




**Safety Data Sheet dated 18/10/2024, version 16**

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

- 1.1. Product identifier  
Mixture identification:  
Trade name: WIZZY PULISCI PLASTICA  
Trade code: 1934
- 1.2. Relevant identified uses of the substance or mixture and uses advised against  
Recommended use:  
cloth impregnated with plastic detergent  
Uses advised against:  
Strictly adhere to the recommended uses.
- 1.3. Details of the supplier of the safety data sheet  
Supplier:  
Arexons S.p.A.  
via Antica di Cassano, 23, 20063  
Cernusco sul Naviglio (MI), Italy  
Arexons S.p.A.  
Tel. +39 (0)2/924361 - Fax +39 (0)2/92436306  
Competent person responsible for the safety data sheet:  
arexons@arexons.it
- 1.4. Emergency telephone number  
Arexons S.p.A.  
Tel. +39 (0)2/924361 - Fax +39 (0)2/92436306  
In England and Wales: NHS 111 - dial 111  
In Scotland: NHS 24 - dial 111  
In Ireland: emergency number 112  
In South Africa: Poison Information Helpline 0861 555 777  
In Malta: emergency number 112

**SECTION 2: Hazards identification**

- 2.1. Classification of the substance or mixture  
EC regulation criteria 1272/2008 (CLP):  
⚠ Warning, Skin Sens. 1A, May cause an allergic skin reaction.  
Adverse physicochemical, human health and environmental effects:  
No other hazards
- 2.2. Label elements  
Hazard pictograms:  

- Warning  
Hazard statements:  
H317 May cause an allergic skin reaction.  
Precautionary statements:  
P101 If medical advice is needed, have product container or label at hand.  
P102 Keep out of reach of children.  
P103 Read carefully and follow all instructions.  
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
P280 Wear protective gloves/clothing and eye/face protection.  
P501 Dispose of contents/container in accordance with applicable regulations.  
Special Provisions:

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### WIZZY PULISCI PLASTICA



EUH208 Contains 1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one. May produce an allergic reaction.

Contains

2-Methyl-2H-isothiazol-3-one

Special provisions according to Annex XVII of REACH and subsequent amendments:

None

Regulation (EC) nr 648/2004 (detergents).

Product contents:

Non-ionic surfactants

< 5 %

The product also contains:

Perfumes

Preservatives:

Laurylamine Dipropylenediamine, Pyridine-2-thiol 1-oxide, sodium salt., 1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one, 1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one, 2-Methyl-2H-isothiazol-3-one

2.3. Other hazards

No PBT, vPvB or endocrine disruptor substances present in concentration  $\geq$  0.1%

Other Hazards:

No other hazards

## SECTION 3: Composition/information on ingredients

3.1. Substances

N.A.

3.2. Mixtures

Hazardous components within the meaning of the CLP regulation and related classification:

| stta                       | Name   | Ident. Number   | Classification  |
|----------------------------|--|---|---|
| $\geq$ 1% -<br>< 2%        | ethanediol; ethylene glycol                              | Index number: 603-027-00-1<br>CAS: 107-21-1<br>EC: 203-473-3<br>REACH No.: 01-2119456816-28 | <ul style="list-style-type: none"> <li>⚠ 3.1/4/Oral Acute Tox. 4 H302</li> <li>⚠ 3.9/2 STOT RE 2 H373 (kidneys) (Oral)</li> </ul>   |
| $\geq$ 0,02%<br>- < 0,05%  | Esadeciltrimetilaammoniochloruro                         | CAS: 112-02-7<br>EC: 203-928-6<br>REACH No.: 01-2119970558-23                               | <ul style="list-style-type: none"> <li>⚠ 4.1/C1 Aquatic Chronic 1 H410 M=1.</li> <li>⚠ 3.1/3/Dermal Acute Tox. 3 H311</li> <li>⚠ 4.1/A1 Aquatic Acute 1 H400 M=10.</li> <li>⚠ 3.2/1C Skin Corr. 1C H314</li> <li>⚠ 3.3/1 Eye Dam. 1 H318</li> <li>⚠ 3.1/4/Oral Acute Tox. 4 H302</li> </ul>   |
| $\geq$ 0,005%<br>- < 0,01% | 1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one | Index number: 613-088-00-6<br>CAS: 2634-33-5<br>EC: 220-120-9                               | <ul style="list-style-type: none"> <li>⚠ 3.1/4/Oral Acute Tox. 4 H302</li> <li>⚠ 3.1/2/Inhal Acute Tox. 2 H330</li> <li>⚠ 3.2/2 Skin Irrit. 2 H315</li> <li>⚠ 3.4.2/1A Skin Sens. 1A H317</li> <li>⚠ 3.3/1 Eye Dam. 1 H318</li> <li>⚠ 4.1/A1 Aquatic Acute 1 H400</li> <li>⚠ 4.1/C1 Aquatic Chronic 1 H410</li> </ul> <p>Specific Concentration Limits:<br/>C <math>\geq</math> 0,036%: Skin Sens. 1A H317<br/>Acute Toxicity Estimate:</p> |

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|                         |                                    |   |   |
|-------------------------|------------------------------------|---|---|
|                         |                                    |   | ATE - Oral 450 mg/kg bw<br>ATE - Inhalation (Dust/mist) 0,21 mg/l   |
| >= 0,001%<br>- < 0,005% | octamethylcyclotetrasiloxane; [D4] | Index number: 014-018-00-1<br>CAS: 556-67-2<br>EC: 209-136-7<br>REACH No.: 01-2119529238-36 | <ul style="list-style-type: none"> <li>⚠ 3.7/2 Repr. 2 H361f</li> <li>⚠ 4.1/C1 Aquatic Chronic 1 H410 M=10.</li> </ul>  |
| >= 0,001%<br>- < 0,005% | DYPHENYL OXYDE                     | CAS: 101-84-8<br>EC: 202-981-2<br>REACH No.: 01-2119472545-33                               | <ul style="list-style-type: none"> <li>⚠ 3.3/2 Eye Irrit. 2 H319</li> <li>⚠ 4.1/A1 Aquatic Acute 1 H400</li> <li>4.1/C3 Aquatic Chronic 3 H412</li> </ul>   |
| >= 0,001%<br>- < 0,005% | 2-Methyl-2H-isothiazol-3-one       | CAS: 2682-20-4<br>EC: 220-239-6   | <ul style="list-style-type: none"> <li>⚠ 3.1/2/Inhal Acute Tox. 2 H330</li> <li>⚠ 3.1/3/Dermal Acute Tox. 3 H311</li> <li>⚠ 3.1/3/Oral Acute Tox. 3 H301</li> <li>⚠ 3.2/1B Skin Corr. 1B H314</li> <li>⚠ 3.3/1 Eye Dam. 1 H318</li> <li>⚠ 3.4.2/1A Skin Sens. 1A H317</li> <li>⚠ 4.1/A1 Aquatic Acute 1 H400 M=10.</li> <li>⚠ 4.1/C1 Aquatic Chronic 1 H410 M=1.</li> </ul> <p>EUH071<br/>Specific Concentration Limits:<br/>C &gt;= 0,00015%: EUH208<br/>C &gt;= 0,0015%: Skin Sens. 1A H317</p> |
| <1 ppb                  | toluene                            | CAS: 108-88-3<br>EC: 203-625-9<br>REACH No.: 01-2119471310-51                               | <ul style="list-style-type: none"> <li>⚠ 2.6/2 Flam. Liq. 2 H225</li> <li>⚠ 3.2/2 Skin Irrit. 2 H315</li> <li>⚠ 3.8/3 STOT SE 3 H336</li> <li>⚠ 3.10/1 Asp. Tox. 1 H304</li> <li>⚠ 3.7/2 Repr. 2 H361</li> <li>⚠ 3.9/2 STOT RE 2 H373</li> </ul>  |

SVHC, PBT, vPvB, endocrine disruptor substances:

>= 0,001% - < 0,005% octamethylcyclotetrasiloxane; [D4]

REACH No.: 01-2119529238-36, Index number: 014-018-00-1, CAS: 556-67-2, EC: 209-136-7

PBT, vPvB, SVHC

**SECTION 4: First aid measures**

4.1. Description of first aid measures

In case of skin contact:

Immediately take off all contaminated clothing.

Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap.

Wash thoroughly the body (shower or bath).

Remove contaminated clothing immediately and dispose off safely.

In case of eyes contact:

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

In case of Ingestion:

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Do not under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

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

None

4.3. Indication of any immediate medical attention and special treatment needed

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment:

None

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#### SECTION 5: Firefighting measures

5.1. Extinguishing media

Appropriate Extinguishing Media:

To carbon dioxide.

To dust.

Foam

Water spray.

Not Recommended Extinguishing Media:

Do not use direct water jets.

5.2. Special hazards arising from the substance or mixture

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

5.3. Advice for firefighters

Normal fire-fighting clothing, such as an open-circuit compressed air breathing apparatus (EN 137), flame-resistant suit (EN469), flame-resistant gloves (EN 659) and firefighter's boots (HO A29 or A30).

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#### SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.

Remove persons to safety.

See protective measures under point 7 and 8.

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

Retain contaminated washing water and dispose it.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

Suitable material for taking up: absorbing material, organic, sand

6.3. Methods and material for containment and cleaning up

For cleaning up:

Avoid flame and/or spark near leak and produced waste. Do not smoke. In case of large spills dike,

absorb and shovel up into suitable containers for disposal. Contain small spills with absorbent material.

Put dirty material in suitable container. Dispose of dirty material in accordance with local or national regulations.

6.4. Reference to other sections

See also section 8 and 13

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#### SECTION 7: Handling and storage

7.1. Precautions for safe handling

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Avoid contact with skin and eyes, inhalation of vapours and mists.  
Don't use empty container before they have been cleaned.  
Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.  
See also section 8 for recommended protective equipment.  
Advice on general occupational hygiene:  
Contaminated clothing should be changed before entering eating areas.  
Do not eat or drink while working.

#### 7.2. Conditions for safe storage, including any incompatibilities

Only store in the original container.  
Keep away from food, drink and feed.  
None in particular.  
Instructions as regards storage premises:  
Adequately ventilated premises.

