RADIANOL 4710

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

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Date of issue: 6/03/2016 Revision date: 10/02/2015 Version: 01.05

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

1.1. Product identifier

Product form	:	Substance
Trade name	:	RADIANOL 4710
Name	:	Propane-1,2-diol
EC no.	:	200-338-0
CAS No.	:	57-55-6
REACH registration No	:	01-2119456809-23
C&L notification reference no	:	02-2119881154-37-0000
Formula	:	C3H8O2

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

Title	Life cycle stage	Use descriptors
General overview of industrial uses of Propylene Glycol	Industrial	SU3, SU9, SU10, PROC2, PROC3, PROC4, PROC5, PROC6, PROC7, PROC8a, PROC8b, PROC9, PROC10, PROC12, PROC13, PROC14, PROC15, PROC21, PROC23, ERC1, ERC2, ERC3, ERC4, ERC6c, ERC6d, ERC7, ERC8d
General overview of professional uses of Propylene Glycol	Professional	SU22, PROC2, PROC3, PROC4, PROC5, PROC6, PROC8a, PROC8b, PROC9, PROC10, PROC11, PROC13, PROC14, PROC15, PROC19, PROC20, ERC4, ERC8a, ERC8b, ERC8c, ERC8d, ERC8e, ERC9a, ERC9b
General overview of consumer uses of Propylene Glycol	Consumer	SU21, PC1, PC3, PC4, PC9a, PC9b, PC9c, PC12, PC16, PC17, PC18, PC23, PC24, PC27, PC28, PC29, PC31, PC35, PC39, ERC8a, ERC8d, ERC9a, ERC9b

Full text of use descriptors: see section 16

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
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/	
Greece	Poisons Information Centre Children's Hospital "Aglaia. Kyriakou"	11527 Athens	+30 10 779 3777	
Greece	Department of Forensic Medicine & Toxicology Aristotle University of Thessaloniki, Medical Faculty	54006 Thessaloniki		
Iceland	Eitrunarmiðstöð Landspítali	Fossvogi 108 Reykjavik	+354 543 22 22	
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2566 '+353 1 809 2166 (public, 8am - 10pm, 7/7)	
Israel	Israel Poison Information Center Rambam Health Care Campus	6 Ha'Aliya Street 31096 Haifa	+972 4 854 1900	

Country	Official advisory body	Address	Emergency number	Comment
Malta	Medicines & Poisons Info Office	Mater Dei Hospital MSD Msida	+356 2545 6504	
United Kingdom	National Poisons Information Service (Belfast Centre) Royal Victoria Hospital	Grosvenor Road BT12 6BA Belfast	0844 892 0111 (UK only, Monday to Friday, 08.00 to 18.00 hours)	
United Kingdom	National Poisons Information Service (Birmingham Centre) City Hospital, Guy's & St Thomas' Hospital Trust	Dudley Road B18 7QH Birmingham	0844 892 0111 (UK only, Monday to Friday, 08.00 to 18.00 hours)	
United Kingdom	National Poisons Information Service (Cardiff Centre) Gwenwyn Ward, Wolfson Unit	Penarth CF64 2XX Cardiff	0844 892 0111 (UK only, Monday to Friday, 08.00 to 18.00 hours)	
United Kingdom	NPIS Edinburgh (Scottish Poisons Information Bureau) Royal Infirmary of Edinburgh, Centre Hospitalier Universitaire Bab el Oued	51 Little France Crescent EH16 4SA Edinburgh	0844 892 0111 (UK only, Monday to Friday, 08.00 to 18.00 hours)	
United Kingdom	Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Centre Hospitalier Universitaire de Constantine	Avonley Road SE14 5ER London	0870 243 2241	
United Kingdom	National Poisons Information Service (New castle Centre) Regional Drugs and Therapeutics Centre	Claremont Place Newcastle-upon-Tyne NE1 4LP Newcastle	0844 892 0111 (UK only, Monday to Friday, 08.00 to 18.00 hours)	

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

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

SECTION 3: Composition/information on ingredients

3.1. Substance

Substance type : Mono-constituent

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Propane-1,2-diol	(CAS No.) 57-55-6 (EC no.) 200-338-0 (REACH-no) 01-2119456809-23	>= 99	Not classified

Full text of H-statements: see section 16

3.2. Mixture

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 : Wash immediately with lots of water. Soap may be used. Take victim to a doctor if irritation persists.

