Signal word : Warning

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Contains	: ethylene glycol
Hazard statements (CLP)	: H373 - May cause damage to organs (kidneys) through prolonged or repeated exposure (oral).
Precautionary statements (CLP)	: P101 - If medical advice is needed, have product container or label at hand. P102 - Keep out of reach of children. P260 - Do not breathe Fumes, mist, spray, Vapours. P314 - Get medical advice/attention if you feel unwell. P501 - Dispose of contents and container to according to national or local regulations.

2.3. Other hazards (not relevant for classification)

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

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

Contains no PBT/vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

Component	
ethylene glycol (107-21-1)	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

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	
ethylene glycol(107-21-1)	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

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [EU-GHS / CLP]
ethanediol; ethylene glycol	CAS-No.: 107-21-1 EC-No.: 203-473-3 EC Index-No.: 603-027-00-1 REACH-no: 01-2119456816-28	$\geq 20 - < 25$	Acute Tox. 4 (Oral), H302 (ATE=500 mg/kg bodyweight) STOT RE 2, H373

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [EU-GHS / CLP]
morpholine	CAS-No.: 110-91-8 EC-No.: 203-815-1 EC Index-No.: 613-028-00-9 REACH-no: N/D	≥ 0,5 - < 1	Flam. Liq. 3, H226 Acute Tox. 4 (Oral), H302 (ATE=500 mg/kg bodyweight) Acute Tox. 3 (Dermal), H311 (ATE=300 mg/kg bodyweight) Acute Tox. 4 (Inhalation), H332 (ATE=1,5 mg/l/4h) Skin Corr. 1B, H314
2-aminoethanol; ethanolamine	CAS-No.: 141-43-5 EC-No.: 205-483-3 EC Index-No.: 603-030-00-8 REACH-no: 01-2119486455-28	≥ 0,5 - < 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

Specific concentration limits:

Name	Product identifier	Specific concentration limits
2-aminoethanol; ethanolamine	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

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	: In case of doubt or persistent symptoms, consult always a physician.
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. Place in the recovery position.
First-aid measures after skin contact	: Take off contaminated clothing and shoes. Wash thoroughly with soap and water. If inflammation or irritation persists, seek medical advice. Wash contaminated clothing before reuse.
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, blurred vision or swelling occurs and persists, obtain medical advice from a specialist.
First-aid measures after ingestion	: Rinse mouth thoroughly with water. Do not induce vomiting. Give nothing to drink. In case of spontaneous vomiting, keep head low, to avoid the risk of aspiration into the lungs. Get medical advice/attention.

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

Symptoms/effects after inhalation	: None under normal conditions at ambient temperatures.
Symptoms/effects after skin contact	: None under normal conditions at ambient temperatures.
Symptoms/effects after eye contact	: Contact with eyes may cause a light transient irritation.
Symptoms/effects after ingestion	: Ingestion of significant quantities (see sect. 11) may cause kidney damages, coma and death. The effects may be delayed.
Symptoms/effects upon intravenous administration	: No information available.
Chronic symptoms	: May cause damage to kidneys through prolonged or repeated exposure if swallowed.

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

Treat symptomatically. 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 : Small-size fires: carbon dioxide, dry chemicals, foam. Large fires: foam or water fog (mist). These means should be used by trained personnel only.
- Unsuitable extinguishing media : Do not use direct water jets on the burning product.

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.

5.3. Advice for firefighters

- Firefighting instructions : Shut off source of product, if possible. If possible, move containers and drums away from danger area. Spilled product which is not burning should be covered with sand or foam. Use water sprays to cool containers and surfaces exposed to the flames. If the fire cannot be controlled, evacuate area.
- Special protective equipment for firefighters : Personal protection equipment for firefighters (see also sect. 8). Self-contained breathing apparatus. EN 469. EN 443. 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 direct contact with released material.

6.1.1. For non-emergency personnel

- Protective equipment : See Section 8.
- Emergency procedures : 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. Only qualified personnel equipped with suitable protective equipment may intervene.