#### 7.3. Specific end use(s)

None in particular

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## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

ethanediol; ethylene glycol - CAS: 107-21-1

EU - TWA(8h): 52 mg/m<sup>3</sup>, 20 ppm - STEL: 104 mg/m<sup>3</sup>, 40 ppm - Notes: Skin

ACGIH - STEL: 10 mg/m<sup>3</sup> - Notes: (I, H), A4 - URT irr

DYPHENYL OXYDE - CAS: 101-84-8

EU - TWA(8h): 7 mg/m<sup>3</sup>, 1 ppm - STEL: 14 mg/m<sup>3</sup>, 2 ppm

ACGIH - TWA(8h): 1 ppm - STEL: 2 ppm - Notes: (V) - URT and eye irr, nausea

toluene - CAS: 108-88-3

EU - TWA(8h): 192 mg/m<sup>3</sup>, 50 ppm - STEL: 384 mg/m<sup>3</sup>, 100 ppm - Notes: Skin

ACGIH - TWA(8h): 20 ppm - Notes: OTO; A4; BEI - CNS, visual & hearing impair; female repro system eff; pregnancy loss

### DNEL Exposure Limit Values

ethanediol; ethylene glycol - CAS: 107-21-1

Worker Professional: 35 mg/m<sup>3</sup> - Consumer: 7 mg/m<sup>3</sup> - Exposure: Human Inhalation

Worker Professional: 106 mg/kg - Consumer: 53 mg/kg - Exposure: Human Dermal

Esadeciltrimetilaammoniocloruro - CAS: 112-02-7

Worker Professional: 3.32 mg/m<sup>3</sup> - Consumer: 0.98 mg/m<sup>3</sup> - Exposure: Human

Inhalation - Frequency: Long Term, systemic effects

Worker Professional: 4.7 mg/kg - Consumer: 2.83 mg/kg - Exposure: Human Dermal -

Frequency: Long Term, systemic effects

Consumer: 2.83 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects

octamethylcyclotetrasiloxane; [D4] - CAS: 556-67-2

Worker Professional: 73 mg/m<sup>3</sup> - Consumer: 13 mg/m<sup>3</sup> - Exposure: Human Inhalation -

Frequency: Long Term, systemic effects

Worker Professional: 73 mg/m<sup>3</sup> - Consumer: 13 mg/m<sup>3</sup> - Exposure: Human Inhalation -

Frequency: Long Term, local effects

Consumer: 3.7 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects

DYPHENYL OXYDE - CAS: 101-84-8

Worker Industry: 59 mg/m<sup>3</sup> - Exposure: Human Inhalation - Frequency: Long Term, systemic effects

Worker Industry: 58.3 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects

Worker Industry: 9.68 mg/m<sup>3</sup> - Exposure: Human Inhalation - Frequency: Long Term, local effects

Worker Industry: 14 mg/m<sup>3</sup> - Exposure: Human Inhalation - Frequency: Short Term, local effects

### PNEC Exposure Limit Values

ethanediol; ethylene glycol - CAS: 107-21-1

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Target: Fresh Water - Value: 10 mg/l  
 Target: Marine water - Value: 1 mg/l  
 Target: Freshwater sediments - Value: 37 mg/kg  
 Target: Soil (agricultural) - Value: 1.53 mg/kg  
 Esadeciltrimetilaammoniocloruro - CAS: 112-02-7  
 Target: Fresh Water - Value: 0.00068 mg/l  
 Target: Marine water - Value: 0.000068 mg/l  
 Target: Freshwater sediments - Value: 9.27 mg/kg  
 Target: Marine water sediments - Value: 0.927 mg/kg  
 Target: 09 - Value: 0.4 mg/l  
 octamethylcyclotetrasiloxane; [D4] - CAS: 556-67-2  
 Target: Fresh Water - Value: 0.0015 mg/l  
 Target: Marine water - Value: 0.00015 mg/l  
 Target: Freshwater sediments - Value: 3 mg/kg  
 Target: Marine water sediments - Value: 0.3 mg/kg  
 Target: 09 - Value: 10 mg/l  
 DYPHENYL OXYDE - CAS: 101-84-8  
 Target: Fresh Water - Value: 0.0017 mg/l  
 Target: Marine water - Value: 0.00017 mg/l  
 Target: Freshwater sediments - Value: 0.345 mg/kg  
 Target: Marine water sediments - Value: 0.0345 mg/kg  
 Target: Soil (agricultural) - Value: 0.0681 mg/kg

8.2. Exposure controls

Eye protection:

Eye glasses with side protection.  
 Compliant with EN 166

Protection for skin:

protective clothing

Protection for hands:

Nitrile or Viton gloves.  
 Compliant with EN 374.  
 Thickness: Cuff 0.10 mm; Palm 0.12 mm; Fingers 0.145 mm

Respiratory protection:

Use a suitable respiratory protection device.

Thermal Hazards:

None

Environmental exposure controls:

None

Appropriate engineering controls:

None

**SECTION 9: Physical and chemical properties**

9.1. Information on basic physical and chemical properties

| Properties  | Value          | Method: | Notes: |
|---|----------------|---------|--------|
| Physical state:   | Liquid         | --      | --     |
| Colour:   | White          | --      | --     |
| Odour:  | Characteristic | --      | --     |
| Melting point/freezing point:                             | N.A.           | --      | --     |
| Boiling point or initial boiling point and boiling range: | N.A.           | --      | --     |

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|  |                                       |                |    |
|--|---------------------------------------|----------------|----|
| Flammability:                                      | N.A.                                  | --             | -- |
| Lower and upper explosion limit:                   | N.A.                                  | --             | -- |
| Flash point:                                       | >100°C                                | IP 170         | -- |
| Auto-ignition temperature:                         | N.A.                                  | --             | -- |
| Decomposition temperature:                         | N.A.                                  | --             | -- |
| pH:  | 7                                     | ASTM D1287     | -- |
| Kinematic viscosity:                               | N.A.                                  | --             | -- |
| Solubility in water:                               | Soluble                               | --             | -- |
| Solubility in oil:                                 | N.A.                                  | --             | -- |
| Partition coefficient n-octanol/water (log value): | N.A.                                  | --             | -- |
| Vapour pressure:                                   | N.A.                                  | --             | -- |
| Density and/or relative density:                   | 0,997 g/cm <sup>3</sup> (impregnante) | ASTM D 4052-96 | -- |
| Relative vapour density:                           | N.A.                                  | --             | -- |
| Particle characteristics:                          |                                       |                |    |
| Particle size:                                     | N.A.                                  | --             | -- |

9.2. Other information  
 No other relevant information

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**SECTION 10: Stability and reactivity**

- 10.1. Reactivity  
 Stable under normal conditions
- 10.2. Chemical stability  
 Stable at normal ambient temperatures and when used as recommended.
- 10.3. Possibility of hazardous reactions  
 None
- 10.4. Conditions to avoid  
 Stable under normal conditions.
- 10.5. Incompatible materials  
 None in particular.
- 10.6. Hazardous decomposition products  
 None.

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**SECTION 11: Toxicological information**

- 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008  
 Toxicological information of the product:  
 WIZZY PULISCI PLASTICA  
 a) acute toxicity

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- Not classified  
Based on available data, the classification criteria are not met
- b) skin corrosion/irritation  
Not classified  
Based on available data, the classification criteria are not met
- c) serious eye damage/irritation  
Not classified  
Based on available data, the classification criteria are not met
- d) respiratory or skin sensitisation  
The product is classified: Skin Sens. 1A H317
- e) germ cell mutagenicity  
Not classified  
Based on available data, the classification criteria are not met
- f) carcinogenicity  
Not classified  
Based on available data, the classification criteria are not met
- g) reproductive toxicity  
Not classified  
Based on available data, the classification criteria are not met
- h) STOT-single exposure  
Not classified  
Based on available data, the classification criteria are not met
- i) STOT-repeated exposure  
Not classified  
Based on available data, the classification criteria are not met
- j) aspiration hazard  
Not classified  
Based on available data, the classification criteria are not met
- Toxicological information of the main substances found in the product:
- ethanediol; ethylene glycol - CAS: 107-21-1
- a) acute toxicity:  
Test: LC50 - Route: Oral - Species: Rat 7712 mg/kg  
Test: LC50 - Route: Inhalation - Species: Rat 2.5 mg/l - Duration: 6h  
Test: LD50 - Route: Skin - Species: Mouse 3500 mg/kg
- Esadeciltrimetilaammoniocloruro - CAS: 112-02-7
- a) acute toxicity:  
Test: LD50 - Route: Oral - Species: Rat > 2000 mg/kg
- 1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one - CAS: 2634-33-5
- a) acute toxicity  
ATE - Oral 450 mg/kg bw  
ATE - Inhalation (Dust/mist) 0,21 mg/l  
Test: LD50 - Route: Oral - Species: Rat 1193 mg/kg  
Test: LD50 - Route: Skin - Species: Rat 4115 mg/kg
- b) skin corrosion/irritation:  
Test: Skin Irritant Positive
- c) serious eye damage/irritation:  
Test: Eye Corrosive Positive
- d) respiratory or skin sensitisation:  
Test: Skin Sensitization - Route: Skin Positive
- octamethylcyclotetrasiloxane; [D4] - CAS: 556-67-2
- a) acute toxicity:  
Test: LC50 - Route: Inhalation - Species: Rat > 36 mg/l  
Test: LD50 - Route: Oral - Species: Rat > 4800 mg/kg  
Test: LD50 - Route: Skin - Species: Rat > 2400 mg/kg
- DYPHENYL OXYDE - CAS: 101-84-8
- a) acute toxicity:  
Test: LD50 - Route: Oral - Species: Rat 2830 mg/kg  
Test: LD50 - Route: Skin - Species: Rabbit > 7940 mg/kg

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2-Methyl-2H-isothiazol-3-one - CAS: 2682-20-4

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat 120 mg/kg

Test: LC50 - Route: Inhalation - Species: Rat 0.11 mg/l - Duration: 4h

Test: LD50 - Route: Skin - Species: Rabbit 242 mg/kg

b) skin corrosion/irritation:

Test: Skin Corrosive - Route: Skin - Species: Rabbit Positive

c) serious eye damage/irritation:

Test: Eye Corrosive - Route: EYE - Species: Rabbit Positive

d) respiratory or skin sensitisation:

Test: Skin Sensitization - Route: Skin - Species: IND Positive

f) carcinogenicity:

Test: Carcinogeneticity Negative

h) STOT-single exposure:

Test: oecd 11 3

toluene - CAS: 108-88-3

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat > 5000 mg/kg

Test: LD50 - Route: Skin - Species: Rabbit > 5000 mg/kg

Test: LD50 - Route: Inhalation - Species: Rat > 20 mg/l - Duration: 4h

#### 11.2. Information on other hazards

Endocrine disrupting properties:

No endocrine disruptor substances present in concentration  $\geq 0.1\%$

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## SECTION 12: Ecological information

### 12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment.

ethanediol; ethylene glycol - CAS: 107-21-1

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish 49-72.86 GL - Duration h: 96

Endpoint: EC50 - Species: Daphnia 100 mg/l - Duration h: 48

Endpoint: LC50 - Species: Daphnia 74.448 GL - Duration h: 242

Endpoint: EC0 - Species: Daphnia 100 mg/l - Duration h: 48

Endpoint: CE4 - Species: Algae 10.94 GL - Duration h: 96

b) Aquatic chronic toxicity:

