

Safety Data Sheet

Fresca Foglia DOG Balsamic



Safety Data Sheet dated 16/11/2021, version 5

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

1.1. Product identifier

Mixture identification:

Trade name: Fresca Foglia DOG Balsamic

Trade code: 1853

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended use:

Car air freshener

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: Beaumont Hospital - National Poisons Information Centre 01 809 2166 (7days, 8:00 - 22:00)

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 Irrit. 2, Causes skin irritation.

⚠ Warning, Eye Irrit. 2, Causes serious eye irritation.

⚠ Warning, Skin Sens. 1B, May cause an allergic skin reaction.

⚠ Aquatic Chronic 2, Toxic to aquatic life with long lasting effects.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Hazard pictograms:



Warning

Hazard statements:

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

H411 Toxic to aquatic life with long lasting effects.

Safety Data Sheet

Fresca Foglia DOG Balsamic



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.
- P273 Avoid release to the environment.
- P302+P352 IF ON SKIN: Wash with plenty of soap and water.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
- P337+P313 If eye irritation persists: Get medical advice/attention.
- P501 Dispose of contents/container in accordance with applicable regulations.

Special Provisions:

- EUH208 Contains Mentha Spicata herb oil (Chine). May produce an allergic reaction.
- EUH208 Contains Euclyptus Globulus leaf oil (Spain). May produce an allergic reaction.
- EUH208 Contains citral. May produce an allergic reaction.
- EUH208 Contains 3-(para-cumenyl)-2-methylpropanaldehyde. May produce an allergic reaction.
- EUH208 Contains BENZYL SALICYLATE. May produce an allergic reaction.
- EUH208 Contains Lemon terpenes. May produce an allergic reaction.
- EUH208 Contains Coumarin. May produce an allergic reaction.
- EUH208 Contains Carum Carvi fruit oil (Hungary). May produce an allergic reaction.
- EUH208 Contains Methoxyhydratropaldehyde. May produce an allergic reaction.
- EUH208 Contains Salvia Lavandulifolia herb oil (Spain). May produce an allergic reaction.
- EUH208 Contains Styrax Benzoin Gum extract (Sumatra). May produce an allergic reaction.
- EUH208 Contains alpha-Pinene. May produce an allergic reaction.
- EUH208 Contains Boswellia Carteri gum oil. May produce an allergic reaction.
- EUH208 Contains turpentine, oil. May produce an allergic reaction.
- EUH208 Contains HELIOTROPINE. May produce an allergic reaction.
- EUH208 Contains Tetramethylacetyloctahydronaphthalenes. May produce an allergic reaction.
- EUH208 Contains 2-METHOXY-4-(PROP-1-ENYL) PHENOL. May produce an allergic reaction.

Contains

(R)-p-mentha-1,8-diene; d-limonene

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

None

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:

$\geq 5\%$ - $< 7\%$ Mentha Spicata herb oil (Chine)

REACH No.: 17-2119419886-26, CAS: 8008-79-5, EC: 283-656-2

⚠ 3.1/4/Oral Acute Tox. 4 H302

⚠ 3.10/1 Asp. Tox. 1 H304

⚠ 3.2/2 Skin Irrit. 2 H315

⚠ 3.4.2/1 Skin Sens. 1 H317

⚠ 4.1/C2 Aquatic Chronic 2 H411

$\geq 3\%$ - $< 5\%$ L-Menthol nat

REACH No.: 01-2119458866-21, CAS: 2216-51-5, EC: 218-690-9

1853/5

Page n. 2 of 21

Safety Data Sheet

Fresca Foglia DOG Balsamic



⚠ 3.2/2 Skin Irrit. 2 H315

>= 3% - < 5% Mentha Pulegium herb oil

REACH No.: 17-2119422069-43, CAS: 8013-99-8, EC: 290-061-1

⚠ 3.1/4/Oral Acute Tox. 4 H302

⚠ 3.1/4/Dermal Acute Tox. 4 H312

⚠ 4.1/C2 Aquatic Chronic 2 H411

>= 3% - < 5% Ethyl linalool

REACH No.: 01-2119969272-32, CAS: 10339-55-6, EC: 233-732-6

⚠ 3.2/2 Skin Irrit. 2 H315

⚠ 3.3/2 Eye Irrit. 2 H319

>= 3% - < 5% Methoxymethylbutanol

REACH No.: 01-2119976333-33, CAS: 56539-66-3, EC: 260-252-4

⚠ 3.3/2 Eye Irrit. 2 H319

>= 3% - < 5% β -methyl-3-(1-methylethyl)-benzenepropanal

REACH No.: 01-2119858360-39, Index number: 605-028-00-2, CAS: 125109-85-5, EC: 412-050-4

⚠ 4.1/C2 Aquatic Chronic 2 H411

>= 2% - < 3% Euclyptus Globulus leaf oil (Spain)

REACH No.: 01-2119978250-37, CAS: 8000-48-4, EC: 283-406-2

⚠ 2.6/3 Flam. Liq. 3 H226

⚠ 3.10/1 Asp. Tox. 1 H304

⚠ 3.2/2 Skin Irrit. 2 H315

⚠ 3.4.2/1 Skin Sens. 1 H317

⚠ 4.1/C2 Aquatic Chronic 2 H411

>= 2% - < 3% 1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran; galaxolide; (HHCB)

REACH No.: 01-2119488227-29, Index number: 603-212-00-7, CAS: 1222-05-5, EC: 214-946-9

⚠ 4.1/A1 Aquatic Acute 1 H400

⚠ 4.1/C1 Aquatic Chronic 1 H410

>= 2% - < 3% tetrahydro-2-isobutyl-4-methylpyran-4-ol

REACH No.: 01-2119455547-30, Index number: 603-101-00-3, CAS: 63500-71-0, EC: 405-040-6

⚠ 3.3/2 Eye Irrit. 2 H319

>= 1% - < 2% (R)-p-mentha-1,8-diene; d-limonene

REACH No.: 01-2119529223-47, Index number: 601-029-00-7, CAS: 5989-27-5, EC: 227-813-5

⚠ 2.6/3 Flam. Liq. 3 H226

⚠ 3.2/2 Skin Irrit. 2 H315

⚠ 3.4.2/1B Skin Sens. 1B H317

⚠ 4.1/A1 Aquatic Acute 1 H400

⚠ 4.1/C1 Aquatic Chronic 1 H410

>= 1% - < 2% citral

REACH No.: 01-2119462829-23, Index number: 605-019-00-3, CAS: 5392-40-5, EC: 226-394-6

⚠ 3.2/2 Skin Irrit. 2 H315

⚠ 3.4.2/1B Skin Sens. 1B H317

⚠ 3.3/2 Eye Irrit. 2 H319

>= 1% - < 2% 3-(para-cumenyl)-2-methylpropanaldehyde

CAS: 6658-48-6, EC: 229-695-0

⚠ 3.4.2/1 Skin Sens. 1 H317

Safety Data Sheet

Fresca Foglia DOG Balsamic



⚠ 3.7/2 Repr. 2 H361

>= 1% - < 2% BENZYL SALICYLATE

REACH No.: 01-2119969442-31, CAS: 118-58-1, EC: 204-262-9

⚠ 3.3/2 Eye Irrit. 2 H319

⚠ 3.4.2/1 Skin Sens. 1 H317

4.1/C3 Aquatic Chronic 3 H412

>= 1% - < 2% benzyl alcohol

REACH No.: 01-2119492630-38, Index number: 603-057-00-5, CAS: 100-51-6, EC: 202-859-9

⚠ 3.1/4/Inhal Acute Tox. 4 H332

⚠ 3.1/4/Oral Acute Tox. 4 H302

>= 1% - < 2% benzyl benzoate

REACH No.: 05-2114141961-51, Index number: 607-085-00-9, CAS: 120-51-4, EC: 204-402-9

⚠ 3.1/4/Oral Acute Tox. 4 H302

⚠ 4.1/C2 Aquatic Chronic 2 H411

>= 0.25% - < 0.5% Lemon terpenes

REACH No.: 17-2119411548-40, CAS: 68917-33-9, EC: 284-515-8

⚠ 2.6/3 Flam. Liq. 3 H226

⚠ 3.2/2 Skin Irrit. 2 H315

⚠ 3.4.2/1-1A-1B Skin Sens. 1,1A,1B H317

⚠ 3.10/1 Asp. Tox. 1 H304

⚠ 4.1/A1 Aquatic Acute 1 H400

⚠ 4.1/C1 Aquatic Chronic 1 H410

>= 0.1% - < 0.25% Coumarin

REACH No.: 01-2119949300-45, CAS: 91-64-5, EC: 202-086-7

⚠ 3.1/4/Oral Acute Tox. 4 H302

⚠ 3.4.2/1 Skin Sens. 1 H317

4.1/C3 Aquatic Chronic 3 H412

>= 0.1% - < 0.25% Salvia Lavandulifolia herb oil (Spain)

CAS: 8016-65-7, EC: 290-272-9

⚠ 2.6/3 Flam. Liq. 3 H226

⚠ 3.10/1 Asp. Tox. 1 H304

⚠ 3.4.2/1 Skin Sens. 1 H317

⚠ 3.1/4/Inhal Acute Tox. 4 H332

⚠ 3.8/2 STOT SE 2 H371

⚠ 4.1/A1 Aquatic Acute 1 H400

⚠ 4.1/C1 Aquatic Chronic 1 H410

>= 0.1% - < 0.25% Carum Carvi fruit oil (Hungary)

CAS: 8000-42-8, EC: 288-921-6

⚠ 3.1/4/Oral Acute Tox. 4 H302

⚠ 3.10/1 Asp. Tox. 1 H304

⚠ 3.2/2 Skin Irrit. 2 H315

⚠ 3.4.2/1 Skin Sens. 1 H317

⚠ 4.1/A1 Aquatic Acute 1 H400

⚠ 4.1/C1 Aquatic Chronic 1 H410

>= 0.1% - < 0.25% Methoxyhydratropaldehyde

CAS: 5462-06-6, EC: 226-749-5

⚠ 3.4.2/1 Skin Sens. 1 H317

⚠ 3.3/2 Eye Irrit. 2 H319

Safety Data Sheet

Fresca Foglia DOG Balsamic



4.1/C3 Aquatic Chronic 3 H412

>= 0.1% - < 0.25% turpentine, oil

REACH No.: 01-2119502456-45, Index number: 650-002-00-6, CAS: 8006-64-2, EC: 232-350-7

- ⚠ 2.6/3 Flam. Liq. 3 H226
- ⚠ 3.1/4/Oral Acute Tox. 4 H302
- ⚠ 3.10/1 Asp. Tox. 1 H304
- ⚠ 3.1/4/Dermal Acute Tox. 4 H312
- ⚠ 3.2/2 Skin Irrit. 2 H315
- ⚠ 3.4.2/1-1A-1B Skin Sens. 1,1A,1B H317
- ⚠ 3.3/2 Eye Irrit. 2 H319
- ⚠ 3.1/4/Inhal Acute Tox. 4 H332
- ⚠ 4.1/C2 Aquatic Chronic 2 H411

>= 0.1% - < 0.25% alpha-Pinene

CAS: 7785-26-4, EC: 232-077-3

- ⚠ 2.6/3 Flam. Liq. 3 H226
- ⚠ 3.10/1 Asp. Tox. 1 H304
- ⚠ 3.2/2 Skin Irrit. 2 H315
- ⚠ 3.4.2/1 Skin Sens. 1 H317
- ⚠ 4.1/C1 Aquatic Chronic 1 H410

>= 0.1% - < 0.25% Styrax Benzoin Gum extract (Sumatra)

CAS: 9000-05-9, EC: 284-557-7

- ⚠ 3.2/2 Skin Irrit. 2 H315
- ⚠ 3.4.2/1 Skin Sens. 1 H317
- ⚠ 3.3/2 Eye Irrit. 2 H319
- 4.1/C3 Aquatic Chronic 3 H412

>= 0.1% - < 0.25% Boswellia Carteri gum oil

CAS: 8016-36-2, EC: 289-620-2

- ⚠ 2.6/3 Flam. Liq. 3 H226
- ⚠ 3.10/1 Asp. Tox. 1 H304
- ⚠ 3.4.2/1 Skin Sens. 1 H317
- ⚠ 4.1/A1 Aquatic Acute 1 H400
- ⚠ 4.1/C1 Aquatic Chronic 1 H410

>= 0.1% - < 0.25% Tetramethylacetyloctahydronaphthalenes

REACH No.: 01-2119489989-04, CAS: 54464-57-2, EC: 915-730-3

- ⚠ 3.2/2 Skin Irrit. 2 H315
- ⚠ 3.4.2/1 Skin Sens. 1 H317
- ⚠ 4.1/C1 Aquatic Chronic 1 H410

>= 0.1% - < 0.25% Acetyl hexamethyl tetralin

REACH No.: 01-2119539433-40, CAS: 1506-02-1, EC: 244-240-6

- ⚠ 3.1/4/Oral Acute Tox. 4 H302
- ⚠ 4.1/C1 Aquatic Chronic 1 H410

>= 0.1% - < 0.25% HELIOTROPINE

REACH No.: 05-2117665335-39, CAS: 120-57-0, EC: 204-409-7

- ⚠ 3.4.2/1 Skin Sens. 1 H317

>= 0.05% - < 0.1% ethanol

REACH No.: 01-2119457610-43, Index number: 603-002-00-5, CAS: 64-17-5, EC: 200-578-6

- ⚠ 2.6/2 Flam. Liq. 2 H225
- ⚠ 3.3/2 Eye Irrit. 2 H319

Safety Data Sheet

Fresca Foglia DOG Balsamic



Specific Concentration Limits:
C >= 50%: Eye Irrit. 2 H319

- >= 0.02% - < 0.05% 2-METHOXY-4-(PROP-1-ENYL) PHENOL
CAS: 97-54-1, EC: 202-590-7
⚠ 3.1/4/Dermal Acute Tox. 4 H312
⚠ 3.1/4/Oral Acute Tox. 4 H302
⚠ 3.2/2 Skin Irrit. 2 H315
⚠ 3.4.2/1A Skin Sens. 1A H317

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

- Immediately take off all contaminated clothing.
- Remove contaminated clothing immediately and dispose off safely.
- After contact with skin, wash immediately with soap and plenty of water.

