

## Safety Data Sheet

Conforms to Regulation (EC) No. 1907/2006 (REACH), Article 31, Annex II, as amended by Commission Regulation (EU) 2020/878

### KERADUR ECO

Date of first edition: 5/3/2021

Safety Data Sheet dated 9/14/2022

version 8

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

### 1.1. Product identifier

Mixture identification:

Trade name: KERADUR ECO

Trade code: B0174 .010

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

Recommended use: primer

Uses advised against: Data not available.

### 1.3. Details of the supplier of the safety data sheet

Company: KERAKOLL S.p.A.

Via dell'Artigianato, 9

41049 Sassuolo (MODENA) - ITALY

Tel.+39 0536 816511 Fax. +39 0536816581

safety@kerakoll.com

### 1.4. Emergency telephone number

European emergency phone number 112

Kerakoll Italy - +39-0536-816511

Ireland

Poison information centre: 01 809 2166 (Daily 8am-10pm)

In case of emergency call 999 or 112

Malta

In case of emergency call: +356 2395 2000 (24h)

## SECTION 2: Hazards identification



### 2.1. Classification of the substance or mixture

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

Skin Irrit. 2 Causes skin irritation.

Eye Irrit. 2 Causes serious eye irritation.

Adverse physicochemical, human health and environmental effects:

No other hazards

### 2.2. Label elements

#### Regulation (EC) No 1272/2008 (CLP):

#### Pictograms and Signal Words



Warning

#### Hazard statements

H315 Causes skin irritation.

H319 Causes serious eye irritation.

#### Precautionary statements

P264 Wash hands thoroughly after handling.

P280 Wear protective gloves and eye protection.

P302+P352 IF ON SKIN: Wash with plenty of water.

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

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

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

None

**2.3. Other hazards**

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

Other Hazards: No other hazards

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**SECTION 3: Composition/information on ingredients**

**3.1. Substances**

N.A.

**3.2. Mixtures**

Mixture identification: KERADUR ECO

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

Qty	Name	Ident. Numb.	Classification	Registration Number
25-50 %	Silicic Acid, sodium salt aqueous solution (2,6<RM<3,2)	EC:215-687-4	Skin Irrit. 2, H315; Eye Irrit. 2, H319	01-2119448725-31-0020

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**SECTION 4: First aid measures**

**4.1. Description of first aid measures**

In case of skin contact:

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

In case of eyes contact:

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

In case of Ingestion:

- Do not induce vomiting, get medical attention showing the SDS and label hazardous.

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**

Eye irritation  
Eye damages  
Skin Irritation  
Erythema

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

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

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**SECTION 5: Firefighting measures**

**5.1. Extinguishing media**

Suitable extinguishing media:

- Water.
- Carbon dioxide (CO<sub>2</sub>).

Extinguishing media which must not be used for safety reasons:

- None in particular.

**5.2. Special hazards arising from the substance or mixture**

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

**5.3. Advice for firefighters**

- Use suitable breathing apparatus .
- Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
- Move undamaged containers from immediate hazard area if it can be done safely.

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**SECTION 6: Accidental release measures**

### **6.1. Personal precautions, protective equipment and emergency procedures**

Wear personal protection equipment.

Remove persons to safety.

See protective measures under point 7 and 8.

### **6.2. Environmental precautions**

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

Retain contaminated washing water and dispose it.

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

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

### **6.3. Methods and material for containment and cleaning up**

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

Wash with plenty of water.

### **6.4. Reference to other sections**

See also section 8 and 13

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## **SECTION 7: Handling and storage**

### **7.1. Precautions for safe handling**

Avoid contact with skin and eyes, inhalation of vapours and mists.

Don't use empty container before they have been cleaned.

Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.

Contaminated clothing should be changed before entering eating areas.

Do not eat or drink while working.

See also section 8 for recommended protective equipment.

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

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Adequately ventilated premises.

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

Recommendation(s)

None in particular

Industrial sector specific solutions:

None in particular

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## **SECTION 8: Exposure controls/personal protection**

### **8.1. Control parameters**

No data available

### **8.2. Exposure controls**

Eye protection:

Eye glasses with side protection.

Protection for skin:

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

Protection for hands:

Neoprene, Nitrile rubber.

Respiratory protection:

N.A.

Thermal Hazards:

N.A.

Environmental exposure controls:

N.A.

Hygienic and Technical measures

N.A.

