

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

1.1. Product identifier

Product form	: Substance
Trade name	: RADIANOL 4710
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
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

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

Title	Use descriptors	Reason
Consumer uses advised against		Consumer uses advised against: Use in electronic cigarettes and artificial (theater) fog
Professional uses advised against		Widespread uses by professional workers advised against: Use in artificial (theater) fog

1.3. Details of the supplier of the safety data sheet

OLEON N.V.

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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)

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

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. Substances

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

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	: 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/effects	: No supplementary information available.
Symptoms/effects after inhalation	: EXPOSURE TO HIGH CONCENTRATIONS: Dry/sore throat. Coughing. Feeling of weakness.
Symptoms/effects after skin contact	: ON CONTINUOUS EXPOSURE/CONTACT: Red skin. Dry skin.
Symptoms/effects after eye contact	: Redness of the eye tissue.
Symptoms/effects after ingestion	: AFTER INGESTION OF HIGH QUANTITIES: Nausea. Abdominal pain.
Chronic symptoms	: Change in the haemogramme/blood composition. Decreased renal function.

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: self-contained breathing apparatus (EN 136 + EN 137).
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.
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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.
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6.2. Environmental precautions

Prevent soil and water pollution.

6.3. Methods and material for containment and cleaning up

For containment	: Contain released product, pump into suitable 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	: Use earthed equipment. Keep away from naked flames/heat. In finely divided state: use spark-/explosionproof appliances. Finely divided: keep away from ignition sources/sparks. Measure the concentration in the air regularly. Carry operations in the open/under local exhaust/ventilation or with respiratory protection. Comply with the legal requirements. Remove contaminated clothing immediately. Clean contaminated clothing. Thoroughly clean/dry the installation before use. Keep container tightly closed.
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.
Information 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.

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 - Occupational Exposure Limits

WEL TWA (OEL TWA) [1]	474 mg/m ³ 10 mg/m ³
WEL TWA (OEL TWA) [2]	150 ppm

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)
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PNEC (Oral)

PNEC oral (secondary poisoning)	1133 mg/kg food (JSM)
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PNEC (STP)

PNEC sewage treatment plant	20000 mg/l (JSM)
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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 (EN 166)

Skin and body protection:

Protective clothing (EN 14605 or EN 13034)

Respiratory protection:

Full face mask with filter type A at conc. in air > exposure limit

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.
Molecular mass	: 76.1 g/mol
Colour	: Colourless.
Odour	: Almost odourless.
Odour threshold	: No data available
pH	: 6.5 – 7.5 (50 %)
Relative evaporation rate (butylacetate=1)	: < 0.1
Melting point	: < -20 °C (1013.25 hPa, EU Method A.1: Melting/freezing point)
Freezing point	: No data available
Boiling point	: 184 °C (1003 hPa, EU Method A.2: Boiling point)
Flash point	: 102 °C
Critical temperature	: 352 °C
Auto-ignition temperature	: > 400 °C (1000 - 1001 hPa, EU Method A.15: Auto-ignition Temperature (liquids and gases))
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: 0.2 hPa (25 °C, EU Method A.4: Vapour Pressure)
Relative vapour density at 20 °C	: 2.6
Relative density	: 1.03 (20 °C, EU Method A.3: Relative Density)
Relative density of saturated gas/air mixture	: 1
Density	: 1038 kg/m ³
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: 100 vol % (20 °C, EU Method A.6: Water solubility) Ethanol: complete Ether: 12 g/100ml Acetone: complete
Partition coefficient n-octanol/water (Log Pow)	: -1.07 (Experimental value, EU Method A.8: Partition Coefficient, 20.5 °C)
Viscosity, kinematic	: 41.84 mm ² /s
Viscosity, dynamic	: 43.43 mPa·s (25 °C)
Explosive properties	: Predicted negative.
Oxidising properties	: Predicted negative.
Explosive limits	: 2.6 – 12.6 vol % 80 – 400 g/m ³

9.2. Other information

Specific conductivity	: 4.4 µS/m
Saturation concentration	: 0.54 g/m ³
VOC content	: 100 % (1999/13/EC; 2004/42/EC; 2010/75/EU; SR 814.018)
Refractive index	: ca. 1.432 (25°C)
Other properties	: Gas/vapour heavier than air at 20°C. Clear. Hygroscopic. Slightly volatile.
Additional information	: This product is absent from Annex 1 and Annex 2 of the Swiss ordinance 814.018 (OVOC)

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 (oral) : Not classified

Acute toxicity (dermal) : Not classified

Acute toxicity (inhalation) : Not classified

RADIANOL 4710 (57-55-6)

LD50 oral rat > 2000 mg/kg Non-toxic

LD50 dermal rabbit > 2000 mg/kg bodyweight (24 h, Rabbit, Experimental value, Dermal, 14 day(s))

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

STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

Aspiration hazard : Not classified

RADIANOL 4710 (57-55-6)

Viscosity, kinematic 41.84 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 included in the list of substances which may contribute to the greenhouse effect (IPCC).
Not included in the list of fluorinated greenhouse gases (Regulation (EU) No 517/2014).
Photolysis in the air. Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009).

