Safety Data Sheet
DETERGENTE RADIATORI

Safety Data Sheet dated 16/10/2024, version 3

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

1.1. Product identifier

Mixture identification:

Trade name: DETERGENTE RADIATORI

Trade code: 3508

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

Recommended use:

Detergent/cleaner

Uses advised against:

Strictly adhere to the recommended uses.

1.3. Details of the supplier of the safety data sheet

Supplier:

Arexons S.p.A.

via Antica di Cassano, 23, 20063

Cernusco sul Naviglio (MI), Italy

Arexons S.p.A.

Tel. +39 (0)2/924361 - Fax +39 (0)2/92436306

Competent person responsible for the safety data sheet:

arexons@arexons.it

1.4. Emergency telephone number

Arexons S.p.A.

Tel. +39 (0)2/924361 - Fax +39 (0)2/92436306

In England and Wales: NHS 111 - dial 111

In Scotland: NHS 24 - dial 111

In Ireland: emergency number 112

In South Africa: Poison Information Helpline 0861 555 777

In Malta: emergency number 112

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

EC regulation criteria 1272/2008 (CLP):

Danger, Eye Dam. 1, Causes serious eye damage.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Hazard pictograms:

Danger

Hazard statements:

H318 Causes serious eye damage.

Precautionary statements:

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P103 Read carefully and follow all instructions.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER.

Special Provisions:
None
Contains
tetrasodium ethylene diamine tetraacetate
(3R)-3-ethoxy-2-methylnonane
Special provisions according to Annex XVII of REACH and subsequent amendments:
None

Regulation (EC) nr 648/2004 (detergents).
Product contents:
EDTA and salts thereof, Non-ionic surfactants < 5 %

2.3. Other hazards
No PBT, vPvB or endocrine disruptor substances present in concentration >= 0.1%
Other Hazards:
No other hazards

SECTION 3: Composition/information on ingredients

3.1. Substances
N.A.
3.2. Mixtures
Hazardous components within the meaning of the CLP regulation and related classification:

stta	Name	Ident. Number		Classification
>= 3% - < 5%	tetrasodium ethylene diamine tetraacetate	Index number: CAS: EC: REACH No.:	607-428-00-2 64-02-8 200-573-9 01-2119486762-27	3.1/4/Oral Acute Tox. 4 H302 3.3/1 Eye Dam. 1 H318 3.1/4/Inhal Acute Tox. 4 H332 3.9/2 STOT RE 2 H373
>= 2% - < 3%	Diaceton Alcool-DAA	Index number: CAS: EC: REACH No.:	603-016-00-1 123-42-2 204-626-7 01-2119473975-21	2.6/3 Flam. Liq. 3 H226 3.3/2 Eye Irrit. 2 H319 Specific Concentration Limits: C >= 10%: Eye Irrit. 2 H319
>= 1% - < 2%	(3R)-3-ethoxy-2-methylnonane	CAS:	78330-20-8	3.1/4/Oral Acute Tox. 4 H302 3.3/1 Eye Dam. 1 H318
>= 0,05% - < 0,1%	sodium hydroxide; caustic soda	Index number: CAS: EC: REACH No.:	011-002-00-6 1310-73-2 215-185-5 01-2119457892-27	3.2/1A Skin Corr. 1A H314 3.3/1 Eye Dam. 1 H318 2.16/1 Met. Corr. 1 H290 Specific Concentration Limits: C >= 5%: Skin Corr. 1A H314 2% <= C < 5%: Skin Corr. 1B H314 0,5% <= C < 2%: Skin Irrit. 2 H315 0,5% <= C < 2%: Eye Irrit. 2 H319

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.
OBTAIN IMMEDIATE MEDICAL ATTENTION.
Wash thoroughly the body (shower or bath).
Remove contaminated clothing immediately and dispose off safely.

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 opthalmologist immediately.
Protect uninjured eye.

In case of Ingestion:

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

In case of Inhalation:

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

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

None

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

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).
Treatment:
None

SECTION 5: Firefighting measures

5.1. Extinguishing media

Appropriate Extinguishing Media:
To carbon dioxide.
Foam
To dust.
Water spray.
Not Recommended Extinguishing Media:
Do not use direct water jets.

5.2. Special hazards arising from the substance or mixture

Do not inhale explosion and combustion gases.
Burning produces heavy smoke.

5.3. Advice for firefighters

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

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.
Remove persons to safety.
See protective measures under point 7 and 8.

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.
Retain contaminated washing water and dispose it.
In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.
Suitable material for taking up: absorbing material, organic, sand

6.3. Methods and material for containment and cleaning up
For cleaning up:
Avoid flame and/or spark near leak and produced waste. Do not smoke. In case of large spills dike,
absorb and shovel up into suitable containers for disposal. Contain small spills with absorbent material.
Put dirty material in suitable container. Dispose of dirty material in accordance with local or national
regulations.
6.4. Reference to other sections
See also section 8 and 13

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:
Contamined clothing should be changed before entering eating areas.
Do not eat or drink while working.
7.2. Conditions for safe storage, including any incompatibilities
Only store in the original container.
Keep away from food, drink and feed.
None in particular.
Instructions as regards storage premises:
Adequately ventilated premises.
7.3. Specific end use(s)
None in particular

