

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

1.1. Product identifier

Product form : Mixture
Trade name : GLYCERINE 4823
REACH number : all the ingredients of this product are exempted according to Regulation 987/2008/EC amending Regulation 1907/2006/EC (REACH) regarding Annexes IV or V.
C&L notification reference no : all the ingredients of this product in the scope of Regulation 1272/2008/EC (CLP), if not exempted, have been notified to the C&L Inventory.

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

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

OLEON N.V.
Assenedestraat 2
BE- 9940 Ertvelde
Belgium
T +32 9 341 10 11 - F +32 9 341 10 00
sds@oleon.com - www.oleon.com

1.4. Emergency telephone number

Emergency number : 24/7 EMERGENCY NUMBER (SGS ERS; Oleon contract nr 76858)
+32 3 575 55 55 (worldwide); +1 888 765 6554 (USA tollfree)

Country	Official advisory body	Address	Emergency number	Comment
	World directory of poisons centres (Yellow Tox) WHO-OMS	Website	http://www.who.int/gho/phe/chemical_safety/poisons_centres/en/	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Not classified

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

No labelling applicable

2.3. Other hazards

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

Component

Glycerol (56-81-5)	
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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 %

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 [CLP]
Glycerol	CAS No.: 56-81-5 EC no.: 200-289-5 REACH-no: 1907/2006/EC Annex V.9	87	Not classified
Aqua (Component)	CAS No.: 7732-18-5 EC no.: 231-791-2 REACH-no: 1907/2006/EC Annex IV	12 – 14	Not classified

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: If you feel unwell, seek medical advice.
First-aid measures after inhalation	: Remove victim to fresh air. Respiratory problems: consult a doctor/medical service.
First-aid measures after skin contact	: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.
First-aid measures after eye contact	: Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Rinse mouth out with water. Get medical advice/attention if you feel unwell.

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

Symptoms/effects	: No supplementary information available.
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Symptoms/effects after inhalation	: On heating: Irritation of the respiratory tract. Irritation of the nasal mucous membranes. Coughing.
Symptoms/effects after eye contact	: No known effects from this product.
Symptoms/effects after ingestion	: AFTER INGESTION OF HIGH QUANTITIES: Nausea. Headache. Vomiting. Diarrhea. Gastrointestinal complaints. Change in the haemogramme/blood composition. Disturbances of heart rate. Decreased renal function. Dehydration.

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

No supplementary information available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

No additional information available

5.2. Special hazards arising from the substance or mixture

Fire hazard	: DIRECT FIRE HAZARD: Combustible. INDIRECT FIRE HAZARD: Temperature above flashpoint: higher fire/explosion hazard.
Explosion hazard	: No direct explosion hazard.

5.3. Advice for firefighters

Other information : No supplementary information available.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Mark the danger area. Exposure to fire/heat: have neighbourhood close doors and windows. Exposure to fire/heat: consider evacuation. Wash contaminated clothing before reuse.
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6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

No supplementary information available.

6.3. Methods and material for containment and cleaning up

Other information : No supplementary information available.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Handling temperature : ≥ 10 °C above melting point

7.2. Conditions for safe storage, including any incompatibilities

Maximum storage period	: < 12 months Hygroscopic
Information on mixed storage	: KEEP AWAY FROM: Oxidizing agents. acids. strong acids. bases. strong bases.
Storage area	: Keep container in a well-ventilated place. Store at ambient temperature. Keep out of direct sunlight. Meet the legal requirements.
Special rules on packaging	: Store in a closed container. Suitably labelled. Keep dry, clean. Meet the legal requirements. Secure fragile packagings in solid containers.
Packaging materials	: SUITABLE MATERIAL: steel. aluminium. iron. synthetic material. glass.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

No additional information available

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

No additional information available

8.2.2. Personal protection equipment

Personal protective equipment:

Gloves. Safety glasses. Protective clothing.