Ecology - water : No bioaccumulation data available

Ecology - water : Not harmful to crustacea. Not harmful to fishes. Groundwater pollutant. Not harmful to algae. Not harmful to bacteria.

Hazardous to the aquatic environment, short-term (acute) : Not classified

Hazardous to the aquatic environment, long-term (chronic) : Not classified

RADIANOL 4710 (57-55-6)

LC50 - Fish [1] 51600 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Oncorhynchus mykiss, Experimental value)

LC50 - Fish [2] 40613 mg/l (Other, 96 h, Oncorhynchus mykiss, Static system, Fresh water, Experimental value)

12.2. Persistence and degradability

RADIANOL 4710 (57-55-6)

Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.
Biochemical oxygen demand (BOD)	0.96 – 1.08 g O ₂ /g substance
Chemical oxygen demand (COD)	1.63 g O ₂ /g substance
ThOD	1.69 g O ₂ /g substance
Biodegradation	81.7 % (OECD 301F, 28d, CO ₂ evolution; JSM)

12.3. Bioaccumulative potential

RADIANOL 4710 (57-55-6)

Bioconcentration factor (BCF REACH)	1.4 l/kg (Lyman, 1982)
Partition coefficient n-octanol/water (Log Pow)	-1.07 (Experimental value, EU Method A.8: Partition Coefficient, 20.5 °C)
Bioaccumulative potential	Not bioaccumulative.

12.4. Mobility in soil

RADIANOL 4710 (57-55-6)

Surface tension	71.6 mN/m (21.5 °C, 1.01 g/l, EU Method A.5: Surface tension)
Partition coefficient n-octanol/water (Log K _{oc})	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.
Product/Packaging disposal recommendations	: Do not discharge into drains or the environment. Remove waste in accordance with local and/or national regulations. Recycle by distillation. Remove to an authorized waste incinerator for solvents with energy recovery. Obtain the consent of pollution control authorities before discharging to wastewater treatment plants.
Additional information	: Can be considered as non hazardous waste according to Directive 2008/98/EC, as amended by Regulation (EU) No 1357/2014 and Regulation (EU) No 2017/997.
Ecology - waste materials	: Do not discharge into drains or the environment. Remove to an authorized waste treatment plant.
European List of Waste (LoW) code	: 15 01 04 - metallic packaging

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
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14.3. Transport hazard class(es)

Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
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14.4. Packing group

Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
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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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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 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

RADIANOL 4710 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.

RADIANOL 4710 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 : 100 % (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, KECL, NZIoC, PICCS, TECI, TSCA, VNCI, EC inventories

KKDIK number (Turkey) : 05-0000296806-08-0000

K-REACH (Korea) : not 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 KECL/KECI (Korean Existing Chemicals Inventory)
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 the United States TSCA (Toxic Substances Control Act) inventory
Listed on EAEU ULC (Eurasian Economic Union Unified list of chemicals)
Listed on the VNCI (Vietnam National Chemicals Inventory)

Germany

Regulatory reference : WGK 1, Slightly hazardous to water (Classification according to AwSV; ID No. 280)
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

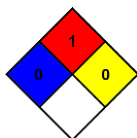
15.2. Chemical safety assessment

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
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
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)
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 - 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.

Full text of use descriptors

ERC1	Manufacture of the substance
ERC2	Formulation into mixture
ERC3	Formulation into solid matrix
ERC4	Use of non-reactive processing aid at industrial site (no inclusion into or onto article)
ERC6c	Use of monomer in polymerisation processes at industrial site (inclusion or not into/onto article)
ERC6d	Use of reactive process regulators in polymerisation processes at industrial site (inclusion or not into/onto article)
ERC7	Use of functional fluid at industrial site
ERC8a	Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor)
ERC8b	Widespread use of reactive processing aid (no inclusion into or onto article, indoor)
ERC8c	Widespread use leading to inclusion into/onto article (indoor)
ERC8d	Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor)
ERC8e	Widespread use of reactive processing aid (no inclusion into or onto article, outdoor)
ERC9a	Widespread use of functional fluid (indoor)
ERC9b	Widespread use of functional fluid (outdoor)
PC1	Adhesives, sealants
PC12	Fertilizers
PC16	Heat Transfer Fluids
PC17	Hydraulic Fluids
PC18	Ink and Toners
PC23	Leather treatment products
PC24	Lubricants, greases, 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
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	Tabletting, compression, extrusion, pelettisation, granulation
PROC15	Use as laboratory reagent
PROC19	Manual activities involving hand contact
PROC2	Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions
PROC20	Use of functional fluids in small devices
PROC21	Low energy manipulation and handling of substances bound in/on materials or articles
PROC23	Open processing and transfer operations at substantially elevated temperature
PROC3	Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition
PROC4	Chemical production where opportunity for exposure arises
PROC5	Mixing or blending in batch processes
PROC6	Calendering operations
PROC7	Industrial spraying
PROC8a	Transfer of substance or mixture (charging and discharging) at non-dedicated facilities
PROC8b	Transfer of substance or mixture (charging and discharging) 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 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.