Endpoint: NOEC - Species: Fish 49 mg/l - Duration h: 504

Endpoint: LC50 - Species: Fish 1.5 GL - Duration h: 504

Endpoint: NOEC - Species: Daphnia 8.59-24 mg/l - Duration h: 168

Endpoint: NOEC - Species: Algae 1000 mg/l - Duration h: 72

Esadeciltrimetilaammoniocloruro - CAS: 112-02-7

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish > 100 mg/l - Duration h: 96

Endpoint: EC50 - Species: Daphnia > 100 mg/l - Duration h: 48

1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one - CAS: 2634-33-5

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish 2.18 mg/l - Duration h: 96

Endpoint: EC50 - Species: Daphnia 2.94 mg/l - Duration h: 48

Endpoint: CE6 - Species: Algae 0.11 mg/l - Duration h: 72

octamethylcyclotetrasiloxane; [D4] - CAS: 556-67-2

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish > 0.22 mg/l - Duration h: 96

Endpoint: LC50 - Species: Fish > 0.0063 mg/l - Duration h: 336

Endpoint: EC50 - Species: Daphnia > 0.015 mg/l - Duration h: 48

b) Aquatic chronic toxicity:

Endpoint: NOEC - Species: Fish > 0.0044 mg/l - Duration h: 2232

Endpoint: NOEC - Species: Daphnia 0.0079 mg/l - Duration h: 504

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- e) Plant toxicity:  
Endpoint: CE6 - Species: Algae > 0.022 mg/l - Duration h: 72  
DYPHENYL OXYDE - CAS: 101-84-8
- a) Aquatic acute toxicity:  
Endpoint: LC50 - Species: Fish 4.2 mg/l - Duration h: 96  
Endpoint: EC50 - Species: Daphnia 1.7 mg/l - Duration h: 48  
Endpoint: EC50 - Species: Algae 0.455 mg/l - Duration h: 72  
Endpoint: NOEC - Species: Algae 0.24 mg/l - Duration h: 72  
2-Methyl-2H-isothiazol-3-one - CAS: 2682-20-4
- a) Aquatic acute toxicity:  
Endpoint: LC50 - Species: Fish 4.77 mg/l - Duration h: 96  
Endpoint: EC50 - Species: Daphnia 0.93-1.9 mg/l - Duration h: 48  
Endpoint: EC50 - Species: Algae 0.0695 mg/l - Duration h: 24
- b) Aquatic chronic toxicity:  
Endpoint: NOEC - Species: Daphnia 0.04 mg/l - Duration h: 504  
Endpoint: NOEC - Species: Fish 2.1 mg/l - Duration h: 792
- 12.2. Persistence and degradability  
None  
ethanediol; ethylene glycol - CAS: 107-21-1  
Biodegradability: Readily biodegradable - Test: OECD TG 301 A - Duration: .10gg - %: 90-10  
Esadeciltrimetilaammoniocloruro - CAS: 112-02-7  
Biodegradability: Readily biodegradable  
1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one - CAS: 2634-33-5  
Biodegradability: Readily biodegradable - Test: BIOGDG06  
octamethylcyclotetrasiloxane; [D4] - CAS: 556-67-2  
Biodegradability: Non-readily biodegradable - Test: OECD TG 310 - Duration: 28gg - %: 3.7  
2-Methyl-2H-isothiazol-3-one - CAS: 2682-20-4  
Biodegradability: 4 - %: 0.38
- 12.3. Bioaccumulative potential  
ethanediol; ethylene glycol - CAS: 107-21-1  
Bioaccumulation: Not bioaccumulative  
octamethylcyclotetrasiloxane; [D4] - CAS: 556-67-2  
Test: BCF - Bioconcentration factor 12400  
Test: log Pow 6.49  
toluene - CAS: 108-88-3  
Bioaccumulation: Bioaccumulative - Test: BCF - Bioconcentration factor 90
- 12.4. Mobility in soil  
ethanediol; ethylene glycol - CAS: 107-21-1  
Mobility in soil: Mobile
- 12.5. Results of PBT and vPvB assessment  
PBT Substances:  
>= 0,001% - < 0,005% octamethylcyclotetrasiloxane; [D4] - CAS: 556-67-2  
vPvB Substances:  
>= 0,001% - < 0,005% octamethylcyclotetrasiloxane; [D4] - CAS: 556-67-2
- 12.6. Endocrine disrupting properties  
No endocrine disruptor substances present in concentration >= 0.1%
- 12.7. Other adverse effects  
None

---

## SECTION 13: Disposal considerations

- 13.1. Waste treatment methods  
Recover if possible. In so doing, comply with the local and national regulations currently in force.  
Additional disposal information:  
"Use in accordance with good working practices, avoiding dispersal in the environment.  
Do not discharge into drains, ground water or water courses. Comply with current legislation on

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### WIZZY PULISCI PLASTICA



the protection of water and soil from pollution (Legislative Decree No. 152 of 3/4/2006).

Dispose of used product and containers by handing them over to authorised companies, in accordance with the provisions of

Legislative Decree No. 152/2006 (Consolidated Environmental Act, which replaced the Ronchi Decree) as amended.

The used product is to be considered special waste to be classified in accordance with Directive No. 2008/98/EC on waste and related matters. Recover if possible. Send to authorised disposal plants or incineration under controlled conditions (152/2006 art. 184).

Act in accordance with the local and national laws in force.

Contaminated packaging must be emptied as far as possible. After cleaning, send to an authorised centre for recycling or disposal."

---

#### SECTION 14: Transport information

##### 14.1. UN number or ID number

Not classified as dangerous in the meaning of transport regulations.

##### 14.2. UN proper shipping name

N.A.

##### 14.3. Transport hazard class(es)

N.A.

##### 14.4. Packing group

N.A.

##### 14.5. Environmental hazards

ADR-Environmental Pollutant: No

IMDG-Marine pollutant: No

##### 14.6. Special precautions for user

N.A.

##### 14.7. Maritime transport in bulk according to IMO instruments

N.A.

---

#### SECTION 15: Regulatory information

##### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Dir. 98/24/EC (Risks related to chemical agents at work)

Dir. 2000/39/EC (Occupational exposure limit values)

Regulation (EC) n. 1907/2006 (REACH)

Regulation (EC) n. 1272/2008 (CLP)

Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013

Regulation (EU) n. 2020/878

Regulation (EU) n. 286/2011 (ATP 2 CLP)

Regulation (EU) n. 618/2012 (ATP 3 CLP)

Regulation (EU) n. 487/2013 (ATP 4 CLP)

Regulation (EU) n. 944/2013 (ATP 5 CLP)

Regulation (EU) n. 605/2014 (ATP 6 CLP)

Regulation (EU) n. 2015/1221 (ATP 7 CLP)

Regulation (EU) n. 2016/918 (ATP 8 CLP)

Regulation (EU) n. 2016/1179 (ATP 9 CLP)

Regulation (EU) n. 2017/776 (ATP 10 CLP)

Regulation (EU) n. 2018/669 (ATP 11 CLP)

Regulation (EU) n. 2018/1480 (ATP 13 CLP)

Regulation (EU) n. 2019/521 (ATP 12 CLP)

Regulation (EU) n. 2020/217 (ATP 14 CLP)

Regulation (EU) n. 2020/1182 (ATP 15 CLP)

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Regulation (EU) n. 2021/643 (ATP 16 CLP)

Regulation (EU) n. 2021/849 (ATP 17 CLP)

Regulation (EU) n. 2022/692 (ATP 18 CLP)

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Restrictions related to the product:

Restriction 3

Restrictions related to the substances contained:

Restriction 40

Restriction 48

Restriction 70

Restriction 75

Volatile Organic compounds - VOCs = 1.01 %

Volatile Organic compounds - VOCs = 10.12 g/Kg

Volatile Organic compounds - VOCs = 10.09 g/l

Where applicable, refer to the following regulatory provisions :

Directive 2012/18/EU (Seveso III)

Regulation (EC) nr 648/2004 (detergents).

Dir. 2004/42/EC (VOC directive)

SVHC Substances:

Substances in candidate list (Art. 59 Reg. 1907/2006, REACH):

octamethylcyclotetrasiloxane; [D4]

PBT, vPvB

Provisions related to directive EU 2012/18 (Seveso III):

Seveso III category according to Annex 1, part 1

None

#### 15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for the mixture.

Substances for which a Chemical Safety Assessment has been carried out:

ethanediol; ethylene glycol

---

## SECTION 16: Other information

Text of phrases referred to under heading 3:

H361f Suspected of damaging the unborn child.

H410 Very toxic to aquatic life with long lasting effects.

H302 Harmful if swallowed.

H373 (kidneys) (Oral) May cause damage to organs (kidneys) through prolonged or repeated exposure if swallowed.

H311 Toxic in contact with skin.

H400 Very toxic to aquatic life.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

H330 Fatal if inhaled.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H412 Harmful to aquatic life with long lasting effects.

H301 Toxic if swallowed.

EUH071 Corrosive to the respiratory tract.

EUH208 Contains (name of sensitising substance). May produce an allergic reaction.

H225 Highly flammable liquid and vapour.

H336 May cause drowsiness or dizziness.

H304 May be fatal if swallowed and enters airways.

H361 Suspected of damaging fertility or the unborn child.

H373 May cause damage to organs through prolonged or repeated exposure.

