GLYCERINE 4813

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
OLEON is a registered trademark.
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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form	:	Substance
Trade name	:	GLYCERINE 4813
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)
Other means of identification	:	1,2,3-propanetriol

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

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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 information on adverse effects on health and the environment.

2.2. Label elements

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

No labelling applicable

2.3. Other hazards

No additional information available

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 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.

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.
Reactivity in case of fire	:	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.

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.

6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

Protective equipment	:	Use protective measures listed in Section 8.

6.2. Environmental precautions

No supplementary information available.

6.3. Methods and material for containment and cleaning up

For containment	:	Contain released product, collect/pump into suitable containers. Plug the leak, cut off the supply.
Methods for cleaning up	:	Take up liquid spill into a non combustible material e.g.: sand, earth, vermiculite or kieselguhr. Absorb with an inert material and place in an appropriate waste disposal container. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling.
Other information	:	No supplementary information available.

6.4. Reference to other sections

Personal protective measures are listed in Section 8. 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 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	:	No supplementary information available
Freezing point	:	ca. 18 °C
Softening point	:	< 20 °C
Boiling point	:	290 °C (1013 hPa)
HMIS Flammability	:	Not available
Explosive limits	:	2.7 – 19 vol %
Lower explosion limit	:	Not available
Upper explosion limit	:	Not available
Flash point	:	199 °C (Closed cup, 1013 hPa, ISO 2719: Flash point (Pensky-Martens))
Auto-ignition temperature	:	370 °C (T2)
Decomposition temperature	:	290 °C
pH	:	6 – 7.5 (10% in water)
Viscosity, kinematic	:	ca. 912.698 mm^2/s
Viscosity, dynamic	:	ca. 1150 mPa.s (20°C)
Solubility	:	Soluble in water. Soluble in ethanol. Soluble in acetone. Soluble in ethylacetate. Insoluble in oils/fats.
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	:	< 0.01 hPa (20 °C)
Vapour pressure at 50 °C	:	Not available
Density	:	ca. 1260 kg/m^3 (25°C)
Relative density	:	1.26 (20 °C)
Relative vapour density at 20°C	:	3.2 (calculated value)
Relative density of saturated gas/air mixture	:	1
Particle characteristics	:	Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Explosion limits	:	2.7 – 19 vol %
Critical temperature	:	452 °C

9.2.2. Other safety characteristics

Specific conductivity	:	6400000 pS/m
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,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. Reacts with nitric acid to form highly explosive nitroglycerine.

10.2. Chemical stability

Hygroscopic.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

Refer to Section 10 on Incompatible Materials.

10.5. Incompatible materials

Keep away from oxidizers, strong acids and strong bases. Water, humidity.

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

GLYCERINE 4813 (56-81-5)	
LD50 oral rat	12600 mg/kg
LD50 dermal rabbit	> 10000 mg/kg

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 4813 (56-81-5)	
Viscosity, kinematic	ca. 912.698 mm^2/s

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

GLYCERINE 4813 (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 4813 (56-81-5)	
Biochemical oxygen demand (BOD)	0.87 g O2/g substance
Chemical oxygen demand (COD)	1.16 g O2/g substance (ISO 15705)
ThOD	1.217 g O2/g substance
BOD (% of ThOD)	71 % ThOD

12.3. Bioaccumulative potential

GLYCERINE 4813 (56-81-5)	
Partition coefficient n-octanol/water (Log Pow)	-1.75 (Experimental value, Equivalent or similar to OECD 107, 25 °C)

12.4. Mobility in soil

GLYCERINE 4813 (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

GLYCERINE 4813 (56-81-5)	
Results of PBT assessment	This substance/mixture does not meet the {0} criteria of REACH regulation, annex XIII

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

Additional information : No other effects known

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.

Product/Packaging disposal recommendations : Take up liquid spill into absorbent material, e.g.: sand, earth, vermiculite or kieselguhr, powdered limestone. Scoop absorbed substance into closing containers. Recycle by distillation. Remove to an authorized incinerator equipped with an afterburner and a flue gas scrubber. Do not discharge into surface water.

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) : Not applicable

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

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

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

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

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 : Reference to other sections (8, 13)

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. 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)

Not listed on REACH Annex XVII

REACH Annex XIV (Authorisation List)

Not listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Not listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Not listed on the PIC list (Regulation EU 649/2012)

POP Regulation (Persistent Organic Pollutants)

Not listed on the POP list (Regulation EU 2019/1021)

Ozone Regulation (1005/2009)

Not listed on the Ozone Depletion list (Regulation EU 1005/2009)

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 AIIC, DSL, EAEU, ECST, ENCS, EU REACh, IECSC, INSQ, ISHL, ISRAEL, KECL, NZIoC, PICCS, TECI, TSCA, VNCI

KKDIK number (Turkey) : KKDIK Annex V.9

K-REACh (Korea) : exempted from (pre)registration according to K-REACh Appendix 1.4

UK-REACh (Great Britain) : exempted from registration

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

Germany

Water hazard class (WGK) : WGK 1, Slightly hazardous to water (Classification according to AwSV; ID No. 116).

Hazardous Incident Ordinance (12. BImSchV) : Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

Netherlands

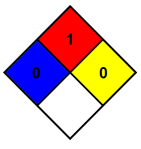
ABM category : B(5) - low hazard for aquatic organisms

SZW-lijst van kankerverwekkende stoffen	:	The substance is not listed
SZW-lijst van mutagene stoffen	:	The substance is not listed
SZW-lijst van reprotoxische stoffen – Borstvoeding	:	The substance is not listed
SZW-lijst van reprotoxische stoffen – Vruchtbaarheid	:	The substance is not listed
SZW-lijst van reprotoxische 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.
Chem. inventories legend	:	AIIC = Australian Inventory of Industrial Chemicals DSL = Canadian Domestic Sustances 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 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 (Active) = USA Toxic Substances Control Act VNCI = Vietnam National Chemicals Inventory
SDS changed sections	:	9 - Physical and chemical properties
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.