

Safety Data Sheet

AUTOFA' FACCIO LO SHAMPOO L 1



Safety Data Sheet dated 21/8/2019, version 9

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

1.1. Product identifier

Mixture identification:

Trade name: AUTOFA' FACCIO LO SHAMPOO L 1
Trade code: 2060

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

Recommended use:

Product to clean outer car surfaces.

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
Centro Antiveleni di Pavia IRCCS- Fondazione Maugeri tel. +39 (0)382 24444 (h24; it, en)
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

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

EC regulation criteria 1272/2008 (CLP):

⚠ Warning, Eye Irrit. 2, Causes serious eye irritation.
Aquatic Chronic 3, Harmful 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:

H319 Causes serious eye irritation.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:

P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P103 Read label before use.
P273 Avoid release to the environment.
P280 Wear protective gloves and eye/face protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact



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lenses, if present and easy to do. Continue rinsing.

P501 Dispose of contents/container in accordance with applicable regulations.

Special Provisions:

PACK1 The packing must be featured by a safety lock for children.

PACK2 The packing must have tactile indications of danger for blind people.

Contains

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.

Alcohols, C12-14, ethoxylated, sulfates, sodium salts 1-2,5 moles ethoxylated

Cocamide DEA

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

None

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

Product contents:

Non-ionic surfactants

< 5 %

Anionic surfactants

5 - 15 %

Preservatives:

LAURYLAMINE DIPROPYLENEDIAMINE, 2-Methyl-2H-isothiazol-3-one, 1,2-benzisothiazol-3(2H)-one

2.3. Other hazards

vPvB Substances: None - PBT Substances: None

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:

>= 5% - < 7% Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.

REACH No.: 01-2119490234-40, CAS: 85536-14-7, EC: 287-494-3

⚠ 3.1/4/Oral Acute Tox. 4 H302

⚠ 3.3/1 Eye Dam. 1 H318

4.1/C3 Aquatic Chronic 3 H412

⚠ 3.2/1C Skin Corr. 1C H314

>= 3% - < 5% Alcohols, C12-14, ethoxylated, sulfates, sodium salts 1-2,5 moles ethoxylated

REACH No.: 01-2119488639-16, CAS: 68891-38-3, EC: 500-234-8

⚠ 3.3/1 Eye Dam. 1 H318

⚠ 3.2/2 Skin Irrit. 2 H315

4.1/C3 Aquatic Chronic 3 H412

Specific Concentration Limits:

5% <= C < 10%: Eye Irrit. 2 H319

C >= 10%: Eye Dam. 1 H318

>= 1% - < 2% Cocamide DEA

REACH No.: 01-2119490100-53, CAS: 68155-07-7, EC: 931-329-6

⚠ 3.3/1 Eye Dam. 1 H318

⚠ 3.2/2 Skin Irrit. 2 H315

⚠ 4.1/C2 Aquatic Chronic 2 H411

>= 0.5% - < 1% caustic soda

REACH No.: 01-2119457892-27, CAS: 1310-73-2, EC: 215-185-5

⚠ 3.2/1A Skin Corr. 1A H314

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Specific Concentration Limits:
0,1% <= C < 2%: Skin Irrit. 2 H315
0,1% <= C < 2%: Eye Irrit. 2 H319
2% <= C < 5%: Skin Corr. 1B H314
C >= 5%: Skin Corr. 1A H314

>= 0.05% - < 0.1% 2,2'-iminodiethanol
Index number: 603-071-00-1, CAS: 111-42-2, EC: 203-868-0
⚠ 3.1/4/Oral Acute Tox. 4 H302
⚠ 3.9/2 STOT RE 2 H373
⚠ 3.3/1 Eye Dam. 1 H318
⚠ 3.2/2 Skin Irrit. 2 H315
4.1/C3 Aquatic Chronic 3 H412

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

Immediately take off all contaminated clothing.
Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap.
Wash thoroughly the body (shower or bath).
Remove contaminated clothing immediately and dispose off safely.
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 induce vomiting.

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:

Not Recommended Extinguishing Media:

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.

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SECTION 6: Accidental release measures

- 6.1. Personal precautions, protective equipment and emergency procedures
 - Wear personal protection equipment.
 - Remove persons to safety.
 - See protective measures under point 7 and 8.
- 6.2. Environmental precautions
 - Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.
 - Retain contaminated washing water and dispose it.
 - In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.
 - Suitable material for taking up: absorbing material, organic, sand
- 6.3. Methods and material for containment and cleaning up
 - 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
 - caustic soda
 - CAS: 1310-73-2
 - ACGIH - STEL: Ceiling 2 mg/m³ - Notes: URT, eye, and skin irr
 - 2,2'-iminodiethanol - CAS: 111-42-2
 - ACGIH - TWA(8h): 1 mg/m³ - Notes: (IFV), Skin, A3 - Liver and kidney dam
- DNEL Exposure Limit Values
- Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. - CAS: 85536-14-7
 - Worker Professional: 85 mg/kg - Consumer: 42.5 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects
 - Worker Professional: 6 mg/m³ - Consumer: 1.5 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, systemic effects
 - Consumer: 0.425 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects
 - Alcohols, C12-14, ethoxylated, sulfates, sodium salts 1-2,5 moles ethoxylated - CAS: 68891-38-3
 - Consumer: 15 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects
 - Worker Professional: 175 mg/m³ - Consumer: 52 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, systemic effects
 - Worker Professional: 2750 mg/kg - Consumer: 1650 mg/kg - Exposure: Human Dermal -



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Frequency: Long Term, systemic effects
Worker Professional: 0.132 03 - Consumer: 0.079 03 - Exposure: Human Dermal -
Frequency: Long Term, local effects
Cocamide DEA - CAS: 68155-07-7
Consumer: 6.25 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic
effects
Worker Professional: 73.4 mg/m³ - Consumer: 21.7 mg/m³ - Exposure: Human
Inhalation - Frequency: Long Term, systemic effects
Worker Professional: 0.09 mg/kg - Consumer: 0.056 mg/kg - Exposure: Human Dermal -
Frequency: Long Term, local effects
Worker Professional: 4.16 mg/kg - Consumer: 2.5 mg/kg - Exposure: Human Dermal -
Frequency: Long Term, systemic effects

PNEC Exposure Limit Values

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. - CAS: 85536-14-7

Target: Fresh Water - Value: 0.268 mg/l

Target: Marine water - Value: 0.027 mg/l

Target: 09 - Value: 3.43 mg/l

Target: Freshwater sediments - Value: 8.1 mg/kg

Target: Marine water sediments - Value: 6.8 mg/kg

Cocamide DEA - CAS: 68155-07-7

Target: Fresh Water - Value: 0.007 mg/l

Target: Marine water - Value: 0.001 mg/l

Target: Freshwater sediments - Value: 0.195 mg/kg

Target: Marine water sediments - Value: 0.019 mg/kg

Target: 09 - Value: 0.83 mg/l

8.2. Exposure controls

Eye protection:

Use close fitting safety goggles, don't use eye lens.

Protection for skin:

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

Protection for hands:

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

Respiratory protection:

Not needed for normal use.

Thermal Hazards:

None

Environmental exposure controls:

None

Appropriate engineering controls:

None

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Method:	Notes:
Appearance and colour:	Liquid limpido	--	--
Odour:	Characteristic	--	--
Odour threshold:	N.A.	--	--
pH:	7	--	--
Melting point / freezing point:	N.A.	--	--

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Initial boiling point and boiling range:	N.A.	--	--
Flash point:	N.A.	--	--
Evaporation rate:	N.A.	--	--
Solid/gas flammability:	N.A.	--	--
Upper/lower flammability or explosive limits:	N.A.	--	--
Vapour pressure:	N.A.	--	--
Vapour density:	N.A.	--	--
Relative density:	1.02 g/cm3	--	--
Solubility in water:	Soluble	--	--
Solubility in oil:	N.A.	--	--
Partition coefficient (n-octanol/water):	N.A.	--	--
Auto-ignition temperature:	N.A.	--	--
Decomposition temperature:	N.A.	--	--
Viscosity:	N.A.	--	--
Explosive properties:	N.A.	--	--
Oxidizing properties:	N.A.	--	--

9.2. Other information

Properties	Value	Method:	Notes:
Miscibility:	N.A.	--	--
Fat Solubility:	N.A.	--	--
Conductivity:	N.A.	--	--
Substance Groups relevant properties	N.A.	--	--

NA=not applicable

SECTION 10: Stability and reactivity

- 10.1. Reactivity
 - Stable under normal conditions
- 10.2. Chemical stability
 - Stable under normal conditions
- 10.3. Possibility of hazardous reactions

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It may generate flammable gases on contact with dithiocarbamates, mercaptans and other organic sulphides, elementary metals (alkalis, alkaline earth, powder alloys, vapours), and powerful reducing agents.

It may generate toxic gases on contact with inorganic fluorides, halogenated organic substances, sulphides, nitrides, nitriles, organophosphates, and powerful oxidising agents.

It may catch fire on contact with dithiocarbamates, elementary metals (alkali, alkaline earth, powder alloys, vapours, sheets or bars), and nitrides.