SECTION 8: Exposure controls/personal protection

8.1. Control parameters
tetrasodium ethylene diamine tetraacetate - CAS: 64-02-8
20101.12 - TWA: 5 mg/m3
Diaceton Alcool-DAA - CAS: 123-42-2
ACGIH - TWA(8h): 50 ppm - Notes: URT and eye irr
sodium hydroxide; caustic soda - CAS: 1310-73-2
20101.10 - TWA: 2 mg/m3
ACGIH - STEL: Ceiling 2 mg/m3 - Notes: URT, eye, and skin irr
DNEL Exposure Limit Values
tetrasodium ethylene diamine tetraacetate - CAS: 64-02-8
Worker Industry: 1.5 mg/m3 - Consumer: 1.7 - Exposure: Human Inhalation - Frequency: Long Term, systemic effects
sodium hydroxide; caustic soda - CAS: 1310-73-2
Worker Professional: 1 mg/m3 - Consumer: 1 mg/m3 - Exposure: Human Inhalation - Frequency: Long Term, systemic effects
PNEC Exposure Limit Values
tetrasodium ethylene diamine tetraacetate - CAS: 64-02-8
Target: Fresh Water - Value: 2.86 mg/l
Target: Marine water - Value: 0.286 mg/l
Target: 08 - Value: 1.56 mg/l
Target: Soil (agricultural) - Value: 0.937 mg/kg
Target: 09 - Value: 55.94 mg/l
8.2. Exposure controls
Eye protection:
Safety goggles.

Compliant with EN 166
Protection for skin:
protective clothing
Protection for hands:
Nitrile or Viton gloves.
Compliant with EN 374.
Thickness: Cuff 0.10 mm; Palm 0.12 mm; Fingers 0.145 mm
Respiratory protection:
Use a suitable respiratory protection device.
Thermal Hazards:
None
Environmental exposure controls:
None
Appropriate engineering controls:
None

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Method:	Notes:
Physical state:	Liquid	--	--
Colour:	Colourless	--	--
Odour:	N.A.	--	--
Melting point/freezing point:	N.A.	--	--
Boiling point or initial boiling point and boiling range:	>100°C	ASTM D 1120	--
Flammability:	N.A.	--	--
Lower and upper explosion limit:	N.A.	--	--
Flash point:	N.A.	--	--
Auto-ignition temperature:	N.A.	--	--
Decomposition temperature:	N.A.	--	--
pH:	10.3	ASTM D1287	--
Kinematic viscosity:	N.A.	--	--
Solubility in water:	N.A.	--	--
Solubility in oil:	N.A.	--	--
Partition coefficient n-octanol/water (log value):	N.A.	--	--
Vapour pressure:	N.A.	--	--

Density and/or relative density:	1.022 g/cm3	ASTM D 4052-96	--
Relative vapour density:	N.A.	--	--
Particle characteristics:			
Particle size:	N.A.	--	--

9.2. Other information
No other relevant information

SECTION 10: Stability and reactivity

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

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008
Toxicological information of the product:
DETERGENTE RADIATORI
a) acute toxicity
Not classified
Based on available data, the classification criteria are not met
b) skin corrosion/irritation
Not classified
Based on available data, the classification criteria are not met
c) serious eye damage/irritation
The product is classified: Eye Dam. 1 H318
d) respiratory or skin sensitisation
Not classified
Based on available data, the classification criteria are not met
e) germ cell mutagenicity
Not classified
Based on available data, the classification criteria are not met
f) carcinogenicity
Not classified
Based on available data, the classification criteria are not met
g) reproductive toxicity
Not classified
Based on available data, the classification criteria are not met
h) STOT-single exposure
Not classified
Based on available data, the classification criteria are not met
i) STOT-repeated exposure
Not classified

Based on available data, the classification criteria are not met

j) aspiration hazard

Not classified

Based on available data, the classification criteria are not met

Toxicological information of the main substances found in the product:

tetrasodium ethylene diamine tetraacetate - CAS: 64-02-8

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat 1780 mg/kg

Test: LC50 - Route: Inhalation - Species: Rat > 1-5 mg/l - Duration: 4h

b) skin corrosion/irritation:

Test: Skin Irritant - Species: Rabbit Negative

c) serious eye damage/irritation:

Test: Eye Irritant - Species: Rabbit Positive

d) respiratory or skin sensitisation:

Test: Skin Sensitization - Species: IND Negative

g) reproductive toxicity:

Test: NOAEL - Species: Rat > 250 mg/kg

Diaceton Alcool-DAA - CAS: 123-42-2

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat 4000 mg/kg

(3R)-3-ethoxy-2-methylnonane - CAS: 78330-20-8

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat 300-2000 mg/kg - Source: CESIO

b) skin corrosion/irritation:

Test: Skin Irritant - Route: Skin - Species: Rabbit Negative - Duration: 4h - Source: CESIO

c) serious eye damage/irritation:

Test: Eye Irritant - Route: EYE - Species: Rabbit Positive - Source: CESIO

d) respiratory or skin sensitisation:

Test: Skin Sensitization - Route: Skin Negative - Source: CESIO

11.2. Information on other hazards

Endocrine disrupting properties:

No endocrine disruptor substances present in concentration >= 0.1%

SECTION 12: Ecological information

12.1. Toxicity

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

tetrasodium ethylene diamine tetraacetate - CAS: 64-02-8

a) Aquatic acute toxicity:

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

Endpoint: EC50 - Species: Daphnia 140 mg/l - Duration h: 48

Endpoint: EC50 - Species: Algae > 100 mg/l - Duration h: 72

b) Aquatic chronic toxicity:

Endpoint: NOEC - Species: Fish > 25.7 mg/l - Duration h: 840

Endpoint: NOEC - Species: Daphnia > 25 mg/l - Duration h: 504

(3R)-3-ethoxy-2-methylnonane - CAS: 78330-20-8

a) Aquatic acute toxicity:

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

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

Endpoint: EC50 - Species: Algae > 100 mg/l - Duration h: 72 - Notes: CESIO

sodium hydroxide; caustic soda - CAS: 1310-73-2

a) Aquatic acute toxicity:

Endpoint: EC50 - Species: Daphnia 40.4 mg/l - Duration h: 48

12.2. Persistence and degradability

None

tetrasodium ethylene diamine tetraacetate - CAS: 64-02-8

Biodegradability: Non-readily biodegradable

Diaceton Alcool-DAA - CAS: 123-42-2
Biodegradability: Readily biodegradable
(3R)-3-ethoxy-2-methylnonane - CAS: 78330-20-8
Biodegradability: Readily biodegradable - Test: BIOGDG10 - Duration: 28gg - %: 70

12.3. Bioaccumulative potential
N.A.
12.4. Mobility in soil
N.A.
12.5. Results of PBT and vPvB assessment
vPvB Substances: None - PBT Substances: None
12.6. Endocrine disrupting properties
No endocrine disruptor substances present in concentration >= 0.1%
12.7. Other adverse effects
None

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.
Additional disposal information:
"Use in accordance with good working practices, avoiding dispersal in the environment.
Do not discharge into drains, ground water or water courses. Comply with current legislation on the protection of water and soil from pollution (Legislative Decree No. 152 of 3/4/2006).
Dispose of used product and containers by handing them over to authorised companies, in accordance with the provisions of
Legislative Decree No. 152/2006 (Consolidated Environmental Act, which replaced the Ronchi Decree) as amended.
The used product is to be considered special waste to be classified in accordance with Directive No. 2008/98/EC on waste and related matters. Recover if possible. Send to authorised disposal plants or incineration under
controlled conditions (152/2006 art. 184).
Act in accordance with the local and national laws in force.
Contaminated packaging must be emptied as far as possible. After cleaning, send to an authorised centre for recycling or disposal."

SECTION 14: Transport information

14.1. UN number or ID number

Not classified as dangerous in the meaning of transport regulations.
14.2. UN proper shipping name
N.A.
14.3. Transport hazard class(es)
N.A.
14.4. Packing group
N.A.
14.5. Environmental hazards
ADR-Enviromental Pollutant: No
IMDG-Marine pollutant: No
14.6. Special precautions for user
N.A.
14.7. Maritime transport in bulk according to IMO instruments
N.A.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
Dir. 98/24/EC (Risks related to chemical agents at work)
Dir. 2000/39/EC (Occupational exposure limit values)
Regulation (EC) n. 1907/2006 (REACH)
Regulation (EC) n. 1272/2008 (CLP)
Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013
Regulation (EU) n. 2020/878
Regulation (EU) n. 286/2011 (ATP 2 CLP)
Regulation (EU) n. 618/2012 (ATP 3 CLP)
Regulation (EU) n. 487/2013 (ATP 4 CLP)
Regulation (EU) n. 944/2013 (ATP 5 CLP)
Regulation (EU) n. 605/2014 (ATP 6 CLP)
Regulation (EU) n. 2015/1221 (ATP 7 CLP)
Regulation (EU) n. 2016/918 (ATP 8 CLP)
Regulation (EU) n. 2016/1179 (ATP 9 CLP)
Regulation (EU) n. 2017/776 (ATP 10 CLP)
Regulation (EU) n. 2018/669 (ATP 11 CLP)
Regulation (EU) n. 2018/1480 (ATP 13 CLP)
Regulation (EU) n. 2019/521 (ATP 12 CLP)
Regulation (EU) n. 2020/217 (ATP 14 CLP)
Regulation (EU) n. 2020/1182 (ATP 15 CLP)
Regulation (EU) n. 2021/643 (ATP 16 CLP)
Regulation (EU) n. 2021/849 (ATP 17 CLP)
Regulation (EU) n. 2022/692 (ATP 18 CLP)

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:
Restrictions related to the product:
Restriction 3
Restrictions related to the substances contained:
Restriction 40
Restriction 75

Pronto all'Uso
Volatile Organic compounds - VOCs = 2.00 %
Volatile Organic compounds - VOCs = 20.00 g/Kg
Volatile CMR substances = 0.00 %
Halogenated VOCs which are assigned the risk phrase R40 = 0.00 %
Organic Carbon - C = 0.00
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:
tetrasodium ethylene diamine tetraacetate
Diaceton Alcool-DAA

SECTION 16: Other information

Text of phrases referred to under heading 3:
H302 Harmful if swallowed.

H318 Causes serious eye damage.
H332 Harmful if inhaled.
H373 May cause damage to organs through prolonged or repeated exposure.
H226 Flammable liquid and vapour.
H319 Causes serious eye irritation.
H314 Causes severe skin burns and eye damage.
H290 May be corrosive to metals.
H315 Causes skin irritation.