In case of eyes contact:

- After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.
- Protect uninjured eye.

In case of Ingestion:

- 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

SECTION 5: Firefighting measures

5.1. Extinguishing media

Appropriate Extinguishing Media:

To carbon dioxide.

To dust.

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

Use suitable breathing apparatus .

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

Safety Data Sheet

Fresca Foglia DOG Balsamic



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
 - Wash with plenty of water.
- 6.4. Reference to other sections
 - See also section 8 and 13

SECTION 7: Handling and storage

- 7.1. Precautions for safe handling
 - 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
 - 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

SECTION 8: Exposure controls/personal protection

- 8.1. Control parameters
 - citral - CAS: 5392-40-5
 - ACGIH - TWA(8h): 5 ppm - Notes: (IFV), Skin, DSEN, A4 - Body weight eff, URT irr, eye dam
 - turpentine, oil - CAS: 8006-64-2
 - ACGIH - TWA(8h): 20 ppm - Notes: DSEN, A4 - Lung irr
 - ethanol; ethyl alcohol - CAS: 64-17-5
 - ACGIH - STEL: 1000 ppm - Notes: A3 - URT irr
- DNEL Exposure Limit Values
 - Mentha Spicata herb oil (Chine) - CAS: 8008-79-5
 - Worker Industry: 6.242 mg/m³ - Consumer: 1.553 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, systemic effects
 - Worker Industry: 5.183 mg/kg - Consumer: 2.589 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects
 - Consumer: 16.410 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects
 - L-Menthol nat - CAS: 2216-51-5
 - Worker Industry: 132 mg/m³ - Consumer: 33 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, systemic effects
 - Worker Industry: 19 mg/kg - Consumer: 9.4 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects

Safety Data Sheet

Fresca Foglia DOG Balsamic



Consumer: 9.4 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects
Ethyl linalool - CAS: 10339-55-6
Worker Industry: 3 mg/m³ - Consumer: 2.7 mg/m³ - Exposure: Human Inhalation -
Frequency: Long Term, systemic effects
Worker Industry: 2.7 mg/kg - Consumer: 1.4 mg/kg - Exposure: Human Dermal -
Frequency: Long Term, systemic effects
Consumer: 0.2 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects
Methoxymethylbutanol - CAS: 56539-66-3
Worker Industry: 5.9 mg/m³ - Consumer: 1.7 mg/m³ - Exposure: Human Inhalation -
Frequency: Long Term, systemic effects
Worker Industry: 2 mg/kg - Consumer: 1.2 mg/kg - Exposure: Human Dermal - Frequency:
Long Term, systemic effects
Consumer: 0.5 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects
Euclyptus Globulus leaf oil (Spain) - CAS: 8000-48-4
Worker Industry: 3.52 mg/m³ - Consumer: 0.87 mg/m³ - Exposure: Human Inhalation -
Frequency: Long Term, systemic effects
Worker Industry: 1 mg/kg - Consumer: 0.5 mg/kg - Exposure: Human Dermal - Frequency:
Long Term, systemic effects
Consumer: 0.5 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects
1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran; galaxolide; (HHCB) - CAS:
1222-05-5
Worker Industry: 5.29 mg/m³ - Consumer: 1.3 mg/m³ - Exposure: Human Inhalation -
Frequency: Long Term, systemic effects
Worker Industry: 28.85 mg/kg - Consumer: 14.43 mg/kg - Exposure: Human Dermal -
Frequency: Long Term, systemic effects
Consumer: 0.75 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects
tetrahydro-2-isobutyl-4-methylpyran-4-ol - CAS: 63500-71-0
Worker Industry: 12.2 mg/m³ - Consumer: 3.62 mg/m³ - Exposure: Human Inhalation -
Frequency: Long Term, systemic effects
Worker Industry: 3.47 mg/kg - Consumer: 2.08 mg/kg - Exposure: Human Dermal -
Frequency: Long Term, systemic effects
Consumer: 1.04 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects
(R)-p-mentha-1,8-diene; d-limonene - CAS: 5989-27-5
Worker Industry: 33.3 mg/m³ - Consumer: 8.33 mg/m³ - Exposure: Human Inhalation -
Frequency: Long Term, systemic effects
Worker Industry: 222 µg/cm² - Consumer: 111 µg/cm² - Exposure: Human Dermal -
Frequency: Long Term, systemic effects
Consumer: 4.78 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects
citral - CAS: 5392-40-5
Worker Industry: 9 mg/m³ - Consumer: 2.7 mg/m³ - Exposure: Human Inhalation -
Frequency: Long Term, systemic effects
Worker Industry: 1.7 mg/kg - Consumer: 1 mg/kg - Exposure: Human Dermal - Frequency:
Long Term, systemic effects
Consumer: 0.6 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects
BENZYL SALICYLATE - CAS: 118-58-1
Worker Industry: 3.17 mg/m³ - Consumer: 0.78 mg/m³ - Exposure: Human Inhalation -
Frequency: Long Term, systemic effects
Worker Industry: 0.9 mg/kg - Consumer: 0.45 mg/kg - Exposure: Human Dermal -
Frequency: Long Term, systemic effects
Consumer: 0.45 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects
benzyl alcohol - CAS: 100-51-6
Worker Industry: 90 mg/m³ - Consumer: 8.11 mg/m³ - Exposure: Human Inhalation -
Frequency: Long Term, systemic effects
Worker Industry: 9.5 mg/kg - Consumer: 5.7 mg/kg - Exposure: Human Dermal -
Frequency: Long Term, systemic effects
Consumer: 5 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects

Safety Data Sheet

Fresca Foglia DOG Balsamic



- benzyl benzoate - CAS: 120-51-4
Worker Industry: 5.1 mg/m³ - Consumer: 1.25 mg/m³ - Exposure: Human Inhalation -
Frequency: Long Term, systemic effects
Worker Industry: 2.6 mg/kg - Consumer: 1.30 mg/kg - Exposure: Human Dermal -
Frequency: Long Term, systemic effects
Consumer: 0.40 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects
- Coumarin - CAS: 91-64-5
Worker Industry: 6.78 mg/m³ - Consumer: 1.69 mg/m³ - Exposure: Human Inhalation -
Frequency: Long Term, systemic effects
Worker Industry: 0.79 mg/kg - Consumer: 0.39 mg/kg - Exposure: Human Dermal -
Frequency: Long Term, systemic effects
Consumer: 0.39 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects
- Salvia Lavandulifolia herb oil (Spain) - CAS: 8016-65-7
Worker Industry: 12.613 mg/m³ - Consumer: 3.099 mg/m³ - Exposure: Human Inhalation -
Frequency: Long Term, systemic effects
Worker Industry: 7.487 mg/kg - Consumer: 3.753 mg/kg - Exposure: Human Dermal -
Frequency: Long Term, systemic effects
Consumer: 152.23 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects
- Carum Carvi fruit oil (Hungary) - CAS: 8000-42-8
Worker Industry: 16.315 mg/m³ - Consumer: 4.074 mg/m³ - Exposure: Human Inhalation -
Frequency: Long Term, systemic effects
Worker Industry: 28.372 mg/kg - Consumer: 14.186 mg/kg - Exposure: Human Dermal -
Frequency: Long Term, systemic effects
Consumer: 2.325 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects
- turpentine, oil - CAS: 8006-64-2
Worker Industry: 11.200 mg/m³ - Consumer: 0.986 mg/m³ - Exposure: Human Inhalation -
Frequency: Long Term, systemic effects
Worker Industry: 1.600 mg/kg - Consumer: 0.601 mg/kg - Exposure: Human Dermal -
Frequency: Long Term, systemic effects
Consumer: 0.570 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects
- alpha-Pinene - CAS: 7785-26-4
Worker Industry: 5.69 mg/m³ - Consumer: 1 mg/m³ - Exposure: Human Inhalation -
Frequency: Long Term, systemic effects
Worker Industry: 0.8 mg/kg - Consumer: 0.3 mg/kg - Exposure: Human Dermal -
Frequency: Long Term, systemic effects
Consumer: 0.3 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects
- Styrax Benzoin Gum extract (Sumatra) - CAS: 9000-05-9
Worker Industry: 1.144 mg/m³ - Consumer: 0.391 mg/m³ - Exposure: Human Inhalation -
Frequency: Long Term, systemic effects
Worker Industry: 9.887 mg/kg - Consumer: 4.979 mg/kg - Exposure: Human Dermal -
Frequency: Long Term, systemic effects
Consumer: 2.824 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects
- Tetramethylacetyloctahydronaphthalenes - CAS: 54464-57-2
Worker Industry: 1.76 mg/m³ - Consumer: 0.43 mg/m³ - Exposure: Human Inhalation -
Frequency: Long Term, systemic effects
Worker Industry: 1.73 mg/kg - Consumer: 0.86 mg/kg - Exposure: Human Dermal -
Frequency: Long Term, systemic effects
Consumer: 0.25 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects
- Acetyl hexamethyl tetralin - CAS: 1506-02-1
Worker Industry: 0.175 mg/m³ - Consumer: 0.0435 mg/m³ - Exposure: Human Inhalation -
Frequency: Long Term, systemic effects
Worker Industry: 0.61 mg/kg - Consumer: 0.305 mg/kg - Exposure: Human Dermal -

Safety Data Sheet

Fresca Foglia DOG Balsamic



Frequency: Long Term, systemic effects

Consumer: 0.0125 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects

HELIOTROPINE - CAS: 120-57-0

Worker Industry: 3.5 mg/m³ - Consumer: 0.87 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, systemic effects

Worker Industry: 0.5 mg/kg - Consumer: 0.25 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects

Consumer: 0.25 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects

PNEC Exposure Limit Values

L-Menthol nat - CAS: 2216-51-5

Target: Fresh Water - Value: 15.6 03

Target: Marine water - Value: 1.56 03

Target: Microorganisms in sewage treatments - Value: 2.37 mg/l

Target: Freshwater sediments - Value: 289 mg/kg

Target: Marine water sediments - Value: 2.89 mg/kg

Ethyl linalool - CAS: 10339-55-6

Target: Fresh Water - Value: 0.023 03

Target: Marine water - Value: 0.0023 03

Target: Microorganisms in sewage treatments - Value: 10 mg/l

Target: Freshwater sediments - Value: 0.223 mg/kg

Target: Marine water sediments - Value: 0.0223 mg/kg

Eucliptus Globulus leaf oil (Spain) - CAS: 8000-48-4

Target: Fresh Water - Value: 2.04 03

Target: Marine water - Value: 0.204 03

Target: Microorganisms in sewage treatments - Value: 10 mg/l

Target: Freshwater sediments - Value: 0.665 mg/kg

Target: Marine water sediments - Value: 0.0665 mg/kg

1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran; galaxolide; (HHCB) - CAS: 1222-05-5