- 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 toxicological effects

Toxicological information of the product:

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a) acute toxicity

Based on available data, the classification criteria are not met

b) skin corrosion/irritation

Test: oecd 8 - Route: Skin - Species: RHE 61.31 % - Duration: 1h - Notes: not corrosive - formula analoga - Based on available data, the classification criteria are not met

Test: oecd 8 - Route: Skin - Species: RHE 91.33 % - Duration: 3min - Notes: not corrosive - formula analoga - Based on available data, the classification criteria are not met

c) serious eye damage/irritation

The product is classified: Eye Irrit. 2 H319

Test: oecd 9 - Route: EYE - Species: BCOP 12.98 - Notes: not corrosive - formula analoga - Based on available data, the classification criteria are not met

d) respiratory or skin sensitisation

Based on available data, the classification criteria are not met

e) germ cell mutagenicity

Based on available data, the classification criteria are not met

f) carcinogenicity

Based on available data, the classification criteria are not met

g) reproductive toxicity

Based on available data, the classification criteria are not met

h) STOT-single exposure

Based on available data, the classification criteria are not met

i) STOT-repeated exposure

Based on available data, the classification criteria are not met

j) aspiration hazard

Based on available data, the classification criteria are not met

Toxicological information of the main substances found in the product:

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. - CAS: 85536-14-7

a) acute toxicity:

Test: STA - Route: Oral 510.2 mg/kg

Test: LD50 - Route: Oral - Species: Rat > 300-2000 mg/kg - Classification derived from

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- the classification of the components
Test: LD50 - Route: Skin - Species: Rat > 2000 mg/kg
- b) skin corrosion/irritation:
Test: OECD TG 404 - Route: Skin - Species: Rabbit Positive - Classification derived from the classification of the components
- c) serious eye damage/irritation:
Test: OECD TG 405 - Route: EYE - Species: Rabbit Positive - Classification derived from the classification of the components
- d) respiratory or skin sensitisation:
Test: Skin Sensitization - Species: IND Negative
- g) reproductive toxicity:
Test: NOAEL - Route: Oral - Species: Rat 350 mg/kg
Test: arx1 - Species: Rat 300 mg/kg
- i) STOT-repeated exposure:
Test: NOAEL - Species: Rat 85 mg/kg
Test: LOAEL - Species: Rat 145 mg/kg
- Alcohols, C12-14, ethoxylated, sulfates, sodium salts 1-2,5 moles ethoxylated - CAS: 68891-38-3
- a) acute toxicity:
Test: LD50 - Route: Oral > 2870 mg/kg
Test: LD50 - Route: Skin > 2000 mg/kg
- Cocamide DEA - CAS: 68155-07-7
- a) acute toxicity:
Test: LD50 - Route: Oral > 5000 mg/kg
Test: LD50 - Route: Skin > 2000 mg/kg
- 2,2'-iminodiethanol - CAS: 111-42-2
- a) acute toxicity:
Test: LD50 - Route: Oral 710 mg/kg
Test: LD50 - Route: Skin 12200 mg/kg

SECTION 12: Ecological information

12.1. Toxicity

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

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. - CAS: 85536-14-7

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish > 1-10 mg/l - Duration h: 96

Endpoint: EC50 - Species: Daphnia > 1-10 mg/l - Duration h: 48

b) Aquatic chronic toxicity:

Endpoint: NOEC - Species: Fish 1 mg/l - Duration h: 672

Endpoint: NOEC - Species: Daphnia > 1-10 mg/l - Duration h: 768

Endpoint: NOEC - Species: Algae > 4 mg/l - Duration h: 672

Alcohols, C12-14, ethoxylated, sulfates, sodium salts 1-2,5 moles ethoxylated - CAS: 68891-38-3

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish 7.1 mg/l - Duration h: 96

Endpoint: EC50 - Species: Daphnia 7.2 mg/l - Duration h: 48

Endpoint: EC50 - Species: Algae 27.7 mg/l - Duration h: 72

b) Aquatic chronic toxicity:

Endpoint: NOEC - Species: Fish 0.14 mg/l - Duration h: 672

Endpoint: NOEC - Species: Daphnia 0.14 mg/l - Duration h: 504

Cocamide DEA - CAS: 68155-07-7

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish > 2 mg/l - Duration h: 96

Endpoint: EC50 - Species: Daphnia 3.2 mg/l - Duration h: 48

Endpoint: EC50 - Species: Algae > 2.1 mg/l - Duration h: 72

b) Aquatic chronic toxicity:



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Endpoint: NOEC - Species: Fish 0.32 mg/l

Endpoint: NOEC - Species: Daphnia 0.07 mg/l - Duration h: 504

Endpoint: NOEC - Species: Algae 0.3 mg/l - Duration h: 72

12.2. Persistence and degradability

None

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. - CAS: 85536-14-7

Biodegradability: Readily biodegradable - Test: OECD TG 301 A - Duration: 28gg - %: 70

Alcohols, C12-14, ethoxylated, sulfates, sodium salts 1-2,5 moles ethoxylated - CAS: 68891-38-3

Biodegradability: Readily biodegradable

Cocamide DEA - CAS: 68155-07-7

Biodegradability: Readily biodegradable

12.3. Bioaccumulative potential

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. - CAS: 85536-14-7

Bioaccumulation: Not bioaccumulative - Test: arx01

12.4. Mobility in soil

N.A.

12.5. Results of PBT and vPvB assessment

vPvB Substances: None - PBT Substances: None

12.6. 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

Not classified as dangerous in the meaning of transport regulations.

14.2. UN proper shipping name

N.A.

14.3. Transport hazard class(es)

N.A.

14.4. Packing group

N.A.

14.5. Environmental hazards

ADR-Environmental Pollutant: No

IMDG-Marine pollutant: No

14.6. Special precautions for user

N.A.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

No

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) 2015/830

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

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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)

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:

No restriction.

Volatile Organic compounds - VOCs = 0.00 %

Volatile Organic compounds - VOCs = 0.00 g/Kg

Volatile Organic compounds - VOCs = 0.00 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

None

15.2. Chemical safety assessment

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

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

None

SECTION 16: Other information

Text of phrases referred to under heading 3:

H302 Harmful if swallowed.

H318 Causes serious eye damage.

H412 Harmful to aquatic life with long lasting effects.

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H411 Toxic to aquatic life with long lasting effects.

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

Hazard class and hazard category	Code	Description
Acute Tox. 4	3.1/4/Oral	Acute toxicity (oral), Category 4
Skin Corr. 1A	3.2/1A	Skin corrosion, Category 1A
Skin Corr. 1B	3.2/1B	Skin corrosion, Category 1B
Skin Corr. 1C	3.2/1C	Skin corrosion, Category 1C
Skin Irrit. 2	3.2/2	Skin irritation, Category 2
Eye Dam. 1	3.3/1	Serious eye damage, Category 1

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Eye Irrit. 2	3.3/2	Eye irritation, Category 2
STOT RE 2	3.9/2	Specific target organ toxicity - repeated exposure, Category 2
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

Paragraphs modified from the previous revision:

SECTION 11: Toxicological information

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
Eye Irrit. 2, H319	On basis of test data
Aquatic Chronic 3, H412	Calculation method

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

Main bibliographic sources:

- ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities
- SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

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

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

This MSDS cancels and replaces any preceding release.

- ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
- ATE: Acute Toxicity Estimate
- ATEmix: Acute toxicity Estimate (Mixtures)
- CAS: Chemical Abstracts Service (division of the American Chemical Society).
- CLP: Classification, Labeling, Packaging.
- DNEL: Derived No Effect Level.
- EINECS: European Inventory of Existing Commercial Chemical Substances.
- GefStoffVO: Ordinance on Hazardous Substances, Germany.
- GHS: Globally Harmonized System of Classification and Labeling of Chemicals.
- IATA: International Air Transport Association.
- IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
- ICAO: International Civil Aviation Organization.
- ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO).
- IMDG: International Maritime Code for Dangerous Goods.
- INCI: International Nomenclature of Cosmetic Ingredients.



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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, 20/08/2019

Substance identity	
Chemical name	BENZENESULFONIC ACID, SEC-C-10-13-ALKYL DERIVS, SODIUM SALTS T. anionico
CAS No.	85536-14-7
EINECS No.	287-494-3

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2. **ES 2** Widespread use by professional workers; Various products (PC3, PC39, PC24, PC35)
3. **ES 3** Consumer use; Washing and cleaning products (PC35)

1. ES 1 Use at industrial site; Various products (PC24, PC35)

1.1 TITLE SECTION

Exposure Scenario name	Cleaning agent
Date - Version	20/08/2019 - 1.0
Life Cycle Stage	Use at industrial site
Main user group	Industrial uses
Sector(s) of use	Industrial uses (SU3)
Product Categories	Lubricants, greases, release products (PC24) - Washing and cleaning products (PC35)

Environment Contributing Scenario

CS1 Covered by	ERC4
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Worker Contributing Scenario

CS2 Industrial	PROC5 - PROC1 - PROC2 - PROC3 - PROC4 - PROC7 - PROC8a - PROC8b - PROC9 - PROC10 - PROC13
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1.2 Conditions of use affecting exposure

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

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

Concentration of substance in product:

Covers percentage substance in the product up to 25 %.

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

Amounts used:

Daily amount per site 50 t

Maximum allowable site tonnage (MSafe): 132657 kg

Release type: Continuous release

Emission days: 20 days per year

Conditions and measures related to sewage treatment plant

STP type:

Municipal Sewage Treatment Plant

Water - minimum efficiency of: = 88 %

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

Waste treatment

External treatment and disposal of waste should comply with applicable local and/or national regulations.

Other conditions affecting environmental exposure

Local marine water dilution factor: 100

Local freshwater dilution factor: 10

1.2. CS2: Worker Contributing Scenario: Industrial (PROC5, PROC1, PROC2, PROC3, PROC4, PROC7, PROC8a, PROC8b, PROC9, PROC10, PROC13)

Process Categories	Mixing or blending in batch processes - Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions - Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions - Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or
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processes with equivalent containment condition - Chemical production where opportunity for exposure arises - Industrial spraying - Transfer of substance or mixture (charging and discharging) at non-dedicated facilities - Transfer of substance or mixture (charging and discharging) at dedicated facilities - Transfer of substance or mixture into small containers (dedicated filling line, including weighing) - Roller application or brushing - Treatment of articles by dipping and pouring (PROC5, PROC1, PROC2, PROC3, PROC4, PROC7, PROC8a, PROC8b, PROC9, PROC10, PROC13)

Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

< 1E-06 hPa

Concentration of substance in product:

Covers percentage substance in the product up to 25 %.

Amount used, frequency and duration of use/exposure

Duration:

Application duration > 4 h

Frequency:

Covers use up to 1 events per day

Technical and organisational conditions and measures

Technical and organisational measures

Remove spills immediately

Supervision in place to check that the risk management measures in place are being used correctly and operation conditions followed.

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

Personal protection

Wear suitable gloves tested to EN374.

Wear an impervious suit.

Use eye protection according to EN 166.

Other conditions affecting worker exposure

Indoor use

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

Additional Good Practice Advice:

Supervision in place to check that the risk management measures in place are being used correctly and operation conditions followed.

Ensure control measures are regularly inspected and maintained.