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**WIZZY PULISCI PLASTICA**



| <b>Hazard class and hazard category</b> | <b>Code</b>  | <b>Description</b>   |
|---|--------------|--|
| Flam. Liq. 2                            | 2.6/2        | Flammable liquid, Category 2                                   |
| Acute Tox. 2                            | 3.1/2/Inhal  | Acute toxicity (inhalation), Category 2                        |
| Acute Tox. 3                            | 3.1/3/Dermal | Acute toxicity (dermal), Category 3                            |
| Acute Tox. 3                            | 3.1/3/Oral   | Acute toxicity (oral), Category 3                              |
| Acute Tox. 4                            | 3.1/4/Oral   | Acute toxicity (oral), Category 4                              |
| Asp. Tox. 1                             | 3.10/1       | Aspiration hazard, Category 1                                  |
| Skin Corr. 1B                           | 3.2/1B       | Skin corrosion, Category 1B                                    |
| Skin Corr. 1C                           | 3.2/1C       | Skin corrosion, Category 1C                                    |
| Skin Irrit. 2                           | 3.2/2        | Skin irritation, Category 2                                    |
| Eye Dam. 1                              | 3.3/1        | Serious eye damage, Category 1                                 |
| Eye Irrit. 2                            | 3.3/2        | Eye irritation, Category 2                                     |
| Skin Sens. 1A                           | 3.4.2/1A     | Skin Sensitisation, Category 1A                                |
| Repr. 2                                 | 3.7/2        | Reproductive toxicity, Category 2                              |
| STOT SE 3                               | 3.8/3        | Specific target organ toxicity - single exposure, Category 3   |
| STOT RE 2                               | 3.9/2        | Specific target organ toxicity - repeated exposure, Category 2 |
| Aquatic Acute 1                         | 4.1/A1       | Acute aquatic hazard, category 1                               |
| Aquatic Chronic 1                       | 4.1/C1       | Chronic (long term) aquatic hazard, category 1                 |
| Aquatic Chronic 3                       | 4.1/C3       | Chronic (long term) aquatic hazard, category 3                 |

Paragraphs modified from the previous revision:

- SECTION 1: Identification of the substance/mixture and of the company/undertaking
- SECTION 3: Composition/information on ingredients
- SECTION 5: Firefighting measures
- SECTION 6: Accidental release measures
- SECTION 7: Handling and storage
- SECTION 8: Exposure controls/personal protection
- SECTION 9: Physical and chemical properties
- SECTION 10: Stability and reactivity
- SECTION 11: Toxicological information
- SECTION 12: Ecological information
- SECTION 13: Disposal considerations
- SECTION 15: Regulatory information
- SECTION 16: Other information

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Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

| Classification according to Regulation (EC) Nr. 1272/2008 | Classification procedure |
|---|--------------------------|
| Skin Sens. 1A, H317                                       | Calculation method       |

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.

|             |  |
|-------------|--|
| ADR:        | European Agreement concerning the International Carriage of Dangerous Goods by Road. |
| ATE:        | Acute Toxicity Estimate  |
| ATEmix:     | Acute toxicity Estimate (Mixtures)   |
| CAS:        | Chemical Abstracts Service (division of the American Chemical Society).              |
| CLP:        | Classification, Labeling, Packaging.   |
| DNEL:       | Derived No Effect Level.   |
| EINECS:     | European Inventory of Existing Commercial Chemical Substances.                       |
| GefStoffVO: | Ordinance on Hazardous Substances, Germany.  |
| GHS:        | Globally Harmonized System of Classification and Labeling of Chemicals.              |
| IATA:       | International Air Transport Association.   |
| IATA-DGR:   | Dangerous Goods Regulation by the "International Air Transport Association" (IATA).  |
| ICAO:       | International Civil Aviation Organization.   |
| ICAO-TI:    | Technical Instructions by the "International Civil Aviation Organization" (ICAO).    |
| IMDG:       | International Maritime Code for Dangerous Goods.                                     |
| INCI:       | International Nomenclature of Cosmetic Ingredients.                                  |
| KSt:        | Explosion coefficient.   |
| LC50:       | Lethal concentration, for 50 percent of test population.                             |
| LD50:       | Lethal dose, for 50 percent of test population.                                      |
| NA:         | Not applicable   |
| PNEC:       | Predicted No Effect Concentration.   |
| RID:        | Regulation Concerning the International Transport of Dangerous Goods by Rail.        |
| STEL:       | Short Term Exposure limit.   |
| STOT:       | Specific Target Organ Toxicity.  |
| TLV:        | Threshold Limiting Value.  |
| TWA:        | Time-weighted average  |
| WGK:        | German Water Hazard Class.   |

# Exposure Scenario, 19/07/2019

| Substance identity |                 |
|--------------------|-----------------|
| Chemical name      | ETHYLENE GLYCOL |
| CAS No.            | 107-21-1        |
| EINECS No.         | 203-473-3       |

## Table of contents

1. **ES 1** Use at industrial site
2. **ES 2** Widespread use by professional workers
3. **ES 3** Widespread use by professional workers
4. **ES 4** Consumer use; Various products (PC9a, PC1, PC4, PC8, PC15)

## 1. ES 1 Use at industrial site

### 1.1 TITLE SECTION

|                        |                        |
|------------------------|------------------------|
| Exposure Scenario name | Use in cleaning agents |
| Date - Version         | 18/07/2019 - 1.0       |
| Life Cycle Stage       | Use at industrial site |
| Main user group        | Industrial uses        |
| Sector(s) of use       | Industrial uses (SU3)  |

#### Environment Contributing Scenario

|                |      |
|----------------|------|
| CS1 Covered by | ERC4 |
|----------------|------|

#### Worker Contributing Scenario

|                 |        |
|-----------------|--------|
| CS2 Industrial  | PROC1  |
| CS3 Industrial  | PROC2  |
| CS4 Industrial  | PROC3  |
| CS5 Industrial  | PROC4  |
| CS6 Industrial  | PROC8b |
| CS7 Industrial  | PROC7  |
| CS8 Industrial  | PROC8a |
| CS9 Industrial  | PROC10 |
| CS10 Industrial | PROC13 |

## 1.2 Conditions of use affecting exposure

### 1.2. CS1: Environment Contributing Scenario: Covered by (ERC4)

|                                  |  |
|----------------------------------|--|
| Environmental release categories | Use of non-reactive processing aid at industrial site (no inclusion into or onto article) (ERC4) |
|----------------------------------|--|

#### *Product (article) characteristics*

##### Physical form of product:

Liquid

##### Vapour pressure:

0.123 hPa

### 1.2. CS2: Worker Contributing Scenario: Industrial (PROC1)

|                    |  |
|--------------------|--|
| Process Categories | Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions (PROC1) |
|--------------------|--|

#### *Product (article) characteristics*

##### Concentration of substance in product:

Covers percentage substance in the product up to 100 %.

#### *Amount used, frequency and duration of use/exposure*

##### Duration:

Covers daily exposures up to 8 hours

##### Frequency:

Use frequency 240 days per year

#### *Conditions and measures related to personal protection, hygiene and health evaluation*

##### Personal protection

Wear suitable gloves tested to EN374.

### *Other conditions affecting worker exposure*

Indoor use

## **1.2. CS3: Worker Contributing Scenario: Industrial (PROC2)**

### **Process Categories**

Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions (PROC2)

### *Product (article) characteristics*

#### **Concentration of substance in product:**

Covers percentage substance in the product up to 100 %.

### *Amount used, frequency and duration of use/exposure*

#### **Duration:**

Covers daily exposures up to 8 hours

#### **Frequency:**

Use frequency 240 days per year

### *Conditions and measures related to personal protection, hygiene and health evaluation*

#### **Personal protection**

Wear suitable gloves tested to EN374.

### *Other conditions affecting worker exposure*

Indoor use

## **1.2. CS4: Worker Contributing Scenario: Industrial (PROC3)**

### **Process Categories**

Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition (PROC3)

### *Product (article) characteristics*

#### **Concentration of substance in product:**

Covers percentage substance in the product up to 100 %.

### *Amount used, frequency and duration of use/exposure*

#### **Duration:**

Covers daily exposures up to 8 hours

#### **Frequency:**

Use frequency 240 days per year

### *Conditions and measures related to personal protection, hygiene and health evaluation*

#### **Personal protection**

Wear suitable gloves tested to EN374.

### *Other conditions affecting worker exposure*

Indoor use

## **1.2. CS5: Worker Contributing Scenario: Industrial (PROC4)**

### **Process Categories**

Chemical production where opportunity for exposure arises (PROC4)

### *Product (article) characteristics*

#### **Concentration of substance in product:**

Covers percentage substance in the product up to 100 %.

### *Amount used, frequency and duration of use/exposure*

#### **Duration:**

Covers daily exposures up to 8 hours

#### **Frequency:**

Use frequency 240 days per year

### *Conditions and measures related to personal protection, hygiene and health evaluation*

**Personal protection**

Wear suitable gloves tested to EN374.

***Other conditions affecting worker exposure***

Indoor use

**1.2. CS6: Worker Contributing Scenario: Industrial (PROC8b)****Process Categories**

Transfer of substance or mixture (charging and discharging) at dedicated facilities (PROC8b)

***Product (article) characteristics*****Concentration of substance in product:**

Covers percentage substance in the product up to 100 %.

***Amount used, frequency and duration of use/exposure*****Duration:**

Covers daily exposures up to 8 hours

**Frequency:**

Use frequency 240 days per year

***Conditions and measures related to personal protection, hygiene and health evaluation*****Personal protection**

Wear suitable gloves tested to EN374.

***Other conditions affecting worker exposure***

Indoor use

**1.2. CS7: Worker Contributing Scenario: Industrial (PROC7)****Process Categories**

Industrial spraying (PROC7)

***Product (article) characteristics*****Concentration of substance in product:**

Covers percentage substance in the product up to 100 %.

***Amount used, frequency and duration of use/exposure*****Amounts used:**

Amount per use 1 L/min

**Duration:**

Covers daily exposures up to 8 hours

**Frequency:**

Use frequency 5 days per week

***Conditions and measures related to personal protection, hygiene and health evaluation*****Personal protection**

Wear suitable gloves tested to EN374.

Dermal - minimum efficiency of: 90 %

***Other conditions affecting worker exposure***

Indoor use

**Room size:** Covers use in room size of > 1000 m<sup>3</sup>**1.2. CS8: Worker Contributing Scenario: Industrial (PROC8a)****Process Categories**

Transfer of substance or mixture (charging and discharging) at non-dedicated facilities (PROC8a)

***Product (article) characteristics*****Concentration of substance in product:**

Covers percentage substance in the product up to 100 %.

### *Amount used, frequency and duration of use/exposure*

**Duration:**

Covers daily exposures up to 8 hours

**Frequency:**

Use frequency 240 days per year

### *Conditions and measures related to personal protection, hygiene and health evaluation*

**Personal protection**

Wear suitable gloves tested to EN374.

### *Other conditions affecting worker exposure*

Indoor use

**Ventilation rate:** > 90 %

## 1.2. CS9: Worker Contributing Scenario: Industrial (PROC10)

**Process Categories**

Roller application or brushing (PROC10)

### *Product (article) characteristics*

**Concentration of substance in product:**

Covers percentage substance in the product up to 100 %.

### *Amount used, frequency and duration of use/exposure*

**Duration:**

Covers daily exposures up to 8 hours

**Frequency:**

Use frequency 240 days per year

### *Conditions and measures related to personal protection, hygiene and health evaluation*

**Personal protection**

Wear suitable gloves tested to EN374.

Use suitable eye protection.

### *Other conditions affecting worker exposure*

Indoor use

## 1.2. CS10: Worker Contributing Scenario: Industrial (PROC13)

**Process Categories**

Treatment of articles by dipping and pouring (PROC13)

### *Product (article) characteristics*

**Concentration of substance in product:**

Covers percentage substance in the product up to 100 %.

### *Amount used, frequency and duration of use/exposure*

**Duration:**

Covers daily exposures up to 8 hours

**Frequency:**

Use frequency 240 days per year

### *Conditions and measures related to personal protection, hygiene and health evaluation*

**Personal protection**

Wear suitable gloves tested to EN374.

Use suitable eye protection.

