

### Safety Data Sheet dated 11/7/2022, version 15

<b>SECTION 1: Identification of the subs</b>	tance/mixture and of the company/undertaking
1.1. Product identifier	
Mixture identification:	
Trade name:	LEATHER TREATMENT
Trade code:	31004
<ol> <li>1.2. Relevant identified uses of the su</li> </ol>	bstance or mixture and uses advised against
Recommended use:	
Leather interiors detergent	
Uses advised against:	
Strictly adhere to the recommended u	Ses.
1.3. Details of the supplier of the safe	y data sheet
Supplier:	
Arexons S.p.A.	
via Antica di Cassano, 23, 2006	3
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 11	1 - 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 Informa	tion Helpline 0861 555 777
In Malta: emergency number 17	2
SECTION 2: Hazarde identification	

#### **SECTION 2: Hazards identification**

2.1. Classification of the substance or mixture EC regulation criteria 1272/2008 (CLP): The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP). Adverse physicochemical, human health and environmental effects: No other hazards 2.2. Label elements The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP). Hazard pictograms: None Hazard statements: None Precautionary statements: None **Special Provisions:** EUH208 Contains 1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one. May produce an allergic reaction. Special provisions according to Annex XVII of REACH and subsequent amendments: None

31004/15 Page n. 1 of 10



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

 Product contents:

 Polycarboxylates, Amphoteric surfactants, Non-ionic surfactants < 5 %</td>

 The product also contains:
 Perfumes

 Preservatives:
 LAURYLAMINE DIPROPYLENEDIAMINE, Pyridine-2-thiol 1-oxide, sodium salt., 1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one

#### **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: >= 1% - < 2% ethanediol; ethylene glycol

3.9/2 STOT RE 2 H373 (kidneys) (oral)

>= 0.5% - < 1% Amines, C12-14(even numbered)-alkyldimethyl, N-oxides

REACH No.: 01-2119490061-47, EC: 931-292-6

 <sup>(1)</sup> 3.1/4/Oral Acute Tox. 4 H302
 <sup>(1)</sup> 3.2/9 Chin Invit. 2 H345

♦ 3.3/1 Eye Dam. 1 H318
 ♦ 4.1/A1 Aquatic Acute 1 H400

♦ 4.1/C2 Aquatic Acute 1 1400
 ♦ 4.1/C2 Aquatic Chronic 2 H411

>= 0.01% - < 0.02% 1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one Index number: 613-088-00-6, CAS: 2634-33-5, EC: 220-120-9

\* 3.1/4/Oral Acute Tox. 4 H302

1.2/2 Skin Irrit. 2 H315

3.3/1 Eye Dam. 1 H318

1 3.4.2/1 Skin Sens. 1 H317

4.1/A1 Aquatic Acute 1 H400

4.1/C2 Aquatic Chronic 2 H411

Specific Concentration Limits:  $C \ge 0,005\%$ : EUH208  $C \ge 0,05\%$ : Skin Sens. 1 H317

#### **SECTION 4: First aid measures**

4.1. Description of first aid measures

In case of skin contact:

Wash with plenty of water and soap.

In case of eyes contact:

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

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

31004/15 Page n. 2 of 10



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 Treatment: None

### **SECTION 5: Firefighting measures**

- 5.1. Extinguishing media
  - Appropriate Extinguishing Media: To carbon dioxide. To dust. Foam Water spray. Not Recommended Extinguishing Media: Do not use direct water jets.
- 5.2. Special hazards arising from the substance or mixture Do not inhale explosion and combustion gases. Burning produces heavy smoke.
- 5.3. Advice for firefighters

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.

### **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. See also section 8 for recommended protective equipment. Advice on general occupational hygiene: 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

31004/15 Page n. 3 of 10



#### **SECTION 8: Exposure controls/personal protection** 8.1. Control parameters ethanediol; ethylene glycol - CAS: 107-21-1 EU - TWA(8h): 52 mg/m3, 20 ppm - STEL: 104 mg/m3, 40 ppm - Notes: Skin ACGIH - TWA(8h): 25 ppm - STEL: 50 ppm - Notes: (V), A4 - URT irr ACGIH - STEL: 10 mg/m3 - Notes: (I, H), A4 - URT irr **DNEL Exposure Limit Values** Amines, C12-14(even numbered)-alkyldimethyl, N-oxides Worker Professional: 6.2 mg/m3 - Consumer: 1.53 mg/m3 - Exposure: Human Inhalation -Frequency: Long Term, systemic effects Worker Professional: 11 mg/kg - Consumer: 5.5 mg/kg - Exposure: Human Dermal -Frequency: Long Term, local effects Consumer: 0.44 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects **PNEC Exposure Limit Values** Amines, C12-14(even numbered)-alkyldimethyl, N-oxides Target: Fresh Water - Value: 0.0335 mg/l Target: Marine water - Value: 0.00335 mg/l Target: Freshwater sediments - Value: 0.0335 mg/kg Target: Marine water sediments - Value: 0.0335 mg/kg Target: 09 - Value: 24 mg/l 8.2. Exposure controls Eye protection: Eye glasses with side protection. Compliant with EN 166 Protection for skin: protective clothing Protection for hands: Nitrile or Viton gloves. Compliant with EN 374. 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:
Physical state:	Liquid		
Colour:	Beige		
Odour:	Characteristic		
Melting point/freezing point:	N.A.		
Boiling point or initial boiling point and boiling range:	N.A.		

31004/15 Page n. 4 of 10



Flammability:	N.A.		
Lower and upper explosion limit:	N.A.		
Flash point:	Not flammable	IP 170	
Auto-ignition temperature:	N.A.		
Decomposition temperature:	N.A.		
pH:	7.2		
Kinematic viscosity:	> 20,5 mm2/ sec (40 °C)		
Solubility in water:	Soluble		
Solubility in oil:	N.A.		
Partition coefficient n- octanol/water (log value):	N.A.		
Vapour pressure:	N.A.		
Density and/or relative density:	0,98 g/cm3		
Relative vapour density:	N.A.		
	Particle cha	racteristics:	•
Particle size:	N.A.		
9.2. Other information No other relevant info Viscosity:	rmation 60000 cP (48°C	\$)	08

### **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

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.

31004/15 Page n. 5 of 10



- 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: LEATHER TREATMENT ML 200 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 Not classified Based on available data, the classification criteria are not met 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 i) aspiration hazard Not classified Based on available data, the classification criteria are not met Toxicological information of the main substances found in the product: Amines, C12-14(even numbered)-alkyldimethyl, N-oxides a) acute toxicity: Test: LD50 - Route: Oral - Species: Rat 1064 mg/kg g) reproductive toxicity: Test: NOEL - Route: Oral 100 mg/kg - Source: OECD 422 Test: arx1 - Route: Oral 25 mg/kg i) STOT-repeated exposure: Test: NOAEL - Route: Oral 88 mg/kg 1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one - CAS: 2634-33-5 a) acute toxicity: Test: LD50 - Route: Oral - Species: Rat 1193 mg/kg Test: LD50 - Route: Skin - Species: Rat 4115 mg/kg b) skin corrosion/irritation: Test: Skin Irritant Positive c) serious eye damage/irritation: Test: Eye Corrosive Positive 31004/15 Page n. 6 of 10



- d) respiratory or skin sensitisation: Test: Skin Sensitization - Route: Skin Positive
- 11.2. Information on other hazardsEndocrine disrupting properties:No endocrine disruptor substances present in concentration >= 0.1%

### **SECTION 12: Ecological information**

12.1. To A a b 1	oxicity Adopt good working practices, so that the product is not released into the environment. Amines, C12-14(even numbered)-alkyldimethyl, N-oxides a) Aquatic acute toxicity: Endpoint: LC50 - Species: Fish 2.67 mg/l Endpoint: EC50 - Species: Daphnia 3.1 mg/l Endpoint: CE6 - Species: Algae 0.19 mg/l b) Aquatic chronic toxicity: Endpoint: NOEC - Species: Algae 0.067 mg/l l,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one - CAS: 2634-33-5 a) Aquatic acute toxicity: Endpoint: LC50 - Species: Fish 2.18 mg/l - Duration h: 96
122 D	Endpoint: EC50 - Species: Daphnia 2.94 mg/l - Duration h: 48 Endpoint: CE6 - Species: Algae 0.11 mg/l - Duration h: 72 ersistence and degradability
	None
A	Amines, C12-14(even numbered)-alkyldimethyl, N-oxides Biodegradability: Readily biodegradable - Duration: 28gg - %: 80 I,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one - CAS: 2634-33-5 Biodegradability: Readily biodegradable - Test: BIOGDG06
	ioaccumulative potential Amines, C12-14(even numbered)-alkyldimethyl, N-oxides Test: log Pow 2.7
	lobility in soil N.A.
	esults of PBT and vPvB assessment /PvB Substances: None - PBT Substances: None
	ndocrine disrupting properties No endocrine disruptor substances present in concentration >= 0.1%
12.7. O	ther adverse effects None

### **SECTION 13: Disposal considerations**

13.1. Waste treatment methods

Recover if possible. In so doing, comply with the local and national regulations currently in force.

#### **SECTION 14: Transport information**

14.1. UN number or ID number

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.

31004/15 Page n. 7 of 10



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.

Page n. 8 of 10

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) 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: No restriction. Restrictions related to the substances contained: **Restriction 40 Restriction 57 Restriction 75** Volatile Organic compounds - VOCs = 1.01 % Volatile Organic compounds - VOCs = 10.05 g/Kg Volatile Organic compounds - VOCs = 9.85 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. 31004/15



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.

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

H315 Causes skin irritation.

H318 Causes serious eye damage.

H400 Very toxic to aquatic life.

H411 Toxic to aquatic life with long lasting effects.

H317 May cause an allergic skin reaction.

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

Hazard class and hazard category	Code	Description
Acute Tox. 4	3.1/4/Oral	Acute toxicity (oral), Category 4
Skin Irrit. 2	3.2/2	Skin irritation, Category 2
Eye Dam. 1	3.3/1	Serious eye damage, Category 1
Skin Sens. 1	3.4.2/1	Skin Sensitisation, Category 1
STOT RE 2	3.9/2	Specific target organ toxicity - repeated exposure, Category 2
Aquatic Acute 1	4.1/A1	Acute aquatic hazard, category 1
Aquatic Chronic 2	4.1/C2	Chronic (long term) aquatic hazard, category 2

Paragraphs modified from the previous revision:

SECTION 9: Physical and chemical properties

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).