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

No additional information available

8.2.2.2. Skin protection

Other skin protection

Materials for protective clothing:

Good resistance: Natural rubber. Neoprene. Polyvinylchloride (PVC). Viton. Less resistance: Styrene-butadiene rubber. Poor resistance: Polyurethane

8.2.2.3. Respiratory protection

No additional information available

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

No additional information available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Colourless to light yellow.
Appearance (room temperature)	: Liquid.
Odour	: Odourless.
Odour threshold	: Not available
Melting point	: < 0 °C
Freezing point	: Not available
Boiling point	: > 120 °C
HMIS Flammability	: Not available
Explosive limits	: Not available
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: > 120 °C
Auto-ignition temperature	: > 150 °C
Decomposition temperature	: 290 °C (glycerol)
pH	: 5 – 8
Viscosity, kinematic	: ca. 121,951 mm ² /s
Viscosity, dynamic	: ca. 150 mPa·s (20°C)
Solubility	: Water: miscible
Partition coefficient n-octanol/water (Log Kow)	: Not available
Partition coefficient n-octanol/water (Log Pow)	: -1,75 (Experimental value, Equivalent or similar to OECD 107, 25 °C)
Vapour pressure	: < 0,1 hPa (20°C)
Vapour pressure at 50 °C	: Not available
Density	: ca. 1,23 g/cm ³ (20°C)
Relative density	: Not available
Relative vapour density at 20°C	: Not available
Particle characteristics	: Not applicable

Aqua	
Flash point	No supplementary information available
Auto-ignition temperature	No supplementary information available
Vapour pressure	No supplementary information available

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

VOC content : < 1 % (1999/13/EC; 2004/42/EC; 2010/75/EU; SR 814.018)
Other properties : Soluble in water, Soluble in ethanol, Soluble in acetone, Soluble in ethylacetate, Insoluble in oils/fats, Slightly volatile, Gas/vapour heavier than air at 20°C, Hygroscopic, Neutral reaction, Clear, Syrupy

SECTION 10: Stability and reactivity

10.1. Reactivity

Decomposes on exposure to temperature rise: release of toxic/corrosive/combustible gases/vapours (acrolein). Upon combustion CO and CO₂ are formed. May polymerize on exposure to temperature rise. Reacts violently with (strong) oxidizers: (increased) risk of fire/explosion. Reacts with (some) acids: (increased) risk of fire/explosion.

10.2. Chemical stability

Hygroscopic.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

No supplementary information available.

10.5. Incompatible materials

No supplementary information available.

10.6. Hazardous decomposition products

On heating/burning: release of toxic/combustible gases/vapours (acrolein).

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

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LD50 oral rat	12600 mg/kg
LD50 dermal rabbit	> 10000 mg/kg

Glycerol (56-81-5)

LD50 oral rat	12600 mg/kg
LD50 dermal rabbit	> 10000 mg/kg

Skin corrosion/irritation : Not classified
pH: 5 – 8

Glycerol (56-81-5)

pH	6 – 7,5 (10% in water)
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Serious eye damage/irritation : Not classified
pH: 5 – 8

Glycerol (56-81-5)

pH	6 – 7,5 (10% in water)
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Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified
STOT-single exposure : Not classified
STOT-repeated exposure : Not classified
Aspiration hazard : Not classified

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Viscosity, kinematic	ca. 121,951 mm ² /s
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Glycerol (56-81-5)

Viscosity, kinematic	ca. 912,698 mm ² /s
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11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : No supplementary information available.
Ecology - air : TA Luft Class 5.2.5.
Ecology - water : Mild water pollutant (surface water)
Not harmful to fishes (LC50(96h) > 1000 mg/l)
Not harmful to aquatic organisms (EC50 > 1000 mg/l)
Not harmful to algae
Not harmful to bacteria
Bioaccumulation: not applicable
Sludge digestion is inhibited at > 1000 mg/l 50%
Readily biodegradable in water (OECD 301D: 82%; 20 days)
Hazardous to the aquatic environment, short-term (acute) : Not classified
Hazardous to the aquatic environment, long-term (chronic) : Not classified

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LC50 - Fish [1]	54000 mg/l (96 h, SALMO GAIARDNERI/ ONCORHYNCHUS MYKISS)
LC50 - Fish [2]	> 1000 mg/l (96 h, PISCES)
LC50 - Other aquatic organisms [1]	> 1000 mg/l (96 h)
EC50 - Crustacea [2]	> 10000 mg/l (24 h, DAPHNIA MAGNA, LOCOMOTOR EFFECT)
EC50 - Other aquatic organisms [1]	> 1000 mg/l (BACTERIA, ACTIVATED SLUDGE)
TLM - Fish [1]	> 1000 ppm (96 h, PISCES)