### *Other conditions affecting worker exposure*

Indoor use

## 1.3 Exposure estimation and reference to its source

### 1.3. CS2: Worker Contributing Scenario: Industrial (PROC1)

| Exposure route, Health effect, Exposure indicator | Exposure level | Calculation method | Risk Characterization Ratio (RCR) |
|---|----------------|--------------------|-----------------------------------|
| inhalative, systemic, long-term                   | N/A            | EASY TRA v2.0      | 0.001                             |
| inhalative, local, long-term                      | N/A            | EASY TRA v2.0      | 0.001                             |
| dermal, systemic, long-term                       | N/A            | EASY TRA v2.0      | 0.003                             |
| combined routes, systemic, long-term              | N/A            | EASY TRA v2.0      | 0.004                             |

### 1.3. CS3: Worker Contributing Scenario: Industrial (PROC2)

| Exposure route, Health effect, Exposure indicator | Exposure level | Calculation method | Risk Characterization Ratio (RCR) |
|---|----------------|--------------------|-----------------------------------|
| inhalative, systemic, long-term                   | N/A            | EASY TRA v2.0      | 0.07                              |
| inhalative, local, long-term                      | N/A            | EASY TRA v2.0      | 0.07                              |
| dermal, systemic, long-term                       | N/A            | EASY TRA v2.0      | 0.01                              |
| combined routes, systemic, long-term              | N/A            | EASY TRA v2.0      | 0.08                              |

### 1.3. CS4: Worker Contributing Scenario: Industrial (PROC3)

| Exposure route, Health effect, Exposure indicator | Exposure level | Calculation method | Risk Characterization Ratio (RCR) |
|---|----------------|--------------------|-----------------------------------|
| inhalative, systemic, long-term                   | N/A            | EASY TRA v2.0      | 0.22                              |
| inhalative, local, long-term                      | N/A            | EASY TRA v2.0      | 0.22                              |
| dermal, systemic, long-term                       | N/A            | EASY TRA v2.0      | 0.003                             |
| combined routes, systemic, long-term              | N/A            | EASY TRA v2.0      | 0.223                             |

### 1.3. CS5: Worker Contributing Scenario: Industrial (PROC4)

| Exposure route, Health effect, Exposure indicator | Exposure level | Calculation method | Risk Characterization Ratio (RCR) |
|---|----------------|--------------------|-----------------------------------|
| inhalative, systemic, long-term                   | N/A            | EASY TRA v2.0      | 0.37                              |
| inhalative, local, long-term                      | N/A            | EASY TRA v2.0      | 0.37                              |
| dermal, systemic, long-term                       | N/A            | EASY TRA v2.0      | 0.06                              |
| combined routes, systemic, long-term              | N/A            | EASY TRA v2.0      | 0.43                              |

### 1.3. CS6: Worker Contributing Scenario: Industrial (PROC8b)

| Exposure route, Health effect, Exposure indicator | Exposure level | Calculation method | Risk Characterization Ratio (RCR) |
|---|----------------|--------------------|-----------------------------------|
| inhalative, systemic, long-term                   | N/A            | EASY TRA v2.0      | 0.37                              |

|                                      |     |               |      |
|--------------------------------------|-----|---------------|------|
| inhalative, local, long-term         | N/A | EASY TRA v2.0 | 0.37 |
| dermal, systemic, long-term          | N/A | EASY TRA v2.0 | 0.06 |
| combined routes, systemic, long-term | N/A | EASY TRA v2.0 | 0.43 |

### 1.3. CS7: Worker Contributing Scenario: Industrial (PROC7)

| Exposure route, Health effect, Exposure indicator | Exposure level | Calculation method | Risk Characterization Ratio (RCR) |
|---|----------------|--------------------|-----------------------------------|
| inhalative, systemic, long-term                   | N/A            | EASY TRA v2.0      | 0.28                              |
| inhalative, local, long-term                      | N/A            | EASY TRA v2.0      | 0.28                              |
| dermal, systemic, long-term                       | N/A            | EASY TRA v2.0      | 0.52                              |
| combined routes, systemic, long-term              | N/A            | EASY TRA v2.0      | 0.8                               |

### 1.3. CS8: Worker Contributing Scenario: Industrial (PROC8a)

| Exposure route, Health effect, Exposure indicator | Exposure level | Calculation method | Risk Characterization Ratio (RCR) |
|---|----------------|--------------------|-----------------------------------|
| inhalative, systemic, long-term                   | N/A            | EASY TRA v2.0      | 0.37                              |
| inhalative, local, long-term                      | N/A            | EASY TRA v2.0      | 0.37                              |
| dermal, systemic, long-term                       | N/A            | EASY TRA v2.0      | 0.06                              |
| combined routes, systemic, long-term              | N/A            | EASY TRA v2.0      | 0.43                              |

### 1.3. CS9: Worker Contributing Scenario: Industrial (PROC10)

| Exposure route, Health effect, Exposure indicator | Exposure level | Calculation method | Risk Characterization Ratio (RCR) |
|---|----------------|--------------------|-----------------------------------|
| inhalative, systemic, long-term                   | N/A            | EASY TRA v2.0      | 0.74                              |
| inhalative, local, long-term                      | N/A            | EASY TRA v2.0      | 0.74                              |
| dermal, systemic, long-term                       | N/A            | EASY TRA v2.0      | 0.03                              |
| combined routes, systemic, long-term              | N/A            | EASY TRA v2.0      | 0.77                              |

### 1.3. CS10: Worker Contributing Scenario: Industrial (PROC13)

| Exposure route, Health effect, Exposure indicator | Exposure level | Calculation method | Risk Characterization Ratio (RCR) |
|---|----------------|--------------------|-----------------------------------|
| inhalative, systemic, long-term                   | N/A            | EASY TRA v2.0      | 0.74                              |
| inhalative, local, long-term                      | N/A            | EASY TRA v2.0      | 0.74                              |
| dermal, systemic, long-term                       | N/A            | EASY TRA v2.0      | 0.01                              |

|                                      |     |               |      |
|--------------------------------------|-----|---------------|------|
| combined routes, systemic, long-term | N/A | EASY TRA v2.0 | 0.75 |
|--------------------------------------|-----|---------------|------|

## 1.4 Guidance to DU to evaluate whether he works inside the boundaries set by the ES

**Guidance to check compliance with the exposure scenario:**  
Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

## 2. ES 2 Widespread use by professional workers

### 2.1 TITLE SECTION

|                        |  |
|------------------------|--|
| Exposure Scenario name | Use in cleaning agents                 |
| Date - Version         | 19/07/2019 - 1.0                       |
| Life Cycle Stage       | Widespread use by professional workers |
| Main user group        | Professional uses                      |
| Sector(s) of use       | Professional uses (SU22)               |

#### Environment Contributing Scenario

|                |               |
|----------------|---------------|
| CS1 Covered by | ERC8a - ERC8d |
|----------------|---------------|

#### Worker Contributing Scenario

|  |        |
|--|--------|
| CS2 General use from professional operators  | PROC1  |
| CS3 General use from professional operators  | PROC2  |
| CS4 General use from professional operators  | PROC3  |
| CS5 General use from professional operators  | PROC4  |
| CS6 General use from professional operators  | PROC8b |
| CS7 General use from professional operators  | PROC8a |
| CS8 General use from professional operators  | PROC10 |
| CS9 General use from professional operators  | PROC11 |
| CS10 General use from professional operators | PROC13 |

## 2.2 Conditions of use affecting exposure

### 2.2. CS1: Environment Contributing Scenario: Covered by (ERC8a, ERC8d)

|                                  |   |
|----------------------------------|---|
| Environmental release categories | Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor) -<br>Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor)<br>(ERC8a, ERC8d) |
|----------------------------------|---|

#### *Product (article) characteristics*

##### Physical form of product:

Liquid

##### Vapour pressure:

0.123 hPa

### 2.2. CS2: Worker Contributing Scenario: General use from professional operators (PROC1)

|                    |  |
|--------------------|--|
| Process Categories | Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions (PROC1) |
|--------------------|--|

#### *Product (article) characteristics*

##### Physical form of product:

Liquid

##### Concentration of substance in product:

Covers percentage substance in the product up to 100 %.

#### *Amount used, frequency and duration of use/exposure*

**Duration:**

Covers daily exposures up to 8 hours

**Frequency:**

Use frequency 240 days per year

***Conditions and measures related to personal protection, hygiene and health evaluation*****Personal protection**

Wear suitable gloves tested to EN374.

Use suitable eye protection.

***Other conditions affecting worker exposure***

Indoor use

**2.2. CS3: Worker Contributing Scenario: General use from professional operators (PROC2)****Process Categories**

Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions (PROC2)

***Product (article) characteristics*****Physical form of product:**

Liquid

**Concentration of substance in product:**

Covers percentage substance in the product up to 100 %.

***Amount used, frequency and duration of use/exposure*****Duration:**

Covers daily exposures up to 8 hours

**Frequency:**

Use frequency 240 days per year

***Conditions and measures related to personal protection, hygiene and health evaluation*****Personal protection**

Wear suitable gloves tested to EN374.

Use suitable eye protection.

***Other conditions affecting worker exposure***

Indoor use

**2.2. CS4: Worker Contributing Scenario: General use from professional operators (PROC3)****Process Categories**

Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition (PROC3)

***Product (article) characteristics*****Physical form of product:**

Liquid

**Concentration of substance in product:**

Covers percentage substance in the product up to 100 %.

***Amount used, frequency and duration of use/exposure*****Duration:**

Covers daily exposures up to 8 hours

**Frequency:**

Use frequency 240 days per year

***Conditions and measures related to personal protection, hygiene and health evaluation*****Personal protection**

Wear suitable gloves tested to EN374.

Use suitable eye protection.

***Other conditions affecting worker exposure***

Indoor use

## 2.2. CS5: Worker Contributing Scenario: General use from professional operators (PROC4)

**Process Categories** Chemical production where opportunity for exposure arises (PROC4)

### *Product (article) characteristics*

**Physical form of product:**

Liquid

**Concentration of substance in product:**

Covers percentage substance in the product up to 100 %.

### *Amount used, frequency and duration of use/exposure*

**Duration:**

Covers daily exposures up to 8 hours

**Frequency:**

Use frequency 240 days per year

### *Conditions and measures related to personal protection, hygiene and health evaluation*

**Personal protection**

Wear suitable gloves tested to EN374.

Use suitable eye protection.

### *Other conditions affecting worker exposure*

Indoor use

## 2.2. CS6: Worker Contributing Scenario: General use from professional operators (PROC8b)

**Process Categories** Transfer of substance or mixture (charging and discharging) at dedicated facilities (PROC8b)

### *Product (article) characteristics*

**Physical form of product:**

Liquid

**Concentration of substance in product:**

Covers percentage substance in the product up to 100 %.