6.1.2. For emergency responders

- Protective equipment : Small spillages: normal antistatic working clothes are usually adequate. Large spillages: full body suit of chemically resistant and antistatic material. if necessary heat resistant and insulated. Work gloves (preferably gauntlets) providing adequate chemical resistance. Gloves made of PVA are not water-resistant, and are not suitable for emergency use. If contact with hot product is possible or anticipated, gloves should be heat-resistant and thermally insulated. Work helmet. Antistatic non-skid safety shoes or boots. Goggles and /or face shield, if splashes or contact with eyes is possible or anticipated. Respiratory protection: a half or full-face respirator with filter(s) for organic vapours (AX), 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

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.

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6.3. Methods and material for containment and cleaning up

- For containment : Contain spilled liquid with sand, earth or other suitable absorbents. Recover free liquid in suitable containers. Clean contaminated area. Dispose of according to local regulations. If in water: This product is soluble in water, and usually no special measures are feasible. If possible, collect spilled product with mechanical means. Notify official Authorities when required. 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 : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. This material and its container must be disposed of in a safe way, and according to local legislation.
- Other information : Local regulations may also prescribe or limit actions to be taken. 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. 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 : Provide good ventilation in process area to prevent formation of vapour. Store the product in cool, well ventilated surroundings.
- Hygiene measures : Avoid contact with skin. Do not breathe fume/ mist/ vapours. Do not ingest. Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Store in dry, well ventilated area. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. If the product is supplied in containers: Keep only in the original container or in a suitable container for this kind of product. Keep containers tightly closed and properly labelled.
- Incompatible products : Oxidizing agent.
- Incompatible materials : None in normal conditions.
- 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.
- Packaging materials : Keep only in the original container. Do not cut, weld, bore, burn or incinerate emptied containers, unless they have been cleaned and declared safe.

7.3. Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

ethanediol; ethylene glycol (107-21-1)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Ethylene glycol

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ethanediol; ethylene glycol (107-21-1)	
IOEL TWA	52 mg/m ³ Vapours
IOELV TWA (ppm)	20 ppm
IOELV STEL (mg/m ³)	104 mg/m ³ Vapours
IOELV STEL (ppm)	40 ppm
Notes	Skin
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC
Austria - Occupational Exposure Limits	
MAK (OEL TWA)	26 mg/m ³ Vapours
MAK [ppm]	10 ppm
MAK (OEL STEL)	52 mg/m ³ Vapours
MAK Short time value [ppm]	20 ppm
Belgium - Occupational Exposure Limits	
OEL TWA	52 mg/m ³ (Inhalable aerosol)
Short time value [mg/m ³]	104 mg/m ³ (Inhalable aerosol)
Denmark - Occupational Exposure Limits	
OEL TWA [1]	26 mg/m ³ (Inhalable aerosol)
OEL TWA [2]	10 ppm
OEL STEL	52 mg/m ³ (Inhalable aerosol)
Grænseværdi (kortvarig) (ppm)	20 ppm
France - Occupational Exposure Limits	
VME (OEL TWA)	52 mg/m ³ Vapours
VME [ppm]	20 ppm
VLE [mg/m ³]	104 mg/m ³ Vapours
VLE [ppm]	40 ppm
Germany - Occupational Exposure Limits (TRGS 900)	
AGW (OEL TWA) [1]	26 mg/m ³ (Inhalable aerosol) (15 min)
AGW (OEL TWA) [2]	10 ppm
Limitation of exposure peaks (mg/m ³)	52 mg/m ³ (Inhalable aerosol) (15 min)
Limitation of exposure peaks (ppm)	20 ppm
Ireland - Occupational Exposure Limits	
OEL TWA [1]	52 mg/m ³ Vapours
OEL TWA [2]	20 ppm
OEL (15 min ref) (mg/m ³)	104 mg/m ³ Vapours
OEL (15 min ref) (ppm)	40 ppm
Italy - Occupational Exposure Limits	
Local name	Etilen glicol
OEL TWA (mg/m ³)	52 mg/m ³ Skin
OEL TWA (ppm)	20 ppm Skin
OEL STEL (mg/m ³)	104 mg/m ³ Skin