Hazard class and hazard category	Code	Description
Met. Corr. 1	2.16/1	Substance or mixture corrosive to metals, Category 1
Flam. Liq. 3	2.6/3	Flammable liquid, Category 3
Acute Tox. 4	3.1/4/Inhal	Acute toxicity (inhalation), Category 4
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 Irrit. 2	3.2/2	Skin irritation, Category 2
Eye Dam. 1	3.3/1	Serious eye damage, Category 1
Eye Irrit. 2	3.3/2	Eye irritation, Category 2
STOT RE 2	3.9/2	Specific target organ toxicity - repeated exposure, Category 2

Paragraphs modified from the previous revision:

SECTION 1: Identification of the substance/mixture and of the company/undertaking
SECTION 2: Hazards identification
SECTION 3: Composition/information on ingredients
SECTION 5: Firefighting measures
SECTION 6: Accidental release measures
SECTION 7: Handling and storage
SECTION 8: Exposure controls/personal protection
SECTION 9: Physical and chemical properties
SECTION 10: Stability and reactivity
SECTION 13: Disposal considerations
SECTION 14: Transport information
SECTION 15: Regulatory information
SECTION 16: Other 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 Dam. 1, H318	Calculation method

This document was prepared by a competent person who has received appropriate training.
Main bibliographic sources:

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

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

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.
It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.
This MSDS cancels and replaces any preceding release.

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

Exposure Scenario, 07/10/2019

Substance identity	
Chemical name	EDTA - SALE TETRASODICO tetrasodium ethylenediaminetetraacetate
CAS No.	64-02-8
EINECS No.	200-573-9

Table of contents

1. **ES 1** Consumer use; Various products (PC9b, PC9a, PC1, PC39, PC12)

1. ES 1 Consumer use; Various products (PC9b, PC9a, PC1, PC39, PC12)

1.1 TITLE SECTION

Exposure Scenario name	Consumer goods
Date - Version	07/10/2019 - 1.0
Life Cycle Stage	Consumer use
Main user group	Consumer uses
Sector(s) of use	Consumer uses (SU21)
Product Categories	Fillers, putties, plasters, modelling clay (PC9b) - Coatings and paints, thinners, paint removers (PC9a) - Adhesives, sealants (PC1) - Cosmetics, personal care products (PC39) - Fertilizers (PC12) - Washing and cleaning products (PC35) - Water softeners (PC36)
Environment Contributing Scenario	
CS1 Covered by	ERC8a - ERC8b - ERC8c - ERC8d - ERC8e - ERC8f - ERC9a - ERC9b
Consumer Contributing Scenario	
CS2 Consumer	PC9b - PC9a - PC39 - PC12 - PC36
CS3 Consumer	PC35

1.2 Conditions of use affecting exposure

1.2. CS1: Environment Contributing Scenario: Covered by (ERC8a, ERC8b, ERC8c, ERC8d, ERC8e, ERC8f, ERC9a, ERC9b)

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 leading to inclusion into/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) - Widespread use leading to inclusion into/onto article (outdoor) - Widespread use of functional fluid (indoor) - Widespread use of functional fluid (outdoor) (ERC8a, ERC8b, ERC8c, ERC8d, ERC8e, ERC8f, ERC9a, ERC9b)

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

Amounts used:

Annual site tonnage 6041.5 t(onnes)/year

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 (PC9b, PC9a, PC39, PC12, PC36)

Product Categories	Fillers, putties, plasters, modelling clay - Coatings and paints, thinners, paint removers - Cosmetics, personal care products - Fertilizers - Water softeners (PC9b, PC9a, PC39, PC12, PC36)

Product (article) characteristics

Physical form of product:

Solid in solution

Amount used, frequency and duration of use/exposure

Amounts used:

Amount per use 0.2 kg

Frequency:

Covers exposure up to 365 days per year

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

Product Categories	Washing and cleaning products (PC35)

Product (article) characteristics

Physical form of product:

Aerosol

Amount used, frequency and duration of use/exposure

Amounts used:

Amount per use 19.5 g

Frequency:

Covers exposure up to 52 times per year

Information and behavioural advice for consumers

Information and behavioural advice for consumers:

Avoid contact with eyes

Other conditions affecting consumers exposure

Covers indoor and outdoor use

1.3 Exposure estimation and reference to its source

1.3. CS1: Environment Contributing Scenario: Covered by (ERC8a, ERC8b, ERC8c, ERC8d, ERC8e, ERC8f, ERC9a, ERC9b)

Release route	Release rate	Release estimation method
Air	10 %	N/A
Water	100 %	N/A
soil	20 %	N/A

protection target	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
freshwater	2.28 mg/L	EUSES	0.796
marine water	0.227 mg/L	EUSES	0.794
Sewage treatment plant	20.5 mg/L	EUSES	0.367
soil	0.0235 mg/kg dry weight	EUSES	0.039

1.2. CS2: Consumer Contributing Scenario: Consumer (PC9b, PC9a, PC39, PC12, PC36)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	6.2E-05 mg/m³	ConsExpo	< 0.001
oral, systemic, long-term	0.14 mg/kg bw/day	ConsExpo	0.01

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

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	6.2E-05 mg/m³	ConsExpo	< 0.001
oral, systemic, long-term	0.14 mg/kg bw/day	ConsExpo	0.01

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.