1.3 Exposure estimation and reference to its source

1.3. CS1: Environment Contributing Scenario: Covered by (ERC4)

Release route	Release rate	Release estimation method
Air	30 %	ESVOC SPERC 4.4a.v1
Water	0.01 %	ESVOC SPERC 4.4a.v1
soil	0.01 %	ESVOC SPERC 4.4a.v1

protection target	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
freshwater	0.0058 mg/L	EUSES	0.0219

freshwater sediment	0.305 mg/kg dry weight	EUSES	0.0377
marine water	0.000752 mg/L	EUSES	0.028
marine sediment	0.039 mg/kg dry weight	EUSES	0.028
Air	< 1E-07 mg/m ³	EUSES	< 1E-06
soil	0.371 mg/kg dry weight	EUSES	0.0106
Sewage treatment plant	0.0304 mg/L	EUSES	0.00887

1.3. CS2: Worker Contributing Scenario: Industrial (PROC5, PROC1, PROC2, PROC3, PROC4, PROC7, PROC8a, PROC8b, PROC9, PROC10, PROC13)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	0.0801 mg/m ³	ECETOC TRA worker v3	0.0688

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

Guidance to check compliance with the exposure scenario:

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

2. ES 2

Widespread use by professional workers; Various products (PC3, PC39, PC24, PC35)

2.1 TITLE SECTION

Exposure Scenario name	Cleaning agent
Date - Version	20/08/2019 - 1.0
Life Cycle Stage	Widespread use by professional workers
Main user group	Professional uses
Sector(s) of use	Professional uses (SU22)
Product Categories	Air care products (PC3) - Cosmetics, personal care products (PC39) - Lubricants, greases, release products (PC24) - Washing and cleaning products (PC35)

Environment Contributing Scenario

CS1 Covered by	ERC8a
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Worker Contributing Scenario

CS2 General use from professional operators	PROC5 - PROC1 - PROC2 - PROC3 - PROC4 - PROC8a - PROC8b - PROC9 - PROC10 - PROC11 - PROC13 - PROC15 - PROC19
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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)
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Product (article) characteristics**Concentration of substance in product:**

Covers percentage substance in the product up to 25 %.

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

Daily amount per site 0.014 t

Maximum allowable site tonnage (MSafe): 19 kg**Release type:** Continuous release**Emission days:** 365 days per year**Conditions and measures related to treatment of waste (including article waste)****Waste treatment**

External treatment and disposal of waste should comply with applicable local and/or national regulations.

Other conditions affecting environmental exposure**Local marine water dilution factor:** 100**Local freshwater dilution factor:** 10**2.2. CS2: Worker Contributing Scenario: General use from professional operators (PROC5, PROC1, PROC2, PROC3, PROC4, PROC8a, PROC8b, PROC9, PROC10, PROC11, PROC13, PROC15, PROC19)**

Process Categories	Mixing or blending in batch processes - Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions - Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions - Manufacture or formulation
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in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition - Chemical production where opportunity for exposure arises - Transfer of substance or mixture (charging and discharging) at non-dedicated facilities - Transfer of substance or mixture (charging and discharging) at dedicated facilities - Transfer of substance or mixture into small containers (dedicated filling line, including weighing) - Roller application or brushing - Non industrial spraying - Treatment of articles by dipping and pouring - Use as laboratory reagent - Manual activities involving hand contact (PROC5, PROC1, PROC2, PROC3, PROC4, PROC8a, PROC8b, PROC9, PROC10, PROC11, PROC13, PROC15, PROC19)

Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

< 1E-06 hPa

Concentration of substance in product:

Covers percentage substance in the product up to 25 %.

Technical and organisational conditions and measures

Technical and organisational measures

Remove spills immediately

Supervision in place to check that the risk management measures in place are being used correctly and operation conditions followed.

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

Personal protection

Wear suitable gloves tested to EN374.

Wear an impervious suit.

Use eye protection according to EN 166.

Other conditions affecting worker exposure

Indoor use

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

Additional Good Practice Advice:

Ensure regular inspection, cleaning and maintenance of equipment and machines. Ensure control measures are regularly inspected and maintained.

2.3 Exposure estimation and reference to its source

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

Release route	Release rate	Release estimation method
Air	0 %	N/A
Water	99 %	N/A
soil	1 %	N/A

protection target	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
freshwater	0.024 mg/L	EUSES	0.0894
Air	< 1E-07 mg/m ³	EUSES	< 1E-06
marine water	0.0024 mg/L	EUSES	0.0898

marine sediment	0.608 mg/kg dry weight	EUSES	0.0898
freshwater sediment	6.08 mg/kg dry weight	EUSES	0.75
soil	0.187 mg/kg dry weight	EUSES	0.00534
Sewage treatment plant	0.007 mg/L	EUSES	0.00204

2.3. CS2: Worker Contributing Scenario: General use from professional operators (PROC5, PROC1, PROC2, PROC3, PROC4, PROC8a, PROC8b, PROC9, PROC10, PROC11, PROC13, PROC15, PROC19)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	0.0801 mg/m ³	ECETOC TRA worker v3	0.0688

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 Consumer use; Washing and cleaning products (PC35)

3.1 TITLE SECTION

Exposure Scenario name	Cleaning agent
Date - Version	20/08/2019 - 1.0
Life Cycle Stage	Consumer use
Main user group	Consumer uses
Sector(s) of use	Consumer uses (SU21)
Product Categories	Washing and cleaning products (PC35)

Environment Contributing Scenario

CS1 Covered by	ERC8a
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Consumer Contributing Scenario

CS2 Consumer	PC35 - PC35_1, PC8_1
CS3 Consumer	PC35 - PC8_2, PC35_2
CS4 Consumer	PC35 - PC8_3, PC35_3
CS5 Consumer	PC35
CS6 Consumer	PC35
CS7 Consumer	PC35
CS8 Consumer	PC35
CS9 Consumer	PC35
CS10 Consumer	PC35
CS11 Consumer	PC35
CS12 Consumer	PC35

3.2 Conditions of use affecting exposure

3.2. 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)
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Amount used, frequency and duration of use (or from service life)

Amounts used:

Daily amount per site 0.239 t

Maximum allowable site tonnage (MSafe): 217 kg

Release type: Continuous release

Emission days: 365 days per year

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

Waste treatment

External treatment and disposal of waste should comply with applicable local and/or national regulations.

Other conditions affecting environmental exposure

Local marine water dilution factor: 100

Local freshwater dilution factor: 10

3.2. CS2: Consumer Contributing Scenario: Consumer (PC35)

Product Categories	Washing and cleaning products (PC35)
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Product (Sub-)Categories	Laundry and dish washing products (PC35_1, PC8_1)
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Product (article) characteristics

Physical form of product:

Liquid mixture

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 19 g

Frequency:

Covers use up to 104 times per year

3.2. CS3: Consumer Contributing Scenario: Consumer (PC35)

Product Categories	Washing and cleaning products (PC35)
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Product (Sub-)Categories	Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, glass cleaners, carpet cleaners, metal cleaners) (PC8_2, PC35_2)
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Product (article) characteristics

Physical form of product:

Liquid mixture

Concentration of substance in product:

Covers concentrations up to 14 %

Amount used, frequency and duration of use/exposure

Amounts used:

Amount per use 0.65 g

Frequency:

Covers use up to 128 times per year

3.2. CS4: Consumer Contributing Scenario: Consumer (PC35)

Product Categories	Washing and cleaning products (PC35)
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Product (Sub-)Categories	Cleaners, trigger sprays (all purpose cleaners, sanitary products, glass cleaners) (PC8_3, PC35_3)
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Product (article) characteristics

Physical form of product:

Liquid mixture

Concentration of substance in product:

Covers concentrations up to 6.54E-05 %

Amount used, frequency and duration of use/exposure

Amounts used:

Amount per use 0.00015 g

Duration:

Exposure duration 60 min

Frequency:

Covers use up to 426 times per year

Other conditions affecting consumers exposure

Indoor use

Room size: Covers use in room size of 15 m³

Ventilation rate: 2.5 Air changer per hour

Additional conditions human health

Covers skin contact area up to 1900 cm²

3.2. CS5: Consumer Contributing Scenario: Consumer (PC35)

Product Categories

Washing and cleaning products (PC35)

Product (article) characteristics

Physical form of product:

Liquid mixture

Concentration of substance in product:

Covers concentrations up to 0.23 %

Amount used, frequency and duration of use/exposure

Frequency:

Covers use up to 365 times per year

Other conditions affecting consumers exposure

Additional conditions human health

Covers skin contact area up to 17600 cm²

3.2. CS6: Consumer Contributing Scenario: Consumer (PC35)

Product Categories

Washing and cleaning products (PC35)

Product (article) characteristics

Physical form of product:

Liquid mixture

Concentration of substance in product:

Covers concentrations up to 6 %

Amount used, frequency and duration of use/exposure

Duration:

Exposure duration 60 min

Frequency:

Covers use up to 365 times per year

Other conditions affecting consumers exposure

Indoor use

Room size: Covers use in room size of 15 m³

Ventilation rate: 2.5 Air changer per hour

Additional conditions human health

Covers skin contact area up to 1900 cm²

3.2. CS7: Consumer Contributing Scenario: Consumer (PC35)

Product Categories

Washing and cleaning products (PC35)

Product (article) characteristics

Physical form of product:

Liquid mixture

Concentration of substance in product:

Covers concentrations up to 30 %

Amount used, frequency and duration of use/exposure

Amounts used:

Amount per use 0.00042 g

Duration:

Exposure duration 60 min

Frequency:

Covers use up to 365 times per year

3.2. CS8: Consumer Contributing Scenario: Consumer (PC35)

Product Categories

Washing and cleaning products (PC35)

Product (article) characteristics

Physical form of product:

Liquid mixture

Concentration of substance in product:

Covers concentrations up to 14 %

Amount used, frequency and duration of use/exposure

Duration:

Exposure duration 10 min

Frequency:

Covers use up to 128 times per year

Other conditions affecting consumers exposure

Indoor use

Room size: Covers use in room size of 15 m³

Ventilation rate: 2 Air changer per hour

Additional conditions human health

Covers skin contact area up to 840 cm²

3.2. CS9: Consumer Contributing Scenario: Consumer (PC35)

Product Categories

Washing and cleaning products (PC35)