31004/15 Page n. 9 of 10



CLP: DNEL: EINECS: GefStoffVO: GHS:	Classification, Labeling, Packaging. Derived No Effect Level. European Inventory of Existing Commercial Chemical Substances. Ordinance on Hazardous Substances, Germany. 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 Áviation Organization.
ICAO-TI:	Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG:	International Maritime Code for Dangerous Goods.
INCI:	International Nomenclature of Cosmetic Ingredients.
KSt:	Explosion coefficient.
LC50:	Lethal concentration, for 50 percent of test population.
LD50:	Lethal dose, for 50 percent of test population.
NA:	Not applicable
PNEC:	Predicted No Effect Concentration.
RID:	Regulation Concerning the International Transport of Dangerous Goods by Rail.
STEL:	Short Term Exposure limit.
STOT:	Specific Target Organ Toxicity.
TLV:	Threshold Limiting Value.
TWA:	Time-weighted average
WGK:	German Water Hazard Class.

# Exposure Scenario, 19/07/2019

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

# Table of contents

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

1. ES 1 Use a	t industrial site		
<b>1.1 TITLE SECTION</b>			
Exposure Scenario name	Use in cleaning agents		
Date - Version	18/07/2019 - 1.0		
Life Cycle Stage	Use at industrial site		
Main user group	Industrial uses		
Sector(s) of use	Industrial uses (SU3)		
Environment Contributing Sce	nario		
CS1 Covered by		ERC4	
Worker Contributing Scenario			
CS2 Industrial		PROC1	
CS3 Industrial		PROC2	
CS4 Industrial		PROC3	
CS5 Industrial		PROC4	
CS6 Industrial		PROC8b	
CS7 Industrial		PROC7	
CS8 Industrial		PROC8a	
CS9 Industrial		PROC10	
CS10 Industrial PROC13			
1.2 Conditions of use	affecting exposure		
1.2. CS1: Environment Contrib	uting Scenario: Covered by (ERC4)		
Environmental release categories	Use of non-reactive processing aid at industrial site (no inclusion into or onto article) (ERC4)		
Product (article) characteristics			
Physical form of product: Liquid			
Vapour pressure: 0.123 hPa			
1.2. CS2: Worker Contributing	Scenario: Industrial (PROC1)		
Process Categories	Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions (PROC1)		
Product (article) characteristics			
Concentration of substance in Covers percentage substance in t	•		
Amount used, frequency and	l duration of use/exposure		
Duration: Covers daily exposures up to 8 ho Frequency: Use frequency 240 days per year	burs		
Conditions and measures re	lated to personal protection, hygiene and hea	lth evaluation	
Personal protection			

Wear suitable gloves tested to EN	374.
Other conditions affecting v	vorker exposure
Indoor use	
1.2. CS3: Worker Contributing	Scenario: Industrial (PROC2)
Process Categories	Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions (PROC2)
Product (article) character	stics
Concentration of substance in Covers percentage substance in t	
Amount used, frequency and	l duration of use/exposure
Duration: Covers daily exposures up to 8 ho Frequency: Use frequency 240 days per year	burs
Conditions and measures re	lated to personal protection, hygiene and health evaluation
Personal protection Wear suitable gloves tested to EN	374.
Other conditions affecting v	vorker exposure
Indoor use	
1.2. CS4: Worker Contributing	Scenario: Industrial (PROC3)
Process Categories	Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition (PROC3)
Product (article) character	stics
Concentration of substance in Covers percentage substance in t	
Amount used, frequency and	l duration of use/exposure
Duration: Covers daily exposures up to 8 ho Frequency: Use frequency 240 days per year	burs
Conditions and measures re	lated to personal protection, hygiene and health evaluation
Personal protection Wear suitable gloves tested to EN	374.
Wear suitable gloves tested to Er	
Other conditions affecting v	vorker exposure
-	vorker exposure
Other conditions affecting v	-
Other conditions affecting v	-
Other conditions affecting v Indoor use 1.2. CS5: Worker Contributing	Scenario: Industrial (PROC4) Chemical production where opportunity for exposure arises (PROC4)
Other conditions affecting v Indoor use 1.2. CS5: Worker Contributing Process Categories	Scenario: Industrial (PROC4) Chemical production where opportunity for exposure arises (PROC4) stics product:
Other conditions affecting v Indoor use 1.2. CS5: Worker Contributing Process Categories Product (article) charactery Concentration of substance in	Scenario: Industrial (PROC4) Chemical production where opportunity for exposure arises (PROC4) stics product: he product up to 100 %.
Other conditions affecting v Indoor use 1.2. CS5: Worker Contributing Process Categories Product (article) character Concentration of substance in Covers percentage substance in	Scenario: Industrial (PROC4) Chemical production where opportunity for exposure arises (PROC4) stics product: he product up to 100 %. d duration of use/exposure