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ethanediol; ethylene glycol (107-21-1)	
OEL STEL (ppm)	40 ppm Skin
Remark	Cute
Regulatory reference	Allegato XXXVIII del D.Lgs. 9 aprile 2008, n. 81 e s.m.i.
Netherlands - Occupational Exposure Limits	
MAC TGG 8h (mg/m ³)	52 mg/m ³ Vapours
MAC TGG 15 min (mg/m ³)	104 mg/m ³ Vapours
Poland - Occupational Exposure Limits	
NDS (OEL TWA)	15 mg/m ³ (Inhalable aerosol)
Spain - Occupational Exposure Limits	
VLA-ED (OEL TWA) [1]	52 mg/m ³ (Inhalable aerosol)
VLA-EC (mg/m ³)	104 mg/m ³ (Inhalable aerosol)
Notes	skin
Sweden - Occupational Exposure Limits	
NGV (OEL TWA)	25 mg/m ³ Vapours
Nivågränsvärde (NVG) (ppm)	10 ppm
KTV (OEL STEL)	50 mg/m ³ Vapours
KTV (OEL STEL) [ppm]	20 ppm
USA - ACGIH - Occupational Exposure Limits	
ACGIH TLV®-STEL Ceiling (mg/m ³)	100 mg/m ³
morpholine (110-91-8)	
EU - Indicative Occupational Exposure Limit (IOEL)	
IOEL TWA	36 mg/m ³
IOELV TWA (ppm)	10 ppm
IOELV STEL (mg/m ³)	72 mg/m ³
IOELV STEL (ppm)	20 ppm
Austria - Occupational Exposure Limits	
MAK (OEL TWA)	36 mg/m ³
MAK [ppm]	10 ppm
MAK (OEL STEL)	36 mg/m ³
MAK Short time value [ppm]	10 ppm
Belgium - Occupational Exposure Limits	
OEL TWA	36 mg/m ³
Limit value [ppm]	10 ppm
Short time value [mg/m ³]	72 mg/m ³
Short time value [ppm]	20 ppm
Denmark - Occupational Exposure Limits	
OEL TWA [1]	70 mg/m ³
OEL TWA [2]	20 ppm
OEL STEL	140 mg/m ³

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morpholine (110-91-8)	
Grænseværdi (kortvarig) (ppm)	40 ppm
Finland - Occupational Exposure Limits	
HTP (OEL TWA) [1]	36 mg/m ³
HTP (OEL TWA) [2]	10 ppm
HTP (OEL STEL)	72 mg/m ³
HTP-arvo (15 min) (ppm)	20 ppm
France - Occupational Exposure Limits	
VME (OEL TWA)	72 mg/m ³
VME [ppm]	20 ppm
VLE [mg/m ³]	36 mg/m ³
VLE [ppm]	10 ppm
Germany - Occupational Exposure Limits (TRGS 900)	
AGW (OEL TWA) [1]	36 mg/m ³
AGW (OEL TWA) [2]	10 ppm
Limitation of exposure peaks (mg/m ³)	72 mg/m ³
Limitation of exposure peaks (ppm)	20 ppm
Hungary - Occupational Exposure Limits	
AK (OEL TWA)	36 mg/m ³
CK-érték	72 mg/m ³
Ireland - Occupational Exposure Limits	
OEL TWA [1]	36 mg/m ³
OEL TWA [2]	10 ppm
OEL (15 min ref) (mg/m ³)	72 mg/m ³
OEL (15 min ref) (ppm)	20 ppm
Italy - Occupational Exposure Limits	
OEL TWA (mg/m ³)	36 mg/m ³
OEL TWA (ppm)	10 ppm
OEL STEL (mg/m ³)	72 mg/m ³
OEL STEL (ppm)	20 ppm
Latvia - Occupational Exposure Limits	
OEL TWA	36 mg/m ³
OEL TWA (ppm)	10 ppm
OEL STEL	72 mg/m ³
OEL STEL [ppm]	20 ppm
Netherlands - Occupational Exposure Limits	
MAC TGG 8h (mg/m ³)	36 mg/m ³
MAC TGG 15 min (mg/m ³)	72 mg/m ³
Spain - Occupational Exposure Limits	
VLA-ED (OEL TWA) [1]	36 mg/m ³

