

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

1.1. Product identifier

Product form	: Substance
Trade name	: GLYCERINE 4810
IUPAC name	: Glycerol
EC no.	: 200-289-5
CAS No.	: 56-81-5
REACH registration No	: 1907/2006/EC Annex V.9
C&L notification reference no	: not applicable (non classified; Annex V)
Label name	: No supplementary information available

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

9940 Ertvelde - Belgium

T +32 9 341 10 11 - F +32 9 341 10 00

info@oleon.com - www.oleon.com

E-mail address of competent person responsible for the SDS : sds@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)
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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

Other hazards which do not result in classification : None under normal conditions.

SECTION 3: Composition/information on ingredients

3.1. Substances

Substance type : Mono-constituent

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	> 99	Not classified

3.2. Mixtures

Not applicable

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 the victim into fresh air. Respiratory problems: consult a doctor/medical service.
First-aid measures after skin contact	: Rinse with water. Soap may be used. Do not apply (chemical) neutralizing agents without medical advice. Take victim to a doctor if irritation persists.
First-aid measures after eye contact	: Rinse with water. Remove contact lenses, if present and easy to do. Continue rinsing. Do not apply (chemical) neutralizing agents without medical advice.
First-aid measures after ingestion	: Rinse mouth with water. Do not apply (chemical) neutralizing agents without medical advice. Call Poison Information Centre (www.who.int/ipcs/poisons/centre/directory/en). Consult a doctor/medical service if you feel unwell. Ingestion of large quantities: immediately to hospital.

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

Symptoms/effects	: No supplementary information available.
Symptoms/effects after inhalation	: ON HEATING: Irritation of the respiratory tract. Irritation of the nasal mucous membranes. Coughing.
Symptoms/effects after skin contact	: No effects known.
Symptoms/effects after eye contact	: No effects known.
Symptoms/effects after ingestion	: AFTER INGESTION OF HIGH QUANTITIES: Nausea. Headache. Vomiting. Diarrhoea. Change in the haemogramme/blood composition. Disturbances of heart rate. Decreased renal function. Dehydration.
Chronic symptoms	: No effects known.

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

No supplementary information available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: AFFF foam. BC powder. Carbon dioxide. Dry sand. Dry chemical powder. Adapt extinguishing media to the environment.
Unsuitable extinguishing media	: Solid water jet ineffective as extinguishing medium.

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.
Reactivity in case of fire	: Decomposes on exposure to temperature rise: release of toxic/corrosive/combustible gases/vapours (acrolein). Upon combustion CO and CO ₂ 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.

5.3. Advice for firefighters

Other information	: No supplementary information available.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

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

Protective equipment : See "Material-Handling" to select protective clothing.

6.1.2. For emergency responders

Protective equipment : Use protective measures listed in Section 8.

6.2. Environmental precautions

Prevent soil and water pollution.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Clean contaminated surfaces with an excess of water. Take up liquid spill into inert absorbent material, e.g.: dry sand/earth/vermiculite or powdered limestone.

Other information : No supplementary information available.

6.4. Reference to other sections

Handle waste materials in accordance with the provisions of Section 13.

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 SUBSTANCE AWAY FROM: heat sources. oxidizing agents. (strong) acids. (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 : SPECIAL REQUIREMENTS: closing. dry. clean. correctly labelled. 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

No additional information available

8.2. Exposure controls

Personal protective equipment:

Gloves. Safety glasses. Protective clothing. Mist formation: aerosol mask with filter type P1. On heating: gas mask with filter type A.

Materials for protective clothing:

GIVE GOOD RESISTANCE: natural rubber. neoprene. PVC. viton. GIVE LESS RESISTANCE: styrene-butadiene rubber. GIVE POOR RESISTANCE: polyurethane

Personal protective equipment symbol(s):



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

Appearance (room temperature) : Liquid.

Colour : Colourless to light yellow.

Odour : Odourless.

Odour threshold : No data available

pH : 6 – 7.5 (10% in water)

Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No supplementary information available
Freezing point	: ca. 18 °C
Boiling point	: 290 °C (1013 hPa)
Flash point	: 199 °C (Closed cup, 1013 hPa, ISO 2719: Flash point (Pensky-Martens))
Critical temperature	: 452 °C
Auto-ignition temperature	: 370 °C (T2)
Decomposition temperature	: No data available in the literature
Flammability (solid, gas)	: No data available
Vapour pressure	: < 0.001 hPa (20 °C)
Relative vapour density at 20 °C	: 3.17
Relative density	: 1.26 (20 °C)
Relative density of saturated gas/air mixture	: 1
Density	: ca. 1260 kg/m ³ (25°C) ca. 1249 kg/m ³ (40°C) ca. 1209 kg/m ³ (100°C)
Solubility	: Soluble in water. Soluble in ethanol. Soluble in acetone. Soluble in ethylacetate. Insoluble in oils/fats.
Partition coefficient n-octanol/water (Log Pow)	: -1.75 (Experimental value, Equivalent or similar to OECD 107, 25 °C)
Viscosity, kinematic	: ca. 912.698 mm ² /s
Viscosity, dynamic	: ca. 1150 mPa·s (20°C)
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: 2.7 – 19 vol %
Lower explosive limit (LEL)	: 2.7 vol %
Upper explosive limit (UEL)	: 19 vol %