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## **SECTION 9: Physical and chemical properties**

### **9.1. Information on basic physical and chemical properties**

Physical State Liquid

Color: Colourless

Odour: Odourless

Odour threshold: N.A.

pH: =11.00

Kinematic viscosity: N.A.  
Melting point / freezing point: N.A.  
Initial boiling point and boiling range: 100 °C (212 °F)  
Flash point: Not Applicable  
Upper/lower flammability or explosive limits: N.A.  
Vapour density: N.A.  
Vapour pressure: N.A.  
Relative density: 1.16 g/cm<sup>3</sup>  
Solubility in water: Soluble  
Solubility in oil: N.A.  
Partition coefficient (n-octanol/water): N.A.  
Auto-ignition temperature: N.A.  
Decomposition temperature: N.A.  
Flammability: N.A.  
Volatile Organic compounds - VOCs = 0 % ; 0 g/l

**Particle characteristics:**

Particle size: N.A.

**9.2. Other information**

Miscibility: N.A.  
Conductivity: N.A.  
Evaporation rate: N.A.                      No other relevant information

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**SECTION 10: Stability and reactivity**

**10.1. Reactivity**

Stable under normal conditions

**10.2. Chemical stability**

Data not available.

**10.3. Possibility of hazardous reactions**

None.

**10.4. Conditions to avoid**

Stable under normal conditions.

**10.5. Incompatible materials**

None in particular.

**10.6. Hazardous decomposition products**

None.

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**SECTION 11: Toxicological information**

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

**Toxicological Information of the Preparation**

a) acute toxicity	Not classified Based on available data, the classification criteria are not met
b) skin corrosion/irritation	The product is classified: Skin Irrit. 2(H315)
c) serious eye damage/irritation	The product is classified: Eye Irrit. 2(H319)
d) respiratory or skin sensitisation	Not classified Based on available data, the classification criteria are not met
e) germ cell mutagenicity	Not classified Based on available data, the classification criteria are not met
f) carcinogenicity	Not classified Based on available data, the classification criteria are not met
g) reproductive toxicity	Not classified Based on available data, the classification criteria are not met
h) STOT-single exposure	Not classified Based on available data, the classification criteria are not met
i) STOT-repeated exposure	Not classified Based on available data, the classification criteria are not met
j) aspiration hazard	Not classified Based on available data, the classification criteria are not met

**Toxicological information on main components of the mixture:**

Silicic Acid, sodium salt a) acute toxicity  
aqueous solution  
(2,6<RM<3,2)

LD50 Oral Rat = 3400.00 mg/kg

LD50 Skin Rat > 5000.00 mg/kg

LC50 Inhalation Rat > 2.06 mg/l 4h

## 11.2 Information on other hazards

### Endocrine disrupting properties:

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

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## SECTION 12: Ecological information

### 12.1. Toxicity

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

Eco-Toxicological Information:

#### List of Eco-Toxicological properties of the product

Not classified for environmental hazards.

No data available for the product

### 12.2. Persistence and degradability

N.A.

### 12.3. Bioaccumulative potential

N.A.

### 12.4. Mobility in soil

N.A.

### 12.5. Results of PBT and vPvB assessment

No PBT/vPvB Ingredients are present

### 12.6 Endocrine disrupting properties

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

### 12.7 Other adverse effects

N.A.

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## 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.

A waste code according to European waste catalogue (EWC) cannot be specified, due to dependence on the usage. Contact an authorized waste disposal service.

### Properties of waste which render it hazardous (Annex III, Directive 2008/98/EC):

HP 4: Irritant — skin irritation and eye damage

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## SECTION 14: Transport information

### 14.1. UN number or ID number

N/A

### 14.2. UN proper shipping name

ADR-Shipping Name: N/A

IATA-Technical name: N/A

IMDG-Technical name: N/A

### 14.3. Transport hazard class(es)

ADR-Class: N/A

IATA-Class: N/A

IMDG-Class: N/A

### 14.4. Packing group

ADR-Packing Group: N/A

IATA-Packing group: N/A

IMDG-Packing group: N/A

### 14.5. Environmental hazards

Marine pollutant: No

Environmental Pollutant: No

IMDG-EMS: N/A

#### **14.6. Special precautions for user**

Road and Rail ( ADR-RID ) :

ADR-Label: N/A

ADR - Hazard identification number: N/A

ADR-Special Provisions: N/A

ADR-Transport category (Tunnel restriction code): N/A

ADR Limited Quantities: N/A

ADR Excepted Quantities: N/A

Air ( IATA ) :

IATA-Passenger Aircraft: N/A

IATA-Cargo Aircraft: N/A

IATA-Label: N/A

IATA-Subsidiary hazards: N/A

IATA-Erg: N/A

IATA-Special Provisioning: N/A

Sea ( IMDG ) :

IMDG-Stowage Code: N/A

IMDG-Stowage Note: N/A

IMDG-Subsidiary hazards: N/A

IMDG-Special Provisioning: N/A

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

N.A.