Other conditions affecting worker exposure         Indoor use         1.2. CS6: Worker Contributing Scenario: Industrial (PROC8b)         Product (article) characteristics         Concentration of substance in product: covers percentage substance in the product up to 100 %.         Covers faile exposures up to 8 hours         Frequency: Use frequency 240 days per year         Conditions and measures related to personal protection, hygiene and health evaluation         Personal protection         Wear suitable gloves tested to FN374.         Other conditions of functoristics         Concest Safegories         Industrial spraying (PROC7)         Product (article) characteristics         Constant used: Amount used: Amount per use 1 Umin         Duration: Covers daily exposures up to 8 hours         Frequency: Use frequency and duration of use/exposure         Indoor use         1.2. CS7: Worker Contributing Scenario: Industrial (PROC7)         Product (article) characteristics         Constration of substance in product: Covers daily exposures up to 8 hours         Frequency: Use	Personal protection Wear suitable gloves tested to	EN374.	
1.2. CS6: Worker Contributing Scenario: Industrial (PROC8b)         Process Categories       Transfer of substance or mixture (charging and discharging) at dedicated facilities (PRO         Product (article) characteristics       Concentration of substance in product:         Covers percentage substance in the product to 100 %.       Amount used, frequency and duration of use/exposure         Duration:       Covers daily exposures up to 8 hours         Frequency:       Use frequency 240 days per year         Conditions and measures related to personal protection, hygiene and health evaluation         Personal protection       Wear suitable gloves tested to EN374.         Other conditions affecting worker exposure       Industrial spraying (PROC7)         Product (article) characteristics       Concentration of substance in product:         Covers greentage substance in the product       Covers greentage substance in the product to 100 %.         Amount per use 1 l/min       Covers daily exposures up to 8 hours         Process Categories       Industrial spraying (PROC7)         Duration:       Covers daily exposures up to 8 hours         Frequency:       Use frequency and duration of use/exposure         Amount per use 1 l/min       Covers daily exposures up to 8 hours         Process Categories       Dermal - minimum efficiency of: 90 %         Other conditions affecting worker exposure       Dermal - min	Other conditions affecting	y worker exposure	
Transfer of substance or mixture (charging and discharging) at dedicated facilities (PRO         Product (article) characteristics         Concentration of substance in product: Covers percentage substance in the product up to 100 %.         Amount used, frequency and duration of use/exposure         Duration: Covers daily exposures up to 8 hours         Frequency: Use frequency 240 days per year         Conditions and measures related to personal protection, hygiene and health evaluation         Personal protection         Wear suitable gloves tested to EN374.         Other conditions affecting worker exposure         Industrial spraying (PROC7)         Product (article) characteristics         Concentration of substance in product covers daily exposures up to 8 hours         Frequency: Use frequency and duration of use/exposure         Industrial spraying (PROC7)         Product (article) characteristics         Concentration of substance in product: Covers percentage substance in the product up to 100 %.         Amount used: Amount pruse 1 L/min         Duration: Covers daily exposures up to 8 hours         Frequency: Use frequency 5 days per week         Conditions and measures related to personal protection, hygiene and health evaluation         Personal protection         Wear suitable gloves tested to EN374.         Dermal - minimum efficiency of: 90 %         O	Indoor use		
Product (article) characteristics Concentration of substance in product: Covers percentage substance in the product up to 100 %. Amount used, frequency and duration of use/exposure Duration: Covers daily exposures up to 8 hours Frequency: Use frequency 240 days per year Conditions and measures related to personal protection, hygiene and health evaluation Personal protection Wear suitable gloves tested to EN374. Covers daily exposures up to 8 hours Covers daily exposures related to personal protection, hygiene and health evaluation Personal protection Wear suitable gloves tested to EN374. Duration: Covers daily exposures up to 8 hours Covers daily exposures related to personal protection, hygiene and health evaluation Personal protection Wear suitable gloves tested to EN374. Dermal – minimum efficiency of: 90 % Covers daily exposures up to 8 hours Covers daily exposures related to personal protection, hygiene and health evaluation Personal protection  Wear suitable gloves tested to EN374. Dermal – minimum efficiency of: 90 % Covers use in room size of > 1000 m <sup>3</sup> Covers Second Covers use in room size of > 1000 m <sup>3</sup> Covers Second Covers use in room size of > 1000 m <sup>3</sup> Covers Second Covers use in room size of > 1000 m <sup>3</sup> Covers Second Covers use in room size of > 1000 m <sup>3</sup> Covers Second Covers use in room size of > 1000 m <sup>3</sup>	1.2. CS6: Worker Contributi	ng Scenario: Industrial (PROC	3b)
Concentration of substance in product: Covers percentage substance in the product up to 100 %. Amount used, frequency and duration of use/exposure Duration: Covers daily exposures up to 8 hours Frequency: Use frequency 240 days per year Conditions and measures related to personal protection, hygiene and health evaluation Personal protection Wear suitable gloves tested to EN374. Concentration of substance in product: Covers percentage substance in the product up to 100 %. Amount used, frequency and duration of use/exposure Concentration of substance in product: Covers percentage substance in the product up to 100 %. Amount used, frequency and duration of use/exposure Amounts used: Covers daily exposures up to 8 hours Frequency: Use frequency of days per week Conditions and measures related to personal protection, hygiene and health evaluation Personal protection Wear suitable gloves tested to EN374. Dermal - minimum efficiency of: 90 % Personal protection Mears used: Covers daily exposures up to 8 hours Frequency: Use frequency: Covers daily exposures up to 8 hours Frequency: Covers daily exposures up to 8 hours Frequency: Covers daily exposures up to 8 hours Frequency: Covers daily exposures up to 8 hours Frequency: Dermal - minimum efficiency of: 90 % Percentions affecting worker exposure ndoor use Room size: Covers use in room size of > 1000 m <sup>3</sup> L1. CS8: Worker Contributing Scenario: Industrial (PROC8a)	Process Categories	Transfer of substance or mixt	ure (charging and discharging) at dedicated facilities (PROC8b)
Covers percentage substance in the product up to 100 %.   Amount used, frequency and duration of use/exposure   Covers daily exposures up to 8 hours   Frequency:   Use frequency 240 days per year   Conditions and measures related to personal protection, hygiene and health evaluation   Personal protection   Wear suitable gloves tested to EN374.   Other conditions affecting worker exposure   indoor use   1.2. CS7: Worker Contributing Scenario: Industrial (PROC7)   Process Categories   Industrial spraying (PROC7)   Product (article) characteristics   Concers daily exposures up to 8 hours   Frequency:   Use frequency 5 days per week   Conditions and measures related to personal protection, hygiene and health evaluation   Personal protection   Use frequency and duration of use/exposure   Amount per use 1 L/min   Duration:   Covers daily exposures up to 8 hours   Frequency:   Use frequency 5 days per week   Conditions and measures related to personal protection, hygiene and health evaluation   Personal protection   Wear suitable gloves tested to EN374.   Dermal - minimum efficiency of: 90 %   Conditions and measures related to personal protection, hygiene and health evaluation   Personal protection   Wear suitable gloves tested to EN374.   Dermal - minimum efficiency of: 90 %   Conditions and floating to personal protection, hygiene and health evaluation   Personal protection   Wear suita	Product (article) charact	eristics	
Duration:   Covers daily exposures up to 8 hours   Frequency:   Use frequency 240 days per year   Conditions and measures related to personal protection, hygiene and health evaluation Personal protection Wear suitable gloves tested to EN374. Dther conditions affecting worker exposure Indoor use 1.2. CS7: Worker Contributing Scenario: Industrial (PROC7) Product (article) characteristics Covers gaily exposures up to 8 hours Frequency: Use frequency and duration of use/exposure Amount used; frequency and duration of use/exposure Amount sused: Amount sused: Amount per use 1 L/min Duration: Covers daily exposures up to 8 hours Frequency: Use frequency 5 days per week Conditions affecting worker exposure Mereasultable gloves tested to EN374. Duration: Covers daily exposures up to 8 hours Frequency: Use frequency 5 days per week Conditions and measures related to personal protection, hygiene and health evaluation Personal protection Wear suitable gloves tested to EN374. Dermal - minimum efficiency of: 90 % Duration: Covers use in room size of > 1000 m <sup>3</sup> L.2. CS8: Worker Contributing Scenario: Industrial (PROC8a) Process Categories Transfer of substance or mixture (charging and discharging) at non-dedicated facilities (PROC8a)		-	
Covers daily exposures up to 8 hours   Frequency:   Use frequency 240 days per year   Conditions and measures related to personal protection, hygiene and health evaluation Personal protection Wear suitable gloves tested to EN374. Cother conditions affecting worker exposure Indoor use  1.2 CS7: Worker Contributing Scenario: Industrial (PROC7) Process Categories Industrial spraying (PROC7) Product (article) characteristics Concentration of substance in product: Covers percentage substance in the product up to 100 %. Amount used; Amount used; Amount used: Covers daily exposures up to 8 hours Frequency: Use frequency 5 days per week Conditions and measures related to personal protection, hygiene and health evaluation Personal protection Wear suitable gloves tested to EN374. Dermal - minimum efficiency of: 90 %  Covers use in room size of > 1000 m <sup>3</sup> 1.2 CS8: Worker Contributing Scenario: Industrial (PROC8a) Process Categories Transfer of substance or mixture (charging and discharging) at non-dedicated facilities Covers 2 Categories Transfer of substance or mixture (charging and discharging) at non-dedicated facilities Covers 2 Categories Categories Categories Categories Covers use in room size of > 1000 m <sup>3</sup> Covers (Categories Covers use in room size of > 1000 m <sup>3</sup> Covers (Categories Covers use in room size of > 1000 m <sup>3</sup> Covers (Categories Covers use in room size of > 1000 m <sup>3</sup> Covers (Categories Covers use in room size of > 1000 m <sup>3</sup> Covers (Categories Categories	Amount used, frequency o	and duration of use/exposur	е
Personal protection Wear suitable gloves tested to EN374.         Other conditions affecting worker exposure Indoor use         1.2. CS7: Worker Contributing Scenario: Industrial (PROC7)         Process Categories       Industrial spraying (PROC7)         Product (article) characteristics         Concentration of substance in product: Covers percentage substance in the product up to 100 %.         Amount used, frequency and duration of use/exposure         Amounts used: Amounts used: Covers daily exposures up to 8 hours Frequency: Use frequency 5 days per week         Conditions and measures related to personal protection, hygiene and health evaluation         Personal protection         Wear suitable gloves tested to EN374.         Dermal - minimum efficiency of: 90 %         Conditions affecting worker exposure Indoor use Room size: Covers use in room size of > 1000 m <sup>a</sup> 1.2. CS8: Worker Contributing Scenario: Industrial (PROC8a)         Process Categories       Transfer of substance or mixture (charging and discharging) at non-dedicated facilities (PROC8a)	Covers daily exposures up to 8 Frequency:		
Wear suitable gloves tested to EN374.   Other conditions affecting worker exposure   Indoor use   1.2. CS7: Worker Contributing Scenario: Industrial (PROC7)   Process Categories   Industrial spraying (PROC7)   Product (article) characteristics   Concentration of substance in product: Covers percentage substance in the product up to 100%.   Amount used, frequency and duration of use/exposure   Amount used: Amount used: Amount per use 1 L/min   Duration: Covers daily exposures up to 8 hours   Frequency: Use frequency 5 days per week   Conditions and measures related to personal protection, hygiene and health evaluation   Personal protection   Wear suitable gloves tested to EN374.   Detrial - minimum efficiency of: 90 %   Other conditions affecting worker exposure   Indoor use   Room size: Covers use in room size of > 1000 m³   1.2. CS8: Worker Contributing Scenario: Industrial (PROC8a)   Process Categories	Conditions and measures	related to personal protecti	on, hygiene and health evaluation
Indoor use  1.2. CS7: Worker Contributing Scenario: Industrial (PROC7)  Process Categories Industrial spraying (PROC7)  Product (article) characteristics  Concentration of substance in product: Covers percentage substance in the product up to 100 %.  Amount used, frequency and duration of use/exposure  Amounts used: Amount sused: Covers daily exposures up to 8 hours  Frequency: Use frequency 5 days per week  Conditions and measures related to personal protection, hygiene and health evaluation  Personal protection  Wear suitable gloves tested to EN374. Dermal - minimum efficiency of: 90 %  Other conditions affecting worker exposure Indoor use Room size: Covers use in room size of > 1000 m <sup>3</sup> 1.2. CS8: Worker Contributing Scenario: Industrial (PROC8a)  Process Categories Transfer of substance or mixture (charging and discharging) at non-dedicated facilities (PROC8a)	•	EN374.	
1.2. CS7: Worker Contributing Scenario: Industrial (PROC7)         Process Categories       Industrial spraying (PROC7)         Product (article) characteristics         Concentration of substance in product: Covers percentage substance in the product up to 100 %.         Amount used, frequency and duration of use/exposure         Amounts used: Amount sused: Amount per use 1 L/min         Duration: Covers daily exposures up to 8 hours         Frequency: Use frequency 5 days per week         Conditions and measures related to personal protection, hygiene and health evaluation         Personal protection         Wear suitable gloves tested to EN374.         Other conditions affecting worker exposure         Industrial (PROC8a)         Transfer of substance or mixture (charging and discharging) at non-dedicated facilities (PROC8a)	Other conditions affecting	y worker exposure	
Process Categories       Industrial spraying (PROC7)         Product (article) characteristics         Concentration of substance in product:         Covers percentage substance in the product up to 100 %.         Amount used, frequency and duration of use/exposure         Amounts used:         Amount per use 1 L/min         Duration:         Covers daily exposures up to 8 hours         Frequency:         Use frequency 5 days per week         Conditions and measures related to personal protection, hygiene and health evaluation         Personal protection         Wear suitable gloves tested to EN374.         Dermal - minimum efficiency of: 90 %         Other conditions affecting worker exposure         Indoor use         Room size: Covers use in room size of > 1000 m <sup>3</sup> 1.2. CS8: Worker Contributing Scenario: Industrial (PROC8a)         Process Categories       Transfer of substance or mixture (charging and discharging) at non-dedicated facilities (PROC8a)	ndoor use		
Product (article) characteristics         Concentration of substance in product:         Covers percentage substance in the product up to 100 %.         Amount used, frequency and duration of use/exposure         Amounts used:         Amount per use 1 L/min         Duration:         Covers daily exposures up to 8 hours         Frequency:         Use frequency 5 days per week         Conditions and measures related to personal protection, hygiene and health evaluation         Personal protection         Wear suitable gloves tested to EN374.         Dermal - minimum efficiency of: 90 %         Other conditions affecting worker exposure         ndoor use         Room size: Covers use in room size of > 1000 m³         1.2. CS8: Worker Contributing Scenario: Industrial (PROC8a)         Process Categories       Transfer of substance or mixture (charging and discharging) at non-dedicated facilities (PROC8a)	1.2. CS7: Worker Contributi	ng Scenario: Industrial (PROC7	')
Concentration of substance in product: Covers percentage substance in the product up to 100 %.         Amount used, frequency and duration of use/exposure         Amounts used: Amount per use 1 L/min         Duration: Covers daily exposures up to 8 hours         Frequency: Use frequency 5 days per week         Conditions and measures related to personal protection, hygiene and health evaluation         Personal protection         Wear suitable gloves tested to EN374.         Detrmal - minimum efficiency of: 90 %         Other conditions affecting worker exposure         ndoor use Room size: Covers use in room size of > 1000 m³         1.2. CS8: Worker Contributing Scenario: Industrial (PROC8a)         Process Categories       Transfer of substance or mixture (charging and discharging) at non-dedicated facilities (PROC8a)	Process Categories	Industrial spraying (PROC7)	
Covers percentage substance in the product up to 100 %.         Amount used, frequency and duration of use/exposure         Amounts used:         Amount per use 1 L/min         Duration:         Covers daily exposures up to 8 hours         Frequency:         Use frequency 5 days per week         Conditions and measures related to personal protection, hygiene and health evaluation         Personal protection         Wear suitable gloves tested to EN374.         Detrain saffecting worker exposure         ndoor use         Room size: Covers use in room size of > 1000 m³         1.2. CS8: Worker Contributing Scenario: Industrial (PROC8a)         Process Categories       Transfer of substance or mixture (charging and discharging) at non-dedicated facilities (PROC8a)	Product (article) charact	eristics	
Amounts used:       Amount per use 1 L/min         Duration:       Covers daily exposures up to 8 hours         Frequency:       Use frequency 5 days per week         Conditions and measures related to personal protection, hygiene and health evaluation         Personal protection         Wear suitable gloves tested to EN374.         Dermal - minimum efficiency of: 90 %         Other conditions affecting worker exposure         Indoor use         Room size: Covers use in room size of > 1000 m³         1.2. CS8: Worker Contributing Scenario: Industrial (PROC8a)         Process Categories       Transfer of substance or mixture (charging and discharging) at non-dedicated facilities (PROC8a)		-	
Amount per use 1 L/min         Duration: Covers daily exposures up to 8 hours         Frequency: Use frequency 5 days per week         Conditions and measures related to personal protection, hygiene and health evaluation         Personal protection         Wear suitable gloves tested to EN374.         Dermal - minimum efficiency of: 90 %         Other conditions affecting worker exposure         Indoor use Room size: Covers use in room size of > 1000 m³         1.2. CS8: Worker Contributing Scenario: Industrial (PROC8a)         Process Categories       Transfer of substance or mixture (charging and discharging) at non-dedicated facilities (PROC8a)	Amount used, frequency o	nd duration of use/exposur	е
Covers daily exposures up to 8 hours			
Personal protection         Wear suitable gloves tested to EN374.         Dermal - minimum efficiency of: 90 %         Other conditions affecting worker exposure         Indoor use         Room size: Covers use in room size of > 1000 m³         1.2. CS8: Worker Contributing Scenario: Industrial (PROC8a)         Process Categories         Transfer of substance or mixture (charging and discharging) at non-dedicated facilities (PROC8a)	Covers daily exposures up to 8 Frequency:		
Wear suitable gloves tested to EN374.       Dermal - minimum efficiency of: 90 %         Other conditions affecting worker exposure         Indoor use         Room size: Covers use in room size of > 1000 m³         1.2. CS8: Worker Contributing Scenario: Industrial (PROC8a)         Process Categories       Transfer of substance or mixture (charging and discharging) at non-dedicated facilities (PROC8a)	Conditions and measures	related to personal protecti	on, hygiene and health evaluation
Other conditions affecting worker exposure         Indoor use         Room size: Covers use in room size of > 1000 m³         1.2. CS8: Worker Contributing Scenario: Industrial (PROC8a)         Process Categories       Transfer of substance or mixture (charging and discharging) at non-dedicated facilities (PROC8a)	Personal protection		
Indoor use Room size: Covers use in room size of > 1000 m <sup>3</sup> 1.2. CS8: Worker Contributing Scenario: Industrial (PROC8a) Process Categories Transfer of substance or mixture (charging and discharging) at non-dedicated facilities (PROC8a)	Wear suitable gloves tested to E	N374.	Dermal - minimum efficiency of: 90 %
Room size: Covers use in room size of > 1000 m³         1.2. CS8: Worker Contributing Scenario: Industrial (PROC8a)         Process Categories       Transfer of substance or mixture (charging and discharging) at non-dedicated facilities (PROC8a)	Other conditions affecting	g worker exposure	
1.2. CS8: Worker Contributing Scenario: Industrial (PROC8a)         Process Categories         Transfer of substance or mixture (charging and discharging) at non-dedicated facilities (PROC8a)		$7e \text{ of } > 1000 \text{ m}^3$	
Process Categories Transfer of substance or mixture (charging and discharging) at non-dedicated facilities (PROC8a)			sa)
		Transfer of substance or mixt	
	Product (article) charact		
Concentration of substance in product:			