First-aid measures after eye contact : Rinse immediately with plenty of water. Take victim to an ophthalmologist if irritation persists.

First-aid measures after ingestion : Rinse mouth with water. Call Poison Information Centre (www.who.int/ipcs/poisons/centre/directory/en). Consult a doctor/medical service if you feel unwell.

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

Symptoms/injuries after inhalation : EXPOSURE TO HIGH CONCENTRATIONS: Dry/sore throat. Coughing. Feeling of weakness.

Symptoms/injuries after skin contact : Slight irritation. ON CONTINUOUS EXPOSURE/CONTACT: Red skin. Dry skin.

Symptoms/injuries after eye contact : Redness of the eye tissue. Slight irritation.

Symptoms/injuries after ingestion : AFTER ABSORPTION OF HIGH QUANTITIES: Nausea. Abdominal pain.

Chronic symptoms : ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Change in the haemogramme/blood composition. Decreased renal function.

Symptoms/injuries : AFTER ABSORPTION OF HIGH QUANTITIES: Cramps/uncontrolled muscular contractions.

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

Explosion hazard : No direct explosion hazard.

5.3. Advice for firefighters

Precautionary measures fire : Exposure to fire/heat: keep upwind. Exposure to fire/heat: seal off low-lying areas. Exposure to fire/heat: have neighbourhood close doors and windows.

Firefighting instructions : Cool tanks/drums with water spray/remove them into safety.

Protection during firefighting : Heat/fire exposure: compressed air/oxygen apparatus.

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 heat: have neighbourhood close doors and windows. Exposure to fire/heat: consider evacuation. Wash contaminated clothes.

6.1.1. For non-emergency personnel

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

Emergency procedures : Mark the danger area. No naked flames. Wash contaminated clothes. In case of reactivity hazard: consider evacuation.

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

For containment : Contain released substance, pump into suitable containers. Consult "Material-handling" to select material of containers. Plug the leak, cut off the supply.

Methods for cleaning up : Clean contaminated surfaces with an excess of water and soap solution. 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

Precautions for safe handling : Comply with the legal requirements. Remove contaminated clothing immediately. Clean contaminated clothing. Thoroughly clean/dry the installation before use. Use earthed equipment. Keep away from naked flames/heat. At temperature > flashpoint: use spark-/explosionproof appliances. Finely divided: spark- and explosionproof appliances. Finely divided: keep away from ignition sources/sparks. Observe normal hygiene standards. Keep container tightly closed. Measure the concentration in the air regularly. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.

Handling temperature : ≤ 40 °C

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Hygroscopic. Keep container tightly closed.

Heat and ignition sources : KEEP SUBSTANCE AWAY FROM: heat sources.

Prohibitions on mixed storage : KEEP SUBSTANCE AWAY FROM: ignition sources. (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. correctly labelled. meet the legal requirements.

Packaging materials : SUITABLE MATERIAL: stainless steel. carbon steel. aluminium. copper. bronze. nickel. steel with plastic inner lining. MATERIAL TO AVOID: No data available.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

RADIANOL 4710 (57-55-6)		
United Kingdom	WEL TWA (mg/m³)	474 mg/m³ Propane-1,2-diol total vapour and particulates; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005); Propane-1,2-diol particulates; 10 mg/m³; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005)
United Kingdom	WEL TWA (ppm)	150 ppm Propane-1,2-diol total vapour and particulates; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005)

RADIANOL 4710 (57-55-6)	
PNEC (Water)	
PNEC aqua (freshwater)	260 mg/l (JSM)
PNEC aqua (marine water)	26 mg/l (JSM)
PNEC aqua (intermittent, freshwater)	183 mg/l (JSM)
PNEC (Sediment)	
PNEC sediment (freshwater)	572 mg/kg dwt (JSM)
PNEC sediment (marine water)	57,2 mg/kg dwt (JSM)
PNEC (Soil)	
PNEC soil	50 mg/kg dwt (JSM)
PNEC (Oral)	
PNEC oral (secondary poisoning)	1133 mg/kg food (JSM)
PNEC (STP)	
PNEC sewage treatment plant	20000 mg/l (JSM)

8.2. Exposure controls

Personal protective equipment : Gloves. Protective clothing. Safety glasses.