Target: Fresh Water - Value: 4.4 03

Target: Marine water - Value: 0.44 03

Target: Microorganisms in sewage treatments - Value: 1 mg/l

Target: Freshwater sediments - Value: 2 mg/kg

Target: Marine water sediments - Value: 0.394 mg/kg

tetrahydro-2-isobutyl-4-methylpyran-4-ol - CAS: 63500-71-0

Target: Fresh Water - Value: 0.094 03

Target: Marine water - Value: 0.0094 03

Target: Microorganisms in sewage treatments - Value: 10 mg/l

Target: Freshwater sediments - Value: 0.412 mg/kg

Target: Marine water sediments - Value: 0.0412 mg/kg

(R)-p-mentha-1,8-diene; d-limonene - CAS: 5989-27-5

Target: Fresh Water - Value: 5.40 03

Target: Marine water - Value: 0.54 03

Target: Microorganisms in sewage treatments - Value: 1.8 mg/l

Target: Freshwater sediments - Value: 1.32 mg/kg

Target: Marine water sediments - Value: 0.13 mg/kg

citral - CAS: 5392-40-5

Target: Fresh Water - Value: 0.00678 03

Target: Marine water - Value: 0.000678 03

Target: Microorganisms in sewage treatments - Value: 1.6 mg/l

Target: Freshwater sediments - Value: 0.125 mg/kg

Target: Marine water sediments - Value: 0.0125 mg/kg

BENZYL SALICYLATE - CAS: 118-58-1

Target: Fresh Water - Value: 0.0001 03

Target: Marine water - Value: 0.00001 03

Safety Data Sheet

Fresca Foglia DOG Balsamic



Target: Microorganisms in sewage treatments - Value: 10 mg/l
Target: Freshwater sediments - Value: 0.583 mg/kg
Target: Marine water sediments - Value: 0.583 mg/kg
benzyl alcohol - CAS: 100-51-6
Target: Fresh Water - Value: 1 03
Target: Marine water - Value: 0.1 03
Target: Microorganisms in sewage treatments - Value: 19 mg/l
Target: Freshwater sediments - Value: 0.223 mg/kg
Target: Marine water sediments - Value: 0.00223 mg/kg
Coumarin - CAS: 91-64-5
Target: Fresh Water - Value: 19 03
Target: Marine water - Value: 1.9 03
Target: Microorganisms in sewage treatments - Value: 6.4 mg/l
Target: Freshwater sediments - Value: 0.15 mg/kg
Target: Marine water sediments - Value: 0.015 mg/kg
alpha-Pinene - CAS: 7785-26-4
Target: Fresh Water - Value: 0.303 03
Target: Marine water - Value: 0.030 03
Target: Microorganisms in sewage treatments - Value: 6.6 mg/l
Target: Freshwater sediments - Value: 78.3 mg/kg
Target: Marine water sediments - Value: 7.83 mg/kg
Tetramethylacetyloctahydronaphthalenes - CAS: 54464-57-2
Target: Fresh Water - Value: 2.8 03
Target: Marine water - Value: 0.28 03
Target: Microorganisms in sewage treatments - Value: 10 mg/l
Target: Freshwater sediments - Value: 3.73 mg/kg
Target: Marine water sediments - Value: 0.75 mg/kg
Acetyl hexamethyl tetralin - CAS: 1506-02-1
Target: Fresh Water - Value: 2.2 03
Target: Marine water - Value: 0.22 03
Target: Microorganisms in sewage treatments - Value: 2.2 mg/l
Target: Freshwater sediments - Value: 1.72 mg/kg
Target: Marine water sediments - Value: 0.345 mg/kg
HELIOTROPINE - CAS: 120-57-0
Target: Marine water - Value: 2.5

8.2. Exposure controls

Eye protection:

Safety goggles.
Compliant with EN 166

Protection for skin:

No special precaution must be adopted for normal use.

Protection for hands:

Use protective gloves that provides comprehensive protection, e.g. P.V.C., neoprene or rubber.

Respiratory protection:

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

Safety Data Sheet
Fresca Foglia DOG Balsamic



Properties	Value	Method:	Notes:
Physical state:	Liquid	--	--
Colour:	Yellow	--	--
Odour:	agrumata, fiorita	--	--
Melting point/freezing point:	N.A.	--	--
Boiling point or initial boiling point and boiling range:	N.A.	--	--
Flammability:	N.A.	--	--
Lower and upper explosion limit:	N.A.	--	--
Flash point:	62°C	--	--
Auto-ignition temperature:	N.A.	--	--
Decomposition temperature:	N.A.	--	--
pH:	7	--	--
Kinematic viscosity:	N.A.	--	--
Solubility in water:	N.A.	--	--
Solubility in oil:	liposolubile	--	--
Partition coefficient n-octanol/water (log value):	N.A.	--	--
Vapour pressure:	N.A.	--	--
Density and/or relative density:	0.924-0.944 g/ml	--	--
Relative vapour density:	N.A.	--	--
Particle characteristics:			
Particle size:	N.A.	--	--

9.2. Other information
 No other relevant information

SECTION 10: Stability and reactivity

- 10.1. Reactivity
 - Stable under normal conditions
- 10.2. Chemical stability

1853/5

Page n. 12 of 21

Safety Data Sheet

Fresca Foglia DOG Balsamic



- Stable under normal conditions
- 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.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Toxicological information of the product:

Fresca Foglia DOG Balsamic

a) acute toxicity

Not classified

Based on available data, the classification criteria are not met

b) skin corrosion/irritation

The product is classified: Skin Irrit. 2 H315

c) serious eye damage/irritation

The product is classified: Eye Irrit. 2 H319

d) respiratory or skin sensitisation

The product is classified: Skin Sens. 1B 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:

Mentha Spicata herb oil (Chine) - CAS: 8008-79-5

a) acute toxicity:

Test: LD50 - Route: Oral > 2000 mg/kg

Test: LC50 - Route: Inhalation 5.43 mg/m³

L-Menthol nat - CAS: 2216-51-5

a) acute toxicity:

Test: LD50 - Route: Oral 3300 mg/kg

Test: LC50 - Route: Inhalation 5289 mg/m³

g) reproductive toxicity:

Test: NOAEL 667 mg/kg

Ethyl linalool - CAS: 10339-55-6

a) acute toxicity:

Test: LD50 - Route: Oral 2790 mg/kg

Test: LC50 - Route: Inhalation 3.2 mg/m³

Safety Data Sheet

Fresca Foglia DOG Balsamic



- g) reproductive toxicity:
Test: NOAEL 500 mg/kg
- Methoxymethylbutanol - CAS: 56539-66-3
- a) acute toxicity:
Test: LD50 - Route: Oral 5830 mg/kg
- g) reproductive toxicity:
Test: NOAEL 1000 mg/kg
- β-methyl-3-(1-methylethyl)-benzenepropanal - CAS: 125109-85-5
- a) acute toxicity:
Test: LD50 - Route: Oral > 2000 mg/kg
- Euclyptus Globulus leaf oil (Spain) - CAS: 8000-48-4
- a) acute toxicity:
Test: LD50 - Route: Oral 4440 mg/kg
- g) reproductive toxicity:
Test: NOAEL
- 1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran; galaxolide; (HHCB) - CAS: 1222-05-5
- a) acute toxicity:
Test: LD50 - Route: Oral - Species: Rat > 4640 mg/kg
- tetrahydro-2-isobutyl-4-methylpyran-4-ol - CAS: 63500-71-0
- a) acute toxicity:
Test: LD50 - Route: Oral 2000 mg/kg
Test: LC50 - Route: Inhalation > 1000 mg/m³
- (R)-p-mentha-1,8-diene; d-limonene - CAS: 5989-27-5
- a) acute toxicity:
Test: LD50 - Route: Oral 4400 mg/kg
- citral - CAS: 5392-40-5
- a) acute toxicity:
Test: LD50 - Route: Oral 6800 mg/kg
Test: LC50 - Route: Inhalation 34 mg/m³
- g) reproductive toxicity:
Test: NOAEL 1000 mg/kg
- 3-(para-cumenyl)-2-methylpropanaldehyde - CAS: 6658-48-6
- a) acute toxicity:
Test: LC50 - Route: Oral > 5000 mg/kg
- BENZYL SALICYLATE - CAS: 118-58-1
- a) acute toxicity:
Test: LD50 - Route: Oral 2227 mg/kg
- g) reproductive toxicity:
Test: NOAEL 180 mg/kg
- benzyl alcohol - CAS: 100-51-6
- a) acute toxicity:
Test: LD50 - Route: Oral 1570 mg/kg
- benzyl benzoate - CAS: 120-51-4
- a) acute toxicity:
Test: LD50 - Route: Oral > 2000 mg/kg
- ethanol; ethyl alcohol - CAS: 64-17-5
- d) respiratory or skin sensitisation:
Test: Skin Sensitization - Route: Skin Negative
- e) germ cell mutagenicity:
Test: Genotoxicity - Species: vitro Negative
- f) carcinogenicity:
Test: Carcinogeneticity - Species: mam Positive
- g) reproductive toxicity:
Test: NOAEL - Route: Inhalation - Species: Rat = 1600 Ppm

Safety Data Sheet

Fresca Foglia DOG Balsamic



11.2. Information on other hazards

Endocrine disrupting properties:

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

SECTION 12: Ecological information

12.1. Toxicity

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

Mentha Spicata herb oil (Chine) - CAS: 8008-79-5

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish 58.857 mg/l - Duration h: 96

Endpoint: EC50 - Species: Daphnia 35.409 mg/l - Duration h: 48

Endpoint: EC50 - Species: Algae 7.623 mg/l - Duration h: 72

L-Menthol nat - CAS: 2216-51-5

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish 15.6 mg/l - Duration h: 96

Endpoint: EC50 - Species: Daphnia 26.6 mg/l - Duration h: 48

Endpoint: EC50 - Species: Algae 21.4 mg/l - Duration h: 72

Ethyl linalool - CAS: 10339-55-6

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish 5 mg/l - Duration h: 96

Endpoint: EC50 - Species: Daphnia 23 mg/l - Duration h: 48

Endpoint: EC50 - Species: Algae 13.3 mg/l - Duration h: 72

Methoxymethylbutanol - CAS: 56539-66-3

a) Aquatic acute toxicity:

Endpoint: EC50 - Species: Daphnia 1000 mg/l - Duration h: 48

Endpoint: LC50 - Species: Fish 100 mg/l - Duration h: 76

Endpoint: LC50 - Species: Algae 1000 mg/l - Duration h: 72

β -methyl-3-(1-methylethyl)-benzenepropanal - CAS: 125109-85-5

a) Aquatic acute toxicity:

Endpoint: EC50 - Species: Daphnia 7.7 mg/l - Duration h: 48

Endpoint: LC50 - Species: Fish 8.4 mg/l - Duration h: 96

Euclptus Globulus leaf oil (Spain) - CAS: 8000-48-4

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish 57 mg/l - Duration h: 96

Endpoint: EC50 - Species: Daphnia 0.475 mg/l - Duration h: 48

Endpoint: EC50 - Species: Algae 0.494 mg/l - Duration h: 72

1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran; galaxolide; (HHCB) - CAS: 1222-05-5

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish = 0.452 mg/l - Duration h: 504

Endpoint: EC50 - Species: Daphnia = 0.282 mg/l - Duration h: 504

Endpoint: EC50 - Species: Algae 0.72 mg/l - Duration h: 72

tetrahydro-2-isobutyl-4-methylpyran-4-ol - CAS: 63500-71-0

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish 279 mg/l - Duration h: 96

Endpoint: EC50 - Species: Daphnia 320 mg/l - Duration h: 48

Endpoint: EC50 - Species: Algae 94 mg/l - Duration h: 72

(R)-p-mentha-1,8-diene; d-limonene - CAS: 5989-27-5

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish 702 mg/l - Duration h: 96

Endpoint: NOEC - Species: Daphnia 0.074 mg/l - Duration h: 48

Endpoint: NOEC - Species: Algae 2.62 mg/l - Duration h: 72

Endpoint: EC50 209 mg/l - Duration h: 3

citral - CAS: 5392-40-5

a) Aquatic acute toxicity:

Endpoint: NOEC - Species: Fish 4.6 mg/l - Duration h: 96

Safety Data Sheet

Fresca Foglia DOG Balsamic



Endpoint: EC50 - Species: Daphnia 6.8 mg/l - Duration h: 48
Endpoint: EC50 - Species: Algae 103.8 mg/l - Duration h: 72
3-(para-cumenyl)-2-methylpropanaldehyde - CAS: 6658-48-6
a) Aquatic acute toxicity:
Endpoint: LC50 - Species: Fish 3.02 mg/l - Duration h: 96
BENZYL SALICYLATE - CAS: 118-58-1
a) Aquatic acute toxicity:
Endpoint: LC50 - Species: Fish 1.03 mg/l - Duration h: 96
Endpoint: NOEC - Species: Daphnia 0.894 mg/l - Duration h: 48
Endpoint: NOEC - Species: Algae 0.502 mg/l - Duration h: 72
benzyl alcohol - CAS: 100-51-6
a) Aquatic acute toxicity:
Endpoint: LC50 - Species: Fish 646 mg/l - Duration h: 48
Endpoint: EC50 - Species: Algae 640 mg/l - Duration h: 96
Endpoint: EC50 - Species: Daphnia 400 mg/l - Duration h: 96
benzyl benzoate - CAS: 120-51-4
a) Aquatic acute toxicity:
Endpoint: LC50 - Species: Fish 2.84 mg/l - Duration h: 96
Endpoint: NOEC - Species: Daphnia 1.73 mg/l - Duration h: 48
Endpoint: NOEC - Species: Algae 0.0647 mg/l - Duration h: 72
Salvia Lavandulifolia herb oil (Spain) - CAS: 8016-65-7
a) Aquatic acute toxicity:
Endpoint: LC50 - Species: Fish 90.144 mg/l - Duration h: 96
Endpoint: EC50 - Species: Daphnia 34.556 mg/l - Duration h: 48
Endpoint: EC50 - Species: Algae 37.680 mg/l - Duration h: 72
Carum Carvi fruit oil (Hungary) - CAS: 8000-42-8
a) Aquatic acute toxicity:
Endpoint: LC50 - Species: Fish 333.115 mg/l - Duration h: 96
Endpoint: EC50 - Species: Daphnia 19.461 mg/l - Duration h: 48
Endpoint: EC50 - Species: Algae 3.591 mg/l - Duration h: 72
turpentine, oil - CAS: 8006-64-2
a) Aquatic acute toxicity:
Endpoint: LC50 - Species: Fish 29 mg/l - Duration h: 96
Endpoint: EC50 - Species: Daphnia 6.800 mg/l - Duration h: 48
Endpoint: EC50 - Species: Algae 17.100 mg/l - Duration h: 72
alpha-Pinene - CAS: 7785-26-4
a) Aquatic acute toxicity:
Endpoint: LC50 - Species: Fish 0.33 mg/l - Duration h: 96
Endpoint: EC50 - Species: Daphnia 0.475 mg/l - Duration h: 48
Endpoint: EC50 - Species: Algae 0.247 mg/l - Duration h: 72
Styrax Benzoin Gum extract (Sumatra) - CAS: 9000-05-9
a) Aquatic acute toxicity:
Endpoint: LC50 - Species: Fish 28.699 mg/l - Duration h: 96
Endpoint: EC50 - Species: Daphnia 16.068 mg/l - Duration h: 48
Endpoint: EC50 - Species: Algae 12.192 mg/l - Duration h: 72
Tetramethylacetyloctahydronaphthalenes - CAS: 54464-57-2
a) Aquatic acute toxicity:
Endpoint: LC50 - Species: Fish 1.3 mg/l - Duration h: 96
Endpoint: NOEC - Species: Daphnia 0.73 mg/l - Duration h: 48
Endpoint: NOEC - Species: Algae 2.6 mg/l - Duration h: 72
Acetyl hexamethyl tetralin - CAS: 1506-02-1
a) Aquatic acute toxicity:
Endpoint: LC50 - Species: Fish 2 mg/l - Duration h: 96
Endpoint: EC50 - Species: Daphnia 0.2 mg/l - Duration h: 48
Endpoint: EC50 - Species: Algae 0.612 mg/l - Duration h: 72
HELIOTROPINE - CAS: 120-57-0