Exposure Scenario, 10/03/2020

Substance identity	
Chemical name	Diaceton Alcool-DAA
CAS No.	123-42-2
EINECS No.	204-626-7

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1. **ES 1** Use at industrial site
2. **ES 2** Widespread use by professional workers

1. ES 1 Use at industrial site

1.1 TITLE SECTION

Exposure Scenario name	Cleaning product
Date - Version	10/03/2020 - 1.0
Life Cycle Stage	Use at industrial site
Main user group	Industrial uses
Sector(s) of use	Industrial uses (SU3)

Environment Contributing Scenario	
CS1 Covered by	ERC4
Worker Contributing Scenario	
CS2 Industrial	PROC1
CS3 Industrial	PROC2 - PROC3
CS4 Industrial	PROC4
CS5 Industrial	PROC7
CS6 Industrial	PROC8b
CS7 Industrial	PROC8a - PROC10 - PROC13
CS8 Industrial	PROC15

1.2 Conditions of use affecting exposure

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

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

Product (article) characteristics

Physical form of product:

Liquid

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

Amounts used:

Annual site tonnage 400 t(onnes)/year

Release type: Continuous release

Emission days: 20 days per year

Technical and organisational conditions and measures

Control measures to prevent releases

Treat air emission to provide the required removal efficiency of (%):	Air - minimum efficiency of: 50 %
Provide onsite wastewater removal efficiency of [3] (%):	Water - minimum efficiency of: 70 %

Conditions and measures related to sewage treatment plant

STP type:

Municipal Sewage Treatment Plant

Water - minimum efficiency of: = 87.34 %

STP effluent (m^3/day): 2000

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.

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

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

Product (article) characteristics

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

Technical and organisational conditions and measures

Technical and organisational measures

Ensure operatives are trained to minimise exposures.
Provide a basic standard of general ventilation (1 to 3 air changes per hour).
Handle the product in a closed system

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

Personal protection

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

Other conditions affecting worker exposure

Indoor use

Temperature: Assumes use at not more than 20 °C above ambient temperature.

1.2. CS3: Worker Contributing Scenario: Industrial (PROC2, PROC3)

Process Categories	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 (PROC2, PROC3)

Product (article) characteristics

Physical form of product:

Liquid

Concentration of substance in product:

Covers percentage substance in the product up to 100 %.

Amount used, frequency and duration of use/exposure

Duration:

Covers daily exposures up to 8 hours

Technical and organisational conditions and measures

Technical and organisational measures

Ensure operatives are trained to minimise exposures.
Provide a basic standard of general ventilation (1 to 3 air changes per hour).

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

Personal protection

Use suitable eye protection. Wear suitable gloves tested to EN374.	Dermal - minimum efficiency of: 90 %

Other conditions affecting worker exposure

Indoor use
Temperature: Assumes use at not more than 20 °C above ambient temperature.

1.2. 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:
Covers daily exposures up to 8 hours

Technical and organisational conditions and measures

Technical and organisational measures
Ensure operatives are trained to minimise exposures.
Provide a basic standard of general ventilation (1 to 3 air changes per hour).

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

Personal protection

Use suitable eye protection. Wear suitable gloves tested to EN374.	Dermal - minimum efficiency of: 90 %

Other conditions affecting worker exposure

Indoor use
Temperature: Assumes use at not more than 20 °C above ambient temperature.

1.2. 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:
Covers daily exposures up to 8 hours

Technical and organisational conditions and measures

Technical and organisational measures
Ensure operatives are trained to minimise exposures.
Provide a basic standard of general ventilation (1 to 3 air changes per hour).
Provide extract ventilation to points where emissions occur.

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

Personal protection

Use suitable eye protection. Wear suitable gloves tested to EN374.	Dermal - minimum efficiency of: 90 %

Other conditions affecting worker exposure

Indoor use
Temperature: Assumes use at not more than 20 °C above ambient temperature.

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

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

Product (article) characteristics

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

Technical and organisational conditions and measures

Technical and organisational measures
Ensure operatives are trained to minimise exposures.
Provide a basic standard of general ventilation (1 to 3 air changes per hour).

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

Personal protection

Use suitable eye protection. Wear suitable gloves tested to EN374.	Dermal - minimum efficiency of: 90 %

Other conditions affecting worker exposure

Indoor use
Temperature: Assumes use at not more than 20 °C above ambient temperature.

1.2. CS7: Worker Contributing Scenario: Industrial (PROC8a, PROC10, PROC13)

Process Categories	Transfer of substance or mixture (charging and discharging) at non-dedicated facilities - Roller application or brushing - Treatment of articles by dipping and pouring (PROC8a, PROC10, PROC13)

Product (article) characteristics

Physical form of product:
Liquid

Concentration of substance in product:
Covers percentage substance in the product up to 100 %.

Amount used, frequency and duration of use/exposure

Duration:
Covers daily exposures up to 8 hours

Technical and organisational conditions and measures

Technical and organisational measures
Ensure operatives are trained to minimise exposures.
Provide a basic standard of general ventilation (1 to 3 air changes per hour).
Provide extract ventilation to points where emissions occur.