inite and about frequence	cy and duration of use/exposure
Duration: Covers daily exposures up Frequency: Use frequency 240 days pe	
	res related to personal protection, hygiene and health evaluation
Personal protection Wear suitable gloves tested	d to EN374.
Other conditions affect	ting worker exposure
Indoor use Ventilation rate: > 90 %	
1.2. CS9: Worker Contrib	outing Scenario: Industrial (PROC10)
Process Categories	Roller application or brushing (PROC10)
Product (article) chard	ncteristics
Concentration of substan	nce in product: nce in the product up to 100 %.
Amount used, frequend	cy and duration of use/exposure
Duration: Covers daily exposures up Frequency: Use frequency 240 days pe	
Conditions and measu	res related to personal protection, hygiene and health evaluation
Personal protection Wear suitable gloves tested Use suitable eye protection	
Other conditions affect	ting worker exposure
Indoor use	
1.2. CS10: Worker Contri	ibuting Scenario: Industrial (PROC13)
Process Categories	Treatment of articles by dipping and pouring (PROC13)
Product (article) characteristics	
Concentration of substan	nce in product: nce in the product up to 100 %.
Amount used, frequend	cy and duration of use/exposure
Duration: Covers daily exposures up Frequency: Use frequency 240 days pe	
Conditions and measu	res related to personal protection, hygiene and health evaluation
Personal protection Wear suitable gloves tested Use suitable eye protection	
Other conditions affect	ting worker exposure
Indoor use	
1.3 Exposure esti	mation and reference to its source

Exposure level	Calculation method	Risk Characterization Ratio (RCR)
N/A	EASY TRA v2.0	0.001
N/A	EASY TRA v2.0	0.001
N/A	EASY TRA v2.0	0.003
N/A	EASY TRA v2.0	0.004
	N/A N/A N/A	N/AEASY TRA v2.0N/AEASY TRA v2.0N/AEASY TRA v2.0

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

# 2. ES 2 Widespread use by professional workers

### **2.1 TITLE SECTION**

2.1 IIILE SECTION			
Exposure Scenario name	Use in cleaning agents		
Date - Version	19/07/2019 - 1.0		
Life Cycle Stage	Widespread use by professional workers		
Main user group	Professional uses		
Sector(s) of use	Professional uses (SU22)		
Environment Contributing Sce	nario		
CS1 Covered by	S1 Covered by		
Worker Contributing Scenario			
CS2 General use from professional operators PROC1			
CS3 General use from profession	PROC2		
CS4 General use from professional operators		PROC3	
CS5 General use from profession	PROC4		
CS6 General use from profession	al operators	PROC8b	
CS7 General use from professional operators		PROC8a	
CS8 General use from profession	PROC10		
CS9 General use from profession	al operators	PROC11	
CS10 General use from profession	nal operators	PROC13	

# 2.2 Conditions of use affecting exposure

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

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

### **Product (article) characteristics**

Physical form of product: Liquid	
Vapour pressure: 0.123 hPa	
2.2. CS2: Worker Contributing	Scenario: General use from professional operators (PROC1)
Process Categories	Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions (PROC1)
Product (article) characteri	stics
Physical form of product: Liquid	
<b>Concentration of substance in</b> Covers percentage substance in t	•
Amount used, frequency and	l duration of use/exposure

Duration:	
Covers daily exposures up to	a 8 hours
Frequency:	
Use frequency 240 days per	
	es related to personal protection, hygiene and health evaluation
Personal protection Wear suitable gloves tested to Use suitable eye protection.	o EN374.
Other conditions affectin	ng worker exposure
Indoor use	
2.2. CS3: Worker Contribu	ting 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) charac	teristics
Physical form of product: Liquid	
<b>Concentration of substance</b> Covers percentage substance	c <b>e in product:</b> .e in the product up to 100 %.
Amount used, frequency	and duration of use/exposure
Duration:	
Covers daily exposures up to <b>Frequency:</b>	
Use frequency 240 days per	
	es related to personal protection, hygiene and health evaluation
Personal protection Wear suitable gloves tested to	o EN374.
Use suitable eye protection.	
Other conditions affectin	ng worker exposure
	ng worker exposure
Other conditions affectin	
Other conditions affectin	ng worker exposure ting Scenario: General use from professional operators (PROC3) Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition (PROC3)
Other conditions affectin Indoor use 2.2. CS4: Worker Contribut	ting Scenario: General use from professional operators (PROC3) Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition (PROC3)
Other conditions affectin Indoor use 2.2. CS4: Worker Contribut Process Categories	ting Scenario: General use from professional operators (PROC3) Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition (PROC3)
Other conditions affectin Indoor use 2.2. CS4: Worker Contribut Process Categories Product (article) charac Physical form of product: Liquid Concentration of substance	Atting Scenario: General use from professional operators (PROC3)         Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition (PROC3)         Ceteristics
Other conditions affectin Indoor use 2.2. CS4: Worker Contribut Process Categories Product (article) charac Physical form of product: Liquid Concentration of substance Covers percentage substance	Atting Scenario: General use from professional operators (PROC3)         Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition (PROC3)         Interistics
Other conditions affectin Indoor use 2.2. CS4: Worker Contribut Process Categories Product (article) charac Physical form of product: Liquid Concentration of substance Covers percentage substance	ting Scenario: General use from professional operators (PROC3)         Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition (PROC3)         cteristics         ce in product:         e in the product up to 100 %.
Other conditions affectin Indoor use 2.2. CS4: Worker Contribut Process Categories Product (article) charace Physical form of product: Liquid Concentration of substance Covers percentage substance Amount used, frequency	Atting Scenario: General use from professional operators (PROC3)         Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition (PROC3)         eteristics         teristics         teristics         and duration of use/exposure         o 8 hours
Other conditions affectin Indoor use 2.2. CS4: Worker Contribut Process Categories Product (article) charac Physical form of product: Liquid Concentration of substance Covers percentage substance Amount used, frequency Duration: Covers daily exposures up to Frequency: Use frequency 240 days per	Atting Scenario: General use from professional operators (PROC3)         Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition (PROC3)         eteristics         teristics         teristics         and duration of use/exposure         o 8 hours
Other conditions affectin Indoor use 2.2. CS4: Worker Contribut Process Categories Product (article) charac Physical form of product: Liquid Concentration of substance Covers percentage substance Amount used, frequency Duration: Covers daily exposures up to Frequency: Use frequency 240 days per	Iting Scenario: General use from professional operators (PROC3)         Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition (PROC3)         Interistics         The product:         e in the product up to 100 %.         and duration of use/exposure         b 8 hours         year         ess related to personal protection, hygiene and health evaluation
Other conditions affectin Indoor use 2.2. CS4: Worker Contribut Process Categories Product (article) charac Physical form of product: Liquid Concentration of substanc Covers percentage substance Amount used, frequency Duration: Covers daily exposures up to Frequency: Use frequency 240 days per Conditions and measure Personal protection Wear suitable gloves tested to	ting Scenario: General use from professional operators (PROC3)         Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition (PROC3)         eteristics         ce in product:         e in the product up to 100 %.         and duration of use/exposure         b 8 hours         year         cs related to personal protection, hygiene and health evaluation         o EN374.