Safety Data Sheet

Fresca Foglia DOG Balsamic



- a) Aquatic acute toxicity:
Endpoint: NOEC - Species: Fish 1.6 mg/l - Duration h: 96
Endpoint: NOEC - Species: Daphnia 22 mg/l - Duration h: 48
Endpoint: NOEC - Species: Algae 1.1 mg/l - Duration h: 72

ethanol; ethyl alcohol - CAS: 64-17-5

- a) Aquatic acute toxicity:
Endpoint: LC50 - Species: Fish 14.2 GL - Duration h: 96
Endpoint: LC50 - Species: Daphnia 29.6 GL - Duration h: 24
Endpoint: EC50 - Species: Algae 19000 mg/l - Duration h: 96
Endpoint: EC50 - Species: batteri 39.5 GL - Duration h: 4

- b) Aquatic chronic toxicity:
Endpoint: EC50 - Species: Fish 14536 mg/l - Duration h: 200
Endpoint: LC50 - Species: Daphnia 9248 mg/l - Duration h: 48

12.2. Persistence and degradability

None

N.A.

12.3. Bioaccumulative potential

N.A.

12.4. Mobility in soil

N.A.

12.5. Results of PBT and vPvB assessment

vPvB Substances: None - PBT Substances: None

12.6. Endocrine disrupting properties

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

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.

SECTION 14: Transport information



14.1. UN number or ID number

ADR-UN Number: 3082

IATA-UN Number: 3082

IMDG-UN Number: 3082

14.2. UN proper shipping name

ADR-Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(Mentha Spicata herb oil (Chine))

IATA-Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(Mentha Spicata herb oil (Chine))

IMDG-Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(Mentha Spicata herb oil (Chine))

14.3. Transport hazard class(es)

ADR-Class: 9

ADR - Hazard identification number: 90

IATA-Class: 9

IATA-Label: 9

IMDG-Class: 9

Safety Data Sheet

Fresca Foglia DOG Balsamic



- 14.4. Packing group
ADR-Packing Group: III
IATA-Packing group: III
IMDG-Packing group: III
- 14.5. Environmental hazards
ADR-Environmental Pollutant: Yes
IMDG-Marine pollutant: Marine Pollutant
IMDG-EmS: F-A,
S-F
- 14.6. Special precautions for user
ADR-Subsidiary hazards: -
ADR-S.P.: 274 335 375 601
ADR-Transport category (Tunnel restriction code): 3 (E)
IATA-Passenger Aircraft: 964
IATA-Subsidiary hazards: -
IATA-Cargo Aircraft: 964
IATA-S.P.: A97 A158 A197
IATA-ERG: 9L
IMDG-Subsidiary hazards: -
IMDG-Stowage and handling: Category A
IMDG-Segregation: -
- 14.7. Maritime transport in bulk according to IMO instruments
N.A.
Limited Quantity: 5 L
Exempted Quantity: E1

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)
Regulation (EU) n. 2021/643 (ATP 16 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 75

Safety Data Sheet

Fresca Foglia DOG Balsamic



Volatile Organic compounds - VOCs = 3.53 %
Volatile Organic compounds - VOCs = 35.27 g/Kg
Volatile Organic compounds - VOCs = 32.94 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)

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

Seveso III category according to Annex 1, part 1
Product belongs to category: E2

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:

None

SECTION 16: Other information

Text of phrases referred to under heading 3:

H302 Harmful if swallowed.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H411 Toxic to aquatic life with long lasting effects.
H312 Harmful in contact with skin.
H319 Causes serious eye irritation.
H226 Flammable liquid and vapour.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H361 Suspected of damaging fertility or the unborn child.
H412 Harmful to aquatic life with long lasting effects.
H332 Harmful if inhaled.
H371 May cause damage to organs.
H225 Highly flammable liquid and vapour.

Hazard class and hazard category	Code	Description
Flam. Liq. 2	2.6/2	Flammable liquid, Category 2
Flam. Liq. 3	2.6/3	Flammable liquid, Category 3
Acute Tox. 4	3.1/4/Dermal	Acute toxicity (dermal), Category 4
Acute Tox. 4	3.1/4/Inhal	Acute toxicity (inhalation), Category 4
Acute Tox. 4	3.1/4/Oral	Acute toxicity (oral), Category 4
Asp. Tox. 1	3.10/1	Aspiration hazard, Category 1
Skin Irrit. 2	3.2/2	Skin irritation, Category 2
Eye Irrit. 2	3.3/2	Eye irritation, Category 2
Skin Sens. 1	3.4.2/1	Skin Sensitisation, Category 1

Safety Data Sheet

Fresca Foglia DOG Balsamic



Skin Sens. 1,1A,1B	3.4.2/1-1A-1B	Skin Sensitisation, Category 1,1A,1B
Skin Sens. 1A	3.4.2/1A	Skin Sensitisation, Category 1A
Skin Sens. 1B	3.4.2/1B	Skin Sensitisation, Category 1B
Repr. 2	3.7/2	Reproductive toxicity, Category 2
STOT SE 2	3.8/2	Specific target organ toxicity - single 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 2	4.1/C2	Chronic (long term) aquatic hazard, category 2
Aquatic Chronic 3	4.1/C3	Chronic (long term) aquatic hazard, category 3

This safety data sheet has been completely updated in compliance to Regulation 2020/878. 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 Irrit. 2, H315	Calculation method
Eye Irrit. 2, H319	Calculation method
Skin Sens. 1B, H317	Calculation method
Aquatic Chronic 2, H411	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.

Safety Data Sheet

Fresca Foglia DOG Balsamic



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, 23/07/2019

Substance identity	
Chemical name	Etanolo
CAS No.	64-17-5
EINECS No.	200-578-6

Table of contents

1. **ES 1** Consumer use; Anti-freeze and de-icing products (PC4)
2. **ES 2** Consumer use; Various products (PC39, PC28)
3. **ES 3** Use at industrial site
4. **ES 4** Use at industrial site
5. **ES 5** Widespread use by professional workers
6. **ES 6** Widespread use by professional workers
7. **ES 7** Consumer use; Fuels (PC13)
8. **ES 8** Consumer use; Various products (PC1, PC3, PC8, PC18, PC23)

1. ES 1 Consumer use; Anti-freeze and de-icing products (PC4)

1.1 TITLE SECTION

Exposure Scenario name	Car care and maintenance products - De-icing and anti-icing applications
Date - Version	22/07/2019 - 1.0
Life Cycle Stage	Consumer use
Main user group	Consumer uses
Sector(s) of use	Consumer uses (SU21)
Product Categories	Anti-freeze and de-icing products (PC4)

Environment Contributing Scenario

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

Consumer Contributing Scenario

CS2 Car Care - De-icing and anti-icing applications	PC4 - PC4_1
CS3 Car Care - De-icing and anti-icing applications	PC4 - PC4_2
CS4 Car Care - De-icing and anti-icing applications	PC4 - PC4_3

1.2 Conditions of use affecting exposure

1.2. 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:

5726 Pa

Conditions and measures related to treatment of waste (including article waste)

Waste treatment

No specific measures identified.

Other conditions affecting environmental exposure

Local marine water dilution factor: 100

Local freshwater dilution factor: 10

1.2. CS2: Consumer Contributing Scenario: Car Care - De-icing and anti-icing applications (PC4)

Product Categories	Anti-freeze and de-icing products (PC4)
Product (Sub-)Categories	Washing car window (PC4_1)

Product (article) characteristics

Concentration of substance in product:

Covers percentage substance in the product up to 1 %.

Amount used, frequency and duration of use/exposure

Amounts used:

Amount per use 0.5 g

Duration:

Covers use up to 0.017 h/event

Frequency:

Covers use up to 1 uses per day

Other conditions affecting consumers exposure

Room size: Covers use in a one car garage (>34 m³) under typical ventilation.

Temperature: Covers use at ambient temperatures.

1.2. CS3: Consumer Contributing Scenario: Car Care - De-icing and anti-icing applications (PC4)

Product Categories	Anti-freeze and de-icing products (PC4)
---------------------------	---

Product (Sub-)Categories	Pouring into radiator (PC4_2)
---------------------------------	-------------------------------

Product (article) characteristics

Concentration of substance in product:

Covers concentrations up to 10 %

Amount used, frequency and duration of use/exposure

Amounts used:

Amount per use 2000 g

Duration:

Covers use up to 0.17 h/event

Frequency:

Covers use up to 1 uses per day

Other conditions affecting consumers exposure

Room size: Covers use in a one car garage (>34 m³) under typical ventilation.

Temperature: Covers use at ambient temperatures.

Additional conditions human health

Covers skin contact area up to 482 cm²

1.2. CS4: Consumer Contributing Scenario: Car Care - De-icing and anti-icing applications (PC4)

Product Categories	Anti-freeze and de-icing products (PC4)
---------------------------	---

Product (Sub-)Categories	Lock de-icer (PC4_3)
---------------------------------	----------------------

Product (article) characteristics

Concentration of substance in product:

Covers concentrations up to 50 %

Amount used, frequency and duration of use/exposure

Amounts used:

Amount per use 4 g

Duration:

Covers use up to 0.25 h/event

Frequency:

Covers use up to 1 uses per day

Other conditions affecting consumers exposure

Room size: Covers use in a one car garage (>34 m³) under typical ventilation.

Temperature: Covers use at ambient temperatures.

Additional conditions human health

Covers skin contact area up to 214 cm²

1.3 Exposure estimation and reference to its source

1.3. CS1: Environment Contributing Scenario: Covered by (ERC8d)

protection target	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
freshwater	0.00443 mg/L	N/A	0.00461
freshwater sediment	0.0172 mg/kg bw/day	N/A	0.00467
marine water	0.000508 mg/L	N/A	0.000643
marine sediment	0.00194 mg/kg bw/day	N/A	0.00064
soil	0.00123 mg/kg bw/day	N/A	0.00724

1.2. CS2: Consumer Contributing Scenario: Car Care - De-icing and anti-icing applications (PC4)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	0.000102 mg/m ³	N/A	8.94E-07
inhalative, local, short-term	0.000102 mg/m ³	N/A	8.94E-07
dermal, systemic, long-term	0 mg/kg bw/day	N/A	N/A
combined routes, systemic, long-term	N/A	N/A	8.94E-07

1.2. CS3: Consumer Contributing Scenario: Car Care - De-icing and anti-icing applications (PC4)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	1.84 mg/m ³	N/A	0.0161
inhalative, local, short-term	1.84 mg/m ³	N/A	0.0161
dermal, systemic, long-term	5.62 mg/kg bw/day	N/A	0.0272
combined routes, systemic, long-term	N/A	N/A	0.0434

1.2. CS4: Consumer Contributing Scenario: Car Care - De-icing and anti-icing applications (PC4)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	0.51 mg/m ³	N/A	0.00447
inhalative, local, short-term	0.51 mg/m ³	N/A	0.0447
dermal, systemic, long-term	14 mg/kg bw/day	N/A	0.0679
combined routes, systemic, long-term	N/A	N/A	0.0724

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 Consumer use; Various products (PC39, PC28)

2.1 TITLE SECTION

Exposure Scenario name	Cosumer other uses
Date - Version	22/07/2019 - 1.0
Life Cycle Stage	Consumer use
Main user group	Consumer uses
Sector(s) of use	Consumer uses (SU21)
Product Categories	Cosmetics, personal care products (PC39) - Perfumes, fragrances (PC28)

Environment Contributing Scenario

CS1 Covered by	ERC8a
----------------	-------

Consumer Contributing Scenario

CS2 Consumer	PC39 - PC28
--------------	-------------

2.2 Conditions of use affecting exposure

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

Environmental release categories	Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor) (ERC8a)
----------------------------------	---

Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

5726 Pa

Conditions and measures related to treatment of waste (including article waste)

Waste treatment

No specific measures identified.