Product (article) characteristics

Physical form of product:

Liquid mixture

Concentration of substance in product:

Covers concentrations up to 14 %

Amount used, frequency and duration of use/exposure

Amounts used:

Amount per use 0.65 g

Frequency:

Covers use up to 128 times per year

Other conditions affecting consumers exposure

Additional conditions human health

Covers skin contact area up to 840 cm²

3.2. CS10: Consumer Contributing Scenario: Consumer (PC35)

Product Categories

Washing and cleaning products (PC35)

Product (article) characteristics

Physical form of product:

Liquid mixture

Concentration of substance in product:

Covers concentrations up to 10 %

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

Amount per use 0.2 g

Duration:

Exposure duration 60 min

Frequency:

Covers use up to 26 times per year

Other conditions affecting consumers exposure

Indoor use

Room size: Covers use in room size of 15 m³**Ventilation rate:** 2.5 Air changer per hour**Additional conditions human health**Covers skin contact area up to 430 cm²**3.2. CS11: Consumer Contributing Scenario: Consumer (PC35)****Product Categories**

Washing and cleaning products (PC35)

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

Liquid mixture

Concentration of substance in product:

Covers concentrations up to 2.2 %

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

Amount per use 260 g

Duration:

Exposure duration 25 min

Frequency:

Covers use up to 4 times per year

Other conditions affecting consumers exposure

Indoor use

Room size: Covers use in room size of 10 m³**Ventilation rate:** 2 Air changer per hour**Additional conditions human health**Covers skin contact area up to 19000 cm²**3.2. CS12: Consumer Contributing Scenario: Consumer (PC35)****Product Categories**

Washing and cleaning products (PC35)

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

Liquid mixture

Concentration of substance in product:

Covers concentrations up to 5 %

Amount used, frequency and duration of use/exposure

Amounts used:

Amount per use 880 g

Duration:

Exposure duration 240 min

Frequency:

Covers use up to 104 times per year

Other conditions affecting consumers exposure

Indoor use

Room size: Covers use in room size of 58 m³**Ventilation rate:** 0.5 Air changer per hour**Additional conditions human health**Covers skin contact area up to 19000 cm²

3.3 Exposure estimation and reference to its source

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

Release route	Release rate	Release estimation method
Air	0 %	N/A
Water	99 %	N/A
soil	1 %	N/A

protection target	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
freshwater	0.035 mg/L	EUSES	0.131
freshwater sediment	0.035 mg/kg dry weight	N/A	0.654
marine water	0.0035 mg/L	EUSES	0.131
marine sediment	0.53 mg/kg dry weight	N/A	0.0779
Air	< 1E-07 mg/m ³	EUSES	< 1E-06
soil	3.16 mg/kg dry weight	EUSES	0.0902
Sewage treatment plant	0.197 mg/L	N/A	0.0574

3.2. CS2: Consumer Contributing Scenario: Consumer (PC35)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	0.832 mg/kg bw/day	Consexpo v4.1	0.00979

3.2. CS3: Consumer Contributing Scenario: Consumer (PC35)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
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dermal, systemic, long-term	0.491 mg/kg bw/day	Consexpo v4.1	0.00578
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3.2. CS4: Consumer Contributing Scenario: Consumer (PC35)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	0.176 mg/kg bw/day	Consexpo v4.1	0.00207
inhalative, systemic, long-term	< 1E-06 mg/m ³	Consexpo v4.1	< 1E-06

3.2. CS5: Consumer Contributing Scenario: Consumer (PC35)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	28.3 mg/kg bw/day	Consexpo v4.1	0.333

3.2. CS6: Consumer Contributing Scenario: Consumer (PC35)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	0.0378 mg/kg bw/day	Consexpo v4.1	0.000445
inhalative, systemic, long-term	1.31E-05 mg/m ³	Consexpo v4.1	4E-06

3.2. CS7: Consumer Contributing Scenario: Consumer (PC35)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
oral, systemic, long-term	0.00194 mg/kg bw/day	Consexpo v4.1	0.00228

3.2. CS8: Consumer Contributing Scenario: Consumer (PC35)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	0.00174 mg/kg bw/day	Consexpo v4.1	2.1E-05
inhalative, systemic, long-term	1.31E-05 mg/kg bw/day	Consexpo v4.1	4E-06

3.2. CS9: Consumer Contributing Scenario: Consumer (PC35)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	0.491 mg/kg bw/day	Consexpo v4.1	0.00578

3.2. CS10: Consumer Contributing Scenario: Consumer (PC35)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	0.0219 mg/kg bw/day	Consexpo v4.1	0.000258
inhalative, systemic, long-term	1.9E-05 mg/m ³	Consexpo v4.1	< 1E-06

3.2. CS11: Consumer Contributing Scenario: Consumer (PC35)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	0.0704 mg/kg bw/day	Consexpo v4.1	0.000828
inhalative, systemic, long-term	< 1E-06 mg/m ³	Consexpo v4.1	< 1E-06

3.2. CS12: Consumer Contributing Scenario: Consumer (PC35)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	4.16 mg/kg bw/day	Consexpo v4.1	0.0489
inhalative, systemic, long-term	< 1E-06 mg/m ³	Consexpo v4.1	< 1E-06

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.

Exposure Scenario, 21/08/2019

Substance identity	
Chemical name	Alcohols, C12-14, ethoxylated, sulfates, sodium salts 1-2,5 moles ethoxylated
CAS No.	68891-38-3
EINECS No.	500-234-8

Table of contents

1. **ES 1** Consumer use; Washing and cleaning products (PC35)
2. **ES 2** Widespread use by professional workers
3. **ES 3** Use at industrial site

1. ES 1 Consumer use; Washing and cleaning products (PC35)

1.1 TITLE SECTION

Exposure Scenario name	Cleaning agent
Date - Version	21/08/2019 - 1.0
Life Cycle Stage	Consumer use
Main user group	Consumer uses
Sector(s) of use	Consumer uses (SU21)
Product Categories	Washing and cleaning products (PC35)

Environment Contributing Scenario

CS1 Covered by	ERC8a
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Consumer Contributing Scenario

CS2 Consumer	PC35
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1.2 Conditions of use affecting exposure

1.2. 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)
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Amount used, frequency and duration of use (or from service life)

Amounts used:

Daily amount per site 1644 kg/day

Release type: Continuous release

Emission days: 365 days per year

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

Waste treatment

External treatment and disposal of waste should comply with applicable local and/or national regulations.

Other conditions affecting environmental exposure

Local marine water dilution factor: 100

Local freshwater dilution factor: 10

Receiving surface water flow: 18000 m³/day

1.2. CS2: Consumer Contributing Scenario: Consumer (PC35)

Product Categories	Washing and cleaning products (PC35)
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Product (article) characteristics

Physical form of product:

Liquid

Concentration of substance in product:

Covers concentrations up to 50 %

Amount used, frequency and duration of use/exposure

Amounts used:

Amount per use 250 g

Duration:

Exposure duration 0.33 h

Frequency:

Covers use up to 1 uses per day

Other conditions affecting consumers exposure

Room size: Covers use in room size of 20 m³

Body parts exposed:

Assumes that potential dermal contact is limited to hands.

1.3 Exposure estimation and reference to its source

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

Release route	Release rate	Release estimation method
Air	100 %	N/A
Water	100 %	N/A
soil	0 %	N/A

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

Guidance to check compliance with the exposure scenario:

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

2. ES 2 Widespread use by professional workers

2.1 TITLE SECTION

Exposure Scenario name	Car care and maintenance products
Date - Version	21/08/2019 - 1.0
Life Cycle Stage	Widespread use by professional workers
Main user group	Professional uses
Sector(s) of use	Consumer uses (SU21)

Environment Contributing Scenario

CS1 Covered by	ERC8a
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Worker Contributing Scenario

CS2 General use from professional operators	PROC8a
CS3 General use from professional operators	PROC4
CS4 General use from professional operators	PROC10
CS5 General use from professional operators	PROC11

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

Amounts used:

Daily amount per site 1644 kg/day

Release type: Continuous release

Emission days: 365 days per year

Conditions and measures related to sewage treatment plant

STP type:

Municipal Sewage Treatment Plant

STP effluent (m³/day): 18000

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

Waste treatment

External treatment and disposal of waste should comply with applicable local and/or national regulations.

Other conditions affecting environmental exposure

Local marine water dilution factor: 100

Local freshwater dilution factor: 10

Receiving surface water flow: 2000 m³/day

2.2. CS2: Worker Contributing Scenario: General use from professional operators (PROC8a)

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

Concentration of substance in product:

Covers percentage substance in the product up to 100 %.

Amount used, frequency and duration of use/exposure

Duration:

Application duration > 4 h

Frequency:

Covers frequency up to: 5 days per week

Other conditions affecting worker exposure

Indoor use
Professional use

Additional conditions human health

Covers skin contact area up to 960 cm²

2.2. CS3: Worker Contributing Scenario: General use from professional operators (PROC4)

Process Categories

Chemical production where opportunity for exposure arises (PROC4)

Product (article) characteristics

Concentration of substance in product:

Covers percentage substance in the product up to 100 %.