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morpholine (110-91-8)	
VLA-ED (OEL TWA) [2]	10 ppm
VLA-EC (mg/m ³)	72 mg/m ³
VLA-EC (ppm)	20 ppm
Sweden - Occupational Exposure Limits	
NGV (OEL TWA)	35 mg/m ³
Nivågränsvärde (NVG) (ppm)	10 ppm
KTV (OEL STEL)	72 mg/m ³
KTV (OEL STEL) [ppm]	20 ppm
USA - ACGIH - Occupational Exposure Limits	
ACGIH TLV®-TWA (ppm)	20 ppm
2-aminoethanol; ethanolamine (141-43-5)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	2-Aminoethanol
IOEL TWA	2,5 mg/m ³
IOELV TWA (ppm)	1 ppm
IOELV STEL (mg/m ³)	7,6 mg/m ³
IOELV STEL (ppm)	3 ppm
Notes	Skin
Regulatory reference	COMMISSION DIRECTIVE 2006/15/EC
Austria - Occupational Exposure Limits	
MAK (OEL TWA)	2,5 mg/m ³
MAK [ppm]	1 ppm
MAK (OEL STEL)	7,6 mg/m ³
MAK Short time value [ppm]	3 ppm
Belgium - Occupational Exposure Limits	
OEL TWA	2,5 mg/m ³
Limit value [ppm]	1 ppm
Short time value [mg/m ³]	7,6 mg/m ³
Short time value [ppm]	3 ppm
Denmark - Occupational Exposure Limits	
OEL TWA [1]	2,5 mg/m ³
OEL TWA [2]	1 ppm
OEL STEL	5 mg/m ³
Grænseværdi (kortvarig) (ppm)	2 ppm
Finland - Occupational Exposure Limits	
HTP (OEL TWA) [1]	2,5 mg/m ³
HTP (OEL TWA) [2]	1 ppm
HTP (OEL STEL)	7,6 mg/m ³
HTP-arvo (15 min) (ppm)	3 ppm

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2-aminoethanol; ethanolamine (141-43-5)	
France - Occupational Exposure Limits	
VME (OEL TWA)	7,6 mg/m ³
VME [ppm]	3 ppm
VLE [mg/m ³]	2,5 mg/m ³
VLE [ppm]	1 ppm
Germany - Occupational Exposure Limits (TRGS 900)	
AGW (OEL TWA) [1]	0,5 mg/m ³
AGW (OEL TWA) [2]	0,2 ppm
Limitation of exposure peaks (mg/m ³)	0,5 mg/m ³
Limitation of exposure peaks (ppm)	0,2 ppm
Hungary - Occupational Exposure Limits	
CK-érték	2,5 mg/m ³
Ireland - Occupational Exposure Limits	
OEL TWA [1]	2,5 mg/m ³
OEL TWA [2]	1 ppm
OEL (15 min ref) (mg/m ³)	7,6 mg/m ³
OEL (15 min ref) (ppm)	3 ppm
Italy - Occupational Exposure Limits	
Local name	2-Amminoetano
OEL TWA (mg/m ³)	2,5 mg/m ³
OEL TWA (ppm)	1 ppm
OEL STEL (mg/m ³)	7,6 mg/m ³
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/m ³
OEL TWA (ppm)	0,2 ppm
OEL STEL	7,6 mg/m ³
OEL STEL [ppm]	3 ppm
Netherlands - Occupational Exposure Limits	
MAC TGG 15 min (mg/m ³)	2,5 mg/m ³
MAC C (mg/m ³)	7,6 mg/m ³
Poland - Occupational Exposure Limits	
NDSch (OEL STEL)	2,5 mg/m ³
NDSP (mg/m ³)	7,5 mg/m ³
Spain - Occupational Exposure Limits	
VLA-ED (OEL TWA) [1]	2,5 mg/m ³
VLA-ED (OEL TWA) [2]	1 ppm