2.2. CS2: Consumer Contributing Scenario: Consumer (PC39, PC28)

Product Categories	Cosmetics, personal care products - Perfumes, fragrances (PC39, PC28)
--------------------	---

2.3 Exposure estimation and reference to its source

2.3. CS1: Environment Contributing Scenario: Covered by (ERC8a)

protection target	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
freshwater	0.00236 mg/L	N/A	0.00246
freshwater sediment	0.00904 mg/kg bw/day	N/A	0.00246
marine water	0.000301 mg/L	N/A	0.000381
marine sediment	0.00115 mg/kg bw/day	N/A	0.00038
soil	0.00115 mg/kg bw/day	N/A	0.00676

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 Use at industrial site

3.1 TITLE SECTION

Exposure Scenario name	Solvent
Date - Version	22/07/2019 - 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	PROC5
CS7 Industrial	PROC7
CS8 Industrial	PROC8a
CS9 Industrial	PROC8b
CS10 Industrial	PROC10
CS11 Industrial	PROC13
CS12 Industrial	PROC15

3.2 Conditions of use affecting exposure

3.2. 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

Vapour pressure:
< 10 kPa

Amount used, frequency and duration of use (or from service life)

Amounts used:

Annual site tonnage 3000 t(tonnes)/year

Maximum allowable site tonnage (MSafe): 124000 kg/day

Release type: Continuous release

Emission days: 300 days per year

Technical and organisational conditions and measures

Control measures to prevent releases

Treat air emission to provide the required removal efficiency of (%):	Air - minimum efficiency of: 90 %
Prevent discharge of undissolved substance to or recover from onsite wastewater.	Water - minimum efficiency of: 87 %

Conditions and measures related to sewage treatment plant

STP type:

Municipal Sewage Treatment Plant

STP effluent (m³/day): 2000

Conditions and measures related to treatment of waste (including article waste)

Waste treatment

Incineration, disposal or recycling at specific offsite provider Contain and dispose of waste according to local regulations.	Waste - minimum efficiency of: 99.98 %
--	--

Other conditions affecting environmental exposure

Local marine water dilution factor: 100

Local freshwater dilution factor: 10

Receiving surface water flow: 2000 m³/h

Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply.

Additional Good Practice Advice:

Contain leaks or spills within cabinets with removable trays.

3.2. 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

Physical form of product:

Liquid

Vapour pressure:

< 10 kPa

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

Technical and organisational conditions and measures

Technical and organisational measures

Use in contained systems

Store substance within a closed system.

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

Personal protection

Use suitable eye protection.

Other conditions affecting worker exposure

Temperature: Covers use at ambient temperatures.

3.2. 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	
Physical form of product: Liquid	
Vapour pressure: < 10 kPa	
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	
Technical and organisational conditions and measures	
Technical and organisational measures Use in contained systems Store substance within a closed system.	
Conditions and measures related to personal protection, hygiene and health evaluation	
Personal protection Use suitable eye protection.	
Other conditions affecting worker exposure	
Temperature: Covers use at ambient temperatures.	
3.2. 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	
Physical form of product: Liquid	
Vapour pressure: < 10 kPa	
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	
Technical and organisational conditions and measures	
Technical and organisational measures Use in contained systems Store substance within a closed system.	
Conditions and measures related to personal protection, hygiene and health evaluation	
Personal protection Use suitable eye protection.	
Other conditions affecting worker exposure	
Temperature: Covers use at ambient temperatures.	
3.2. CS5: Worker Contributing Scenario: Industrial (PROC4)	
Process Categories	Chemical production where opportunity for exposure arises (PROC4)
Product (article) characteristics	

Physical form of product: Liquid	
Vapour pressure: < 10 kPa	
Concentration of substance in product: Covers percentage substance in the product up to 100 %.	
<i>Amount used, frequency and duration of use/exposure</i>	
Duration: Covers daily exposures up to 8 hours	
<i>Technical and organisational conditions and measures</i>	
Technical and organisational measures Use in contained systems Store substance within a closed system.	
<i>Conditions and measures related to personal protection, hygiene and health evaluation</i>	
Personal protection Use suitable eye protection.	
<i>Other conditions affecting worker exposure</i>	
Temperature: Covers use at ambient temperatures.	
3.2. CS6: Worker Contributing Scenario: Industrial (PROC5)	
Process Categories	Mixing or blending in batch processes (PROC5)
<i>Product (article) characteristics</i>	
Physical form of product: Liquid	
Vapour pressure: < 10 kPa	
Concentration of substance in product: Covers percentage substance in the product up to 100 %.	
<i>Amount used, frequency and duration of use/exposure</i>	
Duration: Covers daily exposures up to 8 hours	
<i>Technical and organisational conditions and measures</i>	
Technical and organisational measures Use in contained systems Store substance within a closed system.	
<i>Conditions and measures related to personal protection, hygiene and health evaluation</i>	
Personal protection Use suitable eye protection.	
<i>Other conditions affecting worker exposure</i>	
Temperature: Covers use at ambient temperatures.	
3.2. CS7: Worker Contributing Scenario: Industrial (PROC7)	
Process Categories	Industrial spraying (PROC7)
<i>Product (article) characteristics</i>	
Physical form of product: Liquid	

Vapour pressure:

< 10 kPa

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

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

Use in contained systems

Store substance within a closed system.

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**

Use suitable eye protection.

Other conditions affecting worker exposure

Temperature: Covers use at ambient temperatures.

3.2. CS8: Worker Contributing Scenario: Industrial (PROC8a)**Process Categories**

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

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

Liquid

Vapour pressure:

< 10 kPa

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

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

Use in contained systems

Store substance within a closed system.

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

Use suitable eye protection.

Other conditions affecting worker exposure

Temperature: Covers use at ambient temperatures.

3.2. CS9: Worker Contributing Scenario: Industrial (PROC8b)**Process Categories**

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

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

Liquid

Vapour pressure:

< 10 kPa

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

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

Use in contained systems

Store substance within a closed system.

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

Use suitable eye protection.

Other conditions affecting worker exposure

Temperature: Covers use at ambient temperatures.

3.2. CS10: Worker Contributing Scenario: Industrial (PROC10)**Process Categories**

Roller application or brushing (PROC10)

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

Liquid

Vapour pressure:

< 10 kPa

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

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

Use in contained systems

Store substance within a closed system.

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

Use suitable eye protection.

Other conditions affecting worker exposure

Temperature: Covers use at ambient temperatures.

3.2. CS11: Worker Contributing Scenario: Industrial (PROC13)**Process Categories**

Treatment of articles by dipping and pouring (PROC13)

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

Liquid

Vapour pressure:

< 10 kPa

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

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

Use in contained systems

Store substance within a closed system.

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

Use suitable eye protection.

Other conditions affecting worker exposure**Temperature:** Covers use at ambient temperatures.**3.2. CS12: Worker Contributing Scenario: Industrial (PROC15)****Process Categories**

Use as laboratory reagent (PROC15)

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

Liquid

Vapour pressure:

< 10 kPa

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

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

Use in contained systems

Store substance within a closed system.

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

Use suitable eye protection.

Other conditions affecting worker exposure**Temperature:** Covers use at ambient temperatures.**3.3 Exposure estimation and reference to its source****3.3. CS1: Environment Contributing Scenario: Covered by (ERC4)**

Release route	Release rate	Release estimation method
Air	0.98 %	N/A
Water	0.01 %	N/A
soil	0 %	N/A

protection target	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
wastewater treatment plant microbes	6.32 mg/L	N/A	0.0109
freshwater	0.577 mg/L	N/A	0.601
freshwater sediment	2.21 mg/kg bw/day	N/A	0.601
marine water	0.0635 mg/L	N/A	0.0804
marine sediment	0.0635 mg/kg bw/day	N/A	0.0805
soil	0.0525 mg/kg bw/day	N/A	0.309

3.3. CS2: Worker Contributing Scenario: Industrial (PROC1)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	9.6 mg/m ³	N/A	< 0.01
dermal, systemic, long-term	0.03 mg/kg bw/day	N/A	< 0.01
combined routes, systemic, long-term	N/A	N/A	< 0.01

3.3. CS3: Worker Contributing Scenario: Industrial (PROC2)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	9.6 mg/m ³	N/A	0.01
dermal, systemic, long-term	1.4 mg/kg bw/day	N/A	0.004
combined routes, systemic, long-term	N/A	N/A	0.0141

3.3. CS4: Worker Contributing Scenario: Industrial (PROC3)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	19 mg/m ³	N/A	0.02
dermal, systemic, long-term	0.69 mg/kg bw/day	N/A	0.002
combined routes, systemic, long-term	N/A	N/A	0.0222

3.3. CS5: Worker Contributing Scenario: Industrial (PROC4)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
---	----------------	--------------------	-----------------------------------

inhalative, systemic, long-term	38 mg/m ³	N/A	0.04
dermal, systemic, long-term	6.9 mg/kg bw/day	N/A	0.02
combined routes, systemic, long-term	N/A	N/A	0.0603

3.3. CS6: Worker Contributing Scenario: Industrial (PROC5)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	96 mg/m ³	N/A	0.101
dermal, systemic, long-term	14 mg/kg bw/day	N/A	0.04
combined routes, systemic, long-term	N/A	N/A	0.141

3.3. CS7: Worker Contributing Scenario: Industrial (PROC7)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	140 mg/m ³	N/A	0.151
dermal, systemic, long-term	43 mg/kg bw/day	N/A	0.125
combined routes, systemic, long-term	N/A	N/A	0.276

3.3. CS8: Worker Contributing Scenario: Industrial (PROC8a)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	96 mg/m ³	N/A	0.101
dermal, systemic, long-term	96 mg/kg bw/day	N/A	0.04
combined routes, systemic, long-term	N/A	N/A	0.141

3.3. CS9: Worker Contributing Scenario: Industrial (PROC8b)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	48 mg/m ³	N/A	0.05
dermal, systemic, long-term	14 mg/kg bw/day	N/A	0.04
combined routes, systemic, long-term	N/A	N/A	0.0904

3.3. CS10: Worker Contributing Scenario: Industrial (PROC10)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
---	----------------	--------------------	-----------------------------------

inhalative, systemic, long-term	96 mg/m ³	N/A	0.101
dermal, systemic, long-term	27 mg/kg bw/day	N/A	0.08
combined routes, systemic, long-term	N/A	N/A	0.181

3.3. CS11: Worker Contributing Scenario: Industrial (PROC13)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	96 mg/m ³	N/A	0.101
dermal, systemic, long-term	14 mg/kg bw/day	N/A	0.04
combined routes, systemic, long-term	N/A	N/A	0.141

3.3. CS12: Worker Contributing Scenario: Industrial (PROC15)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	19 mg/m ³	N/A	0.02
dermal, systemic, long-term	0.34 mg/kg bw/day	N/A	< 0.01
combined routes, systemic, long-term	N/A	N/A	0.0212

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 Use at industrial site

4.1 TITLE SECTION

Exposure Scenario name	Fuel
Date - Version	22/07/2019 - 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	ERC7
----------------	------

Worker Contributing Scenario

CS2 Industrial	PROC1
CS3 Industrial	PROC2
CS4 Industrial	PROC3
CS5 Industrial	PROC8a
CS6 Industrial	PROC8b
CS7 Industrial	PROC15
CS8 Industrial	PROC16

4.2 Conditions of use affecting exposure

4.2. CS1: Environment Contributing Scenario: Covered by (ERC7)

Environmental release categories	Use of functional fluid at industrial site (ERC7)
----------------------------------	---

Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

< 10 kPa

Amount used, frequency and duration of use (or from service life)

Amounts used:

Annual site tonnage 20000 t(tonnes)/year

Maximum allowable site tonnage (MSafe): 14500000 kg/day

Release type: Continuous release

Emission days: 300 days per year

Technical and organisational conditions and measures

Control measures to prevent releases

Provide onsite wastewater removal efficiency of ³ (%):

Water - minimum efficiency of: 87 %

Conditions and measures related to sewage treatment plant

STP type:

Municipal Sewage Treatment Plant
Water - minimum efficiency of: = 87 %

STP effluent (m³/day): 2000

Conditions and measures related to treatment of waste (including article waste)

Waste treatment

Product residual disposal complies with applicable regulations.

Other conditions affecting environmental exposure

Local marine water dilution factor: 100

Local freshwater dilution factor: 10

Receiving surface water flow: 2000 m³/day

Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply.

Additional Good Practice Advice:

Adequate closed storage facilities (e.g., bulk storage tanks, intermediate bulk containers, drums) are required.

4.2. 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

Physical form of product:

Liquid

Vapour pressure:

< 10 kPa

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

Technical and organisational conditions and measures

Technical and organisational measures

Handle substance within a closed system.
Store substance within a closed system.