Amount used, frequency and duration of use/exposure

Duration:

Application duration > 4 h

Frequency:

Covers frequency up to: 5 days per week

Other conditions affecting worker exposure

Indoor use
Professional use

Additional conditions human health

Covers skin contact area up to 480 cm²

2.2. CS4: Worker Contributing Scenario: General use from professional operators (PROC10)

Process Categories

Roller application or brushing (PROC10)

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

Duration:

Application duration > 4 h

Frequency:

Covers frequency up to: 5 days per week

Other conditions affecting worker exposure

Indoor use
Professional use

Additional conditions human health

Covers skin contact area up to 960 cm²

2.2. CS5: Worker Contributing Scenario: General use from professional operators (PROC11)

Process Categories

Non industrial spraying (PROC11)

Product (article) characteristics

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

Amount used, frequency and duration of use/exposure

Duration:

Application duration > 4 h

Frequency:

Covers frequency up to: 5 days per week

Other conditions affecting worker exposure

Indoor use

Professional use

Ventilation rate: 30 %**Additional conditions human health**Covers skin contact area up to 1500 cm²**2.3 Exposure estimation and reference to its source****2.3. CS1: Environment Contributing Scenario: Covered by (ERC8a)**

Release route	Release rate	Release estimation method
Water	100 %	N/A
Air	100 %	N/A
soil	0 %	N/A

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	Car care and maintenance products
Date - Version	21/08/2019 - 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
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Worker Contributing Scenario

CS2 Industrial	PROC10
CS3 Industrial	PROC8a
CS4 Industrial	PROC4
CS5 Industrial	PROC7

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

Amounts used:

Annual site tonnage 10 t(tonnes)/year

Release type: Continuous release

Emission days: 20 days per year

Conditions and measures related to sewage treatment plant

STP type:

Municipal Sewage Treatment Plant

STP effluent (m³/day): 18000

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

Waste treatment

External treatment and disposal of waste should comply with applicable local and/or national regulations.

Other conditions affecting environmental exposure

Local marine water dilution factor: 100

Local freshwater dilution factor: 10

Receiving surface water flow: 2000 m³/h

3.2. CS2: Worker Contributing Scenario: Industrial (PROC10)

Process Categories	Roller application or brushing (PROC10)
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Product (article) characteristics

Physical form of product:

Liquid

Concentration of substance in product:

Covers percentage substance in the product up to 100 %.

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

Application duration > 4 h

Frequency:

Covers use up to 5 days per week

Other conditions affecting worker exposureIndoor use
Industrial use**Additional conditions human health**Covers skin contact area up to 960 cm²**3.2. CS3: 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

Concentration of substance in product:

Covers percentage substance in the product up to 100 %.

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

Application duration > 4 h

Frequency:

Covers use up to 5 days per week

Other conditions affecting worker exposureIndoor use
Industrial use**Additional conditions human health**Covers skin contact area up to 960 cm²**3.2. CS4: Worker Contributing Scenario: Industrial (PROC4)****Process Categories**

Chemical production where opportunity for exposure arises (PROC4)

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

Liquid

Concentration of substance in product:

Covers percentage substance in the product up to 100 %.

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

Application duration > 4 h

Frequency:

Covers use up to 5 days per week

Other conditions affecting worker exposureIndoor use
Industrial use**Additional conditions human health**

Covers skin contact area up to 480 cm²

3.2. CS5: Worker Contributing Scenario: Industrial (PROC7)

Process Categories Industrial spraying (PROC7)

Product (article) characteristics

Physical form of product:

Liquid

Concentration of substance in product:

Covers percentage substance in the product up to 100 %.

Amount used, frequency and duration of use/exposure

Duration:

Application duration > 4 h

Frequency:

Covers use up to 5 days per week

Other conditions affecting worker exposure

Indoor use

Industrial use

Ventilation rate: 30 %

Additional conditions human health

Covers skin contact area up to 1500 cm²

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
Water	2 %	N/A
Air	0 %	N/A
soil	5 %	N/A

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.

Exposure Scenario, 31/07/2019

Substance identity	
Chemical name	Cocamide DEA , Tensioattivo non ionico .
CAS No.	68155-07-7
EINECS No.	931-329-6

Table of contents

1. **ES 1** Use at industrial site
2. **ES 2** Widespread use by professional workers
3. **ES 3** Consumer use; Various products (PC2, PC9a, PC4, PC24, PC32)

1. ES 1 Use at industrial site

1.1 TITLE SECTION

Exposure Scenario name	Use in cleaning agents
Date - Version	30/07/2019 - 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 - ERC6a - ERC2 - ERC3 - ERC5 - ERC8a - ERC8b
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Worker Contributing Scenario

CS2 Industrial	PROC1
CS3 Industrial	PROC2
CS4 Industrial	PROC3
CS5 Industrial	PROC4
CS6 Industrial	PROC5
CS7 Industrial	PROC6
CS8 Industrial	PROC7
CS9 Industrial	PROC8a
CS10 Industrial	PROC8b
CS11 Industrial	PROC9
CS12 Industrial	PROC10
CS13 Industrial	PROC13
CS14 Industrial	PROC14
CS15 Industrial	PROC15
CS16 Industrial	PROC19

1.2 Conditions of use affecting exposure

1.2. CS1: Environment Contributing Scenario: Covered by (ERC4, ERC6a, ERC2, ERC3, ERC5, ERC8a, ERC8b)

Environmental release categories	Use of non-reactive processing aid at industrial site (no inclusion into or onto article) - Use of intermediate - Formulation into mixture - Formulation into solid matrix - Use at industrial site leading to inclusion into/onto article - Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor) - Widespread use of reactive processing aid (no inclusion into or onto article, indoor) (ERC4, ERC6a, ERC2, ERC3, ERC5, ERC8a, ERC8b)
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Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

0.000291 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 25 %.

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

Process Categories	Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions (PROC1)
<i>Product (article) characteristics</i>	
Physical form of product:	Liquid
Vapour pressure:	0.000291 Pa
Concentration of substance in product:	Covers percentage substance in the product up to 25 %.
<i>Amount used, frequency and duration of use/exposure</i>	
Duration:	Exposure duration > 0.25 h/day
Duration:	Exposure duration < 4 h/day

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

Process Categories	Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions (PROC2)
<i>Product (article) characteristics</i>	
Physical form of product:	Liquid
Vapour pressure:	0.000291 Pa
Concentration of substance in product:	Covers percentage substance in the product up to 25 %.
<i>Amount used, frequency and duration of use/exposure</i>	
Duration:	Exposure duration > 0.25 h/day
Duration:	Exposure duration < 4 h/day

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

Process Categories	Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition (PROC3)
<i>Product (article) characteristics</i>	
Physical form of product:	Liquid
Vapour pressure:	0.000291 Pa
Concentration of substance in product:	Covers percentage substance in the product up to 25 %.
<i>Amount used, frequency and duration of use/exposure</i>	
Duration:	Exposure duration > 0.25 h/day

Duration:

Exposure duration < 4 h/day

1.2. 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:

0.000291 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 25 %.

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

Exposure duration > 0.25 h/day

Duration:

Exposure duration < 4 h/day

1.2. CS6: Worker Contributing Scenario: Industrial (PROC5)**Process Categories**

Mixing or blending in batch processes (PROC5)

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

Liquid

Vapour pressure:

0.000291 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 25 %.

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

Exposure duration > 0.25 h/day

Duration:

Exposure duration < 4 h/day

1.2. CS7: Worker Contributing Scenario: Industrial (PROC6)**Process Categories**

Calendering operations (PROC6)

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

Liquid

Vapour pressure:

0.000291 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 25 %.

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

Exposure duration > 0.25 h/day

Duration:

Exposure duration < 4 h/day

1.2. CS8: Worker Contributing Scenario: Industrial (PROC7)**Process Categories**

Industrial spraying (PROC7)

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

Liquid

Vapour pressure:

0.000291 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 25 %.

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

Exposure duration > 0.25 h/day

Duration:

Exposure duration < 4 h/day

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

Ensure operatives are trained to minimise exposures.

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

Wear suitable gloves tested to EN374.

1.2. CS9: 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:

0.000291 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 25 %.

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

Exposure duration > 0.25 h/day

Duration:

Exposure duration < 4 h/day

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

Ensure operatives are trained to minimise exposures.

Use in contained systems

Provide extract ventilation to material transfer points and other openings.

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

Wear suitable gloves tested to EN374.

1.2. CS10: 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:

0.000291 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 25 %.

Amount used, frequency and duration of use/exposure

Duration:

Exposure duration > 0.25 h/day

Duration:

Exposure duration < 4 h/day

Technical and organisational conditions and measures

Technical and organisational measures

- Ensure operatives are trained to minimise exposures.
- Use in contained systems
- Provide extract ventilation to material transfer points and other openings.

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

Personal protection

Wear suitable gloves tested to EN374.

1.2. CS11: Worker Contributing Scenario: Industrial (PROC9)

Process Categories Transfer of substance or mixture into small containers (dedicated filling line, including weighing) (PROC9)

Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

0.000291 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 25 %.

Amount used, frequency and duration of use/exposure

Duration:

Exposure duration > 0.25 h/day

Duration:

Exposure duration < 4 h/day

Technical and organisational conditions and measures

Technical and organisational measures

- Ensure operatives are trained to minimise exposures.
- Use in contained systems
- Provide extract ventilation to material transfer points and other openings.

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

Personal protection

Wear suitable gloves tested to EN374.

1.2. CS12: Worker Contributing Scenario: Industrial (PROC10)

Process Categories Roller application or brushing (PROC10)

Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

0.000291 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 25 %.

Amount used, frequency and duration of use/exposure

Duration:

Exposure duration > 0.25 h/day

Duration:

Exposure duration < 4 h/day

Technical and organisational conditions and measures

Technical and organisational measures

Ensure operatives are trained to minimise exposures.

Provide extract ventilation to material transfer points and other openings.

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

Personal protection

Wear suitable gloves tested to EN374.

1.2. CS13: 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:

0.000291 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 25 %.

Amount used, frequency and duration of use/exposure

Duration:

Exposure duration > 0.25 h/day

Duration:

Exposure duration < 4 h/day

Technical and organisational conditions and measures

Technical and organisational measures

Ensure operatives are trained to minimise exposures.

Provide extract ventilation to material transfer points and other openings.

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

Personal protection

Wear suitable gloves tested to EN374.

1.2. CS14: Worker Contributing Scenario: Industrial (PROC14)

Process Categories Tableting, compression, extrusion, pelletisation, granulation (PROC14)

Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

0.000291 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 25 %.

Amount used, frequency and duration of use/exposure

Duration:

Exposure duration > 0.25 h/day

Duration:

Exposure duration < 4 h/day

Technical and organisational conditions and measures

Technical and organisational measures

Ensure operatives are trained to minimise exposures.
Provide extract ventilation to material transfer points and other openings.

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

Personal protection

Wear suitable gloves tested to EN374.

1.2. CS15: Worker Contributing Scenario: Industrial (PROC15)

Process Categories

Use as laboratory reagent (PROC15)

Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

0.000291 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 25 %.