### *Amount used, frequency and duration of use/exposure*

**Duration:**

Covers daily exposures up to 8 hours

**Frequency:**

Use frequency 240 days per year

### *Conditions and measures related to personal protection, hygiene and health evaluation*

**Personal protection**

Wear suitable gloves tested to EN374.

Use suitable eye protection.

### *Other conditions affecting worker exposure*

Indoor use

## 2.2. CS7: Worker Contributing Scenario: General use from professional operators (PROC8a)

**Process Categories** Transfer of substance or mixture (charging and discharging) at non-dedicated facilities (PROC8a)

### *Product (article) characteristics*

**Physical form of product:**

Liquid

**Concentration of substance in product:**

Covers percentage substance in the product up to 100 %.

### *Amount used, frequency and duration of use/exposure*

**Duration:**

Covers daily exposures up to 8 hours

**Frequency:**

Use frequency 240 days per year

***Conditions and measures related to personal protection, hygiene and health evaluation*****Personal protection**

Wear suitable gloves tested to EN374.

Use suitable eye protection.

***Other conditions affecting worker exposure***

Indoor use

**Ventilation rate:** 80 %**2.2. CS8: Worker Contributing Scenario: General use from professional operators (PROC10)****Process Categories**

Roller application or brushing (PROC10)

***Product (article) characteristics*****Physical form of product:**

Liquid

**Concentration of substance in product:**

Covers percentage substance in the product up to 100 %.

***Amount used, frequency and duration of use/exposure*****Duration:**

Covers daily exposures up to 8 hours

**Frequency:**

Use frequency 240 days per year

***Conditions and measures related to personal protection, hygiene and health evaluation*****Personal protection**

Wear suitable gloves tested to EN374.

Use suitable eye protection.

Wear suitable respiratory protection.

Inhalation - minimum efficiency of: 80 %

***Other conditions affecting worker exposure***

Indoor use

**Ventilation rate:** 80 %**2.2. CS9: Worker Contributing Scenario: General use from professional operators (PROC11)****Process Categories**

Non industrial spraying (PROC11)

***Product (article) characteristics*****Physical form of product:**

Liquid

**Concentration of substance in product:**

Covers percentage substance in the product up to 100 %.

***Amount used, frequency and duration of use/exposure*****Amounts used:**

Amount per use 0.05 L/min

**Duration:**

Exposure duration 180 min

**Frequency:**

Use frequency < 5 days per week

### *Technical and organisational conditions and measures*

#### **Technical and organisational measures**

Provide a good standard of controlled ventilation (10 to 15 air changes per hour).

### *Conditions and measures related to personal protection, hygiene and health evaluation*

#### **Personal protection**

|   |  |
|---|--|
| Wear suitable gloves tested to EN374.<br>Use suitable eye protection. | Inhalation - minimum efficiency of: 90 % |
| Wear suitable respiratory protection.                                 | Inhalation - minimum efficiency of: 80 % |

### *Other conditions affecting worker exposure*

Indoor use

**Room size:** Covers use in room size of > 100 m<sup>3</sup>

**Ventilation rate:** 80 %

## **2.2. CS10: Worker Contributing Scenario: General use from professional operators (PROC13)**

**Process Categories** Treatment of articles by dipping and pouring (PROC13)

### *Product (article) characteristics*

#### **Physical form of product:**

Liquid

#### **Concentration of substance in product:**

Covers percentage substance in the product up to 100 %.

### *Amount used, frequency and duration of use/exposure*

#### **Duration:**

Covers daily exposures up to 8 hours

#### **Frequency:**

Use frequency < 240 days per year

### *Conditions and measures related to personal protection, hygiene and health evaluation*

#### **Personal protection**

|   |  |
|---|--|
| Wear suitable gloves tested to EN374.<br>Use suitable eye protection. | Inhalation - minimum efficiency of: 90 % |
|---|--|

### *Other conditions affecting worker exposure*

Indoor use

## **2.3 Exposure estimation and reference to its source**

### **2.3. CS2: Worker Contributing Scenario: General use from professional operators (PROC1)**

| <b>Exposure route, Health effect, Exposure indicator</b> | <b>Exposure level</b> | <b>Calculation method</b> | <b>Risk Characterization Ratio (RCR)</b> |
|--|-----------------------|---------------------------|--|
| dermal, systemic, long-term                              | N/A                   | ECETOC TRA worker v2.0    | 0.001                                    |
| dermal, local, long-term                                 | N/A                   | ECETOC TRA worker v2.0    | 0.001                                    |
| inhalative, systemic, long-term                          | N/A                   | ECETOC TRA worker v2.0    | 0.003                                    |

|                             |     |                        |       |
|-----------------------------|-----|------------------------|-------|
| dermal, systemic, long-term | N/A | ECETOC TRA worker v2.0 | 0.004 |
|-----------------------------|-----|------------------------|-------|

### 2.3. CS3: Worker Contributing Scenario: General use from professional operators (PROC2)

| Exposure route, Health effect, Exposure indicator | Exposure level | Calculation method     | Risk Characterization Ratio (RCR) |
|---|----------------|------------------------|-----------------------------------|
| dermal, systemic, long-term                       | N/A            | ECETOC TRA worker v2.0 | 0.37                              |
| dermal, local, long-term                          | N/A            | ECETOC TRA worker v2.0 | 0.37                              |
| inhalative, systemic, long-term                   | N/A            | ECETOC TRA worker v2.0 | 0.01                              |
| dermal, systemic, long-term                       | N/A            | ECETOC TRA worker v2.0 | 0.38                              |

### 2.3. CS4: Worker Contributing Scenario: General use from professional operators (PROC3)

| Exposure route, Health effect, Exposure indicator | Exposure level | Calculation method     | Risk Characterization Ratio (RCR) |
|---|----------------|------------------------|-----------------------------------|
| dermal, systemic, long-term                       | N/A            | ECETOC TRA worker v2.0 | 0.22                              |
| dermal, local, long-term                          | N/A            | ECETOC TRA worker v2.0 | 0.22                              |
| inhalative, systemic, long-term                   | N/A            | ECETOC TRA worker v2.0 | 0.003                             |
| dermal, systemic, long-term                       | N/A            | ECETOC TRA worker v2.0 | 0.223                             |

### 2.3. CS5: Worker Contributing Scenario: General use from professional operators (PROC4)

| Exposure route, Health effect, Exposure indicator | Exposure level | Calculation method     | Risk Characterization Ratio (RCR) |
|---|----------------|------------------------|-----------------------------------|
| dermal, systemic, long-term                       | N/A            | ECETOC TRA worker v2.0 | 0.74                              |
| dermal, local, long-term                          | N/A            | ECETOC TRA worker v2.0 | 0.74                              |
| inhalative, systemic, long-term                   | N/A            | ECETOC TRA worker v2.0 | 0.006                             |
| dermal, systemic, long-term                       | N/A            | ECETOC TRA worker v2.0 | 0.8                               |

### 2.3. CS6: Worker Contributing Scenario: General use from professional operators (PROC8b)

| Exposure route, Health effect, Exposure indicator | Exposure level | Calculation method     | Risk Characterization Ratio (RCR) |
|---|----------------|------------------------|-----------------------------------|
| dermal, systemic, long-term                       | N/A            | ECETOC TRA worker v2.0 | 0.74                              |
| dermal, local, long-term                          | N/A            | ECETOC TRA worker v2.0 | 0.74                              |
| inhalative, systemic, long-term                   | N/A            | ECETOC TRA worker v2.0 | 0.06                              |
| dermal, systemic, long-term                       | N/A            | ECETOC TRA worker v2.0 | 0.8                               |

### 2.3. CS7: Worker Contributing Scenario: General use from professional operators (PROC8a)

| Exposure route, Health effect, Exposure indicator | Exposure level | Calculation method     | Risk Characterization Ratio (RCR) |
|---|----------------|------------------------|-----------------------------------|
| dermal, systemic, long-term                       | N/A            | ECETOC TRA worker v2.0 | 0.37                              |
| dermal, local, long-term                          | N/A            | ECETOC TRA worker v2.0 | 0.37                              |
| inhalative, systemic, long-term                   | N/A            | ECETOC TRA worker v2.0 | 0.13                              |
| dermal, systemic, long-term                       | N/A            | ECETOC TRA worker v2.0 | 0.5                               |

### 2.3. CS8: Worker Contributing Scenario: General use from professional operators (PROC10)

| Exposure route, Health effect, Exposure indicator | Exposure level | Calculation method     | Risk Characterization Ratio (RCR) |
|---|----------------|------------------------|-----------------------------------|
| dermal, systemic, long-term                       | N/A            | ECETOC TRA worker v2.0 | 0.37                              |
| dermal, local, long-term                          | N/A            | ECETOC TRA worker v2.0 | 0.37                              |
| inhalative, systemic, long-term                   | N/A            | ECETOC TRA worker v2.0 | 0.3                               |
| dermal, systemic, long-term                       | N/A            | ECETOC TRA worker v2.0 | 0.4                               |

### 2.3. CS9: Worker Contributing Scenario: General use from professional operators (PROC11)

| Exposure route, Health effect, Exposure indicator | Exposure level | Calculation method     | Risk Characterization Ratio (RCR) |
|---|----------------|------------------------|-----------------------------------|
| dermal, systemic, long-term                       | N/A            | ECETOC TRA worker v2.0 | 0.4                               |
| dermal, local, long-term                          | N/A            | ECETOC TRA worker v2.0 | 0.4                               |
| inhalative, systemic, long-term                   | N/A            | ECETOC TRA worker v2.0 | 0.51                              |
| dermal, systemic, long-term                       | N/A            | ECETOC TRA worker v2.0 | 0.91                              |

### 2.3. CS10: Worker Contributing Scenario: General use from professional operators (PROC13)

| Exposure route, Health effect, Exposure indicator | Exposure level | Calculation method     | Risk Characterization Ratio (RCR) |
|---|----------------|------------------------|-----------------------------------|
| dermal, systemic, long-term                       | N/A            | ECETOC TRA worker v2.0 | 0.74                              |
| dermal, local, long-term                          | N/A            | ECETOC TRA worker v2.0 | 0.74                              |
| inhalative, systemic, long-term                   | N/A            | ECETOC TRA worker v2.0 | 0.01                              |
| dermal, systemic, long-term                       | N/A            | ECETOC TRA worker v2.0 | 0.75                              |

## 2.4 Guidance to DU to evaluate whether he works inside the boundaries set by the ES

**Guidance to check compliance with the exposure scenario:**

Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

### 3. ES 3 Widespread use by professional workers

#### 3.1 TITLE SECTION

|                        |  |
|------------------------|--|
| Exposure Scenario name | Use in antifreeze products             |
| Date - Version         | 19/07/2019 - 1.0                       |
| Life Cycle Stage       | Widespread use by professional workers |
| Main user group        | Professional uses                      |
| Sector(s) of use       | Professional uses (SU22)               |

#### Environment Contributing Scenario

|                |       |
|----------------|-------|
| CS1 Covered by | ERC8d |
|----------------|-------|

#### Worker Contributing Scenario

|   |        |
|---|--------|
| CS2 General use from professional operators | PROC1  |
| CS3 General use from professional operators | PROC2  |
| CS4 General use from professional operators | PROC8a |
| CS5 General use from professional operators | PROC8b |
| CS6 General use from professional operators | PROC11 |

### 3.2 Conditions of use affecting exposure

#### 3.2. CS1: Environment Contributing Scenario: Covered by (ERC8d)

|                                  |  |
|----------------------------------|--|
| Environmental release categories | Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor) (ERC8d) |
|----------------------------------|--|

#### *Product (article) characteristics*

##### Physical form of product:

Liquid

##### Vapour pressure:

0.123 hPa

#### 3.2. CS2: Worker Contributing Scenario: General use from professional operators (PROC1)

|                    |  |
|--------------------|--|
| Process Categories | Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions (PROC1) |
|--------------------|--|

#### *Product (article) characteristics*

##### Concentration of substance in product:

Covers percentage substance in the product up to 100 %.