	Scenario: General use from professional operators (PROC4)
Process Categories	Chemical production where opportunity for exposure arises (PROC4)
Product (article) characteri	stics
Physical form of product: Liquid	
Concentration of substance in Covers percentage substance in t	•
Amount used, frequency and	l duration of use/exposure
Duration: Covers daily exposures up to 8 ho Frequency: Use frequency 240 days per year	burs
Conditions and measures re	lated to personal protection, hygiene and health evaluation
Personal protection Wear suitable gloves tested to EN Use suitable eye protection.	374.
Other conditions affecting w	vorker exposure
Indoor use	
2.2. CS6: Worker Contributing	Scenario: General use from professional operators (PROC8b)
Process Categories	Transfer of substance or mixture (charging and discharging) at dedicated facilities (PROC8b)
Product (article) characteri	stics
Physical form of product: Liquid Concentration of substance in Covers percentage substance in t	•
Amount used, frequency and	······································
	l duration of use/exposure
Duration: Covers daily exposures up to 8 ho Frequency: Use frequency 240 days per year	
Covers daily exposures up to 8 ho Frequency: Use frequency 240 days per year	
Covers daily exposures up to 8 ho Frequency: Use frequency 240 days per year	burs
Covers daily exposures up to 8 ho Frequency: Use frequency 240 days per year Conditions and measures re Personal protection Wear suitable gloves tested to EN	burs Plated to personal protection, hygiene and health evaluation 374.
Covers daily exposures up to 8 ho Frequency: Use frequency 240 days per year Conditions and measures re Personal protection Wear suitable gloves tested to EN Use suitable eye protection.	burs Plated to personal protection, hygiene and health evaluation 374.
Covers daily exposures up to 8 ho Frequency: Use frequency 240 days per year Conditions and measures re Personal protection Wear suitable gloves tested to EN Use suitable eye protection. Other conditions affecting we Indoor use	burs Plated to personal protection, hygiene and health evaluation 374.
Covers daily exposures up to 8 ho Frequency: Use frequency 240 days per year Conditions and measures re Personal protection Wear suitable gloves tested to EN Use suitable eye protection. Other conditions affecting we Indoor use	burs Nated to personal protection, hygiene and health evaluation 374. Porker exposure
Covers daily exposures up to 8 ho Frequency: Use frequency 240 days per year Conditions and measures re Personal protection Wear suitable gloves tested to EN Use suitable eye protection. Other conditions affecting w Indoor use 2.2. CS7: Worker Contributing	burs Plated to personal protection, hygiene and health evaluation 374. 374. 375 Scenario: General use from professional operators (PROC8a) Transfer of substance or mixture (charging and discharging) at non-dedicated facilities (PROC8a)
Covers daily exposures up to 8 ho Frequency: Use frequency 240 days per year Conditions and measures re Personal protection Wear suitable gloves tested to EN Use suitable eye protection. Other conditions affecting w Indoor use 2.2. CS7: Worker Contributing Process Categories	burs Plated to personal protection, hygiene and health evaluation 374. 374. 375 Scenario: General use from professional operators (PROC8a) Transfer of substance or mixture (charging and discharging) at non-dedicated facilities (PROC8a)
Covers daily exposures up to 8 ho Frequency: Use frequency 240 days per year Conditions and measures re Personal protection Wear suitable gloves tested to EN Use suitable eye protection. Other conditions affecting w Indoor use 2.2. CS7: Worker Contributing Process Categories Product (article) characteric Physical form of product:	and the second s