Amount used, frequency and duration of use/exposure

Duration:

Exposure duration > 0.25 h/day

Duration:

Exposure duration < 4 h/day

Technical and organisational conditions and measures

Technical and organisational measures

Ensure operatives are trained to minimise exposures.
Provide extract ventilation to material transfer points and other openings.

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

Personal protection

Wear suitable gloves tested to EN374.

1.2. CS16: Worker Contributing Scenario: Industrial (PROC19)

Process Categories

Manual activities involving hand contact (PROC19)

Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

0.000291 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 25 %.

Amount used, frequency and duration of use/exposure

Duration:

Exposure duration > 0.25 h/day

Duration:

Exposure duration < 4 h/day

Technical and organisational conditions and measures

Technical and organisational measures

Ensure operatives are trained to minimise exposures.
Provide extract ventilation to material transfer points and other openings.

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

Personal protection

Wear suitable gloves tested to EN374.

1.3 Exposure estimation and reference to its source

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

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	0.034 mg/kg bw/day	ECETOC TRA worker v2.0	0.008
inhalative, systemic, long-term	0.07 mg/m ³	ECETOC TRA worker v2.0	0.001
combined routes, systemic, long-term	N/A	ECETOC TRA worker v2.0	0.009

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

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	0.137 mg/kg bw/day	ECETOC TRA worker v2.0	0.033
inhalative, systemic, long-term	0.07 mg/m ³	ECETOC TRA worker v2.0	0.01
combined routes, systemic, long-term	N/A	ECETOC TRA worker v2.0	0.043

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

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	<= 0.137 mg/kg bw/day	ECETOC TRA worker v2.0	0.008
inhalative, systemic, long-term	0.07 mg/m ³	ECETOC TRA worker v2.0	0.01

combined routes, systemic, long-term	N/A	ECETOC TRA worker v2.0	0.018
dermal, systemic, long-term	>= 0.003 mg/kg bw/day	ECETOC TRA worker v2.0	0.008

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

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	<= 0.686 mg/kg bw/day	ECETOC TRA worker v2.0	0.165
inhalative, systemic, long-term	0.07 mg/m ³	ECETOC TRA worker v2.0	0.01
combined routes, systemic, long-term	N/A	ECETOC TRA worker v2.0	0.175
dermal, systemic, long-term	>= 0.034 mg/kg bw/day	ECETOC TRA worker v2.0	0.165

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

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	<= 0.01 mg/kg bw/day	ECETOC TRA worker v2.0	0.002
inhalative, systemic, long-term	0.14 mg/m ³	ECETOC TRA worker v2.0	0.002
combined routes, systemic, long-term	N/A	ECETOC TRA worker v2.0	0.004
dermal, systemic, long-term	>= 0.007 mg/kg bw/day	ECETOC TRA worker v2.0	0.002

1.3. CS7: Worker Contributing Scenario: Industrial (PROC6)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	0.137 mg/kg bw/day	ECETOC TRA worker v2.0	0.033
inhalative, systemic, long-term	0.042 mg/m ³	ECETOC TRA worker v2.0	0.005
combined routes, systemic, long-term	N/A	ECETOC TRA worker v2.0	0.034

1.3. CS8: Worker Contributing Scenario: Industrial (PROC7)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	0.214 mg/kg bw/day	ECETOC TRA worker v2.0	0.05
inhalative, systemic, long-term	2.33 mg/m ³	ECETOC TRA worker v2.0	0.032
combined routes, systemic, long-term	N/A	ECETOC TRA worker v2.0	0.083

1.3. CS9: Worker Contributing Scenario: Industrial (PROC8a)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	0.014 mg/kg bw/day	ECETOC TRA worker v2.0	0.003
inhalative, systemic, long-term	<= 0.07 mg/m ³	ECETOC TRA worker v2.0	0.001
combined routes, systemic, long-term	N/A	ECETOC TRA worker v2.0	0.004
inhalative, systemic, long-term	>= 0.023 mg/m ³	ECETOC TRA worker v2.0	0.001

1.3. CS10: Worker Contributing Scenario: Industrial (PROC8b)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	>= 0.069 mg/kg bw/day	ECETOC TRA worker v2.0	0.017
inhalative, systemic, long-term	0.14 mg/m ³	ECETOC TRA worker v2.0	0.002
combined routes, systemic, long-term	N/A	ECETOC TRA worker v2.0	>= 0.019
dermal, systemic, long-term	<= 0.686 mg/kg bw/day	ECETOC TRA worker v2.0	0.165
combined routes, systemic, long-term	N/A	ECETOC TRA worker v2.0	<= 0.167

1.3. CS11: Worker Contributing Scenario: Industrial (PROC9)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	>= 0.069 mg/kg bw/day	ECETOC TRA worker v2.0	0.017
inhalative, systemic, long-term	0.23 mg/m ³	ECETOC TRA worker v2.0	0.003

combined routes, systemic, long-term	N/A	ECETOC TRA worker v2.0	0.17
dermal, systemic, long-term	<= 0.686 mg/kg bw/day	ECETOC TRA worker v2.0	0.165

1.3. CS12: Worker Contributing Scenario: Industrial (PROC10)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	0.137 mg/kg bw/day	ECETOC TRA worker v2.0	0.033
inhalative, systemic, long-term	0.07 mg/m ³	ECETOC TRA worker v2.0	0.001
combined routes, systemic, long-term	N/A	ECETOC TRA worker v2.0	0.034

1.3. CS13: Worker Contributing Scenario: Industrial (PROC13)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	<= 0.214 mg/kg bw/day	ECETOC TRA worker v2.0	0.051
inhalative, systemic, long-term	2.8 mg/m ³	ECETOC TRA worker v2.0	0.038
combined routes, systemic, long-term	N/A	ECETOC TRA worker v2.0	<= 0.089
dermal, systemic, long-term	>= 0.069 mg/kg bw/day	ECETOC TRA worker v2.0	0.051
combined routes, systemic, long-term	N/A	ECETOC TRA worker v2.0	>= 0.055

1.3. CS14: Worker Contributing Scenario: Industrial (PROC14)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	0.343 mg/kg bw/day	ECETOC TRA worker v2.0	0.008
inhalative, systemic, long-term	0.7 mg/m ³	ECETOC TRA worker v2.0	0.01
combined routes, systemic, long-term	N/A	ECETOC TRA worker v2.0	0.018

1.3. CS15: Worker Contributing Scenario: Industrial (PROC15)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
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dermal, systemic, long-term	0.034 mg/kg bw/day	ECETOC TRA worker v2.0	0.008
inhalative, systemic, long-term	1.17 mg/m ³	ECETOC TRA worker v2.0	0.016
combined routes, systemic, long-term	N/A	ECETOC TRA worker v2.0	0.024

1.3. CS16: Worker Contributing Scenario: Industrial (PROC19)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	0.069 mg/kg bw/day	ECETOC TRA worker v2.0	0.017
inhalative, systemic, long-term	0.014 mg/m ³	ECETOC TRA worker v2.0	0.0002
combined routes, systemic, long-term	N/A	ECETOC TRA worker v2.0	0.017

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

Guidance to check compliance with the exposure scenario:

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

2. ES 2 Widespread use by professional workers

2.1 TITLE SECTION

Exposure Scenario name	Use in cleaning agents
Date - Version	31/07/2019 - 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	ERC4 - ERC2 - ERC5 - ERC8a - ERC8d - ERC8e
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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
CS7 General use from professional operators	PROC8a
CS8 General use from professional operators	PROC8b
CS9 General use from professional operators	PROC9
CS10 General use from professional operators	PROC10
CS11 General use from professional operators	PROC11
CS12 General use from professional operators	PROC13
CS13 General use from professional operators	PROC19

2.2 Conditions of use affecting exposure

2.2. CS1: Environment Contributing Scenario: Covered by (ERC4, ERC2, ERC5, ERC8a, ERC8d, ERC8e)

Environmental release categories	Use of non-reactive processing aid at industrial site (no inclusion into or onto article) - Formulation into mixture - Use at industrial site leading to inclusion into/onto article - 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) - Widespread use of reactive processing aid (no inclusion into or onto article, outdoor) (ERC4, ERC2, ERC5, ERC8a, ERC8d, ERC8e)
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Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

0.000291 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 25 %.

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

Process Categories	Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions (PROC1)
<i>Product (article) characteristics</i>	
Physical form of product: Liquid	
Vapour pressure: 0.000291 Pa	
Concentration of substance in product: Covers percentage substance in the product up to 25 %.	
<i>Amount used, frequency and duration of use/exposure</i>	
Duration: Exposure duration \geq 0.25 h	
Duration: Exposure duration \leq 4 h	
<i>Conditions and measures related to personal protection, hygiene and health evaluation</i>	
Personal protection Wear suitable gloves tested to EN374. Use suitable eye protection.	
<i>Other conditions affecting worker exposure</i>	
Outdoor use	
2.2. CS3: Worker Contributing Scenario: General use from professional operators (PROC2)	
Process Categories	Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions (PROC2)
<i>Product (article) characteristics</i>	
Physical form of product: Liquid	
Vapour pressure: 0.000291 Pa	
Concentration of substance in product: Covers percentage substance in the product up to 25 %.	
<i>Amount used, frequency and duration of use/exposure</i>	
Duration: Exposure duration \geq 0.25 h	
Duration: Exposure duration \leq 4 h	
<i>Conditions and measures related to personal protection, hygiene and health evaluation</i>	
Personal protection Wear suitable gloves tested to EN374. Use suitable eye protection.	
<i>Other conditions affecting worker exposure</i>	
Outdoor use	
2.2. CS4: Worker Contributing Scenario: General use from professional operators (PROC3)	
Process Categories	Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition (PROC3)

Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

0.000291 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 25 %.

Amount used, frequency and duration of use/exposure

Duration:

Exposure duration \geq 0.25 h

Duration:

Exposure duration \leq 4 h

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

Personal protection

Wear suitable gloves tested to EN374.
Use suitable eye protection.

Other conditions affecting worker exposure

Outdoor use

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

Process Categories

Chemical production where opportunity for exposure arises (PROC4)

Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

0.000291 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 25 %.