#### *Amount used, frequency and duration of use/exposure*

##### Duration:

Covers daily exposures up to 8 hours

##### Frequency:

Covers exposure up to 240 days per year

#### *Technical and organisational conditions and measures*

##### Technical and organisational measures

Use in contained systems

#### *Conditions and measures related to personal protection, hygiene and health evaluation*

##### Personal protection

Wear suitable gloves tested to EN374.

### *Other conditions affecting worker exposure*

Indoor use

### **3.2. CS3: Worker Contributing Scenario: General use from professional operators (PROC2)**

|                           |  |
|---------------------------|--|
| <b>Process Categories</b> | Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions (PROC2) |
|---------------------------|--|

### *Product (article) characteristics*

#### **Concentration of substance in product:**

Covers percentage substance in the product up to 100 %.

### *Amount used, frequency and duration of use/exposure*

#### **Duration:**

Covers daily exposures up to 8 hours

#### **Frequency:**

Covers exposure up to 240 days per year

### *Technical and organisational conditions and measures*

#### **Technical and organisational measures**

Use in contained systems

### *Conditions and measures related to personal protection, hygiene and health evaluation*

#### **Personal protection**

Wear suitable gloves tested to EN374.

### *Other conditions affecting worker exposure*

Indoor use

### **3.2. CS4: Worker Contributing Scenario: General use from professional operators (PROC8a)**

|                           |  |
|---------------------------|--|
| <b>Process Categories</b> | Transfer of substance or mixture (charging and discharging) at non-dedicated facilities (PROC8a) |
|---------------------------|--|

### *Product (article) characteristics*

#### **Concentration of substance in product:**

Covers percentage substance in the product up to 100 %.

### *Amount used, frequency and duration of use/exposure*

#### **Duration:**

Covers daily exposures up to 8 hours

#### **Frequency:**

Covers exposure up to 240 days per year

### *Technical and organisational conditions and measures*

#### **Technical and organisational measures**

Use in contained systems

### *Conditions and measures related to personal protection, hygiene and health evaluation*

#### **Personal protection**

|                                       |  |
|---------------------------------------|--|
| Wear suitable gloves tested to EN374. |  |
| Wear suitable respiratory protection. | Inhalation - minimum efficiency of: 80 % |

### *Other conditions affecting worker exposure*

Indoor use

**Ventilation rate:** 80 %

### **3.2. CS5: Worker Contributing Scenario: General use from professional operators (PROC8b)**

|                           |  |
|---------------------------|--|
| <b>Process Categories</b> | Transfer of substance or mixture (charging and discharging) at dedicated facilities (PROC8b) |
|---------------------------|--|

### *Product (article) characteristics*

**Concentration of substance in product:**

Covers percentage substance in the product up to 100 %.

### *Amount used, frequency and duration of use/exposure*

**Duration:**

Covers daily exposures up to 8 hours

**Frequency:**

Covers exposure up to 240 days per year

### *Technical and organisational conditions and measures*

**Technical and organisational measures**

Use in contained systems

### *Conditions and measures related to personal protection, hygiene and health evaluation*

**Personal protection**

Wear suitable gloves tested to EN374.

### *Other conditions affecting worker exposure*

Indoor use

## 3.2. CS6: Worker Contributing Scenario: General use from professional operators (PROC11)

**Process Categories**

Non industrial spraying (PROC11)

### *Product (article) characteristics*

**Concentration of substance in product:**

Covers percentage substance in the product up to 100 %.

### *Amount used, frequency and duration of use/exposure*

**Duration:**

Exposure duration 180 min

**Frequency:**

Covers exposure up to 5 days per week

### *Technical and organisational conditions and measures*

**Technical and organisational measures**

Use in contained systems

### *Conditions and measures related to personal protection, hygiene and health evaluation*

**Personal protection**

Wear suitable gloves tested to EN374.

Dermal - minimum efficiency of: 90 %

### *Other conditions affecting worker exposure*

Indoor use

**Room size:** Covers use in room size of > 100 m<sup>3</sup>

## 3.3 Exposure estimation and reference to its source

### 3.3. CS2: Worker Contributing Scenario: General use from professional operators (PROC1)

| Exposure route, Health effect, Exposure indicator | Exposure level | Calculation method | Risk Characterization Ratio (RCR) |
|---|----------------|--------------------|-----------------------------------|
| inhalative, systemic, long-term                   | N/A            | EASY TRA v2.0      | 0.001                             |
| inhalative, local, long-term                      | N/A            | EASY TRA v2.0      | 0.001                             |
| dermal, systemic, long-term                       | N/A            | EASY TRA v2.0      | 0.003                             |

|                                      |     |               |       |
|--------------------------------------|-----|---------------|-------|
| combined routes, systemic, long-term | N/A | EASY TRA v2.0 | 0.004 |
|--------------------------------------|-----|---------------|-------|

### 3.3. CS3: Worker Contributing Scenario: General use from professional operators (PROC2)

| Exposure route, Health effect, Exposure indicator | Exposure level | Calculation method | Risk Characterization Ratio (RCR) |
|---|----------------|--------------------|-----------------------------------|
| inhalative, systemic, long-term                   | N/A            | EASY TRA v2.0      | 0.37                              |
| inhalative, local, long-term                      | N/A            | EASY TRA v2.0      | 0.37                              |
| dermal, systemic, long-term                       | N/A            | EASY TRA v2.0      | 0.01                              |
| combined routes, systemic, long-term              | N/A            | EASY TRA v2.0      | 0.38                              |

### 3.3. CS4: Worker Contributing Scenario: General use from professional operators (PROC8a)

| Exposure route, Health effect, Exposure indicator | Exposure level | Calculation method | Risk Characterization Ratio (RCR) |
|---|----------------|--------------------|-----------------------------------|
| inhalative, systemic, long-term                   | N/A            | EASY TRA v2.0      | 0.37                              |
| inhalative, local, long-term                      | N/A            | EASY TRA v2.0      | 0.37                              |
| dermal, systemic, long-term                       | N/A            | EASY TRA v2.0      | 0.13                              |
| combined routes, systemic, long-term              | N/A            | EASY TRA v2.0      | 0.5                               |

### 3.3. CS5: Worker Contributing Scenario: General use from professional operators (PROC8b)

| Exposure route, Health effect, Exposure indicator | Exposure level | Calculation method | Risk Characterization Ratio (RCR) |
|---|----------------|--------------------|-----------------------------------|
| inhalative, systemic, long-term                   | N/A            | EASY TRA v2.0      | 0.74                              |
| inhalative, local, long-term                      | N/A            | EASY TRA v2.0      | 0.74                              |
| dermal, systemic, long-term                       | N/A            | EASY TRA v2.0      | 0.06                              |
| combined routes, systemic, long-term              | N/A            | EASY TRA v2.0      | 0.8                               |

### 3.3. CS6: Worker Contributing Scenario: General use from professional operators (PROC11)

| Exposure route, Health effect, Exposure indicator | Exposure level | Calculation method | Risk Characterization Ratio (RCR) |
|---|----------------|--------------------|-----------------------------------|
| inhalative, systemic, long-term                   | N/A            | EASY TRA v2.0      | 0.4                               |
| inhalative, local, long-term                      | N/A            | EASY TRA v2.0      | 0.4                               |
| dermal, systemic, long-term                       | N/A            | EASY TRA v2.0      | 0.51                              |
| combined routes, systemic, long-term              | N/A            | EASY TRA v2.0      | 0.91                              |

## 3.4 Guidance to DU to evaluate whether he works inside the boundaries set by the ES

### **Guidance to check compliance with the exposure scenario:**

Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

## 4. ES 4 Consumer use; Various products (PC9a, PC1, PC4, PC8, PC15)

### 4.1 TITLE SECTION

|                               |  |
|-------------------------------|--|
| <b>Exposure Scenario name</b> | Consumer goods   |
| <b>Date - Version</b>         | 19/07/2019 - 1.0   |
| <b>Life Cycle Stage</b>       | Consumer use   |
| <b>Main user group</b>        | Consumer uses  |
| <b>Product Categories</b>     | Coatings and paints, thinners, paint removers (PC9a) - Adhesives, sealants (PC1) - Anti-freeze and de-icing products (PC4) - Biocidal products (PC8) - Non-metal surface treatment products (PC15) - Heat transfer fluids (PC16) - Hydraulic fluids (PC17) - Ink and toners (PC18) - Leather treatment products (PC23) - Polishes and wax blends (PC31) - Polymer preparations and compounds (PC32) - Textile dyes and impregnating products (PC34) - Washing and cleaning products (PC35) |

### Environment Contributing Scenario

|                       |   |
|-----------------------|---|
| <b>CS1 Covered by</b> | ERC8a - ERC8c - ERC8d - ERC8f - ERC9a - ERC9b |
|-----------------------|---|

### Consumer Contributing Scenario

|                      |                                     |
|----------------------|-------------------------------------|
| <b>CS2 Consumer</b>  | PC1                                 |
| <b>CS3 Consumer</b>  | PC4 - PC16 - PC17 - PC4_1           |
| <b>CS4 Consumer</b>  | PC4 - PC4_2                         |
| <b>CS5 Consumer</b>  | PC9a - PC15 - PC9a_2, PC15_2        |
| <b>CS6 Consumer</b>  | PC8                                 |
| <b>CS7 Consumer</b>  | PC18                                |
| <b>CS8 Consumer</b>  | PC31                                |
| <b>CS9 Consumer</b>  | PC32                                |
| <b>CS10 Consumer</b> | PC35 - PC8_2, PC35_2                |
| <b>CS11 Consumer</b> | PC35 - PC8_3, PC35_3                |
| <b>CS12 Consumer</b> | PC15 - PC23 - PC34 - PC9a_1, PC15_1 |

## 4.2 Conditions of use affecting exposure

### 4.2. CS1: Environment Contributing Scenario: Covered by (ERC8a, ERC8c, ERC8d, ERC8f, ERC9a, ERC9b)

|   |   |
|---|---|
| <b>Environmental release categories</b> | Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor) - Widespread use leading to inclusion into/onto article (indoor) - Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor) - Widespread use leading to inclusion into/onto article (outdoor) - Widespread use of functional fluid (indoor) - Widespread use of functional fluid (outdoor) (ERC8a, ERC8c, ERC8d, ERC8f, ERC9a, ERC9b) |
|---|---|

### *Product (article) characteristics*

#### **Physical form of product:**

Liquid

#### **Concentration of substance in product:**

Covers percentage substance in the product up to 100 %.