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

Personal protection

Use suitable eye protection.

4.2. 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

Physical form of product:

Liquid

Vapour pressure:

< 10 kPa

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	
<i>Technical and organisational conditions and measures</i>	
Technical and organisational measures Handle substance within a closed system. Store substance within a closed system.	
<i>Conditions and measures related to personal protection, hygiene and health evaluation</i>	
Personal protection Use suitable eye protection.	
4.2. 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)
<i>Product (article) characteristics</i>	
Physical form of product: Liquid	
Vapour pressure: < 10 kPa	
Concentration of substance in product: Covers percentage substance in the product up to 100 %.	
<i>Amount used, frequency and duration of use/exposure</i>	
Duration: Covers daily exposures up to 8 hours	
<i>Technical and organisational conditions and measures</i>	
Technical and organisational measures Handle substance within a closed system. Store substance within a closed system.	
<i>Conditions and measures related to personal protection, hygiene and health evaluation</i>	
Personal protection Use suitable eye protection.	
4.2. CS5: Worker Contributing Scenario: Industrial (PROC8a)	
Process Categories	Transfer of substance or mixture (charging and discharging) at non-dedicated facilities (PROC8a)
<i>Product (article) characteristics</i>	
Physical form of product: Liquid	
Vapour pressure: < 10 kPa	
Concentration of substance in product: Covers percentage substance in the product up to 100 %.	
<i>Amount used, frequency and duration of use/exposure</i>	
Duration: Covers daily exposures up to 8 hours	
<i>Technical and organisational conditions and measures</i>	
Technical and organisational measures Handle substance within a closed system. Store substance within a closed system.	
<i>Conditions and measures related to personal protection, hygiene and health evaluation</i>	

Personal protection

Use suitable eye protection.

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

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

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

Liquid

Vapour pressure:

< 10 kPa

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

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

Handle substance within a closed system.

Store substance within a closed system.

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

Use suitable eye protection.

4.2. CS7: Worker Contributing Scenario: Industrial (PROC15)**Process Categories**

Use as laboratory reagent (PROC15)

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

Liquid

Vapour pressure:

< 10 kPa

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

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

Handle substance within a closed system.

Store substance within a closed system.

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

Use suitable eye protection.

4.2. CS8: Worker Contributing Scenario: Industrial (PROC16)**Process Categories**

Use of fuels (PROC16)

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

Liquid

Vapour pressure:

< 10 kPa

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

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

Handle substance within a closed system.
Store substance within a closed system.

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

Use suitable eye protection.

4.3 Exposure estimation and reference to its source**4.3. CS1: Environment Contributing Scenario: Covered by (ERC7)**

Release route	Release rate	Release estimation method
Air	0.0025 %	N/A
Water	1E-05 %	N/A
soil	0 %	N/A

protection target	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
wastewater treatment plant microbes	0.0421 mg/L	N/A	7.26E-05
freshwater	0.00657 mg/L	N/A	0.00684
freshwater sediment	0.00685 mg/kg bw/day	N/A	0.00685
marine water	0.00363 mg/L	N/A	0.00459
marine sediment	0.0139 mg/kg bw/day	N/A	0.00459
soil	0.00694 mg/kg bw/day	N/A	0.0408

4.3. CS2: Worker Contributing Scenario: Industrial (PROC1)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	0.019 mg/m ³	N/A	< 0.001
dermal, systemic, long-term	0.03 mg/kg bw/day	N/A	< 0.001
combined routes, systemic, long-term	N/A	N/A	< 0.001

4.3. CS3: Worker Contributing Scenario: Industrial (PROC2)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	9.6 mg/m ³	N/A	0.01
dermal, systemic, long-term	1.4 mg/kg bw/day	N/A	0.004
combined routes, systemic, long-term	N/A	N/A	0.0222

4.3. CS4: Worker Contributing Scenario: Industrial (PROC3)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	19 mg/m ³	N/A	0.02
dermal, systemic, long-term	0.69 mg/kg bw/day	N/A	0.002
combined routes, systemic, long-term	N/A	N/A	0.222

4.3. CS5: Worker Contributing Scenario: Industrial (PROC8a)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	96 mg/m ³	N/A	0.101
dermal, systemic, long-term	14 mg/m ³	N/A	0.04
combined routes, systemic, long-term	N/A	N/A	0.141

4.3. CS6: Worker Contributing Scenario: Industrial (PROC8b)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	48 mg/m ³	N/A	0.05
dermal, systemic, long-term	14 mg/kg bw/day	N/A	0.04
combined routes, systemic, long-term	N/A	N/A	0.0904

4.3. CS7: Worker Contributing Scenario: Industrial (PROC15)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	19 mg/m ³	N/A	0.02
dermal, systemic, long-term	0.34 mg/kg bw/day	N/A	< 0.001

combined routes, systemic, long-term	N/A	N/A	0.0112
--------------------------------------	-----	-----	--------

4.3. CS8: Worker Contributing Scenario: Industrial (PROC16)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	9.6 mg/m ³	N/A	0.01
dermal, systemic, long-term	0.34 mg/kg bw/day	N/A	< 0.001
combined routes, systemic, long-term	N/A	N/A	0.0111

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.

5. ES 5 Widespread use by professional workers

5.1 TITLE SECTION

Exposure Scenario name	Solvent
Date - Version	23/07/2019 - 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	PROC5 - PROC8a
CS7 General use from professional operators	PROC8b
CS8 General use from professional operators	PROC10
CS9 General use from professional operators	PROC11
CS10 General use from professional operators	PROC11
CS11 General use from professional operators	PROC13
CS12 General use from professional operators	PROC19

5.2 Conditions of use affecting exposure

5.2. 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) - Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor) (ERC8a, ERC8d)
----------------------------------	---

Product (article) characteristics

Physical form of product:

Liquid, vapour pressure 0,5 - 10 kPa at STP

Amount used, frequency and duration of use (or from service life)

Amounts used:

Annual site tonnage 0.1 t(tonnes)/year

Maximum allowable site tonnage (MSafe): 715 kg/day

Release type: Continuous release

Emission days: 365 days per year

Technical and organisational conditions and measures

Control measures to prevent releases

Treat air emission to provide the required removal efficiency of (%):	Air - minimum efficiency of: 90 %
Prevent discharge of undissolved substance to or recover from onsite wastewater.	

Conditions and measures related to treatment of waste (including article waste)

Waste treatment

Hazardous waste incineration	Waste - minimum efficiency of: 99.98 %
------------------------------	--

5.2. 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, vapour pressure 0,5 - 10 kPa at STP

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

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

Personal protection

Use suitable eye protection.

5.2. 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, vapour pressure 0,5 - 10 kPa at STP

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

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

Personal protection

Use suitable eye protection.

5.2. 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, vapour pressure 0,5 - 10 kPa at STP

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

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

Personal protection

Use suitable eye protection.

5.2. 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, vapour pressure 0,5 - 10 kPa at STP

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

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

Personal protection

Use suitable eye protection.

5.2. CS6: Worker Contributing Scenario: General use from professional operators (PROC5, PROC8a)

Process Categories

Mixing or blending in batch processes - Transfer of substance or mixture (charging and discharging) at non-dedicated facilities (PROC5, PROC8a)

Product (article) characteristics

Physical form of product:

Liquid, vapour pressure 0,5 - 10 kPa at STP

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

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

Personal protection

Use suitable eye protection.

5.2. CS7: 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, vapour pressure 0,5 - 10 kPa at STP

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

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

Personal protection

Use suitable eye protection.

5.2. 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, vapour pressure 0,5 - 10 kPa at STP

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

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

Use suitable eye protection.

5.2. CS9: Worker Contributing Scenario: General use from professional operators (PROC11)**Process Categories**

Non industrial spraying (PROC11)

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

Liquid, vapour pressure 0,5 - 10 kPa at STP

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

*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**

Use suitable eye protection.

Wear suitable gloves tested to EN374.

Other conditions affecting worker exposure

Indoor use

5.2. CS10: Worker Contributing Scenario: General use from professional operators (PROC11)**Process Categories**

Non industrial spraying (PROC11)

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

Liquid, vapour pressure 0,5 - 10 kPa at STP

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

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

Use suitable eye protection.

Wear suitable gloves tested to EN374.

Wear a respirator conforming to EN140.

Other conditions affecting worker exposure

Outdoor use

5.2. CS11: 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, vapour pressure 0,5 - 10 kPa at STP

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

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

Personal protection

Use suitable eye protection.

Wear suitable gloves tested to EN374.

5.2. CS12: Worker Contributing Scenario: General use from professional operators (PROC19)

Process Categories

Manual activities involving hand contact (PROC19)

Product (article) characteristics

Physical form of product:

Liquid, vapour pressure 0,5 - 10 kPa at STP

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

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

Personal protection

Use suitable eye protection.

Wear suitable gloves tested to EN374.

5.3 Exposure estimation and reference to its source

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

Release route	Release rate	Release estimation method
Air	0.98 %	N/A
Water	0.01 %	N/A

soil	0.01 %	N/A
------	--------	-----

protection target	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
wastewater treatment plant microbes	0.000173 mg/L	N/A	2.98E-07
freshwater	0.00238 mg/L	N/A	0.00248
freshwater sediment	0.00912 mg/kg bw/day	N/A	0.00248
marine sediment	0.000303 mg/L	N/A	0.000384
marine sediment	0.00116 mg/kg bw/day	N/A	0.000383
soil	0.00116 mg/kg bw/day	N/A	0.00682

5.3. 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	0.019 mg/m ³	N/A	< 0.001
dermal, systemic, long-term	0.03 mg/kg bw/day	N/A	< 0.001
combined routes, systemic, long-term	N/A	N/A	< 0.001

5.3. 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	38 mg/m ³	N/A	0.04
dermal, systemic, long-term	1.4 mg/kg bw/day	N/A	0.004
combined routes, systemic, long-term	N/A	N/A	0.0443

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

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	48 mg/m ³	N/A	0.05
dermal, systemic, long-term	0.69 mg/kg bw/day	N/A	0.002
combined routes, systemic, long-term	N/A	N/A	0.0524

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

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	96 mg/m ³	N/A	0.101
dermal, systemic, long-term	6.9 mg/kg bw/day	N/A	0.02
combined routes, systemic, long-term	N/A	N/A	0.121

5.3. CS6: Worker Contributing Scenario: General use from professional operators (PROC5, PROC8a)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	190 mg/m ³	N/A	0.202
dermal, systemic, long-term	14 mg/kg bw/day	N/A	0.04
combined routes, systemic, long-term	N/A	N/A	0.242

5.3. CS7: 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	96 mg/m ³	N/A	0.202
dermal, systemic, long-term	14 mg/kg bw/day	N/A	0.04
combined routes, systemic, long-term	N/A	N/A	0.141

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

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	190 mg/m ³	N/A	0.202
dermal, systemic, long-term	27 mg/kg bw/day	N/A	0.08
combined routes, systemic, long-term	N/A	N/A	0.282

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

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	290 mg/m ³	N/A	0.303
dermal, systemic, long-term	21 mg/kg bw/day	N/A	0.062
combined routes, systemic, long-term	N/A	N/A	0.365

5.3. CS10: 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	67 mg/m ³	N/A	0.071
dermal, systemic, long-term	21 mg/kg bw/day	N/A	0.062
combined routes, systemic, long-term	N/A	N/A	0.133

5.3. CS11: Worker Contributing Scenario: General use from professional operators (PROC13)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	190 mg/m ³	N/A	0.202
dermal, systemic, long-term	2.7 mg/kg bw/day	N/A	0.008
combined routes, systemic, long-term	N/A	N/A	0.21

5.3. CS12: Worker Contributing Scenario: General use from professional operators (PROC19)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	190 mg/m ³	N/A	0.202
dermal, systemic, long-term	28 mg/kg bw/day	N/A	0.082
combined routes, systemic, long-term	N/A	N/A	0.284

5.4 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.

6. ES 6 Widespread use by professional workers

6.1 TITLE SECTION

Exposure Scenario name	Fuel
Date - Version	23/07/2019 - 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	ERC9a - ERC9b
----------------	---------------

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	PROC8a
CS6 General use from professional operators	PROC8b
CS7 General use from professional operators	PROC16

6.2 Conditions of use affecting exposure

6.2. CS1: Environment Contributing Scenario: Covered by (ERC9a, ERC9b)

Environmental release categories	Widespread use of functional fluid (indoor) - Widespread use of functional fluid (outdoor) (ERC9a, ERC9b)
----------------------------------	---

Product (article) characteristics

Physical form of product:

Liquid, vapour pressure 0,5 - 10 kPa at STP

Amount used, frequency and duration of use (or from service life)

Amounts used:

Annual site tonnage 1 t(tonnes)/year

Maximum allowable site tonnage (MSafe): 7190 kg/day

Release type: Continuous release

Emission days: 365 days per year

Technical and organisational conditions and measures

Control measures to prevent releases

Prevent discharge of undissolved substance to or recover from onsite wastewater.

Conditions and measures related to treatment of waste (including article waste)

Waste treatment

Product residual disposal complies with applicable regulations.

6.2. 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, vapour pressure 0,5 - 10 kPa at STP

Concentration of substance in product:

Covers percentage substance in the product up to 100 %.