Corrers daily reposures up to 8 hours         Frequency:         Use frequency 240 days per year         Conditions and measures related to personal protection, hygiene and health evaluation         Personal protection         Wear suitable gives tested to EN374.         Use suitable eye protection.         Other conditions affecting worker exposure         Indoor use         Ventilation rate: 80 %         2.2. CS8: Worker Contributing Scenario: General use from professional operators (PROC10)         Process Categories       Roller application or brushing (PROC10)         Process Categories       Roller application or brushing (PROC10)         Product (article) characteristics       Physical form of product:         Layad       Concentration of substance in product:         Covers daily reposures up to 8 hours       Frequency:         Use frequency 240 days per year       Conditions and measures related to personal protection, hygiene and health evaluation         Personal protection       Inhalation - minimum efficiency of: 80 %         Wear suitable gives tested to EN374.       Use suitable eye protection.         Wear suitable gives tested to EN374.       Inhalation - minimum efficiency of: 80 %         Other conditions affecting worker exposure       Inhalation - minimum efficiency of: 80 %         Ventilation rate: 80 %       2.2. CS9: Worker	Duration:		
Use frequency 240 days per year         Conditions and measures related to personal protection, hygiene and health evaluation         Personal protection         Wear suitable gives tested to EN374.         Use suitable eve protection.         Other conditions affecting worker exposure         Indoor use         Ventilation rate: 80 %         22. CS3: Worker Contributing Scenario: General use from professional operators (PROC10)         Process Categories       Roller application or brushing (PROC10)         Product (article) characteristics         Physical form of product:       Covers relating a substance in product:         Uage dialy exposures up to 8 hours         Frequency:       Covers dialy exposures up to 8 hours         Frequency:       Use frequency 240 days per year         Conditions and measures related to personal protection, hygiene and health evaluation         Personal protection       Inhalation - minimum efficiency of: 80 %         Wear suitable gives tested to FN374.       Use suitable eve protection.         Wear suitable eve protection.       Inhalation - minimum efficiency of: 80 %         22. CS3: Worker Contributing Scenar		o 8 hours	
Conditions and measures related to personal protection, hygiene and health evaluation Personal protection Wear suitable eye protection. Other conditions affecting worker exposure indoor use Ventilation rate: 80 % 2.2. CS8: Worker Contributing Scenario: General use from professional operators (PROC10) Process Categories Roller application or brushing (PROC10) Product (article) characteristics Physical form of product: Laqud Concentration of substance in product: Covers gencentage substance in the product up to 100 %. Amount used, frequency and duration of use/exposure Conditions and measures related to personal protection, hygiene and health evaluation Personal protection Vear suitable eye protection. Inhalation - minimum efficiency of: 80 % 2.2. CS9: Worker Contributing Scenario: General use from professional operators (PROC11) Process Categories Non industrial spraying (PROC11) Process Ca			
Personal protection       Were suitable gloves tested to EN374.         Use suitable gloves tested to EN374.       Use suitable gloves tested to EN374.         Use suitable gloves tested to EN374.       Image: Conditions affecting worker exposure         Indoor use       Ventilation rate: 80 %         2.2. CS8: Worker Contributing Scenario: General use from professional operators (PROC10)         Process Categories       Roller application or brushing (PROC10)         Product (article) characteristics         Physical form of product:       Concentration of substance in product:         Liquid       Covers percentage substance in the product up to 100 %.         Amount used, frequency and duration of use/exposure       Duration:         Covers daily exposures up to 8 hours       Frequency:         Use frequency:       Use frequency:         Use frequency:       Use frequency:         Use frequency:       Inhalation - minimum efficiency of: 80 %         Other conditions affecting worker exposure       Inhalation - minimum efficiency of: 80 %         Other conditions affecting worker exposure       Inhalation - minimum efficiency of: 80 %         Other conditions affecting worker exposure       Inhalation - minimum efficiency of: 80 %         Other conditions affecting worker exposure       Inhalation - minimum efficiency of: 80 %         Other conditions affecting worker exposure </td <td></td> <td></td> <th></th>			
Were suitable gloves tested to EN374.   Use suitable gloves tested to EN374.   Ventilation rate: 80 %   2.2. CS8: Worker Contributing Scenario: General use from professional operators (PROC10)   Process Categories   Roller application or brushing (PROC10)   Product (article) characteristics   Physical form of product:   Liquid   Concentration of substance in product:   Covers percentage substance in the product up to 100 %.   Amount used, frequency and duration of use/exposure   Duration:   Covers daily exposures up to 8 hours   Frequency:   Bersonal protection.   Were suitable gloves tested to EN374.   Use suitable gloves tested to EN374.<		s related to personal prote	ction, hygiene and health evaluation
Indoor use Ventilation rate: 80 % 2.2. CS8: Worker Contributing Scenario: General use from professional operators (PROC10) Process Categories Roller application or brushing (PROC10) Product (article) characteristics Physical form of product: Liquid Concentration of substance in product up to 100 %. Amount used, frequency and duration of use/exposure Covers daily exposures up to 8 hours Frequency: Use frequency 240 days per year Conditions and measures related to personal protection, hygiene and health evaluation Personal protection Wear suitable gloves tested to EN374. Use suitable gloves tested to EN374. Use suitable gloves tested to EN374. Use suitable respiratory protection. Inhalation - minimum efficiency of: 80 % Coher conditions affecting worker exposure Indoor use Ventilation rate: 80 % 2.2. CS9: Worker Contributing Scenario: General use from professional operators (PROC11) Product (article) characteristics Physical form of product: Liquid Concentration of substance in product up to 100 %. Amount used, frequency and duration of use/exposure Liquid Concentration substance in product Covers percentage substance in the product up to 100 %. Amount used: Amount used: Amount used: Amount used: Amount used: Amount used: Covers percentage substance in the product up to 100 %. Covers percentage substance in the product up to 100 %. Covers percentage substance in the product up to 100 %. Covers percentage substance in the product up to 100 %. Covers percentage substance in the product up to 100 %. Covers percentage substance in the product up to 100 %. Covers percentage substance in the product up to 100 %. Covers percentage substance in the product up to 100 %. Covers percentage substance in the product up to 100 %. Covers percentage substance in the product up to 100 %. Covers percentage substance in the product up to 100 %. Covers percentage substance in the product up to 100 %. Covers percentage substance in the product up to 100 %. Covers percentage substance in the product up to 100 %. Covers percentage subs	Wear suitable gloves tested	o EN374.	
Ventilation rate: 80 % 2.2. CS8: Worker Contributing Scenario: General use from professional operators (PROC10) Process Categories Roller application or brushing (PROC10) Product (article) characteristics Physical form of product: Liquid Concentration of substance in product: Covers generate substance in the product up to 100 %. Amount used, frequency and duration of use/exposure Duration: Covers daily exposures up to 8 hours Frequency: Use frequency 240 days per year Conditions and measures related to personal protection, hygiene and health evaluation Personal protection Wear suitable gioves tested to EN374. Use suitable eve protection. Wear suitable respiratory protection. Inhalation - minimum efficiency of: 80 % COcher conditions affecting worker exposure Indoor use Ventilation rate: 80 % 2.2. CS9: Worker Contributing Scenario: General use from professional operators (PROC11) Process Categories Non industrial spraying (PROC11) Product (article) characteristics Physical form of product: Liquid Concentration of substance in product: Covers percentage substance in the product up to 100 %. Amount used, frequency and duration of use/exposure Amount used, frequency and duration of use/exposure Concentration substance in product: Covers percentage substance in the product up to 100 %. Amount used, frequency and duration of use/exposure Amount used: Amount used: Amount used: Amount used: Amount used: Covers percentage substance in the product up to 100 %. Covers percentage substance in the product of to 100 %. Covers percentage substance in the product: Covers percentage substance in the product: Covers percentage substance in the product up to 100 %. Covers percentage substance in the product: Covers percentage substance in the product of use/exposure Covers percentage substance in the product of use/exposure Covers percentage substance in the product of use/exposure Covers percentage substance in the product up to 100 %. Covers percentage substance in the product up to 100 %. Covers percentage substance in the pro	Other conditions affecti	ng worker exposure	
2.2. CS8: Worker Contributing Scenario: General use from professional operators (PROC10) Process Categories Roller application or brushing (PROC10) Product (article) characteristics Physical form of product: Liquid Concentration of substance in product up to 100 %. Amount used, frequency and duration of use/exposure Duration: Wear suitable respiratory protection. Inhalation - minimum efficiency of: 80 % Concentration of substance in the product up to 100 %. Covers percentage substance in the product up to 100 %. Covers daily exposures up to 8 hours Frequency: Use frequency 240 days per year Conditions and measures related to personal protection, hygiene and health evaluation Personal protection Wear suitable gloves tested to EN374. Use suitable respiratory protection. Inhalation - minimum efficiency of: 80 % Covers percentage substance in the product up to 100 %. Covers percentage substance in the product up to 100 %. Covers percentage substance in the product up to 100 %. Covers and the addition rate: 80 % Covers percentage substance in the product up to 100 %. Covers percentage substance in the product up to 100 %. Covers percentage substance in the product up to 100 %. Covers percentage substance in the product up to 100 %. Covers percentage substance in the product up to 100 %. Covers percentage substance in the product up to 100 %. Covers percentage substance in the product up to 100 %. Covers percentage substance in the product up to 100 %. Covers percentage substance in the product up to 100 %. Covers percentage substance in the product up to 100 %. Covers percentage substance in the product up to 100 %. Covers percentage substance in the product up to 100 %. Covers percentage substance in the product up to 100 %. Covers percentage substance in the product up to 100 %. Covers percentage substance in the product up to 100 %. Covers percentage substance in the product up to 100 %. Covers percentage substance in the product up to 100 %. Covers percentage substance in the product up to 100 %. Covers percenta			
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: Cover sality exposures up to 8 hours Frequency: Use frequency 240 days per year Conditions and measures related to personal protection, hygiene and health evaluation Personal protection Wear suitable gloves tested to EN374. Use suitable gloves tested to EN374. Use suitable respiratory protection. Inhalation - minimum efficiency of: 80 % Concentration of substance in product: Liquid Concentration of product: Liquid Concentration 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 Covers percentage substance in the product up to 100 %. Amount used, frequency and duration of use/exposure Covers percentage substance in the product: Liquid Concentration of substance in product: Covers percentage substance in the product up to 100 %. Amount used, frequency and duration of use/exposure Covers percentage substance in the product Covers percentage substance in the product Covers percentage substance in the product up to 100 %. Covers percentage substance in the product up to 100 %. Covers percentage substance in the product Covers percentage substance in the product up to 100 %. Covers percentage substance in the product up to 100 %. Covers percentage substance in the product up to 100 %. Covers percentage substance in the product up to 100 %. Covers percentage substance in the product up to 100 %. Covers percentage substance in the product up to 100 %. Covers percentage substance in the product up to 100 %. Covers percentage substance in the product up to 100 %. Covers percentage substance in the product up to 100 %. Covers percentage substance in the product up to 100 %. Covers percentage substance in the product up to 100 %. Covers percentage substance in the product up to 100 %. Cover		ting Scenario: General use fro	om professional operators (PROC10)
Physical form of product:       Liquid         Concentration of substance in product:       Covers percentage substance in the product up to 100 %.         Amount used, frequency and duration of use/exposure       Duration:         Covers daily exposures up to 8 hours       Frequency:         Use frequency 240 days per year       Conditions and measures related to personal protection, hygiene and health evaluation         Personal protection       Wear suitable gloves tested to EN374.         Use suitable gloves tested to EN374.       Inhalation - minimum efficiency of: 80 %         Other conditions affecting worker exposure       Inhalation - minimum efficiency of: 80 %         212. CS9: Worker Contributing Scenario: General use from professional operators (PROC11)       Process Categories         Non industrial spraying (PROC11)       Product (article) characteristics         Physical form of product:       Liquid         Liquid       Concentration of substance in the product up to 100 %.         Amount used, frequency and duration of use/exposure       Amount used, frequency and duration of use/exposure         Amount used.       Amount per use 0.05 L/min         Duration:       Use solution of use/exposure	Process Categories	Roller application or brush	ing (PROC10)
Liquid Concentration of substance in product: Covers percentage substance in the product up to 100 %. Amount used, frequency and duration of use/exposure Duration: Covers daily exposures up to 8 hours Frequency: Use frequency 240 days per year Conditions and measures related to personal protection, hygiene and health evaluation Personal protection Wear suitable gloves tested to EN374. Use suitable gloves tested to EN374. Use suitable respiratory protection. Inhalation - minimum efficiency of: 80 % Covers for conditions affecting worker exposure Indoor use Ventilation rate: 80 % Covers Suitable Suitable Scenario: General use from professional operators (PROC11) Process Categories Non industrial spraying (PROC11) Process Categories Non industrial spraying (PROC11) Process Categories Physical form of product: Liquid Concentration of substance in the product up to 100 %. Amount used, frequency and duration of use/exposure Amount per use 0.05 L/min Duration:	Product (article) chara	cteristics	
Concertation of substance in product: Covers percentage substance in the product up to 100 %. Amount used, frequency and duration of use/exposure Duration: Covers daily exposures up to 8 hours Frequency: Use frequency 240 days per year Conditions and measures related to personal protection, hygiene and health evaluation Personal protection Wear suitable gloves tested to EN374. Use suitable gloves tested to EN374. Use suitable respiratory protection. Wear suitable respiratory protection. Mear suitable respiratory protection. Process Categories Non industrial spraying (PROC11) Product (article) characteristics Physical form of product: Liquid Covers percentage substance in the product up to 100 %. Amount per use 0.05 L/min Duration: Mear suitable respiratory protection. Mear suitable respiratory protection. Mear suitable respiratory protection. Mear suitable respiratory protectio			
Covers percentage substance in the product up to 100 %. Amount used, frequency and duration of use/exposure Duration: Covers daily exposures up to 8 hours Frequency: Use frequency 240 days per year Conditions and measures related to personal protection, hygiene and health evaluation Personal protection Wear suitable gloves tested to EN374. Use suitable gloves tested to EN374. Use suitable respiratory protection. Inhalation - minimum efficiency of: 80 % Cover conditions affecting worker exposure Inhalation rate: 80 % 2.2. CS9: Worker Contributing Scenario: General use from professional operators (PROC11) Process Categories Non industrial spraying (PROC11) Product (article) characteristics Physical form of product: Liquid Concentration of substance in product: Covers percentage substance in the product up to 100 %. Amount used, frequency and duration of use/exposure Amount used. Stance in the product up to 100 %.	Liquid		
Amount used, frequency and duration of use/exposure Duration: Covers daily exposures up to 8 hours Frequency: Use frequency 240 days per year Conditions and measures related to personal protection, hygiene and health evaluation Personal protection Wear suitable gloves tested to EN374. Use suitable gloves tested to EN374. Use suitable respiratory protection. Inhalation - minimum efficiency of: 80 % Coher conditions affecting worker exposure Indoor use Ventilation rate: 80 % 2.2. CS9: Worker Contributing Scenario: General use from professional operators (PROC11) Process Categories Non industrial spraying (PROC11) Product (article) characteristics Physical form of product: Liquid Concentration of substance in product: Covers percentage substance in the product up to 100 %. Amount used, frequency and duration of use/exposure Amount use 0.05 L/min Duration:		-	
Duration:       Covers daily exposures up to 8 hours         Frequency:       Use frequency 240 days per year         Conditions and measures related to personal protection, hygiene and health evaluation         Personal protection         Wear suitable gloves tested to EN374.         Use suitable eve protection.         Wear suitable respiratory protection.         Inhalation - minimum efficiency of: 80 %.         Other conditions affecting worker exposure         Indoor use         Ventilation rate: 80 %         2.2. CS9: Worker Contributing Scenario: General use from professional operators (PROC11)         Process Categories       Non industrial spraying (PROC11)         Product (article) characteristics         Physical form of product:         Liquid         Concentration of substance in product:         Covers percentage substance in the product up to 100 %.         Amount used, frequency and duration of use/exposure         Amount per use 0.05 L/min         Duration:			
Covers daily exposures up to 8 hours Frequency: Use frequency 240 days per year Conditions and measures related to personal protection, hygiene and health evaluation Personal protection Wear suitable gloves tested to EN374. Use suitable eye protection. Inhalation - minimum efficiency of: 80 % Concentration rate: 80 % Concentration of substance in the product: Liquid Concentration of substance in the product up to 100 %. Amount used: Amount per use 0.05 L/min Duration:		and duration of use/expos	ure
Frequency:   Use frequency 240 days per year   Conditions and measures related to personal protection, hygiene and health evaluation   Personal protection   Wear suitable gloves tested to EN374.   Use suitable eye protection.   Inhalation - minimum efficiency of: 80 %   Other conditions affecting worker exposure   Indoor use   Ventilation rate: 80 %   2.2. CS9: Worker Contributing Scenario: General use from professional operators (PROC11)   Process Categories   Non industrial spraying (PROC11)   Product (article) characteristics   Physical form of product:   Liquid   Concentration of substance in product:   Covers percentage substance in the product up to 100 %.   Amount used.   Amount used.   Amount per use 0.05 L/min		o 8 hours	
Conditions and measures related to personal protection, hygiene and health evaluation         Personal protection         Wear suitable gloves tested to EN374.         Use suitable eye protection.         Wear suitable respiratory protection.         Inhalation - minimum efficiency of: 80 %         Other conditions affecting worker exposure         Indoor use         Ventilation rate: 80 %         2.2. CS9: Worker Contributing Scenario: General use from professional operators (PROC11)         Process Categories       Non industrial spraying (PROC11)         Product (article) characteristics         Physical form of product:         Liquid         Concentration of substance in product:         Covers percentage substance in the product up to 100 %.         Amount used, frequency and duration of use/exposure         Amount per use 0.05 L/min         Duration:	requency:		
Personal protection         Wear suitable gloves tested to EN374.         Use suitable eye protection.         Wear suitable respiratory protection.         Inhalation - minimum efficiency of: 80 %         Other conditions affecting worker exposure         Indoor use         Ventilation rate: 80 %         2.2. CS9: Worker Contributing Scenario: General use from professional operators (PROC11)         Process Categories       Non industrial spraying (PROC11)         Product (article) characteristics         Physical form of product:         Liquid         Concentration of substance in product:         Covers percentage substance in the product up to 100 %.         Amount used, frequency and duration of use/exposure         Amount per use 0.05 L/min         Duration:			
Wear suitable gloves tested to EN374.         Use suitable eye protection.         Inhalation - minimum efficiency of: 80 %         Other conditions affecting worker exposure         Indoor use         Ventilation rate: 80 %         2.2. CS9: Worker Contributing Scenario: General use from professional operators (PROC11)         Process Categories         Non industrial spraying (PROC11)         Product (article) characteristics         Physical form of product:         Liquid         Concentration of substance in product:         Covers percentage substance in the product up to 100 %.         Amount used, frequency and duration of use/exposure         Amount per use 0.05 L/min         Duration:		s related to personal prote	ction, hygiene and health evaluation
Use suitable eye protection. Wear suitable respiratory protection. Inhalation - minimum efficiency of: 80 % Other conditions affecting worker exposure Indoor use Ventilation rate: 80 % 2.2. CS9: Worker Contributing Scenario: General use from professional operators (PROC11) Process Categories Non industrial spraying (PROC11) Product (article) characteristics Physical form of product: Liquid Concentration of substance in product: Covers percentage substance in the product up to 100 %. Amount used, frequency and duration of use/exposure Amounts used: Amount per use 0.05 L/min Duration:	Personal protection		
Wear suitable respiratory protection.       Inhalation - minimum efficiency of: 80 %         Other conditions affecting worker exposure         Indoor use         Ventilation rate: 80 %         2.2. CS9: Worker Contributing Scenario: General use from professional operators (PROC11)         Process Categories       Non industrial spraying (PROC11)         Product (article) characteristics         Physical form of product:         Liquid         Concentration of substance in product:         Covers percentage substance in the product up to 100 %.         Amount used, frequency and duration of use/exposure         Amount per use 0.05 L/min         Duration:	-	EN374.	
Other conditions affecting worker exposure         Indoor use         Ventilation rate: 80 %         2.2. CS9: Worker Contributing Scenario: General use from professional operators (PROC11)         Process Categories       Non industrial spraying (PROC11)         Product (article) characteristics         Physical form of product:         Liquid         Concentration of substance in product:         Covers percentage substance in the product up to 100 %.         Amount used, frequency and duration of use/exposure         Amount per use 0.05 L/min         Duration:	Use suitable eye protection.		
Indoor use       Ventilation rate: 80 %         2.2. CS9: Worker Contributing Scenario: General use from professional operators (PROC11)         Process Categories       Non industrial spraying (PROC11)         Product (article) characteristics         Physical form of product:         Liquid         Concentration of substance in product:         Covers percentage substance in the product up to 100 %.         Amount used, frequency and duration of use/exposure         Amount per use 0.05 L/min         Duration:	Wear suitable respiratory prot	ection.	Inhalation - minimum efficiency of: 80 %
Indoor use       Ventilation rate: 80 %         2.2. CS9: Worker Contributing Scenario: General use from professional operators (PROC11)         Process Categories       Non industrial spraying (PROC11)         Product (article) characteristics         Physical form of product:         Liquid         Concentration of substance in product:         Covers percentage substance in the product up to 100 %.         Amount used, frequency and duration of use/exposure         Amount per use 0.05 L/min         Duration:			
Ventilation rate: 80 %         2.2. CS9: Worker Contributing Scenario: General use from professional operators (PROC11)         Process Categories       Non industrial spraying (PROC11)         Product (article) characteristics         Physical form of product: Liquid         Concentration of substance in product: Covers percentage substance in the product up to 100 %.         Amount used, frequency and duration of use/exposure         Amount per use 0.05 L/min         Duration:	Other conditions affecti	ng worker exposure	
2.2. CS9: Worker Contributing Scenario: General use from professional operators (PROC11)         Process Categories       Non industrial spraying (PROC11)         Product (article) characteristics         Physical form of product: Liquid         Concentration of substance in product: Covers percentage substance in the product up to 100 %.         Amount used, frequency and duration of use/exposure         Amount per use 0.05 L/min         Duration:			
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         Amount per use 0.05 L/min         Duration:			
Product (article) characteristics         Physical form of product:         Liquid         Concentration of substance in product:         Covers percentage substance in the product up to 100 %.         Amount used, frequency and duration of use/exposure         Amounts used:         Amount per use 0.05 L/min         Duration:			
Physical form of product:         Liquid         Concentration of substance in product:         Covers percentage substance in the product up to 100 %.         Amount used, frequency and duration of use/exposure         Amounts used:         Amount per use 0.05 L/min         Duration:			<pre>(OC11)</pre>
Liquid Concentration of substance in product: Covers percentage substance in the product up to 100 %. Amount used, frequency and duration of use/exposure Amounts used: Amount per use 0.05 L/min Duration:		cteristics	
Covers percentage substance in the product up to 100 %.  Amount used, frequency and duration of use/exposure  Amounts used: Amount per use 0.05 L/min  Duration:			
Amounts used: Amount per use 0.05 L/min Duration:		-	
Amount per use 0.05 L/min Duration:	Amount used, frequency	<sup>,</sup> and duration of use/expos	ure
	Duration:		
Exposure duration 180 min Frequency:	Exposure duration 180 min		