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2-aminoethanol; ethanolamine (141-43-5)	
VLA-EC (mg/m ³)	7,6 mg/m ³
VLA-EC (ppm)	3 ppm
Notes	Skin
Sweden - Occupational Exposure Limits	
NGV (OEL TWA)	2,5 mg/m ³
Nivågränsvärde (NVG) (ppm)	1 ppm
KTV (OEL STEL)	7,6 mg/m ³
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

No additional information available

8.1.4. DNEL and PNEC

ethanediol; ethylene glycol (107-21-1)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	106 mg/kg bodyweight/day
Long-term - local effects, inhalation	35 mg/m ³
DNEL/DMEL (General population)	
Acute - local effects, inhalation	7 mg/m ³
Long-term - systemic effects, dermal	53 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	10 mg/l
PNEC aqua (marine water)	1 mg/l
PNEC aqua (intermittent, freshwater)	10 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	37 mg/kg dwt
PNEC sediment (marine water)	3,7 mg/kg dwt
PNEC (Soil)	
PNEC soil	1,53 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	199,5 mg/l

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morpholine (110-91-8)	
DNEL/DMEL (Workers)	
Acute - local effects, inhalation	72 mg/m ³
Long-term - systemic effects, dermal	1,04 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	91 mg/m ³
Long-term - local effects, inhalation	36 mg/m ³
DNEL/DMEL (General population)	
Acute - systemic effects, oral	38 mg/kg bodyweight
Acute - local effects, inhalation	18 mg/m ³
Long-term - systemic effects, oral	6,3 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	45 mg/m ³
Long-term - local effects, inhalation	3,2 mg/m ³
PNEC (Water)	
PNEC aqua (freshwater)	100 µg/l
PNEC aqua (marine water)	10 µg/l
PNEC aqua (intermittent, freshwater)	280 µg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	1,49 mg/kg dwt
PNEC sediment (marine water)	0,149 mg/kg dwt
PNEC (Soil)	
PNEC soil	239 µg/kg
PNEC (STP)	
PNEC sewage treatment plant	10 mg/l
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/m ³
Long-term - local effects, inhalation	3,3 mg/m ³
DNEL/DMEL (General population)	
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

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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

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

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station. Minimize exposure to mists/vapours/aerosol.

8.2.2. Personal protection equipment

Personal protective equipment (for industrial or professional use):

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

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection:

Safety glasses. DIN EN 166. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure

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. Wash contaminated clothing before reuse.

Hand protection:

Protective gloves. Adequate materials: nitrile (NBR) or PVC with a protection index > 5 (permeation time > 240 mins). Use gloves respecting all the conditions and within the limits set by the manufacturer. Replace gloves immediately in case of cuts, holes or other signs of damages or degradation. If necessary, refer to the EN 374 standard. 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.

8.2.2.3. Respiratory protection

Respiratory protection:

Not necessary with sufficient ventilation. Independently from other possible actions (technical modifications, operating procedures, and other means to limit the exposure of workers), personal protection equipment can be used according to necessity. Open or well ventilated spaces: if the product is handled without adequate containment: use full or half-face masks with adequate filter for mists and organic vapours. (EN 136/140/145). Closed or confined areas (e.g. tank interiors): the use of protection measures for airways (masks or self-contained breathing apparatus), must be assessed according to the specific activity, as well as level and duration of predicted exposure. (EN 136/140/145). Combination filter device (DIN EN 141)

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8.2.2.4. Thermal hazards

Thermal hazard protection:

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

8.2.3. Environmental exposure controls

Environmental exposure controls:

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

Consumer exposure controls:

No special requirements necessary, if handled at room temperature.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Colourless.
Appearance	: Liquid, bright & clear.
Odour	: Glycol.
Odour threshold	: Not determined
Melting point	: Not determined
Freezing point	: Not determined
Boiling point	: > 188 °C (ASTM D 1120)
Flammability (solid, gas)	: Not flammable
Explosive properties	: Not explosive.
Oxidising properties	: Not oxidising.
Explosive limits	: 3 – 53 vol % (Ethylene glycol)
Lower explosion limit	: Not determined
Upper explosion limit	: Not determined
Flash point	: Not determined
Auto-ignition temperature	: Not determined
Decomposition temperature	: Not determined
pH	: Not determined
Viscosity, kinematic	: 41 mm ² /s (40°C) (ASTM D 445)
Viscosity, dynamic	: Not determined
Solubility	: Water: Complete.
Log Kow	: Not applicable for mixtures
Vapour pressure	: Not determined
Vapour pressure at 50°C	: Not determined
Density	: 1070 kg/dm ³ (ASTM D 1298)
Relative density	: Not determined
Relative vapour density at 20°C	: Not determined
Particle characteristics	: Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Explosion limits : 3 – 53 vol % (Ethylene glycol)

9.2.2. Other safety characteristics

Additional information : No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

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

10.2. Chemical stability

Stable product, according to its intrinsic properties (in normal conditions of storage and handling).

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10.3. Possibility of hazardous reactions

None (in normal conditions of storage and handling).

10.4. Conditions to avoid

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

10.5. Incompatible materials

Strong oxidants. Strong acids. Strong bases.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Thermal decomposition generates : Oxygenated compounds (aldehydes, etc.), Carbon dioxide, Carbon monoxide.

SECTION 11: Toxicological information

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

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified
Additional information	: (according to composition) The toxic (fatal) dose for pure ethylene glycol has been estimated 1.4 ml/kg wt (about 100 ml for an adult person). The effects may be delayed.

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ATE (oral)	2050 mg/kg bodyweight
ATE (dermal)	33300 mg/kg bodyweight
ethanediol; ethylene glycol (107-21-1)	
LD50 oral rat	7712 mg/kg bodyweight
LD50 dermal	> 3500 mg/kg (mouse)
LC50 Inhalation - Rat	> 2,5 mg/l (6h)
morpholine (110-91-8)	
LD50 oral rat	1900 mg/kg bodyweight
LD50 dermal rabbit	500 mg/kg bodyweight
2-aminoethanol; ethanolamine (141-43-5)	
LD50 oral rat	1089 – 1515 mg/kg bodyweight
LD50 dermal rat	2504 – 2881 mg/kg bodyweight
LC50 Inhalation - Rat	1,3 mg/l/4h

Skin corrosion/irritation	: Slightly irritant but not relevant for classification (Based on available data, the classification criteria are not met) pH: Not determined
Additional information	: (according to composition)
Serious eye damage/irritation	: Slightly irritant but not relevant for classification (Based on available data, the classification criteria are not met) pH: Not determined
Additional information	: (according to 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)

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

ethanediol; ethylene glycol (107-21-1)

NOAEL (chronic, oral, animal/male, 2 years) 1500 mg/kg bodyweight Mouse

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)
This product contains components with a Specific Concentration Limit (SCL).

2-aminoethanol; ethanolamine (141-43-5)

STOT-single exposure May cause respiratory irritation.

STOT-repeated exposure : May cause damage to kidneys through prolonged or repeated exposure if swallowed.
Additional information : (according to composition)
The ethylene glycol present in this formulation may cause intoxication, central nervous system depression (incoordination, dizziness), respiratory failure, liver and kidney damage.

ethanediol; ethylene glycol (107-21-1)

NOAEL (oral, rat, 90 days) 150 mg/kg bodyweight/day 12 months.

STOT-repeated exposure May cause damage to organs through prolonged or repeated exposure.

morpholine (110-91-8)

LOAEL (oral, rat, 90 days) 500 mg/kg bodyweight/day

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

Aspiration hazard : Not classified (Based on available data, the classification criteria are not met)
Additional information : (according to composition)

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Viscosity, kinematic 41 mm²/s (40°C) (ASTM D 445)

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

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

11.2.2. Other information

Potential adverse human health effects and symptoms : May cause damage to kidneys through prolonged or repeated exposure if swallowed.
Other information : None

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment. An uncontrolled release to the environment may nevertheless produce a contamination of different environmental compartments (soil, underground, surface water bodies, aquifers). Handle according to general working hygiene practices to avoid pollution and release into the environment.
Ecology - water : This product is soluble in water.