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### **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. 286/2011 (ATP 2 CLP)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Regulation (EU) n. 2020/878

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

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: 3

Restrictions related to the substances contained: None

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

N.A.

#### **Regulation (EU) 649/2012 (PIC regulation):**

No Substance Listed

German Water Hazard Class.

Class 1: slightly hazardous for water.

SVHC Substances:

No data available

## 15.2. Chemical safety assessment

A Chemical Safety Assessment has been carried out for the mixture.

## SECTION 16: Other information

Code	Description
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H315	Causes skin irritation.
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H319	Causes serious eye irritation.
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Code	Hazard class and hazard category	Description
3.2/2	Skin Irrit. 2	Skin irritation, Category 2
3.3/2	Eye Irrit. 2	Eye irritation, Category 2

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

Classification according to Regulation (EC) Nr. 1272/2008	Classification procedure
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3.2/2	Calculation method
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3.3/2	Calculation method
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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.

Legend to abbreviations and acronyms used in the safety data sheet:

ACGIH: American Conference of Governmental Industrial Hygienists

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

AND: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

ATE: Acute Toxicity Estimate

ATEmix: Acute toxicity Estimate (Mixtures)

BCF: Biological Concentration Factor

BEI: Biological Exposure Index

BOD: Biochemical Oxygen Demand

CAS: Chemical Abstracts Service (division of the American Chemical Society).

CAV: Poison Center

CE: European Community

CLP: Classification, Labeling, Packaging.

CMR: Carcinogenic, Mutagenic and Reprotoxic

COD: Chemical Oxygen Demand

COV: Volatile Organic Compound

CSA: Chemical Safety Assessment

CSR: Chemical Safety Report

DMEL: Derived Minimal Effect Level

DNEL: Derived No Effect Level.

DPD: Dangerous Preparations Directive

DSD: Dangerous Substances Directive

EC50: Half Maximal Effective Concentration

ECHA: European Chemicals Agency

EINECS: European Inventory of Existing Commercial Chemical Substances.

ES: Exposure Scenario

GefStoffVO: Ordinance on Hazardous Substances, Germany.

GHS: Globally Harmonized System of Classification and Labeling of Chemicals.

IARC: International Agency for Research on Cancer

IATA: International Air Transport Association.

IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).

IC50: half maximal inhibitory concentration

ICAO: International Civil Aviation Organization.

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO).

IMDG: International Maritime Code for Dangerous Goods.

INCI: International Nomenclature of Cosmetic Ingredients.  
IRCCS: Scientific Institute for Research, Hospitalization and Health Care  
KAFH: Keep Away From Heat  
KSt: Explosion coefficient.  
LC50: Lethal concentration, for 50 percent of test population.  
LD50: Lethal dose, for 50 percent of test population.  
LDLo: Leathal Dose Low  
N.A.: Not Applicable  
N/A: Not Applicable  
N/D: Not defined/ Not available  
NA: Not available  
NIOSH: National Institute for Occupational Safety and Health  
NOAEL: No Observed Adverse Effect Level  
OSHA: Occupational Safety and Health Administration.  
PBT: Persistent, Bioaccumulative and Toxic  
PGK: Packaging Instruction  
PNEC: Predicted No Effect Concentration.  
PSG: Passengers  
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.  
TWATLV: Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).  
vPvB: Very Persistent, Very Bioaccumulative.  
WGK: German Water Hazard Class.