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

Personal protection

Use suitable eye protection. Wear suitable gloves tested to EN374.	Dermal - minimum efficiency of: 90 %

Other conditions affecting worker exposure

Indoor use
Temperature: Assumes use at not more than 20 °C above ambient temperature.

1.2. CS8: Worker Contributing Scenario: Industrial (PROC15)

Process Categories	Use as laboratory reagent (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

Technical and organisational conditions and measures

Technical and organisational measures
Ensure operatives are trained to minimise exposures.
Provide a basic standard of general ventilation (1 to 3 air changes per hour).
Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).

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

Personal protection

Use suitable eye protection. Wear suitable gloves tested to EN374.	Dermal - minimum efficiency of: 90 %

Other conditions affecting worker exposure

Indoor use
Temperature: Assumes use at not more than 20 °C above ambient temperature.

1.3 Exposure estimation and reference to its source

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

protection target	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
Air	547.9 kg/d	N/A	N/A
marine water	0.2 mg/L	N/A	< 1
marine water	0.2 mg/L	N/A	< 1

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

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	N/A	N/A	< 0.1
dermal, systemic, long-term	N/A	N/A	< 0.1
combined routes, systemic, long-term	N/A	N/A	< 0.1

1.3. CS3: Worker Contributing Scenario: Industrial (PROC2, PROC3)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	N/A	N/A	< 0.5
dermal, systemic, long-term	N/A	N/A	< 0.1
combined routes, systemic, long-term	N/A	N/A	< 0.5

1.3. CS4: Worker Contributing Scenario: Industrial (PROC4)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	N/A	N/A	< 0.75
dermal, systemic, long-term	N/A	N/A	< 0.1
combined routes, systemic, long-term	N/A	N/A	< 0.75

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

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	N/A	N/A	< 0.75
dermal, systemic, long-term	N/A	N/A	< 0.1
combined routes, systemic, long-term	N/A	N/A	< 0.75

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

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	N/A	N/A	< 0.75
dermal, systemic, long-term	N/A	N/A	< 0.1
combined routes, systemic, long-term	N/A	N/A	< 0.75

1.3. CS7: Worker Contributing Scenario: Industrial (PROC8a, PROC10, PROC13)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	N/A	N/A	< 0.5
dermal, systemic, long-term	N/A	N/A	< 0.1
combined routes, systemic, long-term	N/A	N/A	< 0.5

1.3. CS8: Worker Contributing Scenario: Industrial (PROC15)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	N/A	N/A	< 0.75
dermal, systemic, long-term	N/A	N/A	< 0.1
combined routes, systemic, long-term	N/A	N/A	< 0.75

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

Guidance to check compliance with the exposure scenario:

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

2. ES 2 Widespread use by professional workers

2.1 TITLE SECTION

Exposure Scenario name	Cleaning product
Date - Version	10/03/2020 - 1.0
Life Cycle Stage	Widespread use by professional workers
Main user group	Professional uses
Sector(s) of use	Professional uses (SU22)

Environment Contributing Scenario	
CS1 Covered by	ERC8a - ERC8d
Worker Contributing Scenario	
CS2 General use from professional operators	PROC1
CS3 General use from professional operators	PROC2
CS4 General use from professional operators	PROC3
CS5 General use from professional operators	PROC4
CS6 General use from professional operators	PROC4
CS7 General use from professional operators	PROC8a
CS8 General use from professional operators	PROC8b
CS9 General use from professional operators	PROC10
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	PROC15

2.2 Conditions of use affecting exposure

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

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

Product (article) characteristics

Physical form of product:

Liquid

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

Amounts used:

Annual site tonnage 0.02 t(onnes)/year

Release type: Continuous release

Emission days: 365 days per year

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

Waste treatment

Product residual disposal complies with applicable regulations.

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

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

Product (article) characteristics

Physical form of product:

Liquid

Concentration of substance in product:

Covers percentage substance in the product up to 100 %.

Amount used, frequency and duration of use/exposure

Duration:

Covers daily exposures up to 8 hours

Technical and organisational conditions and measures

Technical and organisational measures

Remove spills immediately
Ensure operatives are trained to minimise exposures.
Ensure that direct skin contact is avoided.
Provide a basic standard of general ventilation (1 to 3 air changes per hour).
Handle the product in a closed system

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

Personal protection

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

Other conditions affecting worker exposure

Indoor use
Temperature: Assumes use at not more than 20 °C above ambient temperature.

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

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

Product (article) characteristics

Physical form of product:

Liquid

Concentration of substance in product:

Covers percentage substance in the product up to 100 %.

Amount used, frequency and duration of use/exposure

Duration:

Covers daily exposures up to 8 hours

Technical and organisational conditions and measures

Technical and organisational measures

Remove spills immediately
Ensure operatives are trained to minimise exposures.
Ensure that direct skin contact is avoided.
Provide a basic standard of general ventilation (1 to 3 air changes per hour).

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

Personal protection

Use suitable eye protection. Wear suitable gloves tested to EN374.	Dermal - minimum efficiency of: 90 %

Other conditions affecting worker exposure

Indoor use
Temperature: Assumes use at not more than 20 °C above ambient temperature.

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

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

Product (article) characteristics

Physical form of product:
Liquid

Concentration of substance in product:
Covers percentage substance in the product up to 100 %.