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Hazardous to the aquatic environment, short-term (acute) : Not classified

Hazardous to the aquatic environment, long-term (chronic) : Not classified

ethylene glycol (107-21-1)	
LC50 fish 1	15380 mg/l (LC10 - 96h)
LC50 fish 2	72860 mg/l (Pimephales promelas)
EC50 Daphnia 1	8590 mg/l (EC10 - 48h)
EC50 Daphnia 2	100 mg/l
EC50 96h - Algae [1]	3536 – 13000 mg/l
ErC50 (algae)	≥ 100 mg/l (EC10)
NOEC (chronic)	15380 – 32000 mg/l

morpholine (110-91-8)	
LC50 fish 1	179 – 380 mg/l
EC50 Daphnia 1	45 mg/l
EC50 96h - Algae [1]	28 mg/l
NOEC chronic crustacea	5 mg/l (21d)

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)

12.2. Persistence and degradability

Eni Arnica 104/FR	
Persistence and degradability	The most significant constituents of the product should be considered as "readily biodegradable".

ethylene glycol (107-21-1)	
Persistence and degradability	Readily biodegradable.
Biochemical oxygen demand (BOD)	0,36 – 0,4 g O ₂ /g substance
Chemical oxygen demand (COD)	1,21 g O ₂ /g substance
ThOD	1,26 g O ₂ /g substance

12.3. Bioaccumulative potential

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Log Kow	Not applicable for mixtures
Bioaccumulative potential	Not established.

ethylene glycol (107-21-1)	
Log Pow	-1,36

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12.4. Mobility in soil

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Ecology - soil : No data available.

12.5. Results of PBT and vPvB assessment

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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 as "Not persistent" in the environment, according to the REACH Annex XIII criteria (point 1.1)

Component

ethylene glycol (107-21-1)	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

12.6. Endocrine disrupting properties

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

12.7. Other adverse effects

Other adverse effects : None.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

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

Sewage disposal recommendations : 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.

Additional information : Do not cut, weld, drill, burn or incinerate empty containers or drums, unless they have been cleaned, and declared safe.

Ecology - waste materials : The product as it is does not contain halogenated substances.

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	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

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ADR	IMDG	IATA	ADN	RID
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

Special transport precautions : None.

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

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

REACH Annex XVII (Restriction List)

EU restriction list (REACH Annex XVII)		
Reference code	Applicable on	Entry title or description
3(a)	morpholine	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F
3(b)	Eni Arnica 104/FR ; ethanediol; ethylene glycol ; morpholine ; 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)	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
40.	morpholine	Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or not.

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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.

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

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.

France

Maladies professionnelles (F)	
Code	Description
RG 49	Skin disorders caused by aliphatic, alicyclic amines or ethanolamines
RG 49 BIS	Respiratory disorders caused by aliphatic amines, ethanolamines or isophoronediamine
RG 84	Conditions caused by liquid organic solvents for professional use: saturated or unsaturated aliphatic or cyclic liquid hydrocarbons and mixtures thereof; liquid halogenated hydrocarbons; nitrated derivatives of aliphatic hydrocarbons; alcohols; glycols, glycol ethers; ketones; aldehydes; aliphatic and cyclic ethers, including tetrahydrofuran; esters; dimethylformamide and dimethylacetamine; acetonitrile and propionitrile; pyridine; dimethylsulfone and dimethylsulfoxide

Germany

VbF class (D)	: Not applicable.
Water hazard class (WGK) (D)	: WGK 1, Slightly hazardous to water (Classification according to AwSV, Annex 1).
WGK remark	: Classification based on the components in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS).
Storage class (LGK, TRGS 510)	: LGK 12 - Non-combustible liquids.
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

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

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

ethanediol; ethylene glycol

2-aminoethanol; ethanolamine

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

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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.

Full text of H- and EUH-statements:

Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3
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 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
Flam. Liq. 3	Flammable liquids, Category 3
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H373	May cause damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
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

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

STOT RE 2	H373	Calculation method
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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.