Technical and organisational conditions and measures

Technical and organisational measures

Handle substance within a closed system.
Store substance within a closed system.

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

Personal protection

Use suitable eye protection.

6.2. 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, vapour pressure 0,5 - 10 kPa at STP

Concentration of substance in product:

Covers percentage substance in the product up to 100 %.

Technical and organisational conditions and measures

Technical and organisational measures

Handle substance within a closed system.
Store substance within a closed system.

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

Personal protection

Use suitable eye protection.

6.2. 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, vapour pressure 0,5 - 10 kPa at STP

Concentration of substance in product:

Covers percentage substance in the product up to 100 %.

Technical and organisational conditions and measures

Technical and organisational measures

Handle substance within a closed system.
Store substance within a closed system.

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

Personal protection

Use suitable eye protection.

6.2. CS5: 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, vapour pressure 0,5 - 10 kPa at STP

Concentration of substance in product:

Covers percentage substance in the product up to 100 %.

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

Handle substance within a closed system.
Store substance within a closed system.

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

Use suitable eye protection.

6.2. 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, vapour pressure 0,5 - 10 kPa at STP

Concentration of substance in product:

Covers percentage substance in the product up to 100 %.

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

Handle substance within a closed system.
Store substance within a closed system.

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

Use suitable eye protection.

6.2. CS7: Worker Contributing Scenario: General use from professional operators (PROC16)**Process Categories**

Use of fuels (PROC16)

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

Liquid, vapour pressure 0,5 - 10 kPa at STP

Concentration of substance in product:

Covers percentage substance in the product up to 100 %.

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

Handle substance within a closed system.
Store substance within a closed system.

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

Use suitable eye protection.

6.3 Exposure estimation and reference to its source**6.3. CS1: Environment Contributing Scenario: Covered by (ERC9a, ERC9b)**

Release route	Release rate	Release estimation method
Air	0.01 %	N/A
Water	1E-05 %	N/A

soil	0 %	N/A
------	-----	-----

6.3. 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	0.019 mg/m ³	N/A	< 0.001
dermal, systemic, long-term	0.03 mg/kg bw/day	N/A	< 0.001
combined routes, systemic, long-term	N/A	N/A	< 0.001

6.3. 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	38 mg/m ³	N/A	0.04
dermal, systemic, long-term	1.4 mg/kg bw/day	N/A	0.004
combined routes, systemic, long-term	N/A	N/A	0.0443

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

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	48 mg/m ³	N/A	0.05
dermal, systemic, long-term	0.69 mg/kg bw/day	N/A	0.002
combined routes, systemic, long-term	N/A	N/A	0.0524

6.3. CS5: 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	190 mg/m ³	N/A	0.202
dermal, systemic, long-term	14 mg/kg bw/day	N/A	0.04
combined routes, systemic, long-term	N/A	N/A	0.242

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

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	96 mg/m ³	N/A	0.101
dermal, systemic, long-term	14 mg/kg bw/day	N/A	0.04

combined routes, systemic, long-term	N/A	N/A	0.141
--------------------------------------	-----	-----	-------

6.3. CS7: Worker Contributing Scenario: General use from professional operators (PROC16)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	19 mg/m ³	N/A	0.02
dermal, systemic, long-term	0.34 mg/kg bw/day	N/A	< 0.001
combined routes, systemic, long-term	N/A	N/A	0.0212

6.4 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.

7. ES 7 Consumer use; Fuels (PC13)

7.1 TITLE SECTION

Exposure Scenario name	Fuel
Date - Version	23/07/2019 - 1.0
Life Cycle Stage	Consumer use
Main user group	Consumer uses
Sector(s) of use	Consumer uses (SU21)
Product Categories	Fuels (PC13)

Environment Contributing Scenario

CS1 Covered by	ERC9b
----------------	-------

Consumer Contributing Scenario

CS2 Consumer	PC13 - PC13_1
CS3 Consumer	PC13 - PC13_2
CS4 Consumer	PC13 - PC13_3
CS5 Consumer	PC13 - PC13_4

7.2 Conditions of use affecting exposure

7.2. CS1: Environment Contributing Scenario: Covered by (ERC9b)

Environmental release categories	Widespread use of functional fluid (outdoor) (ERC9b)
----------------------------------	--

Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

5726 Pa

Conditions and measures related to treatment of waste (including article waste)

Waste treatment

Product residual disposal complies with applicable regulations.

Other conditions affecting environmental exposure

Local marine water dilution factor: 100

Local freshwater dilution factor: 10

7.2. CS2: Consumer Contributing Scenario: Consumer (PC13)

Product Categories	Fuels (PC13)
Product (Sub-)Categories	Liquid: Automotive Refuelling (PC13_1)

Product (article) characteristics

Concentration of substance in product:

Covers concentrations up to 85 %

Amount used, frequency and duration of use/exposure

Amounts used:

Amount per use 37500 g

Duration:

Exposure duration 0.05 h/event

Frequency:

Covers use up to 51 times per year

Other conditions affecting consumers exposure

Outdoor use

Additional conditions human healthCovers skin contact area up to 210 cm²**7.2. CS3: Consumer Contributing Scenario: Consumer (PC13)****Product Categories**

Fuels (PC13)

Product (Sub-)Categories

Liquid Scooter Refuelling (PC13_2)

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

Covers concentrations up to 85 %

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

Amount per use 37500 g

Duration:

Exposure duration 0.033 h/event

Frequency:

Covers use up to 51 times per year

Other conditions affecting consumers exposure

Outdoor use

Additional conditions human healthCovers skin contact area up to 210 cm²**7.2. CS4: Consumer Contributing Scenario: Consumer (PC13)****Product Categories**

Fuels (PC13)

Product (Sub-)Categories

Liquid, Garden equipment - Use (PC13_3)

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

Covers concentrations up to 15 %

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

Amount per use 750 g

Duration:

Exposure duration 2 h/event

Frequency:

Covers use up to 25 times per year

Other conditions affecting consumers exposure

Outdoor use

Additional conditions human healthCovers skin contact area up to 210 cm²**7.2. CS5: Consumer Contributing Scenario: Consumer (PC13)****Product Categories**

Fuels (PC13)

Product (Sub-)Categories	Liquid: Garden equipment - Refuelling (PC13_4)
Product (article) characteristics	
Concentration of substance in product: Covers concentrations up to 85 %	
Amount used, frequency and duration of use/exposure	
Amounts used: Amount per use 750 g	
Duration: Exposure duration 0.05 h/event	
Frequency: Covers use up to 25 times per year	
Other conditions affecting consumers exposure	
Room size: Covers use in a one car garage (>34 m ³) under typical ventilation.	
Temperature: Covers use at ambient temperatures.	
Additional conditions human health Covers skin contact area up to 210 cm ²	

7.3 Exposure estimation and reference to its source

7.3. CS1: Environment Contributing Scenario: Covered by (ERC9b)

protection target	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
freshwater	0.0236 mg/L	N/A	0.00246
freshwater sediment	0.00905 mg/kg bw/day	N/A	0.00246
marine water	0.0003 mg/L	N/A	0.00038
marine sediment	0.0015 mg/kg bw/day	N/A	0.00038
marine sediment	0.0015 mg/kg bw/day	N/A	0.00676

7.2. CS2: Consumer Contributing Scenario: Consumer (PC13)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	0.187 mg/m ³	N/A	0.00164
inhalative, local, short-term	1.3 mg/m ³	N/A	0.0114
dermal, systemic, long-term	0.117 mg/kg bw/day	N/A	8.1E-05
combined routes, systemic, long-term	N/A	N/A	0.0114

7.2. CS3: Consumer Contributing Scenario: Consumer (PC13)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	0.0612 mg/m ³	N/A	0.000544

inhalative, local, short-term	0.434 mg/m ³	N/A	0.0038
dermal, systemic, long-term	0.117 mg/kg bw/day	N/A	8.1E-05
combined routes, systemic, long-term	N/A	N/A	0.00388

7.2. CS4: Consumer Contributing Scenario: Consumer (PC13)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	0.0764 mg/m ³	N/A	0.00067
inhalative, local, short-term	1.09 mg/m ³	N/A	0.00956
dermal, systemic, long-term	4.13 mg/kg bw/day	N/A	0.0014
combined routes, systemic, long-term	N/A	N/A	0.0109

7.2. CS5: Consumer Contributing Scenario: Consumer (PC13)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	0.079 mg/m ³	N/A	0.000692
inhalative, local, short-term	1.12 mg/m ³	N/A	0.00982
dermal, systemic, long-term	0.117 mg/kg bw/day	N/A	3.98E-05
combined routes, systemic, long-term	N/A	N/A	0.00986

7.4 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.

8. ES 8 Consumer use; Various products (PC1, PC3, PC8, PC18, PC23)

8.1 TITLE SECTION

Exposure Scenario name	Cosumer other uses
Date - Version	23/07/2019 - 1.0
Life Cycle Stage	Consumer use
Main user group	Consumer uses
Sector(s) of use	Consumer uses (SU21)
Product Categories	Adhesives, sealants (PC1) - Air care products (PC3) - Biocidal products (PC8) - Ink and toners (PC18) - Leather treatment products (PC23) - Lubricants, greases, release products (PC24) - Plant protection products (PC27) - Polishes and wax blends (PC31) - Textile dyes and impregnating products (PC34)

Environment Contributing Scenario

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

Consumer Contributing Scenario

CS2 Consumer	PC1 - PC1_1
CS3 Consumer	PC1 - PC1_3
CS4 Consumer	PC1 - PC1_4
CS5 Consumer	PC3 - PC3_1
CS6 Consumer	PC3 - PC3_2
CS7 Consumer	PC8 - PC35_1, PC8_1
CS8 Consumer	PC8 - PC8_2, PC35_2
CS9 Consumer	PC8 - PC8_3, PC35_3
CS10 Consumer	PC18
CS11 Consumer	PC23 - PC23_1, PC31_1
CS12 Consumer	PC23 - PC23_2, PC31_2
CS13 Consumer	PC24 - PC16_1, PC17_1, PC24_1, 36
CS14 Consumer	PC27
CS15 Consumer	PC31 - PC23_1, PC31_1
CS16 Consumer	PC31 - PC23_2, PC31_2

8.2 Conditions of use affecting exposure

8.2. 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) - Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor) (ERC8a, ERC8d)
----------------------------------	---

Product (article) characteristics

Physical form of product:

Liquid, vapour pressure > 10 kPa at STP

Conditions and measures related to treatment of waste (including article waste)

Waste treatment

Hazardous waste incineration

Waste - minimum efficiency of: 99.8 %

Other conditions affecting environmental exposure

Local marine water dilution factor: 100

Local freshwater dilution factor: 10

Receiving surface water flow: 2000 m³/day

8.2. CS2: Consumer Contributing Scenario: Consumer (PC1)

Product Categories Adhesives, sealants (PC1)

Product (Sub-)Categories Glues, hobby use (PC1_1)

Product (article) characteristics

Concentration of substance in product:

Covers concentrations up to 70 %

Amount used, frequency and duration of use/exposure

Amounts used:

Amount per use 50 g

Duration:

Exposure duration 4 h/event

Frequency:

Covers exposure up to 1 events per day

Other conditions affecting consumers exposure

Room size: Covers use in room size of 20 m³

Additional conditions human health

Covers skin contact area up to 35 cm²

8.2. CS3: Consumer Contributing Scenario: Consumer (PC1)

Product Categories Adhesives, sealants (PC1)

Product (Sub-)Categories Glue from spray (PC1_3)

Product (article) characteristics

Concentration of substance in product:

Covers concentrations up to 30 %

Amount used, frequency and duration of use/exposure

Amounts used:

Amount per use 50 g

Duration:

Exposure duration 4 h/event

Frequency:

Covers exposure up to 6 times per year

Other conditions affecting consumers exposure

Room size: Covers use in room size of 20 m³

Additional conditions human health

Covers skin contact area up to 35 cm²

8.2. CS4: Consumer Contributing Scenario: Consumer (PC1)

Product Categories Adhesives, sealants (PC1)

Product (Sub-)Categories	Sealants (PC1_4)
<i>Product (article) characteristics</i>	
Concentration of substance in product: Covers concentrations up to 30 %	
<i>Amount used, frequency and duration of use/exposure</i>	
Amounts used: Amount per use 50 g	
Duration: Exposure duration 1 h/event	
Frequency: Covers exposure up to 1 events per day	
<i>Other conditions affecting consumers exposure</i>	
Room size: Covers use in room size of 20 m ³	
Additional conditions human health Covers skin contact area up to 35 cm ²	
8.2. CS5: Consumer Contributing Scenario: Consumer (PC3)	
Product Categories	Air care products (PC3)
Product (Sub-)Categories	Air care, instant action (aerosol sprays) (PC3_1)
<i>Product (article) characteristics</i>	
Concentration of substance in product: Covers concentrations up to 40 %	
<i>Amount used, frequency and duration of use/exposure</i>	
Amounts used: Amount per use 50 g	
Duration: Exposure duration 0.3 h/event	
Frequency: Covers exposure up to 4 events per day	
<i>Other conditions affecting consumers exposure</i>	
Room size: Covers use in room size of 20 m ³	
Additional conditions human health Covers skin contact area up to 35 cm ²	
8.2. CS6: Consumer Contributing Scenario: Consumer (PC3)	
Product Categories	Air care products (PC3)
Product (Sub-)Categories	Air care, continuous action (solid and liquid) (PC3_2)
<i>Product (article) characteristics</i>	
Concentration of substance in product: Covers concentrations up to 10 %	
<i>Amount used, frequency and duration of use/exposure</i>	
Amounts used: Amount per use 50 g	
Duration: Exposure duration 8 h/event	
Frequency:	

Covers exposure up to 1 events per day

Other conditions affecting consumers exposure

Room size: Covers use in room size of 20 m³

Additional conditions human health

Covers skin contact area up to 35 cm²

8.2. CS7: Consumer Contributing Scenario: Consumer (PC8)

Product Categories	Biocidal products (PC8)
---------------------------	-------------------------

Product (Sub-)Categories	Laundry and dish washing products (PC35_1, PC8_1)
---------------------------------	---

Product (article) characteristics

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

Amount used, frequency and duration of use/exposure

Amounts used:

Amount per use 15 g

Duration:

Exposure duration 0.5 h/event

Frequency:

Covers exposure up to 1 events per day

Other conditions affecting consumers exposure

Room size: Covers use in room size of 20 m³

Additional conditions human health

Covers skin contact area up to 857 cm²

8.2. CS8: Consumer Contributing Scenario: Consumer (PC8)

Product Categories	Biocidal products (PC8)
---------------------------	-------------------------

Product (Sub-)Categories	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 percentage substance in the product up to 5 %.