GLYCERINE 4823

TLM - Other aquatic organisms [1]	> 1000 ppm (96 h)
Threshold limit - Other aquatic organisms [1]	2900 mg/l (192 h, MICROCYSTIS AERUGINOSA, TOXICITY TEST)
Threshold limit - Other aquatic organisms [2]	> 10000 mg/l (16 h, PSEUDOMONAS PUTIDA, TOXICITY TEST)
Threshold limit - Algae [1]	> 10000 mg/l (168 h, SCENEDESMUS QUADRICAUDA, TOXICITY TEST)

Glycerol (56-81-5)

LC50 - Fish [1]	54000 mg/l (96 h, SALMO GAIARDNERI/ ONCORHYNCHUS MYKISS)
LC50 - Fish [2]	> 1000 mg/l (96 h, PISCES)
LC50 - Other aquatic organisms [1]	> 1000 mg/l (96 h)
EC50 - Crustacea [2]	> 10000 mg/l (24 h, DAPHNIA MAGNA, LOCOMOTOR EFFECT)
EC50 - Other aquatic organisms [1]	> 1000 mg/l (BACTERIA, ACTIVATED SLUDGE)
TLM - Fish [1]	> 1000 ppm (96 h, PISCES)
TLM - Other aquatic organisms [1]	> 1000 ppm (96 h)
Threshold limit - Other aquatic organisms [1]	2900 mg/l (192 h, MICROCYSTIS AERUGINOSA, TOXICITY TEST)
Threshold limit - Other aquatic organisms [2]	> 10000 mg/l (16 h, PSEUDOMONAS PUTIDA, TOXICITY TEST)
Threshold limit - Algae [1]	> 10000 mg/l (168 h, SCENEDESMUS QUADRICAUDA, TOXICITY TEST)

12.2. Persistence and degradability

GLYCERINE 4823

Biochemical oxygen demand (BOD)	0,87 g O ₂ /g substance
Chemical oxygen demand (COD)	1,16 g O ₂ /g substance (ISO 15705)
ThOD	1,217 g O ₂ /g substance
BOD (% of ThOD)	71 % ThOD

Glycerol (56-81-5)

Biochemical oxygen demand (BOD)	0,87 g O ₂ /g substance
Chemical oxygen demand (COD)	1,16 g O ₂ /g substance (ISO 15705)
ThOD	1,217 g O ₂ /g substance
BOD (% of ThOD)	71 % ThOD

12.3. Bioaccumulative potential

GLYCERINE 4823

Partition coefficient n-octanol/water (Log Pow)	-1,75 (Experimental value, Equivalent or similar to OECD 107, 25 °C)
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Glycerol (56-81-5)

Partition coefficient n-octanol/water (Log Pow)	-1,75 (Experimental value, Equivalent or similar to OECD 107, 25 °C)
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12.4. Mobility in soil

GLYCERINE 4823

Surface tension	0,063 N/m (20°C)
Ecology - soil	Biodegradability in soil: no data available.

Glycerol (56-81-5)

Surface tension	0,063 N/m (20°C)
Ecology - soil	Biodegradability in soil: no data available.

Aqua (7732-18-5)

Mobility in soil	Not applicable
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12.5. Results of PBT and vPvB assessment

Component

Glycerol (56-81-5)	This substance/mixture does not meet the {0} criteria of REACH regulation, annex XIII
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12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal	: Take up liquid spill into absorbent material, e.g.: sand, earth, vermiculite, or kieselguhr, powdered limestone, Scoop absorbed substance into closing containers, See "Material-handling" for suitable container materials, Wash down leftovers with plenty of water, Wash clothing and equipment after handling
Regional legislation (waste)	: No supplementary information available.
Ecology - waste materials	: LWCA (the Netherlands): KGA category 03. Recycle by distillation. Remove to an authorized incinerator equipped with an afterburner and a flue gas scrubber. Do not discharge into surface water.
European List of Waste (LoW) code	: No supplementary information available