Materials for protective clothing	:	GIVE GOOD RESISTANCE: nitrile rubber
Hand protection	:	Gloves
Eye protection	:	Safety glasses
Skin and body protection	:	Protective clothing
Respiratory protection	:	Wear gas mask with filter type A if conc. in air > exposure limit

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Appearance (room temperature)	:	Liquid.
Molecular mass	:	76,10 g/mol
Colour	:	Colourless.
Odour	:	Almost odourless.
Odour threshold	:	No data available
pH	:	6,5 - 7,5 (50 %)
pH solution	:	50 %
Relative evaporation rate (butylacetate=1)	:	< 0,1
Melting point	:	-60 °C
Freezing point	:	No data available
Boiling point	:	188 °C
Flash point	:	102 °C
Critical temperature	:	352 °C
Auto-ignition temperature	:	371 °C
Decomposition temperature	:	No data available
Flammability (solid, gas)	:	No data available
Vapour pressure	:	0,2 hPa (20 °C)
Vapour pressure at 50 °C	:	3 hPa (50 °C)
Relative vapour density at 20 °C	:	2,60
Relative density	:	1,0
Relative density of saturated gas/air mixture	:	1,0
Density	:	1038 kg/m³
Solubility	:	Soluble in water. Soluble in ethanol. Soluble in ether. Soluble in acetone. Soluble in chloroform. Soluble in 1,4-dioxane. Soluble in pine oil. Water: Complete Ethanol: Complete Ether: 12 g/100ml Acetone: Complete
Log Pow	:	-1,41 - -0,30 (-0.92; Experimental value; -1.07; Experimental value; Equivalent or similar to OECD 107; 20.5 °C)
Viscosity, dynamic	:	0,058 Pa.s (20 °C)
Explosive properties	:	Predicted negative.
Oxidising properties	:	Predicted negative.
Explosive limits	:	2,60 - 12,60 vol % 80 - 400 g/m³

9.2. Other information

Specific conductivity	:	4,40 µS/m
Saturation concentration	:	0,54 g/m³
VOC content	:	100 % (1999/13/EC; 2004/42/EC; SR 814.018)
Refractive index	:	ca. 1,432 (25°C)
Other properties	:	Gas/vapour heavier than air at 20°C. Clear. Hygroscopic. Slightly volatile.

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 toxicological effects

Acute toxicity : Not classified

RADIANOL 4710 (57-55-6)	
LD50 oral rat	> 2000 mg/kg Non-toxic
LD50 dermal rat	22500 mg/kg (Rat; Experimental value)
LD50 dermal rabbit	20800 mg/kg (Rabbit; Experimental value)

Skin corrosion/irritation : Not classified
pH: 6,5 - 7,5 (50 %)

Serious eye damage/irritation : Not classified
pH: 6,5 - 7,5 (50 %)

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

RADIANOL 4710 (57-55-6)	
Viscosity, kinematic	55,87668593 mm²/s

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : According to literature: no environmental hazard. No data available on ecotoxicity.

Ecology - air : Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009). Not included in the list of fluorinated greenhouse gases (Regulation (EC) No 842/2006). TA-Luft Klasse 5.2.5.

Ecology - water : No bioaccumulation data available

Ecology - water : Ground water pollutant. Not harmful to fishes (LC50(96h) >1000 mg/l). Not harmful to invertebrates (Daphnia) (EC50 (48h) > 1000 mg/l). Not harmful to algae (EC50 (72h) >1000 mg/l). Not harmful to bacteria (EC50 >1000 mg/l).

RADIANOL 4710 (57-55-6)	
LC50 fish 2	51600 mg/l (LC50; OECD 203: Fish, Acute Toxicity Test; 96 h; Oncorhynchus mykiss)
EC50 Daphnia 1	34400 mg/l (EC50; 48 h)

12.2. Persistence and degradability

RADIANOL 4710 (57-55-6)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil.
Biochemical oxygen demand (BOD)	0,96 - 1,08 g O2/g substance

RADIANOL 4710 (57-55-6)	
Chemical oxygen demand (COD)	1,63 g O2/g substance
ThOD	1,69 g O2/g substance
BOD (% of ThOD)	0,57
Biodegradation	81,7 % (OECD 301F, 28d, CO2 evolution; JSM)

12.3. Bioaccumulative potential

RADIANOL 4710 (57-55-6)	
Bioconcentration factor (BCF REACH)	1,4 l/kg (Lyman, 1982)
Log Pow	-1,41 - -0,30 (-0.92; Experimental value; -1.07; Experimental value; Equivalent or similar to OECD 107; 20.5 °C)
Bioaccumulative potential	Not bioaccumulative.