Amount used, frequency and duration of use/exposure

Duration:

Exposure duration \geq 0.25 h

Duration:

Exposure duration \leq 4 h

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

Personal protection

Wear suitable gloves tested to EN374.
Use suitable eye protection.

Other conditions affecting worker exposure

Outdoor use

2.2. CS6: Worker Contributing Scenario: General use from professional operators (PROC5)

Process Categories

Mixing or blending in batch processes (PROC5)

Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

0.000291 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 25 %.

Amount used, frequency and duration of use/exposure**Duration:**Exposure duration \geq 0.25 h**Duration:**Exposure duration \leq 4 h***Conditions and measures related to personal protection, hygiene and health evaluation*****Personal protection**

Wear suitable gloves tested to EN374.

Use suitable eye protection.

Other conditions affecting worker exposure

Outdoor use

2.2. CS7: Worker Contributing Scenario: General use from professional operators (PROC8a)**Process Categories**

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

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

Liquid

Vapour pressure:

0.000291 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 25 %.

Amount used, frequency and duration of use/exposure**Duration:**Exposure duration \geq 0.25 h**Duration:**Exposure duration \leq 4 h***Conditions and measures related to personal protection, hygiene and health evaluation*****Personal protection**

Wear suitable gloves tested to EN374.

Use suitable eye protection.

Other conditions affecting worker exposure

Outdoor use

2.2. CS8: 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:

0.000291 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 25 %.

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

Exposure duration ≥ 0.25 h

Duration:

Exposure duration ≤ 4 h

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

Wear suitable gloves tested to EN374.
Use suitable eye protection.

Other conditions affecting worker exposure

Outdoor use

2.2. CS9: Worker Contributing Scenario: General use from professional operators (PROC9)**Process Categories**

Transfer of substance or mixture into small containers (dedicated filling line, including weighing) (PROC9)

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

Liquid

Vapour pressure:

0.000291 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 25 %.

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

Exposure duration ≥ 0.25 h

Duration:

Exposure duration ≤ 4 h

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

Wear suitable gloves tested to EN374.
Use suitable eye protection.

Other conditions affecting worker exposure

Outdoor use

2.2. CS10: 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:

0.000291 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 25 %.

Amount used, frequency and duration of use/exposure

Duration:

Exposure duration ≥ 0.25 h

Duration:

Exposure duration ≤ 4 h

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

Personal protection

Wear suitable gloves tested to EN374.
Use suitable eye protection.

Other conditions affecting worker exposure

Outdoor use

2.2. CS11: 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:

0.000291 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 25 %.

Amount used, frequency and duration of use/exposure

Duration:

Exposure duration ≥ 0.25 h

Duration:

Exposure duration ≤ 4 h

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

Personal protection

Wear suitable gloves tested to EN374.
Use suitable eye protection.
Wear a respirator conforming to EN140.

Other conditions affecting worker exposure

Outdoor use

2.2. CS12: 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:

0.000291 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 25 %.

Amount used, frequency and duration of use/exposure

Duration:

Exposure duration >= 0.25 h

Duration:

Exposure duration <= 4 h

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

Personal protection

Wear suitable gloves tested to EN374.

Use suitable eye protection.

Other conditions affecting worker exposure

Outdoor use

2.2. CS13: 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:

0.000291 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 25 %.

Amount used, frequency and duration of use/exposure

Duration:

Exposure duration >= 0.25 h

Duration:

Exposure duration <= 4 h

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

Personal protection

Wear suitable gloves tested to EN374.

Use suitable eye protection.

Other conditions affecting worker exposure

Outdoor use

2.3 Exposure estimation and reference to its source

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

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	0.034 mg/kg bw/day	ECETOC TRA worker v2.0	0.08
inhalative, systemic, long-term	0.07 mg/m ³	ECETOC TRA worker v2.0	0.001
combined routes, systemic, long-term	N/A	ECETOC TRA worker v2.0	0.009

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

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
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dermal, systemic, long-term	0.137 mg/kg bw/day	ECETOC TRA worker v2.0	0.033
inhalative, systemic, long-term	0.023 mg/m ³	ECETOC TRA worker v2.0	0.0003
combined routes, systemic, long-term	N/A	ECETOC TRA worker v2.0	0.033

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

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	0.034 mg/kg bw/day	ECETOC TRA worker v2.0	0.008
inhalative, systemic, long-term	0.023 mg/m ³	ECETOC TRA worker v2.0	0.0003
combined routes, systemic, long-term	N/A	ECETOC TRA worker v2.0	0.008

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

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	686 mg/kg bw/day	ECETOC TRA worker v2.0	0.165
inhalative, systemic, long-term	0.23 mg/m ³	ECETOC TRA worker v2.0	0.003
combined routes, systemic, long-term	N/A	ECETOC TRA worker v2.0	0.168

2.3. CS6: Worker Contributing Scenario: General use from professional operators (PROC5)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	>= 0.007 mg/kg bw/day	ECETOC TRA worker v2.0	0.002
inhalative, systemic, long-term	0.023 mg/m ³	ECETOC TRA worker v2.0	0.0003
combined routes, systemic, long-term	N/A	ECETOC TRA worker v2.0	>= 0.002
dermal, systemic, long-term	<= 0.069 mg/kg bw/day	ECETOC TRA worker v2.0	0.016
combined routes, systemic, long-term	N/A	ECETOC TRA worker v2.0	<= 0.016

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

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
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dermal, systemic, long-term	>= 0.014 mg/kg bw/day	ECETOC TRA worker v2.0	0.003
inhalative, systemic, long-term	16.33 mg/m ³	ECETOC TRA worker v2.0	0.222
combined routes, systemic, long-term	N/A	ECETOC TRA worker v2.0	>= 0.225
dermal, systemic, long-term	<= 2.743 mg/kg bw/day	ECETOC TRA worker v2.0	0.66
combined routes, systemic, long-term	N/A	ECETOC TRA worker v2.0	<= 0.882

2.3. CS8: Worker Contributing Scenario: General use from professional operators (PROC8b)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	>= 0.023 mg/kg bw/day	ECETOC TRA worker v2.0	0.016
inhalative, systemic, long-term	0.129 mg/m ³	ECETOC TRA worker v2.0	0.002
combined routes, systemic, long-term	N/A	ECETOC TRA worker v2.0	>= 0.008
dermal, systemic, long-term	<= 0.686 mg/kg bw/day	ECETOC TRA worker v2.0	0.165
combined routes, systemic, long-term	N/A	ECETOC TRA worker v2.0	<= 0.167

2.3. CS9: Worker Contributing Scenario: General use from professional operators (PROC9)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	>= 0.069 mg/kg bw/day	ECETOC TRA worker v2.0	0.17
inhalative, systemic, long-term	0.129 mg/m ³	ECETOC TRA worker v2.0	0.003
combined routes, systemic, long-term	N/A	ECETOC TRA worker v2.0	0.17
dermal, systemic, long-term	<= 0.686 mg/kg bw/day	ECETOC TRA worker v2.0	0.165

2.3. CS10: Worker Contributing Scenario: General use from professional operators (PROC10)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	>= 0.014 mg/kg bw/day	ECETOC TRA worker v2.0	0.033
inhalative, systemic, long-term	0.14 mg/m ³	ECETOC TRA worker v2.0	0.001
combined routes, systemic, long-term	N/A	ECETOC TRA worker v2.0	0.034
dermal, systemic, long-term	<= 0.137 mg/kg bw/day	ECETOC TRA worker v2.0	0.033

2.3. CS11: Worker Contributing Scenario: General use from professional operators (PROC11)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	>= 0.014 mg/kg bw/day	ECETOC TRA worker v2.0	0.003
inhalative, systemic, long-term	16.33 mg/m ³	ECETOC TRA worker v2.0	0.222
combined routes, systemic, long-term	N/A	ECETOC TRA worker v2.0	>= 0.225
dermal, systemic, long-term	<= 1.371 mg/kg bw/day	ECETOC TRA worker v2.0	0.33
combined routes, systemic, long-term	N/A	ECETOC TRA worker v2.0	<= 0.552

2.3. CS12: Worker Contributing Scenario: General use from professional operators (PROC13)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	0.069 mg/kg bw/day	ECETOC TRA worker v2.0	0.017
inhalative, systemic, long-term	0.009 mg/m ³	ECETOC TRA worker v2.0	0.0001
combined routes, systemic, long-term	N/A	ECETOC TRA worker v2.0	0.017

2.3. CS13: Worker Contributing Scenario: General use from professional operators (PROC19)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	0.069 mg/kg bw/day	ECETOC TRA worker v2.0	0.017

inhalative, systemic, long-term	3.5 mg/m ³	ECETOC TRA worker v2.0	0.048
combined routes, systemic, long-term	N/A	ECETOC TRA worker v2.0	0.065

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 Consumer use; Various products (PC2, PC9a, PC4, PC24, PC32)

3.1 TITLE SECTION

Exposure Scenario name	Cleaning agent
Date - Version	31/07/2019 - 1.0
Life Cycle Stage	Consumer use
Main user group	Consumer uses
Sector(s) of use	Consumer uses (SU21)
Product Categories	Adsorbents (PC2) - Coatings and paints, thinners, paint removers (PC9a) - Anti-freeze and de-icing products (PC4) - Lubricants, greases, release products (PC24) - Polymer preparations and compounds (PC32) - Washing and cleaning products (PC35) - Welding and soldering products, flux products (PC38)
Article Category(ies)	Plastic articles (AC13)

Environment Contributing Scenario

CS1 Covered by	ERC2 - ERC8a - ERC8d - ERC8e
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Consumer Contributing Scenario

CS2 Consumer	PC35 - PC35_1, PC8_1
CS3 Consumer	PC35
CS4 Consumer	PC35
CS5 Consumer	PC35 - AC8_3
CS6 Consumer	PC35
CS7 Consumer	PC35 - PC4_1 - PC8_2, PC35_2

3.2 Conditions of use affecting exposure

3.2. CS1: Environment Contributing Scenario: Covered by (ERC2, ERC8a, ERC8d, ERC8e)

Environmental release categories	Formulation into mixture - 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) - Widespread use of reactive processing aid (no inclusion into or onto article, outdoor) (ERC2, ERC8a, ERC8d, ERC8e)
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Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