Frequency:

	rweek			
Technical and organise	ntional conditions and me	asures		
Technical and organisation Provide a good standard of	onal measures controlled ventilation (10 to 15 air	changes per hour).		
-		otection, hygiene and health evaluation		
Personal protection				
Wear suitable gloves tested t	o EN374.	Inhalation - minimum efficiency of: 90 %		
Use suitable eye protection.				
Wear suitable respiratory pro	tection.	Inhalation - minimum efficiency of: 80 %		
Other conditions affect	ing worker exposure			
Indoor use <b>Room size:</b> Covers use in roor <b>Ventilation rate:</b> 80 %	n size of > 100 m <sup>3</sup>			
2.2. CS10: Worker Contri	buting Scenario: General us	e from professional operators (PROC13)		
		e from professional operators (PROC13) / dipping and pouring (PROC13)		
Process Categories	Treatment of articles by			
Process Categories Product (article) chara	Treatment of articles by			
Process Categories Product (article) chara Physical form of product Liquid Concentration of substar	Treatment of articles by acteristics			
Process Categories Product (article) chara Physical form of product Liquid Concentration of substar Covers percentage substar	Treatment of articles by acteristics	/ dipping and pouring (PROC13)		
Process Categories Product (article) chara Physical form of product Liquid Concentration of substar Covers percentage substar Amount used, frequence Duration: Covers daily exposures up	Treatment of articles by acteristics there in product: there in the product up to 100 %. By and duration of use/exp	/ dipping and pouring (PROC13)		
Process Categories Product (article) chara Physical form of product Liquid Concentration of substar Covers percentage substar Amount used, frequence Duration: Covers daily exposures up	Treatment of articles by acteristics the in product: the in the product up to 100 %. By and duration of use/exp to 8 hours	/ dipping and pouring (PROC13)		
Process Categories Product (article) chara Physical form of product Liquid Concentration of substar Covers percentage substar Amount used, frequence Duration: Covers daily exposures up Frequency: Use frequency < 240 days	Treatment of articles by acteristics the product: the product up to 100 %. The product up to 100 %. The product up to 100 %.	/ dipping and pouring (PROC13)		
Process Categories Product (article) chara Physical form of product Liquid Concentration of substar Covers percentage substar Amount used, frequence Duration: Covers daily exposures up Frequency: Use frequency < 240 days	Treatment of articles by acteristics the product: the product up to 100 %. The product up to 100 %. The product up to 100 %.	y dipping and pouring (PROC13)		
Process Categories Product (article) chara Physical form of product Liquid Concentration of substar Covers percentage substar Amount used, frequence Duration: Covers daily exposures up Frequency: Use frequency < 240 days Conditions and measur	Treatment of articles by acteristics the in product: the product up to 100 %. The product up to 100 %. The product of the product up to 100 %. The product of the product o	y dipping and pouring (PROC13)		

# Other conditions affecting worker exposure

Indoor use

# 2.3 Exposure estimation and reference to its source

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

# 3. ES 3 Widespread use by professional workers

# **3.1 TITLE SECTION**

<b>3.1 TITLE SECTION</b>						
Exposure Scenario name         Use in antifreeze products						
Date - Version	19/07/2019 - 1.0					
Life Cycle Stage	Widespread use by professional workers					
Main user group	Professional uses					
Sector(s) of use	Professional uses (SU22)					
Environment Contributing Sce	nario					
CS1 Covered by		ERC8d				
Worker Contributing Scenario						
CS2 General use from professiona	al operators	PROC1				
CS3 General use from professiona	al operators	PROC2				
CS4 General use from professiona	al operators	PROC8a				
CS5 General use from professiona	al operators	PROC8b				
CS6 General use from professiona	al operators	PROC11				
3.2 Conditions of use	affecting exposure					
3.2. CS1: Environment Contrib	uting Scenario: Covered by (ERC8d)					
Environmental release categories	Widespread use of non-reactive processing aid (no inc (ERC8d)	clusion into or onto article, outdoor)				
Product (article) characteri						
Physical form of product: Liquid						
Vapour pressure: 0.123 hPa						
3.2. CS2: Worker Contributing	Scenario: General use from professional operato	rs (PROC1)				
Process Categories	Chemical production or refinery in closed process with processes with equivalent containment conditions (PF	-				
Product (article) characteri						
Concentration of substance in Covers percentage substance in t	•					
Amount used, frequency and	duration of use/exposure					
Duration:						
Frequency:	Covers daily exposures up to 8 hours  Frequency: Covers exposure up to 240 days per year					
Technical and organisation	al conditions and measures					
Technical and organisational n Use in contained systems	neasures					
Conditions and measures re	Use in contained systems Conditions and measures related to personal protection, hygiene and health evaluation					
	natea to personal protection, nygiene and nea					

Wear suitable gloves tested to EN374.

