

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Product form : Substance
Trade name : RADIA 7288
EC no. : polymer
CAS No. : 68551-91-7
REACH number : all the ingredients of this product in the scope of Regulation 1907/2006/EC (REACH), if not exempted, have been registered.
C&L notification reference no : not applicable (non classified polymer)

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

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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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	Organisation/Company	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]

EUH-statements : EUH210 - Safety data sheet available on request.

2.3. Other hazards

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

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

Component

diethylene glycol (111-46-6)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
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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

Substance type : Polymer
Name : "Polyol polyester"
CAS No. : 68551-91-7
EC no. : polymer

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
diethylene glycol	CAS No.: 111-46-6 EC no.: 203-872-2 EC Index-No.: 603-140-00-6	0 – 2.5	Acute Tox. 4 (Oral), H302

Full text of H- and EUH-statements: see section 16

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 : Wash off immediately with soap and plenty of water. If irritation persists, consult a doctor.
First-aid measures after eye contact : Rinse immediately with plenty of water. Consult an ophthalmologist if irritation persists.
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 : Unlikely.

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. Use the extinguishing media recommended for the burning materials and fire situation.

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: Heating increases the fire hazard. Temperature above flashpoint: higher fire/explosion hazard.

Explosion hazard : No direct explosion hazard.

Reactivity in case of fire : On burning: release of carbon monoxide/carbon dioxide.

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

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 a soap solution. Flush/dilute with water. Take up liquid spill into inert absorbent material, e.g.: sand, earth, vermiculite, 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 : $\geq 10\text{ }^{\circ}\text{C}$ above melting point

7.2. Conditions for safe storage, including any incompatibilities

Information on mixed storage : No supplementary information available.
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. Meet the legal requirements.
Packaging materials : No supplementary information available.

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

diethylene glycol (111-46-6)

United Kingdom - Occupational Exposure Limits

WEL TWA (OEL TWA)	101 mg/m ³
	23 ppm

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. Protective clothing. Safety glasses.

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: Nitrile rubber

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	: Yellow-amber.
Appearance (room temperature)	: Liquid. Viscous.
Odour	: Sweet. characteristic.
Odour threshold	: Not available
Melting point	: < 15 °C
Freezing point	: Not available
Boiling point	: > 320 °C
HMIS Flammability	: Not available
Explosive properties	: Product is not explosive.
Explosive limits	: Not available
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: > 300 °C (ASTM D92)
Auto-ignition temperature	: > 350 °C
Decomposition temperature	: Not available
pH	: 5 – 8
Viscosity, kinematic	: Not available
Viscosity, dynamic	: ca. 3.5 Pa·s (40°C) ca. 10 Pa·s (25°C)
Solubility	: Not available
Partition coefficient n-octanol/water (Log Kow)	: Not available
Partition coefficient n-octanol/water (Log Pow)	: > 5
Vapour pressure	: No supplementary information available
Vapour pressure at 50 °C	: Not available
Density	: ca. 950 kg/m ³ (100°C)
Relative density	: Not available
Relative vapour density at 20°C	: Not available
Particle characteristics	: Not applicable

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 : < 3 % (1999/13/EC; 2004/42/EC; 2010/75/EU)
Other properties : Oily, Soluble in oils/fats, Soluble in most organic solvents, Insoluble in water

SECTION 10: Stability and reactivity

10.1. Reactivity

On burning: release of carbon monoxide/carbon dioxide.

10.2. Chemical stability

Stable under normal conditions.

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

No supplementary information available.

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

RADIA 7288 (68551-91-7)

LD50 oral rat	> 5000 mg/kg Non-toxic
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diethylene glycol (111-46-6)

LD50 oral rat	16500 mg/kg bodyweight (Rat, Male / female, Experimental value, Oral, 5 day(s))
LD50 dermal rabbit	13300 mg/kg bodyweight (Rabbit, Experimental value, Dermal, 14 day(s))
LC50 Inhalation - Rat	> 4.6 mg/l air (Other, 4 h, Rat, Weight of evidence, Inhalation (aerosol), 14 day(s))

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

diethylene glycol (111-46-6)

pH	5 – 8 (50 %)
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Serious eye damage/irritation : Not classified
pH: 5 – 8

diethylene glycol (111-46-6)

pH 5 – 8 (50 %)

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

RADIA 7288 (68551-91-7)

Viscosity, kinematic ca. 3684.2 mm²/s

diethylene glycol (111-46-6)

Viscosity, kinematic No data available in the literature

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Adverse health effects caused by endocrine disrupting properties : The substance/mixture has no endocrine disrupting properties.

