

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

### 1.1. Product identifier

|                               |                                                                                 |
|-------------------------------|---------------------------------------------------------------------------------|
| Product form                  | : Substance (UVCB)                                                              |
| Trade name                    | : RADIA 7179                                                                    |
| IUPAC name                    | : 2,2-bis[[(1-oxoisooctadecyl)oxy]methyl]-1,3-propanediyl bis(isooctadecanoate) |
| EC no.                        | : 263-423-1                                                                     |
| CAS No.                       | : 62125-22-8                                                                    |
| REACH registration No         | : 01-2119971042-45                                                              |
| C&L notification reference no | : 02-2119693008-34-0000                                                         |

### 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 polyols fatty esters    | Industrial       | SU3, PC1, PC8, PC9a, PC12, PC14, PC18, PC19, PC20, PC21, PC23, PC24, PC32, PC34, PC35, PROC2, PROC3, PROC4, PROC5, PROC6, PROC7, PROC8a, PROC8b, PROC9, PROC10, PROC11, PROC12, PROC13, PROC14, PROC15, PROC16, PROC17, PROC18, PROC21, PROC24, ERC4, ERC5, ERC6a, ERC6b, ERC6c, ERC6d, ERC7 |
| General overview of professional uses of polyols fatty esters  | Professional     | SU22, PC12, PC21, PC27, PC31, PC35, PC39, PROC2, PROC3, PROC4, PROC5, PROC6, PROC8a, PROC8b, PROC9, PROC10, PROC11, PROC13, PROC14, PROC15, PROC16, PROC17, PROC18, PROC19, PROC20, PROC21, ERC8a, ERC8b, ERC8c, ERC8d, ERC8e, ERC8f, ERC9a, ERC9b, ERC10a, ERC11a                           |
| General overview of consumer uses of polyols fatty esters      | Consumer         | SU21, PC1, PC3, PC4, PC8, PC9a, PC9b, PC9c, PC12, PC13, PC15, PC16, PC17, PC18, PC20, PC23, PC24, PC25, PC27, PC28, PC31, PC32, PC34, PC35, PC37, PC39, ERC2, ERC3, ERC4, ERC5, ERC6a, ERC6b, ERC6c, ERC6d, ERC7, ERC8a, ERC8b, ERC8c, ERC8d, ERC8e, ERC8f, ERC9a, ERC9b, ERC10a, ERC11a     |
| General overview of manufacturing uses of polyols fatty esters |                  | SU3, PROC2, PROC3, PROC4, PROC5, PROC6, PROC7, PROC8a, PROC8b, PROC9, PROC10, PROC11, PROC13, PROC14, PROC15, PROC21, ERC1                                                                                                                                                                   |
| General overview of formulation uses of polyols fatty esters   |                  | SU3, PC0, PC2, PC9a, PC12, PC18, PC20, PC23, PC24, PC32, PC34, PC39, PROC2, PROC3, PROC4, PROC5, PROC6, PROC7, PROC8a, PROC8b, PROC9, PROC10, PROC11, PROC13, PROC14, PROC15, PROC21, ERC2, ERC3                                                                                             |

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  
BE- 9940 Ertvelde  
Belgium  
T +32 9 341 10 11 - F +32 9 341 10 00  
[sds@oleon.com](mailto:sds@oleon.com) - [www.oleon.com](http://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)<br>WHO-OMS | Website | <a href="http://www.who.int/gho/phe/chemical_safety/poisons_centres/en/">http://www.who.int/gho/phe/chemical_safety/poisons_centres/en/</a> |         |

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

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

Not classified

Adverse physicochemical, human health and environmental effects

No additional information available

### 2.2. Label elements

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

No labelling applicable

### 2.3. Other hazards

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

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Substance type : UVCB

| Name                                                                          | Product identifier                                                     | %   |
|-------------------------------------------------------------------------------|------------------------------------------------------------------------|-----|
| 2,2-bis[[(1-oxoisooctadecyl)oxy]methyl]-1,3-propanediyl bis(isooctadecanoate) | CAS No.: 62125-22-8<br>EC no.: 263-423-1<br>REACH-no: 01-2119971042-45 | 100 |

### 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 ophtalmologist 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.<br>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

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. 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.                                    |
| Odour                                           | : Sweet. characteristic.                     |
| Odour threshold                                 | : Not available                              |
| Melting point                                   | : No supplementary information available     |
| Freezing point                                  | : $\approx -35\text{ }^{\circ}\text{C}$      |
| Boiling point                                   | : $> 250\text{ }^{\circ}\text{C}$            |
| 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                                     | : $> 200\text{ }^{\circ}\text{C}$ (ASTM D92) |
| Auto-ignition temperature                       | : $> 300\text{ }^{\circ}\text{C}$            |
| Decomposition temperature                       | : $>$ Flash point                            |
| pH                                              | : 5 – 8                                      |
| Viscosity, kinematic                            | : $\approx 145\text{ mm}^2/\text{s}$ (40°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                                         | : $\approx 921\text{ kg/m}^3$ (20°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 : < 1 % (1999/13/EC; 2004/42/EC; 2010/75/EU; SR 814.018)  
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 7179 (62125-22-8)

|               |                        |
|---------------|------------------------|
| LD50 oral rat | > 5000 mg/kg Non-toxic |
|---------------|------------------------|

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

Serious eye damage/irritation : Not classified  
pH: 5 – 8

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 7179 (62125-22-8)

|                      |                                 |
|----------------------|---------------------------------|
| Viscosity, kinematic | ≈ 145 mm <sup>2</sup> /s (40°C) |
|----------------------|---------------------------------|