12.4. Mobility in soil

RADIANOL 4710 (57-55-6)	
Surface tension	0,036 N/m (25 °C)
Log Koc	2,9 (JSM)
Ecology - soil	Biodegradability in soil: no data available.

12.5. Results of PBT and vPvB assessment

RADIANOL 4710 (57-55-6)
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

12.6. 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 legislation (waste) : No supplementary information available.

Waste disposal recommendations : Remove waste in accordance with local and/or national regulations. Recycle by distillation. Remove to an authorized waste incinerator for solvents with energy recovery. Do not discharge into surface water. Obtain the consent of pollution control authorities before discharging to wastewater treatment plants.

Additional information : LWCA (the Netherlands): KGA category 03. Can be considered as non hazardous waste according to Directive 2008/98/EC.

Ecology - waste materials : Do not discharge into drains or the environment. Remove to an authorized waste treatment plant.

European List of Waste (LoW) code : 07 01 99 - wastes not otherwise specified

SECTION 14: Transport information

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

14.1. UN 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) : Not applicable

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. Transport in bulk according to Annex II of MARPOL 73/78 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
RADIANOL 4710 is not on the REACH Candidate List
RADIANOL 4710 is not on the REACH Annex XIV List

VOC content : 100 % (1999/13/EC; 2004/42/EC; SR 814.018)
EU Regulation 10/2011 (Annex I), as amended : FCM 109 - (CAS 0000057-55-6) 1,2-propanediol
BfR Recommendations : Listed in XIV. Plastics Dispersions
XXI. Commodities based on Natural and Synthetic Rubber
XXVIII. Cross-Linked Polyurethanes as Adhesive Layers for Food Packaging Materials
XXXIX. Commodities Based on Polyurethanes
XLI. Linear Polyurethanes for Paper Coatings
XLIV. Artificial Sausage Casings

FC EU regulatory notices	:	This product is in compliance with EC Regulation No 1935/2004 on materials and articles intended to come into contact with food, as far as it is concerned. This product is in compliance with EC Regulation No 2023/2006 on good manufacturing practice for materials and articles intended to come into contact with food, as far as it is concerned. The Directive 2002/72/EC of 6 August 2002 relating to plastic materials and articles intended to come into contact with foodstuffs as amended has been repealed by EU Regulation No 10/2011

15.1.2. National regulations

Chemical inventories	:	Listed on AICS, DSL, ECST, ENCS, IECSC, KECL, NZIoC, PICCS, TSCA, EC inventories
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

VwVwS Annex reference	:	Water hazard class (WGK) 1, low hazard to waters (Classification according to VwVwS, Annex 1 or 2; ID No. 280)
WGK remark (old)	:	Classification water polluting in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS) of 27 July 2005 (Anhang 2)
12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV	:	Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands

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

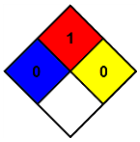
Swiss Ordinance (SR 817.023.21) Annex 6	:	List of solvents (part A). List of additives (part A)	
China GB 9685 (2008)	:	Listed based on product's CAS RN	
CFR Title 21 - Indirect Food Additives	:	Listed in	175.300 - Resinous and polymeric coatings 175.320 - Resinous and polymeric coatings for polyolefin films 176.210 - Defoaming agents used in the manufacture of paper and paperboard 177.1680 - Polyurethane resins 177.2420 - Polyester resins, cross-linked 177.2600 - Rubber articles intended for repeated use 177.2800 - Textiles and textile fibers 178.3300 - Corrosion inhibitors used for steel or tinplate
CFR Title 21 - GRAS Substances (Direct food)	:	Listed in	184.1666 - Propylene glycol

15.2. Chemical safety assessment

The chemical safety assessment has been carried out, an exposure scenario is not applicable (substance is not classified)