Amount used, frequency and duration of use/exposure

Duration:
Covers daily exposures up to 8 hours

Technical and organisational conditions and measures

Technical and organisational measures
Remove spills immediately
Ensure operatives are trained to minimise exposures.
Ensure that direct skin contact is avoided.
Provide a basic standard of general ventilation (1 to 3 air changes per hour).

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

Personal protection

Use suitable eye protection. Wear suitable gloves tested to EN374.	Dermal - minimum efficiency of: 90 %

Other conditions affecting worker exposure

Indoor use
Temperature: Assumes use at not more than 20 °C above ambient temperature.

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

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

Product (article) characteristics

Physical form of product:
Liquid

Concentration of substance in product:
Covers percentage substance in the product up to 100 %.

Amount used, frequency and duration of use/exposure

Duration:
Covers daily exposures up to 8 hours

Technical and organisational conditions and measures

Technical and organisational measures
Remove spills immediately
Ensure operatives are trained to minimise exposures.
Ensure that direct skin contact is avoided.
Provide a basic standard of general ventilation (1 to 3 air changes per hour).
Provide extract ventilation to points where emissions occur.

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

Personal protection

Use suitable eye protection. Wear suitable gloves tested to EN374.	Dermal - minimum efficiency of: 90 %

Other conditions affecting worker exposure

Indoor use
Temperature: Assumes use at not more than 20 °C above ambient temperature.

2.2. CS6: Worker Contributing Scenario: General use from professional operators (PROC4)

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

Product (article) characteristics

Physical form of product:
Liquid

Concentration of substance in product:
Covers percentage substance in the product up to 100 %.

Amount used, frequency and duration of use/exposure

Duration:
Covers daily exposures up to 8 hours

Technical and organisational conditions and measures

Technical and organisational measures
Remove spills immediately
Ensure operatives are trained to minimise exposures.
Ensure that direct skin contact is avoided.
Provide a basic standard of general ventilation (1 to 3 air changes per hour).
Avoid carrying out activities involving exposure for more than 4 hours per day.

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

Personal protection

Use suitable eye protection. Wear suitable gloves tested to EN374.	Dermal - minimum efficiency of: 90 %

Other conditions affecting worker exposure

Indoor use
Temperature: Assumes use at not more than 20 °C above ambient temperature.

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

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

Product (article) characteristics

Physical form of product:
Liquid

Concentration of substance in product:
Covers percentage substance in the product up to 100 %.

Amount used, frequency and duration of use/exposure

Duration:
Covers daily exposures up to 8 hours

Technical and organisational conditions and measures

Technical and organisational measures

Remove spills immediately
Ensure operatives are trained to minimise exposures.
Ensure that direct skin contact is avoided.
Provide a basic standard of general ventilation (1 to 3 air changes per hour).
Provide extract ventilation to points where emissions occur.

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

Personal protection

Use suitable eye protection. Wear suitable gloves tested to EN374.	Dermal - minimum efficiency of: 90 %

Other conditions affecting worker exposure

Indoor use
Temperature: Assumes use at not more than 20 °C above ambient temperature.

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

Concentration of substance in product:

Covers percentage substance in the product up to 100 %.

Amount used, frequency and duration of use/exposure

Duration:

Covers daily exposures up to 8 hours

Technical and organisational conditions and measures

Technical and organisational measures

Remove spills immediately
Ensure operatives are trained to minimise exposures.
Ensure that direct skin contact is avoided.
Provide a basic standard of general ventilation (1 to 3 air changes per hour).
Provide extract ventilation to points where emissions occur.

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

Personal protection

Use suitable eye protection. Wear suitable gloves tested to EN374.	Dermal - minimum efficiency of: 90 %

Other conditions affecting worker exposure

Indoor use
Temperature: Assumes use at not more than 20 °C above ambient temperature.

2.2. CS9: Worker Contributing Scenario: General use from professional operators (PROC10)

Process Categories	Roller application or brushing (PROC10)

Product (article) characteristics

Physical form of product:

Liquid

Concentration of substance in product:

Covers percentage substance in the product up to 100 %.

Amount used, frequency and duration of use/exposure

Duration:

Covers daily exposures up to 8 hours

Technical and organisational conditions and measures

Technical and organisational measures

Remove spills immediately
Ensure operatives are trained to minimise exposures.
Ensure that direct skin contact is avoided.
Provide a basic standard of general ventilation (1 to 3 air changes per hour).
Provide extract ventilation to points where emissions occur.

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

Personal protection

Use suitable eye protection. Wear suitable gloves tested to EN374.	Dermal - minimum efficiency of: 90 %

Other conditions affecting worker exposure

Indoor use

Temperature: Assumes use at not more than 20 °C above ambient temperature.

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

Concentration of substance in product:

Covers percentage substance in the product up to 100 %.

Amount used, frequency and duration of use/exposure

Duration:

Covers daily exposures up to 8 hours

Technical and organisational conditions and measures

Technical and organisational measures

Remove spills immediately
Ensure operatives are trained to minimise exposures.
Ensure that direct skin contact is avoided.
Provide a basic standard of general ventilation (1 to 3 air changes per hour).

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

Personal protection

Use suitable eye protection. Wear suitable gloves tested to EN374.	Dermal - minimum efficiency of: 90 %
Wear a respirator conforming to EN140.	Inhalation - minimum efficiency of: 90 %

Other conditions affecting worker exposure

Indoor use

Temperature: Assumes use at not more than 20 °C above ambient temperature.