### 4.2. CS2: Consumer Contributing Scenario: Consumer (PC1)

|                           |                           |
|---------------------------|---------------------------|
| <b>Product Categories</b> | Adhesives, sealants (PC1) |
|---------------------------|---------------------------|

|  |   |
|--|---|
| <i>Product (article) characteristics</i>   |   |
| <b>Concentration of substance in product:</b><br>Covers concentrations up to 0.75 %                      |   |
| <b>4.2. CS3: Consumer Contributing Scenario: Consumer (PC4, PC16, PC17)</b>                              |   |
| <b>Product Categories</b>  | Anti-freeze and de-icing products - Heat transfer fluids - Hydraulic fluids (PC4, PC16, PC17)     |
| <b>Product (Sub-)Categories</b>  | Washing car window (PC4_1)  |
| <i>Product (article) characteristics</i>   |   |
| <b>Concentration of substance in product:</b><br>Covers concentrations up to 45 %                        |   |
| <i>Amount used, frequency and duration of use/exposure</i>   |   |
| <b>Duration:</b><br>Exposure duration < 15 min   |   |
| <b>4.2. CS4: Consumer Contributing Scenario: Consumer (PC4)</b>  |   |
| <b>Product Categories</b>  | Anti-freeze and de-icing products (PC4)   |
| <b>Product (Sub-)Categories</b>  | Pouring into radiator (PC4_2)   |
| <i>Product (article) characteristics</i>   |   |
| <b>Concentration of substance in product:</b><br>Covers percentage substance in the product up to 100 %. |   |
| <b>4.2. CS5: Consumer Contributing Scenario: Consumer (PC9a, PC15)</b>                                   |   |
| <b>Product Categories</b>  | Coatings and paints, thinners, paint removers - Non-metal surface treatment products (PC9a, PC15) |
| <b>Product (Sub-)Categories</b>  | Solvent rich, high solid, water borne paint (PC9a_2, PC15_2)                                      |
| <i>Product (article) characteristics</i>   |   |
| <b>Concentration of substance in product:</b><br>Covers concentrations up to 10 %                        |   |
| <b>4.2. CS6: Consumer Contributing Scenario: Consumer (PC8)</b>  |   |
| <b>Product Categories</b>  | Biocidal products (PC8)   |
| <b>4.2. CS7: Consumer Contributing Scenario: Consumer (PC18)</b>   |   |
| <b>Product Categories</b>  | Ink and toners (PC18)   |
| <i>Product (article) characteristics</i>   |   |
| <b>Concentration of substance in product:</b><br>Covers percentage substance in the product up to 5 %.   |   |
| <b>4.2. CS8: Consumer Contributing Scenario: Consumer (PC31)</b>   |   |
| <b>Product Categories</b>  | Polishes and wax blends (PC31)  |
| <i>Product (article) characteristics</i>   |   |
| <b>Concentration of substance in product:</b><br>Covers concentrations up to 10 %                        |   |
| <b>4.2. CS9: Consumer Contributing Scenario: Consumer (PC32)</b>   |   |
| <b>Product Categories</b>  | Polymer preparations and compounds (PC32)   |
| <i>Product (article) characteristics</i>   |   |
| <b>Concentration of substance in product:</b><br>Covers percentage substance in the product up to 5 %.   |   |
| <b>4.2. CS10: Consumer Contributing Scenario: Consumer (PC35)</b>  |   |

|                                 |  |
|---------------------------------|--|
| <b>Product Categories</b>       | Washing and cleaning products (PC35)   |
| <b>Product (Sub-)Categories</b> | Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, glass cleaners, carpet cleaners, metal cleaners) (PC8_2, PC35_2) |

*Product (article) characteristics*

**Concentration of substance in product:**

Covers concentrations up to 20 %

**4.2. CS11: Consumer Contributing Scenario: Consumer (PC35)**

|                                 |  |
|---------------------------------|--|
| <b>Product Categories</b>       | Washing and cleaning products (PC35)   |
| <b>Product (Sub-)Categories</b> | Cleaners, trigger sprays (all purpose cleaners, sanitary products, glass cleaners) (PC8_3, PC35_3) |

*Product (article) characteristics*

**Concentration of substance in product:**

Covers percentage substance in the product up to 5 %.

**4.2. CS12: Consumer Contributing Scenario: Consumer (PC15, PC23, PC34)**

|                                 |   |
|---------------------------------|---|
| <b>Product Categories</b>       | Non-metal surface treatment products - Leather treatment products - Textile dyes and impregnating products (PC15, PC23, PC34) |
| <b>Product (Sub-)Categories</b> | Waterborne latex wall paint (PC9a_1, PC15_1)  |

**4.3 Exposure estimation and reference to its source**

**4.2. CS2: Consumer Contributing Scenario: Consumer (PC1)**

| Exposure route, Health effect, Exposure indicator | Exposure level | Calculation method | Risk Characterization Ratio (RCR) |
|---|----------------|--------------------|-----------------------------------|
| inhalative, systemic, long-term                   | N/A            | N/A                | 0.59                              |
| dermal, systemic, long-term                       | N/A            | N/A                | 0.005                             |
| combined routes, systemic, long-term              | N/A            | N/A                | 0.505                             |

**4.2. CS3: Consumer Contributing Scenario: Consumer (PC4, PC16, PC17)**

| Exposure route, Health effect, Exposure indicator | Exposure level | Calculation method | Risk Characterization Ratio (RCR) |
|---|----------------|--------------------|-----------------------------------|
| inhalative, systemic, long-term                   | N/A            | N/A                | 0.28                              |
| dermal, systemic, long-term                       | N/A            | N/A                | 0.08                              |
| combined routes, systemic, long-term              | N/A            | N/A                | 0.36                              |

**4.2. CS4: Consumer Contributing Scenario: Consumer (PC4)**

| Exposure route, Health effect, Exposure indicator | Exposure level | Calculation method | Risk Characterization Ratio (RCR) |
|---|----------------|--------------------|-----------------------------------|
| inhalative, systemic, long-term                   | N/A            | N/A                | 0                                 |
| dermal, systemic, long-term                       | N/A            | N/A                | 0.09                              |
| combined routes, systemic, long-term              | N/A            | N/A                | 0.09                              |

#### 4.2. CS5: Consumer Contributing Scenario: Consumer (PC9a, PC15)

| Exposure route, Health effect, Exposure indicator | Exposure level | Calculation method | Risk Characterization Ratio (RCR) |
|---|----------------|--------------------|-----------------------------------|
| inhalative, systemic, long-term                   | N/A            | N/A                | 0.04                              |
| dermal, systemic, long-term                       | N/A            | N/A                | 0.02                              |
| combined routes, systemic, long-term              | N/A            | N/A                | 0.06                              |

#### 4.2. CS6: Consumer Contributing Scenario: Consumer (PC8)

| Exposure route, Health effect, Exposure indicator | Exposure level | Calculation method | Risk Characterization Ratio (RCR) |
|---|----------------|--------------------|-----------------------------------|
| inhalative, systemic, long-term                   | N/A            | N/A                | 0                                 |
| dermal, systemic, long-term                       | N/A            | N/A                | 0.006                             |
| combined routes, systemic, long-term              | N/A            | N/A                | 0.006                             |

#### 4.2. CS7: Consumer Contributing Scenario: Consumer (PC18)

| Exposure route, Health effect, Exposure indicator | Exposure level | Calculation method | Risk Characterization Ratio (RCR) |
|---|----------------|--------------------|-----------------------------------|
| inhalative, systemic, long-term                   | N/A            | N/A                | 0.18                              |
| dermal, systemic, long-term                       | N/A            | N/A                | 0                                 |
| combined routes, systemic, long-term              | N/A            | N/A                | 0.18                              |

#### 4.2. CS8: Consumer Contributing Scenario: Consumer (PC31)

| Exposure route, Health effect, Exposure indicator | Exposure level | Calculation method | Risk Characterization Ratio (RCR) |
|---|----------------|--------------------|-----------------------------------|
| inhalative, systemic, long-term                   | N/A            | N/A                | 0.56                              |
| dermal, systemic, long-term                       | N/A            | N/A                | 0.04                              |
| combined routes, systemic, long-term              | N/A            | N/A                | 0.6                               |

#### 4.2. CS9: Consumer Contributing Scenario: Consumer (PC32)

| Exposure route, Health effect, Exposure indicator | Exposure level | Calculation method | Risk Characterization Ratio (RCR) |
|---|----------------|--------------------|-----------------------------------|
| inhalative, systemic, long-term                   | N/A            | N/A                | 0.009                             |
| dermal, systemic, long-term                       | N/A            | N/A                | 0.001                             |
| combined routes, systemic, long-term              | N/A            | N/A                | 0.01                              |

#### 4.2. CS10: Consumer Contributing Scenario: Consumer (PC35)

| Exposure route, Health effect, Exposure indicator | Exposure level | Calculation method | Risk Characterization Ratio (RCR) |
|---|----------------|--------------------|-----------------------------------|
| inhalative, systemic, long-term                   | N/A            | N/A                | 0.09                              |
| dermal, systemic, long-term                       | N/A            | N/A                | 0.22                              |
| combined routes, systemic, long-term              | N/A            | N/A                | 0.31                              |

#### 4.2. CS11: Consumer Contributing Scenario: Consumer (PC35)

| Exposure route, Health effect, Exposure indicator | Exposure level | Calculation method | Risk Characterization Ratio (RCR) |
|---|----------------|--------------------|-----------------------------------|
| inhalative, systemic, long-term                   | N/A            | N/A                | 0.02                              |
| dermal, systemic, long-term                       | N/A            | N/A                | 0.002                             |
| combined routes, systemic, long-term              | N/A            | N/A                | 0.022                             |

### 4.4 Guidance to DU to evaluate whether he works inside the boundaries set by the ES

#### Guidance to check compliance with the exposure scenario:

Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.