SECTION 14: Transport information

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

14.1. UN number or ID number

UN-No. (ADR)	: Not applicable
UN-No. (IMDG)	: Not applicable
UN-No. (IATA)	: Not applicable
UN-No. (ADN)	: Not applicable
UN-No. (RID)	: Not applicable

14.2. UN proper shipping name

Proper Shipping Name (ADR)	: Not applicable
Proper Shipping Name (IMDG)	: Not applicable
Proper Shipping Name (IATA)	: Not applicable
Proper Shipping Name (ADN)	: Not applicable
Proper Shipping Name (RID)	: Not applicable

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR)	: -
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IMDG

Transport hazard class(es) (IMDG)	: -
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IATA

Transport hazard class(es) (IATA)	: Not applicable
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ADN

Transport hazard class(es) (ADN)	: Not applicable
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RID

Transport hazard class(es) (RID)	: Not applicable
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14.4. Packing group

Packing group (ADR)	: Not applicable
Packing group (IMDG)	: Not applicable
Packing group (IATA)	: Not applicable
Packing group (ADN)	: Not applicable
Packing group (RID)	: Not applicable

14.5. Environmental hazards

Dangerous for the environment	: No
Marine pollutant	: No
Other information	: No supplementary information available

14.6. Special precautions for user

Overland transport

Transport regulations (ADR)	: Not subject
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Transport by sea

Transport regulations (IMDG)	: Not subject
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Air transport

Transport regulations (IATA)	: Not subject
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Inland waterway transport

No data available

Rail transport

Transport regulations (RID) : Not subject

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

REACH Annex XIV (Authorisation List)

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

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

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)

VOC Directive (2004/42)

VOC content : < 1 % (1999/13/EC; 2004/42/EC; 2010/75/EU; SR 814.018)

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

Chemical inventories	: Compliant with AIC, DSL, EAEU, ECST, ENCS, EU REACH, IECSC, INSQ, ISHL, KECL, NZIoC, PICCS, TECL_FDA, TSCA, VNCI
KKDIK number (Turkey)	: all the ingredients of this product in the scope of KKDIK, if not exempted, have been (pre-)registered.
K-REACH (Korea)	: all the ingredients of this product in the scope of K-REACH, if not exempted, have been (pre-)registered.
UK-REACH (Great Britain)	: all the ingredients of this product in the scope of UK-REACH, if not exempted, have been notified.

Germany

Water hazard class (WGK)	: WGK 1, Slightly hazardous to water (Classification according to AwSV, Annex 1).
Hazardous Incident Ordinance (12. BImSchV)	: Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

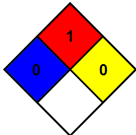
Netherlands

ABM category	: B(4) - low hazard for aquatic organisms
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 –	: None of the components are listed
Vruchtbaarheid	
SZW-lijst van reprotoxische stoffen – Ontwikkeling	: None of the components are listed

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Training advice	: No supplementary information available.
Chem. inventories legend	: AIIIC = Australian Inventory of Industrial Chemicals DSL = Canadian Domestic Substances List EAEU = Eurasian Economic Union Unified list of chemicals ECST = Existing Chemical Substances Inventory of Taiwan ENCS = Japanese Existing and New Chemicals Substances List EU REACH = European Union REACH Regulation 1907/2006 IECSC = Inventory of Existing Chemicals Substances in China INSQ = Mexico National Inventory of Chemical Substance ISHL = Japanese Industrial Safety and Health Law Substances KECL = Korean Existing Chemical List NZIoC = New Zealand Inventory of Chemicals PICCS = Philippine Inventory of Chemicals and Chemical Substances TECI_FDA = Thailand Existing Chemicals Inventory - Food and Drug Administration List TSCA (Active) = USA Toxic Substances Control Act VNCI = Vietnam National Chemicals Inventory
SDS changed sections	: 15 - Regulatory information
SDS Reason for revision	: No supplementary information available
NFPA health hazard	: 0 - Materials that, under emergency conditions, would offer no hazard beyond that of ordinary combustible materials.
NFPA fire hazard	: 1 - Materials that must be preheated before ignition can occur.
NFPA reactivity	: 0 - Material that in themselves are normally stable, even under fire conditions.
NFPA image	: 

Other information : No supplementary information available.

SDS EU Oleon 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.