**Paragraphs modified from the previous revision:**

- 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING
- 2. HAZARDS IDENTIFICATION
- 3. COMPOSITION/INFORMATION ON INGREDIENTS
- 9. PHYSICAL AND CHEMICAL PROPERTIES
- 15. REGULATORY INFORMATION





## Exposure Scenario

### Sodium silicate

## Exposure Scenario, 03/11/2021

Substance identity	
	Sodium silicate
CAS No.	1344-09-8
EINECS No.	215-687-4
Registration number	01-2119448725-31

## Table of contents

1. **ES 1** Widespread use by professional workers; Various products (PC9a, PC15)

## 1. ES 1

Widespread use by professional workers; Various products (PC9a, PC15)

**1.1 TITLE SECTION**

<b>Exposure Scenario name</b>	Road and construction applications - Professional application of coatings and inks
<b>Date - Version</b>	03/11/2021 - 1.0
<b>Life Cycle Stage</b>	Widespread use by professional workers
<b>Main user group</b>	Professional uses
<b>Sector(s) of use</b>	Professional uses (SU22)
<b>Product Categories</b>	Coatings and paints, thinners, paint removers (PC9a) - Non-metal surface treatment products (PC15)

**Environment Contributing Scenario**

<b>CS1</b>	
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**Worker Contributing Scenario**

<b>CS2 Material transfers</b>	PROC8a
<b>CS3 Rolling, Brushing</b>	PROC10
<b>CS4 Roller, spreader, flow application</b>	PROC11

**1.2 Conditions of use affecting exposure****1.2. CS2: Worker Contributing Scenario: Material transfers (PROC8a)**

<b>Process Categories</b>	Transfer of substance or mixture (charging and discharging) at non-dedicated facilities (PROC8a)
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*Product (article) characteristics***Physical form of product:**

Solid, medium dustiness

**Vapour pressure:**

= 1.03 Pa

**Concentration of substance in product:**

58 %

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

Covers use up to 480 min

**Frequency:**

Use frequency 5 days per week

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

For further specification, refer to section 8 of the SDS.

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

Wear suitable gloves tested to EN374.	Dermal - minimum efficiency of: = 99 %
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*Other conditions affecting worker exposure*

Indoor use

Professional use

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

## 1.2. CS3: Worker Contributing Scenario: Rolling, Brushing (PROC10)

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

**Physical form of product:**

Solid, medium dustiness

**Vapour pressure:**

= 1.03 Pa

**Concentration of substance in product:**

58 %

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

**Duration:**

Covers use up to 480 min

**Frequency:**

Use frequency 5 days per week

### *Technical and organisational conditions and measures*

**Technical and organisational measures**

Use of an integrated local exhaust ventilation is required. For further specification, refer to section 8 of the SDS.	Inhalation - minimum efficiency of: = 80 %
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### *Conditions and measures related to personal protection, hygiene and health evaluation*

**Personal protection**

Wear suitable gloves tested to EN374.	Dermal - minimum efficiency of: = 99 %
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### *Other conditions affecting worker exposure*

Indoor use

Professional use

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

## 1.2. CS4: Worker Contributing Scenario: Roller, spreader, flow application (PROC11)

Process Categories	Non industrial spraying (PROC11)
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### *Product (article) characteristics*

**Physical form of product:**

Solid, medium dustiness

**Vapour pressure:**

= 1.03 Pa

**Concentration of substance in product:**

58 %

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

**Duration:**

Covers use up to 480 min

**Frequency:**

Use frequency 5 days per week

### *Technical and organisational conditions and measures*

**Technical and organisational measures**

Use of an integrated local exhaust ventilation is required.  
For further specification, refer to section 8 of the SDS.

Inhalation - minimum efficiency of: = 80 %

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

### Personal protection

Wear suitable gloves tested to EN374.	Dermal - minimum efficiency of: = 99 %
Wear suitable respiratory protection.	Inhalation - minimum efficiency of: = 90 %

### Other conditions affecting worker exposure

Indoor use

Professional use

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

## 1.3 Exposure estimation and reference to its source

### 1.3. CS1: Environment Contributing Scenario

#### Additional information on exposure estimation:

As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

### 1.3. CS2: Worker Contributing Scenario: Material transfers (PROC8a)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	0.1371 mg/kg bw/day	ECETOC TRA worker v2.0	0.08653
inhalative, systemic, long-term	5 mg/m <sup>3</sup>	ECETOC TRA worker v2.0	0.891266

### 1.3. CS3: Worker Contributing Scenario: Rolling, Brushing (PROC10)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	0.0137 mg/kg bw/day	ECETOC TRA worker v2.0	0.008625
inhalative, systemic, long-term	1 mg/m <sup>3</sup>	ECETOC TRA worker v2.0	0.178253

### 1.3. CS4: Worker Contributing Scenario: Roller, spreader, flow application (PROC11)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	1.0714 mg/kg bw/day	ECETOC TRA worker v2.0	0.673854
inhalative, systemic, long-term	0.4 mg/m <sup>3</sup>	ECETOC TRA worker v2.0	0.071301

## 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.