9.2. Other information

Specific conductivity	: 6400000 pS/m
Softening point	: < 20 °C
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 toxicological effects

Acute toxicity (oral)	: Not classified
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Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

GLYCERINE 4810 (56-81-5)	
LD50 oral rat	27200 mg/kg (OECD 401: Acute Oral Toxicity, Rat, Female, Experimental value, Oral, 10 day(s))
LD50 dermal rabbit	> 10000 mg/kg
LD50 dermal	56750 mg/kg (4 day(s), Guinea pig, Male / female, Experimental value, Dermal, 14 day(s))
LC50 Inhalation - Rat	> 2.75 mg/l (4 h, Rat, Male, Experimental value, Converted value, Inhalation (vapours))

Skin corrosion/irritation : Not classified
pH: 6 – 7.5 (10% in water)

Serious eye damage/irritation : Not classified
pH: 6 – 7.5 (10% in water)

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

GLYCERINE 4810 (56-81-5)	
Viscosity, kinematic	ca. 912.698 mm ² /s

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : No supplementary information available.

Ecology - air : TA-Luft Klasse 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

GLYCERINE 4810 (56-81-5)	
LC50 - Fish [1]	54000 mg/l (96 h, SALMO GAIRDNERI/ 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 4810 (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 4810 (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 4810 (56-81-5)

Surface tension	0.063 N/m (20°C)
Ecology - soil	Biodegradability in soil: no data available.

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. 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

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.2. UN proper shipping name				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)				
-	-	Not applicable	Not applicable	Not applicable
14.4. Packing group				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

14.5. Environmental hazards

Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No	Dangerous for the environment : No	Dangerous for the environment : No
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Marine pollutant: no

14.6. Special precautions for user

Overland transport

Transport regulations (ADR) : Not subject

Transport by sea

Transport regulations (IMDG) : Not subject

Air transport

Transport regulations (IATA) : Not subject

Inland waterway transport

No data available

Rail transport

Transport regulations (RID) : Not subject

14.7. Transport in bulk according to Annex II of Marpol and the 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

No REACH Annex XVII restrictions

GLYCERINE 4810 is not on the REACH Candidate List

GLYCERINE 4810 is not on the REACH Annex XIV List

GLYCERINE 4810 is not subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

GLYCERINE 4810 is not subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

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

15.1.2. National regulations

Chemical inventories : Compliant with AICS, DSL, EAEU, ECST, ENCS, IECSC, INSQ, ISRAEL, KECL, NZIoC, PICCS, TECl, TSCA, VNCI, EC inventories

KKDIK number (Turkey) : KKDIK Annex V.9

K-REACH (Korea) : preregistered

Swiss ChemO (SR 813.11) : This substance is not subject to the obligation to register pursuant to art.61 of the Chemicals Ordinance (ChemO)

Listed on ECST (Existing Chemical Substances Inventory of Taiwan)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on INSQ (Mexican National Inventory of Chemical Substances)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on Thailand Existing Chemicals Inventory (TECI)
Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on the Canadian DSL (Domestic Substances List)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on KECL/KECI (Korean Existing Chemicals Inventory)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
Listed on EAEU ULC (Eurasian Economic Union Unified list of chemicals)
Listed on the NCI (National Chemicals Inventory)

Germany

Regulatory reference : WGK 1, Slightly hazardous to water (Classification according to AwSV; ID No. 116)
Hazardous Incident Ordinance (12. BImSchV) : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands

ABM category : B(5) - low hazard for aquatic organisms
SZW-lijst van kankerverwekkende stoffen : The substance is not listed
SZW-lijst van mutagene stoffen : The substance is not listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : The substance is not listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : The substance is not listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : The substance is not listed

15.2. Chemical safety assessment

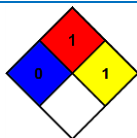
No chemical safety assessment needed: the substance is not classified and exempt from Regulation EC No 1907/2006 (REACH) under Annex V, point 9.

SECTION 16: Other information

Training advice : No supplementary information available.
SDS changed sections : 15 - Regulatory information
SDS Reason for revision : No supplementary information available
Chem. inventories legend : AICS = Australian Inventory of Chemical Substances
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
IECSC = Inventory of Existing Chemicals Substances in China
INSQ = Mexico National Inventory of Chemical Substance
ISRAEL = Proposed Israel Hazardous Substances List, 2007
KECL = Korean Existing Chemical List
NZIoC = New Zealand Inventory of Chemicals
PICCS = Philippine Inventory of Chemicals and Chemical Substances
TECI = Thailand FDA Existing Chemicals Inventory
TSCA = USA Toxic Substances Control Act
VNCI = Vietnam National Chemicals Inventory
EC inventories = European Community inventories of chemicals (EINECS/ELINCS/NLP/REACH)
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 : 1 - Materials that in themselves are normally stable but can become unstable at elevated temperatures and pressures.

NFPA image

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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.