Amount used, frequency and duration of use/exposure

Amounts used:

Amount per use 50 g

Duration:

Exposure duration 0.3 h/event

Frequency:

Covers exposure up to 125 times per year

Other conditions affecting consumers exposure

Room size: Covers use in room size of 20 m³

Additional conditions human health

Covers skin contact area up to 857 cm²

8.2. CS9: Consumer Contributing Scenario: Consumer (PC8)

Product Categories	Biocidal products (PC8)
---------------------------	-------------------------

Product (Sub-)Categories	Cleaners, trigger sprays (all purpose cleaners, sanitary products, glass cleaners) (PC8_3, PC35_3)
---------------------------------	--

Product (article) characteristics

Concentration of substance in product:

Covers concentrations up to 15 %

Amount used, frequency and duration of use/exposure

Amounts used:

Amount per use 50 g

Duration:

Exposure duration 0.2 h/event

Frequency:

Covers exposure up to 125 times per year

Other conditions affecting consumers exposure

Room size: Covers use in room size of 20 m³

Ventilation rate: Covers use under typical household ventilation.

Additional conditions human health

Covers skin contact area up to 428 cm²

8.2. CS10: Consumer Contributing Scenario: Consumer (PC18)

Product Categories

Ink and toners (PC18)

Product (article) characteristics

Concentration of substance in product:

Covers concentrations up to 50 %

Amount used, frequency and duration of use/exposure

Amounts used:

Amount per use 50 g

Duration:

Exposure duration 8 h/event

Frequency:

Covers exposure up to 1 uses per day

Other conditions affecting consumers exposure

Room size: Covers use in room size of 20 m³

Ventilation rate: Covers use under typical household ventilation.

Additional conditions human health

Covers skin contact area up to 71 cm²

8.2. CS11: Consumer Contributing Scenario: Consumer (PC23)

Product Categories

Leather treatment products (PC23)

Product (Sub-)Categories

Polishes, wax/cream (floor, furniture, shoes) (PC23_1, PC31_1)

Product (article) characteristics

Concentration of substance in product:

Covers concentrations up to 50 %

Amount used, frequency and duration of use/exposure

Amounts used:

Amount per use 50 g

Duration:

Exposure duration 1.2 h/event

Frequency:

Covers exposure up to 29 times per year

Other conditions affecting consumers exposure

Room size: Covers use in room size of 20 m³

Ventilation rate: Covers use under typical household ventilation.

Additional conditions human health

Covers skin contact area up to 430 cm²

8.2. CS12: Consumer Contributing Scenario: Consumer (PC23)

Product Categories	Leather treatment products (PC23)
---------------------------	-----------------------------------

Product (Sub-)Categories	Polishes, spray (furniture, shoes) (PC23_2, PC31_2)
---------------------------------	---

Product (article) characteristics

Concentration of substance in product:

Covers concentrations up to 20 %

Amount used, frequency and duration of use/exposure

Amounts used:

Amount per use 50 g

Duration:

Exposure duration 0.3 h/event

Frequency:

Covers exposure up to 8 times per year

Other conditions affecting consumers exposure

Room size: Covers use in room size of 20 m³

Ventilation rate: Covers use under typical household ventilation.

Additional conditions human health

Covers skin contact area up to 430 cm²

8.2. CS13: Consumer Contributing Scenario: Consumer (PC24)

Product Categories	Lubricants, greases, release products (PC24)
---------------------------	--

Product (Sub-)Categories	Liquids (PC16_1, PC17_1, PC24_1, 36)
---------------------------------	--------------------------------------

Product (article) characteristics

Concentration of substance in product:

Covers concentrations up to 20 %

Amount used, frequency and duration of use/exposure

Amounts used:

Amount per use 50 g

Duration:

Exposure duration 0.2 h/event

Frequency:

Covers exposure up to 4 times per year

Other conditions affecting consumers exposure

Room size: Covers use in room size of 20 m³

Ventilation rate: Covers use under typical household ventilation.

Additional conditions human health

Covers skin contact area up to 468 cm²

8.2. CS14: Consumer Contributing Scenario: Consumer (PC27)

Product Categories	Plant protection products (PC27)
---------------------------	----------------------------------

Product (article) characteristics

Concentration of substance in product:

Covers concentrations up to 50 %

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

Amount per use 50 g

Duration:

Exposure duration 0.3 h/event

Frequency:

Covers exposure up to 29 times per year

Other conditions affecting consumers exposure**Room size:** Covers use in room size of 20 m³**Ventilation rate:** Covers use under typical household ventilation.**Additional conditions human health**Covers skin contact area up to 857 cm²**8.2. CS15: Consumer Contributing Scenario: Consumer (PC31)****Product Categories**

Polishes and wax blends (PC31)

Product (Sub-)Categories

Polishes, wax/cream (floor, furniture, shoes) (PC23_1, PC31_1)

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

Covers concentrations up to 50 %

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

Amount per use 50 g

Duration:

Exposure duration 1.2 h/event

Frequency:

Covers exposure up to 29 times per year

Other conditions affecting consumers exposure**Room size:** Covers use in room size of 20 m³**Ventilation rate:** Covers use under typical household ventilation.**Additional conditions human health**Covers skin contact area up to 430 cm²**8.2. CS16: Consumer Contributing Scenario: Consumer (PC31)****Product Categories**

Polishes and wax blends (PC31)

Product (Sub-)Categories

Polishes, spray (furniture, shoes) (PC23_2, PC31_2)

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

Covers concentrations up to 10 %

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

Amount per use 50 g

Duration:

Exposure duration 0.3 h/event

Frequency:

Covers exposure up to 8 times per year

Other conditions affecting consumers exposure

Room size: Covers use in room size of 20 m³

Ventilation rate: Covers use under typical household ventilation.

Additional conditions human health

Covers skin contact area up to 430 cm²

8.3 Exposure estimation and reference to its source

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

protection target	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
wastewater treatment plant microbes	0.273 mg/L	N/A	0.000471
freshwater	0.0297 mg/L	N/A	0.0309
freshwater sediment	0.114 mg/kg bw/day	N/A	0.031
marine water	0.00304 mg/L	N/A	0.00385
marine sediment	0.0116 mg/kg bw/day	N/A	0.00383
soil	0.116 mg/kg bw/day	N/A	0.00676

8.2. CS2: Consumer Contributing Scenario: Consumer (PC1)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	111 mg/m ³	N/A	0.973
inhalative, local, short-term	111 mg/m ³	N/A	0.973
dermal, systemic, long-term	3.28 mg/kg bw/day	N/A	0.0159
combined routes, systemic, long-term	N/A	N/A	0.989

8.2. CS3: Consumer Contributing Scenario: Consumer (PC1)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	0.788 mg/m ³	N/A	0.00682
inhalative, local, short-term	47.3 mg/m ³	N/A	0.414
dermal, systemic, long-term	1.4 mg/kg bw/day	N/A	0.000112
combined routes, systemic, long-term	N/A	N/A	0.212

8.2. CS4: Consumer Contributing Scenario: Consumer (PC1)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
---	----------------	--------------------	-----------------------------------

inhalative, systemic, long-term	23.5 mg/m ³	N/A	0.206
inhalative, local, short-term	23.5 mg/m ³	N/A	0.206
dermal, systemic, long-term	1.4 mg/kg bw/day	N/A	0.00679
combined routes, systemic, long-term	N/A	N/A	0.212

8.2. CS5: Consumer Contributing Scenario: Consumer (PC3)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	38.7 mg/m ³	N/A	0.339
inhalative, local, short-term	38.7 mg/m ³	N/A	0.339
dermal, systemic, long-term	7.51 mg/kg bw/day	N/A	0.0364
combined routes, systemic, long-term	N/A	N/A	0.375

8.2. CS6: Consumer Contributing Scenario: Consumer (PC3)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	17.1 mg/m ³	N/A	0.15
inhalative, local, short-term	17.1 mg/m ³	N/A	0.15
dermal, systemic, long-term	0.469 mg/kg bw/day	N/A	0.00227
combined routes, systemic, long-term	N/A	N/A	0.152

8.2. CS7: Consumer Contributing Scenario: Consumer (PC8)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	0.672 mg/m ³	N/A	0.00589
inhalative, local, short-term	0.672 mg/m ³	N/A	0.00589
dermal, systemic, long-term	5.63 mg/kg bw/day	N/A	0.000273
combined routes, systemic, long-term	N/A	N/A	0.00616

8.2. CS8: Consumer Contributing Scenario: Consumer (PC8)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	0.543 mg/m ³	N/A	0.00476
inhalative, local, short-term	1.55 mg/m ³	N/A	0.0135

dermal, systemic, long-term	5.63 mg/kg bw/day	N/A	0.00956
combined routes, systemic, long-term	N/A	N/A	0.0231

8.2. CS9: Consumer Contributing Scenario: Consumer (PC8)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	0.885 mg/m ³	N/A	0.00776
inhalative, local, short-term	2.52 mg/m ³	N/A	0.0221
dermal, systemic, long-term	8.43 mg/kg bw/day	N/A	0.0143
combined routes, systemic, long-term	N/A	N/A	0.0364

8.2. CS10: Consumer Contributing Scenario: Consumer (PC18)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	86 mg/m ³	N/A	0.754
inhalative, local, short-term	86 mg/m ³	N/A	0.754
dermal, systemic, long-term	4.69 mg/kg bw/day	N/A	0.0227
combined routes, systemic, long-term	N/A	N/A	0.777

8.2. CS11: Consumer Contributing Scenario: Consumer (PC23)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	3.62 mg/m ³	N/A	0.0317
inhalative, local, short-term	45.3 mg/m ³	N/A	0.397
dermal, systemic, long-term	28.2 mg/kg bw/day	N/A	0.0109
combined routes, systemic, long-term	N/A	N/A	0.408

8.2. CS12: Consumer Contributing Scenario: Consumer (PC23)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	0.136 mg/m ³	N/A	0.00119
inhalative, local, short-term	6.24 mg/m ³	N/A	0.0547
dermal, systemic, long-term	1.23 mg/kg bw/day	N/A	6.5E-05
combined routes, systemic, long-term	N/A	N/A	0.0295

8.2. CS13: Consumer Contributing Scenario: Consumer (PC24)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	0.0368 mg/m ³	N/A	0.000322
inhalative, local, short-term	3.36 mg/m ³	N/A	0.0294
dermal, systemic, long-term	1.23 mg/kg bw/day	N/A	6.5E-05
combined routes, systemic, long-term	N/A	N/A	0.0295

8.2. CS14: Consumer Contributing Scenario: Consumer (PC27)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	15.7 mg/m ³	N/A	0.137
inhalative, local, short-term	15.7 mg/m ³	N/A	0.137
dermal, systemic, long-term	11.2 mg/kg bw/day	N/A	0.0543
combined routes, systemic, long-term	N/A	N/A	0.226
oral, systemic, long-term	131.2 mg/kg bw/day	N/A	0.0344

8.2. CS15: Consumer Contributing Scenario: Consumer (PC31)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	3.62 mg/m ³	N/A	0.0317
inhalative, local, short-term	45.3 mg/m ³	N/A	0.397
dermal, systemic, long-term	28.2 mg/kg bw/day	N/A	0.0109
combined routes, systemic, long-term	N/A	N/A	0.408

8.2. CS16: Consumer Contributing Scenario: Consumer (PC31)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	0.0684 mg/m ³	N/A	0.0006
inhalative, local, short-term	3.12 mg/m ³	N/A	0.0273
dermal, systemic, long-term	5.65 mg/kg bw/day	N/A	0.000597
combined routes, systemic, long-term	N/A	N/A	0.0279

8.4 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.