## 11.2. Information on other hazards

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                                                                                                                                                                                                        |

### 12.2. Persistence and degradability

No additional information available

### 12.3. Bioaccumulative potential

#### RADIA 7179 (62125-22-8)

|                                                 |     |
|-------------------------------------------------|-----|
| Partition coefficient n-octanol/water (Log Pow) | > 5 |
|-------------------------------------------------|-----|

### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Endocrine disrupting properties

No additional information available

### 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 legislation (waste)      | : No supplementary information available.                                                                                                                                                                                                                           |
| Ecology - waste materials         | : Do not discharge into drains or the environment. Remove to an authorized waste treatment plant.                                                                                                                                                                   |
| 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)

|                                   |                  |
|-----------------------------------|------------------|
| <b>ADR</b>                        |                  |
| Transport hazard class(es) (ADR)  | : Not applicable |
| <b>IMDG</b>                       |                  |
| Transport hazard class(es) (IMDG) | : -              |
| <b>IATA</b>                       |                  |
| Transport hazard class(es) (IATA) | : Not applicable |
| <b>ADN</b>                        |                  |
| Transport hazard class(es) (ADN)  | : Not applicable |
| <b>RID</b>                        |                  |
| 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             | : Marine pollutant: no |

### 14.6. Special precautions for user

|                             |               |
|-----------------------------|---------------|
| <b>Overland transport</b>   |               |
| 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, EAEU, ECST, ENCS, EU REACH, IECSC, INSQ, ISHL, KECL, NDSL, NZIoC, PICCS, TECI, TSCA, VNCI |
| KKDIK number (Turkey)    | : 05-0000296808-66-0000                                                                                          |
| K-REACH (Korea)          | : preregistered                                                                                                  |
| UK-REACH (Great Britain) | : DUIN submitted                                                                                                 |

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. 5382).  
Hazardous Incident Ordinance (12. BImSchV) : Is not subject of 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 – : The substance is not listed  
Vruchtbaarheid  
SZW-lijst van reprotoxische 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.  
Chem. inventories legend : AIIC = Australian Inventory of Industrial Chemicals  
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  
KECL = Korean Existing Chemical List  
NDSL = Canadian Non Domestic Substances 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  
Other information : No supplementary information available.

### Full text of use descriptors

|        |                                                       |
|--------|-------------------------------------------------------|
| ERC1   | Manufacture of the substance                          |
| ERC10a | Widespread use of articles with low release (outdoor) |
| ERC11a | Widespread use of articles with low release (indoor)  |
| ERC2   | Formulation into mixture                              |
| ERC3   | Formulation into solid matrix                         |

**Full text of use descriptors**

|       |                                                                                                                        |
|-------|------------------------------------------------------------------------------------------------------------------------|
| ERC4  | Use of non-reactive processing aid at industrial site (no inclusion into or onto article)                              |
| ERC5  | Use at industrial site leading to inclusion into/onto article                                                          |
| ERC6a | Use of intermediate                                                                                                    |
| ERC6b | Use of 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)                                 |
| ERC8f | Widespread use leading to inclusion into/onto article (outdoor)                                                        |
| ERC9a | Widespread use of functional fluid (indoor)                                                                            |
| ERC9b | Widespread use of functional fluid (outdoor)                                                                           |
| PC0   | Other                                                                                                                  |
| PC1   | Adhesives, sealants                                                                                                    |
| PC12  | Fertilizers                                                                                                            |
| PC13  | Fuels                                                                                                                  |
| PC14  | Metal surface treatment products                                                                                       |
| PC15  | Non-metal-surface treatment products                                                                                   |
| PC16  | Heat Transfer Fluids                                                                                                   |
| PC17  | Hydraulic Fluids                                                                                                       |
| PC18  | Ink and Toners                                                                                                         |
| PC19  | Intermediate                                                                                                           |
| PC2   | Adsorbents                                                                                                             |
| PC20  | Metal surface treatment products                                                                                       |
| PC21  | Laboratory chemicals                                                                                                   |
| PC23  | Leather treatment products                                                                                             |
| PC24  | Lubricants, greases, release products                                                                                  |
| PC25  | Metal working fluids                                                                                                   |
| PC27  | Plant protection products                                                                                              |
| PC28  | Perfumes, fragrances                                                                                                   |
| PC3   | Air care products                                                                                                      |

**Full text of use descriptors**

|        |                                                                                                                                                                      |
|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PC31   | Polishes and wax blends                                                                                                                                              |
| PC32   | Polymer preparations and compounds                                                                                                                                   |
| PC34   | Textile dyes, and impregnating products                                                                                                                              |
| PC35   | Washing and cleaning products                                                                                                                                        |
| PC37   | Water treatment chemicals                                                                                                                                            |
| PC39   | Cosmetics, personal care products                                                                                                                                    |
| PC4    | Anti-Freeze and De-icing products                                                                                                                                    |
| PC8    | Biocidal 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                                                                                                                                            |
| PROC16 | Use of fuels                                                                                                                                                         |
| PROC17 | Lubrication at high energy conditions in metal working operations                                                                                                    |
| PROC18 | General greasing /lubrication at high kinetic energy conditions                                                                                                      |
| 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                                                                                 |
| PROC24 | High (mechanical) energy work-up of substances bound in /on materials and/or articles                                                                                |
| 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)                                                              |

**Full text of use descriptors**

|      |                                                                                                  |
|------|--------------------------------------------------------------------------------------------------|
| 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              |

The classification complies with : ATP 12

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.