SECTION 16: Other information

Training advice	:	No supplementary information available.
SDS changed sections	:	15 - Regulatory information;16 - Other information
SDS Reason for revision	:	No supplementary information available
Chem. inventories legend	:	AICS = Australian Inventory of Chemical Substances DSL = Canadian Domestic Sustances List ECST = Existing Chemical Substances Inventory of Taiwan ENCS = Japanese Existing and New Chemicals Substances List IECSC = Inventory of Existing Chemicals Substances in China KECL = Korean Existing Chemical List NZIoC = New Zealand Inventory of Chemicals PICCS = Philippine Inventory of Chemicals and Chemical Substances TSCA = USA Toxic Substances Control Act EC inventories = European Community inventories of chemicals (EINECS/ELINCS/NLP/REACh)
WHMIS Classification	:	Uncontrolled - Uncontrolled product according to WHMIS classification criteria
HMIS Health	:	2 Moderate Hazard - Temporary or minor injury may occur
HMIS Flammability	:	1 Slight Hazard - Materials that must be preheated before ignition will occur. Includes liquids, solids and semi solids having a flash point above 200 F. (Class IIIB)

HMIS Physical	:	0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.
HMIS Personal Protection	:	H - Splash goggles, Gloves, Synthetic apron, Vapor respirator
NFPA health hazard	:	0 - Exposure under fire conditions would offer no hazard beyond that of ordinary combustible materials.
NFPA fire hazard	:	1 - Must be preheated before ignition can occur.
NFPA reactivity	:	0 - Normally stable, even under fire exposure conditions, and are not reactive with water.
NFPA image	:	

Full text of H- and EUH-statements:

ERC1	Manufacture of substances
ERC2	Formulation of preparations
ERC3	Formulation in materials
ERC4	Industrial use of processing aids in processes and products, not becoming part of articles
ERC6c	Industrial use of monomers for manufacture of thermo-plastics
ERC6d	Industrial use of process regulators for polymerisation processes in production of resins, rubbers, polymers
ERC7	Industrial use of substances in closed systems
ERC8a	Wide dispersive indoor use of processing aids in open systems
ERC8b	Wide dispersive indoor use of reactive substances in open systems
ERC8c	Wide dispersive indoor use resulting in inclusion into or onto a matrix
ERC8d	Wide dispersive outdoor use of processing aids in open systems
ERC8e	Wide dispersive outdoor use of reactive substances in open systems
ERC9a	Wide dispersive indoor use of substances in closed systems
ERC9b	Wide dispersive outdoor use of substances in closed systems
PC1	Adhesives, sealants
PC12	Fertilizers
PC16	Heat Transfer Fluids
PC17	Hydraulic Fluids
PC18	Ink and Toners
PC23	Leather tanning, dye, finishing, impregnation and care products
PC24	Lubricants, Greases and Release Products
PC27	Plant Protection products
PC28	Perfumes, Fragrances
PC29	Pharmaceuticals
PC3	Air care products
PC31	Polishes and Wax Blends
PC35	Washing and cleaning products (including solvent based products)
PC39	Cosmetics, personal care products
PC4	Anti-Freeze and De-icing products
PC9a	Coatings and paints, thinners, paint removers
PC9b	Fillers, putties, plasters, modelling clay
PC9c	Finger paints
PROC10	Roller application or brushing
PROC11	Non industrial spraying
PROC12	Use of blowing agents in manufacture of foam
PROC13	Treatment of articles by dipping and pouring
PROC14	Production of preparations or articles by tabletting, compression, extrusion, pelletisation
PROC15	Use as laboratory reagent
PROC19	Hand-mixing with intimate contact and only PPE available
PROC2	Use in closed, continuous process with occasional controlled exposure
PROC20	Heat and pressure transfer fluids in dispersive use but closed systems
PROC21	Low energy manipulation of substances bound in materials and/or articles
PROC23	Open processing and transfer operations with minerals/metals at elevated temperature
PROC3	Use in closed batch process (synthesis or formulation)
PROC4	Use in batch and other process (synthesis) where opportunity for exposure arises

PROC5	Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)
PROC6	Calendering operations
PROC7	Industrial spraying
PROC8a	Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities
PROC8b	Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities
PROC9	Transfer of substance or preparation into small containers (dedicated filling line, including weighing)
SU10	Formulation [mixing] of preparations and/or re-packaging (excluding alloys)
SU21	Consumer uses: Private households (= general public = consumers)
SU22	Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
SU3	Industrial uses: Uses of substances as such or in preparations* at industrial sites
SU9	Manufacture of fine chemicals

SDS 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