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

Concentration of substance in product:

Covers percentage substance in the product up to 100 %.

Amount used, frequency and duration of use/exposure

Duration:

Covers daily exposures up to 8 hours

Technical and organisational conditions and measures

Technical and organisational measures

Remove spills immediately
Ensure operatives are trained to minimise exposures.
Ensure that direct skin contact is avoided.
Provide a basic standard of general ventilation (1 to 3 air changes per hour).
Limit the substance content in the product to 5 %.

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

Personal protection

Use suitable eye protection. Wear suitable gloves tested to EN374.	Dermal - minimum efficiency of: 90 %
Wear a respirator conforming to EN140.	Inhalation - minimum efficiency of: 90 %

Other conditions affecting worker exposure

Indoor use

Temperature: Assumes use at not more than 20 °C above ambient temperature.

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

Concentration of substance in product:

Covers percentage substance in the product up to 100 %.

Amount used, frequency and duration of use/exposure

Duration:

Covers daily exposures up to 8 hours

Technical and organisational conditions and measures

Technical and organisational measures

Remove spills immediately
Ensure operatives are trained to minimise exposures.
Ensure that direct skin contact is avoided.
Provide a basic standard of general ventilation (1 to 3 air changes per hour).
Provide extract ventilation to points where emissions occur.

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

Personal protection

Use suitable eye protection. Wear suitable gloves tested to EN374.	Dermal - minimum efficiency of: 90 %

Other conditions affecting worker exposure

Indoor use

Temperature: Assumes use at not more than 20 °C above ambient temperature.

2.2. CS13: Worker Contributing Scenario: General use from professional operators (PROC15)

Process Categories	Use as laboratory reagent (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

Technical and organisational conditions and measures

Technical and organisational measures

Remove spills immediately
Ensure operatives are trained to minimise exposures.
Ensure that direct skin contact is avoided.
Provide a basic standard of general ventilation (1 to 3 air changes per hour).
Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).

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

Personal protection

Use suitable eye protection. Wear suitable gloves tested to EN374.	Dermal - minimum efficiency of: 80 %

Other conditions affecting worker exposure

Indoor use

Temperature: Assumes use at not more than 20 °C above ambient temperature.

2.3 Exposure estimation and reference to its source

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

Release route	Release rate	Release estimation method
Air	0.0011 kg/day	N/A

protection target	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
marine water	0.2 mg/L	N/A	< 1
freshwater	2 mg/L	N/A	< 1

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)
inhalative, systemic, long-term	N/A	N/A	< 0.1
dermal, systemic, long-term	N/A	N/A	< 0.1
combined routes, systemic, long-term	N/A	N/A	< 0.1

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)
inhalative, systemic, long-term	N/A	N/A	< 0.75
dermal, systemic, long-term	N/A	N/A	< 0.1
combined routes, systemic, long-term	N/A	N/A	< 0.75

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)
inhalative, systemic, long-term	N/A	N/A	< 0.5
dermal, systemic, long-term	N/A	N/A	< 0.1
combined routes, systemic, long-term	N/A	N/A	< 0.5

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)
inhalative, systemic, long-term	N/A	N/A	< 0.5
dermal, systemic, long-term	N/A	N/A	< 0.1
combined routes, systemic, long-term	N/A	N/A	< 0.5

2.3. CS6: Worker Contributing Scenario: General use from professional operators (PROC4)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	N/A	N/A	< 0.75
dermal, systemic, long-term	N/A	N/A	< 0.1
combined routes, systemic, long-term	N/A	N/A	< 0.75

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)
inhalative, systemic, long-term	N/A	N/A	< 0.75
dermal, systemic, long-term	N/A	N/A	< 0.1
combined routes, systemic, long-term	N/A	N/A	< 0.75

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)
inhalative, systemic, long-term	N/A	N/A	< 0.5
dermal, systemic, long-term	N/A	N/A	< 0.1
combined routes, systemic, long-term	N/A	N/A	< 0.5

2.3. CS9: Worker Contributing Scenario: General use from professional operators (PROC10)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	N/A	N/A	< 0.75
dermal, systemic, long-term	N/A	N/A	< 0.1
combined routes, systemic, long-term	N/A	N/A	< 0.75

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)
inhalative, systemic, long-term	N/A	N/A	< 0.5
dermal, systemic, long-term	N/A	N/A	< 0.1
combined routes, systemic, long-term	N/A	N/A	< 0.5

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)
inhalative, systemic, long-term	N/A	N/A	< 0.5
dermal, systemic, long-term	N/A	N/A	< 0.1
combined routes, systemic, long-term	N/A	N/A	< 0.5

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)
inhalative, systemic, long-term	N/A	N/A	< 0.5
dermal, systemic, long-term	N/A	N/A	< 0.1
combined routes, systemic, long-term	N/A	N/A	< 0.5

2.3. CS13: Worker Contributing Scenario: General use from professional operators (PROC15)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	N/A	N/A	< 0.75
dermal, systemic, long-term	N/A	N/A	< 0.1
combined routes, systemic, long-term	N/A	N/A	< 0.75

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

Guidance to check compliance with the exposure scenario:

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