Other conditions affecting w	orker exposure					
Indoor use						
3.2. CS3: Worker Contributing	Scenario: General use fro	m 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) characteri	stics					
Concentration of substance in Covers percentage substance in t	•					
Amount used, frequency and	duration of use/exposu	re				
Duration: Covers daily exposures up to 8 ho Frequency: Covers exposure up to 240 days p						
Technical and organisation	al conditions and measu	res				
Technical and organisational n Use in contained systems	neasures					
Conditions and measures re	lated to personal protec	tion, hygiene and health evaluation				
Personal protection Wear suitable gloves tested to ENS	74.					
Other conditions affecting w	orker exposure					
Indoor use						
3.2. CS4: Worker Contributing	Scenario: General use fro	m professional operators (PROC8a)				
Process Categories	Transfer of substance or mix (PROC8a)	cture (charging and discharging) at non-dedicated facilities				
Product (article) characteri	stics					
<b>Concentration of substance in</b> Covers percentage substance in the						
Amount used, frequency and		re				
Duration: Covers daily exposures up to 8 ho Frequency: Covers exposure up to 240 days p	urs					
Technical and organisation	al conditions and measu	res				
Technical and organisational n Use in contained systems	neasures					
Conditions and measures re	lated to personal protec	tion, hygiene and health evaluation				
Personal protection						
Wear suitable gloves tested to EN37	4.					
Wear suitable respiratory protection		Inhalation - minimum efficiency of: 80 %				
Other conditions affecting w	orker exposure					
Indoor use Ventilation rate: 80 %						
3.2. CS5: Worker Contributing	Scenario: General use fro	m professional operators (PROC8b)				
Process Categories	Transfer of substance or mix	<pre>kture (charging and discharging) at dedicated facilities (PROC8b)</pre>				

Product (article) characteristics								
Concentration of substance in product: Covers percentage substance in the product up to 100 %.								
Amount used, frequency and duration of use/exposure								
Duration: Covers daily exposures up to 8 hc Frequency: Covers exposure up to 240 days p								
Technical and organisation	al conditions an	d measure	es					
Technical and organisational r Use in contained systems	neasures							
Conditions and measures re	lated to persond	al protecti	on, h	ygiene and health	evaluation			
Personal protection Wear suitable gloves tested to EN	374.							
Other conditions affecting w	vorker exposure							
Indoor use								
3.2. CS6: Worker Contributing	Scenario: Genera	l use from	prof	essional operators (	PROC11)			
Process Categories Non industrial spraying (PROC11)								
Product (article) characteristics								
Concentration of substance in Covers percentage substance in t	•	%.						
Amount used, frequency and	d duration of use	e/exposur	е					
Duration: Exposure duration 180 min Frequency: Covers exposure up to 5 days per	Duration: Exposure duration 180 min Frequency:							
Technical and organisation	al conditions an	d measure	es					
Technical and organisational r Use in contained systems	neasures							
Conditions and measures re	lated to persond	il protecti	on, h	ygiene and health	evaluation			
Personal protection								
Wear suitable gloves tested to EN374.   Dermal - minimum efficiency of: 90 %								
Other conditions affecting w	vorker exposure							
Indoor use <b>Room size:</b> Covers use in room size of	of > 100 m³							
3.3 Exposure estimat		ren <u>ce to</u>	o <u>its</u>	s sour <u>ce</u>				
3.3. CS2: Worker Contributing					PROC1)			
Exposure route, Health effect, Ex	posure indicator	Exposure l	evel	Calculation method	Risk Characterization Ratio (RCR)			

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

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

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

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

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

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

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

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

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

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

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

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

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

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

### **4.1 TITLE SECTION**

4.1 IIILE SECTION			
Exposure Scenario name	Consumer goods		
Date - Version	19/07/2019 - 1.0		
Life Cycle Stage	Consumer use		
Main user group	Consumer uses		
Product Categories	Coatings and paints, thinners, paint removers (PC9a) - Adhesives, sealants (PC1) - Anti-freeze and de-icing products (PC4) - Biocidal products (PC8) - Non-metal surface treatment products (PC15) - Heat transfer fluids (PC16) - Hydraulic fluids (PC17) - Ink and toners (PC18) - Leather treatment products (PC23) - Polishes and wax blends (PC31) - Polymer preparations and compounds (PC32) - Textile dyes and impregnating products (PC34) - Washing and cleaning products (PC35)		
Environment Contributing Sce	nario		
CS1 Covered by		ERC8a - ERC8c - ERC8d - ERC8f - ERC9a - ERC9b	
<b>Consumer Contributing Scena</b>	rio		
CS2 Consumer		PC1	
CS3 Consumer		PC4 - PC16 - PC17 - PC4_1	
CS4 Consumer		PC4 - PC4_2	
CS5 Consumer		PC9a - PC15 - PC9a_2, PC15_2	
CS6 Consumer	PC8		
CS7 Consumer		PC18	
CS8 Consumer		PC31	
CS9 Consumer		PC32	
CS10 Consumer		PC35 - PC8_2, PC35_2	
CS11 Consumer		PC35 - PC8_3, PC35_3	
CS12 Consumer		PC15 - PC23 - PC34 - PC9a_1, PC15_1	
4.2 Conditions of use	affecting exposure		

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

**Environmental release** categories

Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor) -Widespread use leading to inclusion into/onto article (indoor) - Widespread use of nonreactive processing aid (no inclusion into or onto article, outdoor) - Widespread use leading to inclusion into/onto article (outdoor) - Widespread use of functional fluid (indoor) -Widespread use of functional fluid (outdoor) (ERC8a, ERC8c, ERC8d, ERC8f, ERC9a, ERC9b)

#### **Product (article) characteristics**

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

Liquid

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

Covers percentage substance in the product up to 100 %.

4.2. CS2: Consumer Contributing Scenario: Consumer (PC1)				
Product Categories	Adhesives, sealants (PC1)			

roduct Categories	
-------------------	--

Product (article) characte	ristics		
<b>Concentration of substance</b> Covers concentrations up to 0.7	•		
4.2. CS3: Consumer Contribu	ting Scenario: Consumer (PC4, PC16, PC17)		
Product Categories	Anti-freeze and de-icing products - Heat transfer fluids - Hydraulic fluids (PC4, PC16, PC17)		
Product (Sub-)Categories	Washing car window (PC4_1)		
Product (article) characte	ristics		
<b>Concentration of substance</b> Covers concentrations up to 45	•		
Amount used, frequency an	nd duration of use/exposure		
<b>Duration:</b> Exposure duration < 15 min			
4.2. CS4: Consumer Contribu	ting Scenario: Consumer (PC4)		
Product Categories	Anti-freeze and de-icing products (PC4)		
Product (Sub-)Categories	Pouring into radiator (PC4_2)		
Product (article) characte	ristics		
<b>Concentration of substance</b> in Covers percentage substance in	•		
4.2. CS5: Consumer Contribu	ting Scenario: Consumer (PC9a, PC15)		
Product Categories	Coatings and paints, thinners, paint removers - Non-metal surface treatment products (PC9a, PC15)		
Product (Sub-)Categories	Solvent rich, high solid, water borne paint (PC9a_2, PC15_2)		
Product (article) characte	ristics		
Concentration of substance in Covers concentrations up to 10	•		
4.2. CS6: Consumer Contribu	ting Scenario: Consumer (PC8)		
Product Categories	Biocidal products (PC8)		
4.2. CS7: Consumer Contribu	ting Scenario: Consumer (PC18)		
Product Categories	Ink and toners (PC18)		
Product (article) characte	ristics		
Concentration of substance in Covers percentage substance in	•		
4.2. CS8: Consumer Contribu	ting Scenario: Consumer (PC31)		
Product Categories	Polishes and wax blends (PC31)		
Product (article) characte	ristics		
<b>Concentration of substance</b> in Covers concentrations up to 10	•		
4.2. CS9: Consumer Contribu	ting Scenario: Consumer (PC32)		
Product Categories	Polymer preparations and compounds (PC32)		
Product (article) characte	ristics		
Concentration of substance in Covers percentage substance in			
4.2. CS10: Consumer Contrib	uting Scenario: Consumer (PC35)		

Product Categories	Washing and cleaning products (PC35)
Product (Sub-)Categories	Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, glass cleaners, carpet cleaners, metal cleaners) (PC8_2, PC35_2)
Product (article) charact	eristics
Concentration of substance Covers concentrations up to 2	•
4.2. CS11: Consumer Contri	buting Scenario: Consumer (PC35)
Product Categories	Washing and cleaning products (PC35)
Product (Sub-)Categories	Cleaners, trigger sprays (all purpose cleaners, sanitary products, glass cleaners) (PC8_3, PC35_3)
Product (article) charact	eristics
Concentration of substance Covers percentage substance	•
4.2. CS12: Consumer Contri	buting Scenario: Consumer (PC15, PC23, PC34)
Product Categories	Non-metal surface treatment products - Leather treatment products - Textile dyes and impregnating products (PC15, PC23, PC34)
Product (Sub-)Categories	Waterborne latex wall paint (PC9a_1, PC15_1)
4.3 Exposure estim	ation and reference to its source
	uting Scenario: Consumer (PC1)

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

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

Exposure level	Calculation method	Risk Characterization Ratio (RCR)
N/A	N/A	0.28
N/A	N/A	0.08
N/A	N/A	0.36
	N/A N/A	N/A N/A N/A

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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