11.2.2. Other information

No additional information available

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 environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Ecology - air : No supplementary information available.
Ecology - water : No bioaccumulation data available
Hazardous to the aquatic environment, short-term (acute) : Not classified
Hazardous to the aquatic environment, long-term (chronic) : Not classified

diethylene glycol (111-46-6)

LC50 - Fish [1] 75200 mg/l (96 h, Pimephales promelas, Flow-through system, Experimental value, Lethal)
EC50 - Crustacea [1] > 10000 mg/l (DIN 38412-11, 24 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)

12.2. Persistence and degradability

diethylene glycol (111-46-6)

Persistence and degradability Biodegradable in the soil. Readily biodegradable in water.

diethylene glycol (111-46-6)

Biochemical oxygen demand (BOD)	0.02 g O ₂ /g substance
Chemical oxygen demand (COD)	1.51 g O ₂ /g substance
ThOD	1.51 g O ₂ /g substance

12.3. Bioaccumulative potential

RADIA 7288 (68551-91-7)

Partition coefficient n-octanol/water (Log Pow)	> 5
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diethylene glycol (111-46-6)

BCF - Fish [1]	100 l/kg (3 day(s), Leuciscus melanotus, Static system, Fresh water, Experimental value)
Partition coefficient n-octanol/water (Log Pow)	-1.98 (Calculated)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

12.4. Mobility in soil

diethylene glycol (111-46-6)

Surface tension	48.5 mN/m
Organic Carbon Normalized Adsorption Coefficient (Log K _{oc})	0 (log K _{oc} , SRC PCKOCWIN v2.0, QSAR)
Ecology - soil	Highly mobile in soil.

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Endocrine disrupting properties

Adverse effects on the environment caused by endocrine disrupting properties : 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

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal : Prevent dispersion by covering with dry absorbent, Scoop solid spill into closing containers, Scoop absorbed substance into closing containers, Clean contaminated surfaces with an excess of water and soap solution, Wash clothing and equipment after handling

Regional waste regulation : No supplementary information available.

Ecological information : Do not discharge into drains or the environment. Remove to an authorized waste treatment plant.

European List of Waste (LoW, EC 2000/532) : 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	: No supplementary information available

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

Extra phrases : Safety data sheet available for professional user on request

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 : < 3 % (1999/13/EC; 2004/42/EC; 2010/75/EU)

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 AIIIC, DSL, EAEU, ECST, ENCS, EU REACH, IECSC, ISHL, KECL, NZIoC, PICCS, TSCA, VNCI

KKDIK number (Turkey) : 05-0000296910-90-0000

K-REACH (Korea)	: not preregistered
UK-REACH (Great Britain)	: No DUIN submitted (max.1tpa)
Swiss ChemO (SR 813.11)	: This substance is not subject to the obligation to notify pursuant to art.26 item 'a' of the Chemicals Ordinance (ChemO)

Germany

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

Netherlands

ABM category	: A(4) - low hazard for aquatic organisms, may have longterm hazardous effects in aquatic environment
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 additional information available

SECTION 16: Other information

Training advice	: No supplementary information available.
Chem. inventories legend	: AIIC = 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 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 TSCA (Active) = USA Toxic Substances Control Act VNCI = Vietnam National Chemicals Inventory
SDS changed sections	: 11 - Toxicological information;12 - Ecological information
SDS Reason for revision	: No supplementary information available
Other information	: No supplementary information available.

Full text of H- and EUH-statements:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
EUH210	Safety data sheet available on request.
H302	Harmful if swallowed.

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.