> 0.000291 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

3.2. CS2: Consumer Contributing Scenario: Consumer (PC35)

Product Categories	Washing and cleaning products (PC35)
Product (Sub-)Categories	Laundry and dish washing products (PC35_1, PC8_1)

Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

0.000291 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

*Amount used, frequency and duration of use/exposure***Duration:**Exposure duration \geq 0.25 h/day**Duration:**Exposure duration \leq 4 h/day**3.2. CS3: Consumer Contributing Scenario: Consumer (PC35)****Product Categories**

Washing and cleaning products (PC35)

Product (Sub-)Categories

Hand dishwashing liquids

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

Liquid

Vapour pressure:

0.000291 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

*Amount used, frequency and duration of use/exposure***Duration:**Exposure duration \geq 0.25 h/day**Duration:**Exposure duration \leq 4 h/day**3.2. CS4: Consumer Contributing Scenario: Consumer (PC35)****Product Categories**

Washing and cleaning products (PC35)

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

Liquid

Vapour pressure:

0.000291 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

*Amount used, frequency and duration of use/exposure***Duration:**Exposure duration \geq 0.25 h/day**Duration:**Exposure duration \leq 4 h/day**3.2. CS5: Consumer Contributing Scenario: Consumer (PC35)****Product Categories**

Washing and cleaning products (PC35)

Product (Sub-)Categories

Tissues, paper towels, wet tissues, toilet paper (AC8_3)

Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

0.000291 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

Amount used, frequency and duration of use/exposure

Duration:

Exposure duration \geq 0.25 h/day

Duration:

Exposure duration \leq 4 h/day

3.2. CS6: Consumer Contributing Scenario: Consumer (PC35)

Product Categories	Washing and cleaning products (PC35)
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Product (Sub-)Categories	Hand dishwashing liquids
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Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

0.000291 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

Amount used, frequency and duration of use/exposure

Duration:

Exposure duration \geq 0.25 h/day

Duration:

Exposure duration \leq 4 h/day

3.2. CS7: Consumer Contributing Scenario: Consumer (PC35)

Product Categories	Washing and cleaning products (PC35)
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Product (Sub-)Categories	Washing car window - Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, glass cleaners, carpet cleaners, metal cleaners) (PC4_1, PC8_2, PC35_2)
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Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

0.000291 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

Amount used, frequency and duration of use/exposure

Duration:

Exposure duration \geq 0.25 h/day

Duration:

Exposure duration <= 4 h/day

3.3 Exposure estimation and reference to its source

3.2. CS2: Consumer Contributing Scenario: Consumer (PC35)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	0.382 mg/kg bw/day	N/A	0.153
inhalative, systemic, long-term	0 mg/m ³	N/A	N/A
combined routes, systemic, long-term	N/A	N/A	0.153

3.2. CS3: Consumer Contributing Scenario: Consumer (PC35)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	0.715 mg/kg bw/day	N/A	0.286
inhalative, systemic, long-term	0.625 mg/m ³	N/A	0.029
combined routes, systemic, long-term	N/A	N/A	0.315

3.2. CS4: Consumer Contributing Scenario: Consumer (PC35)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	0.0167 mg/kg bw/day	N/A	0.007
inhalative, systemic, long-term	625 mg/m ³	N/A	0.029
combined routes, systemic, long-term	N/A	N/A	0.315

3.2. CS5: Consumer Contributing Scenario: Consumer (PC35)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	0.715 mg/kg bw/day	N/A	0.286
inhalative, systemic, long-term	0 mg/m ³	N/A	N/A
combined routes, systemic, long-term	N/A	N/A	0.286

3.2. CS6: Consumer Contributing Scenario: Consumer (PC35)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	0.05 mg/kg bw/day	N/A	0.002

inhalative, systemic, long-term	0 mg/m ³	N/A	N/A
combined routes, systemic, long-term	N/A	N/A	0.002

3.2. CS7: Consumer Contributing Scenario: Consumer (PC35)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	0.143 mg/kg bw/day	N/A	0.057
inhalative, systemic, long-term	0.012 mg/m ³	N/A	0.0006
combined routes, systemic, long-term	N/A	N/A	0.058

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.

Exposure Scenario, 01/08/2019

Substance identity	
Chemical name	IDROSSIDO DI SODIO (SODA CAUSTICA SOLUZIONE 30%)
CAS No.	1310-73-2
EINECS No.	215-185-5

Table of contents

1. **ES 1** Widespread use by professional workers; Various products (PC2, PC14, PC15, PC19, PC20)
2. **ES 2** Consumer use; Various products (PC39, PC20, PC35)

1. ES 1

Widespread use by professional workers; Various products (PC2, PC14, PC15, PC19, PC20)

1.1 TITLE SECTION

Exposure Scenario name	Industrial and professional use
Date - Version	01/08/2019 - 1.0
Life Cycle Stage	Widespread use by professional workers
Main user group	Professional uses
Sector(s) of use	Industrial uses (SU3) - Consumer uses (SU21)
Product Categories	Adsorbents (PC2) - Metal surface treatment products (PC14) - Non-metal surface treatment products (PC15) - Intermediate (PC19) - Processing aids such as pH-regulators, flocculants, precipitants, neutralization agents (PC20) - Laboratory chemicals (PC21) - Washing and cleaning products (PC35) - Water softeners (PC36) - Water treatment chemicals (PC37)

Environment Contributing Scenario

CS1 Covered by	ERC1 - ERC4 - ERC6a - ERC2 - ERC6b - ERC7 - ERC8a - ERC8b - ERC8d - ERC9a
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Worker Contributing Scenario

CS2 General use from professional operators	PROC5 - PROC1 - PROC2 - PROC3 - PROC4 - PROC8a - PROC8b - PROC9 - PROC10 - PROC11 - PROC13 - PROC15
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1.2 Conditions of use affecting exposure

1.2. CS1: Environment Contributing Scenario: Covered by (ERC1, ERC4, ERC6a, ERC2, ERC6b, ERC7, ERC8a, ERC8b, ERC8d, ERC9a)

Environmental release categories	Manufacture of the substance - Use of non-reactive processing aid at industrial site (no inclusion into or onto article) - Use of intermediate - Formulation into mixture - Use of reactive processing aid at industrial site (no inclusion into or onto article) - Use of functional fluid at industrial site - Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor) - Widespread use of reactive processing aid (no inclusion into or onto article, indoor) - Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor) - Widespread use of functional fluid (indoor) (ERC1, ERC4, ERC6a, ERC2, ERC6b, ERC7, ERC8a, ERC8b, ERC8d, ERC9a)
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Product (article) characteristics

Physical form of product:

Liquid

Concentration of substance in product:

Covers percentage substance in the product up to 100 %.

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

Waste treatment

Product residual disposal complies with applicable regulations.

1.2. CS2: Worker Contributing Scenario: General use from professional operators (PROC5, PROC1, PROC2, PROC3, PROC4, PROC8a, PROC8b, PROC9, PROC10, PROC11, PROC13, PROC15)

Process Categories	Mixing or blending in batch processes - Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions - Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions - Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition - Chemical production where opportunity for exposure arises - Transfer of substance or mixture (charging and discharging) at non-dedicated facilities - Transfer of substance or mixture (charging and discharging) at dedicated facilities - Transfer of substance or mixture into small containers (dedicated filling line, including weighing) - Roller application or brushing - Non industrial spraying - Treatment of
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articles by dipping and pouring - Use as laboratory reagent (PROC5, PROC1, PROC2, PROC3, PROC4, PROC8a, PROC8b, PROC9, PROC10, PROC11, PROC13, PROC15)

Product (article) characteristics

Physical form of product:

Liquid

Concentration of substance in product:

Covers percentage substance in the product up to 100 %.

Amount used, frequency and duration of use/exposure

Duration:

Covers daily exposures up to 8 hours

Frequency:

Covers use up to 200 days per year

Technical and organisational conditions and measures

Technical and organisational measures

Sample via a closed loop or other system to avoid exposure.

Handle substance within a closed system.

Provide extract ventilation to points where emissions occur.

Store substance within a closed system.

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

Personal protection

Wear suitable gloves tested to EN374.

Use eye protection according to EN 166.

1.3 Exposure estimation and reference to its source

1.3. CS2: Worker Contributing Scenario: General use from professional operators (PROC5, PROC1, PROC2, PROC3, PROC4, PROC8a, PROC8b, PROC9, PROC10, PROC11, PROC13, PROC15)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	0.17 mg/m ³	N/A	N/A

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, PC20, PC35)

2.1 TITLE SECTION

Exposure Scenario name	Consumer goods
Date - Version	01/08/2019 - 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) - Processing aids such as pH-regulators, flocculants, precipitants, neutralization agents (PC20) - Washing and cleaning products (PC35)

Environment Contributing Scenario

CS1 Covered by	ERC8a - ERC8b - ERC8d - ERC9a
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Consumer Contributing Scenario

CS2 Consumer	PC39 - PC20 - PC35
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2.2 Conditions of use affecting exposure

2.2. CS1: Environment Contributing Scenario: Covered by (ERC8a, ERC8b, ERC8d, ERC9a)

Environmental release categories	Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor) - Widespread use of reactive processing aid (no inclusion into or onto article, indoor) - Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor) - Widespread use of functional fluid (indoor) (ERC8a, ERC8b, ERC8d, ERC9a)
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Product (article) characteristics

Physical form of product:

Liquid

Concentration of substance in product:

Covers percentage substance in the product up to 100 %.

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

Waste treatment

Product residual disposal complies with applicable regulations.

2.2. CS2: Consumer Contributing Scenario: Consumer (PC39, PC20, PC35)

Product Categories	Cosmetics, personal care products - Processing aids such as pH-regulators, flocculants, precipitants, neutralization agents - Washing and cleaning products (PC39, PC20, PC35)
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Product (article) characteristics

Physical form of product:

Liquid

Concentration of substance in product:

Covers percentage substance in the product up to 100 %.

Information and behavioural advice for consumers

Information and behavioural advice for consumers:

Avoid contact with eyes
Avoid using without gloves.
Do not inhale spray vapour.
Packaging with child-resistant fastening
Keep away from children.
It is recommended to wear household gloves when handling undiluted product.

2.3 Exposure estimation and reference to its source

N/A

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.