

Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended.

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

1.1 Product identifier:

Product name: Cyclopentasiloxane – CHEM12 Product No.: PRCO90001250

Additional identification:

Chemical name: Decamethylcyclopentasiloxane

CAS-No.: 541-02-6

INDEX No.:

EC No.: 208-764-9

REACH Registration No.: 01-2119511367-43-0003

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

Identified uses: Preparation of speciality cosmetics.

Uses advised against: None known.

1.3 Details of the supplier of the safety data sheet:

Supplier:

Supplies for Candles Ltd Unit E Swinton Bridge Industrial Estate Whitelee Road Swinton South Yorkshire S64 8BH UK

Telephone:

01709 257151

1.4 Emergency telephone number:

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture:

The product has not been classified as hazardous according to the legislation in force.

Classification according to Regulation (EC) No 1272/2008 as amended.

Not classified

2.2 Label Elements: Not applicable.

2.3 Other hazards:

Physical Hazards: No specific recommendations.

Health Hazards:

SDS_GB - PRCO90001250 1/83



Revision Date: 06.10.2021 Supersedes Date: 15.09.2020



Inhalation: No specific symptoms noted.

Eye contact: No specific symptoms noted.

Skin contact: No specific symptoms noted.

Ingestion: No specific symptoms noted.

Other Health Effects: No other information noted.

Environmental Hazards: Not regarded as dangerous for the environment.

Results of PBT and vPvB

assessment:

This product meets the PBT (Persistent, Bioaccumulative and Toxic) and/or

vPvB (very Persistent and very Bioaccumulative) criteria according to

REACH regulation, Annex XIII.

Endocrine Disruption -

Health:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or

Commission Delegated regulation (EU) 2017/2100 or Commission

Regulation (EU) 2018/605 at levels of 0.1% or higher.

Endocrine Disruption -

Environment:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or

Commission Delegated regulation (EU) 2017/2100 or Commission

Regulation (EU) 2018/605 at levels of 0.1% or higher.

Other hazards: No other information noted.

SECTION 3: Composition/information on ingredients

3.1 Substances:

Chemical name: Decamethylcyclopentasiloxane

INDEX No.:

CAS-No. 541-02-6 **EC No.**: 208-764-9

REACH Registration No.: 01-2119511367-43-0003

Purity: >90%

Impurities and stabilizing additives which contribute to the hazard:

Chemical name	Concentration*	Type	CAS-No.	EC No.	Notes
Dodecamethylcyclohexasiloxan	0,1 - <1%	Impurities	540-97-6	208-762-8	##
e					vPvB

^{*} All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

PBT: persistent, bioaccumulative and toxic substance.

vPvB: very persistent and very bioaccumulative substance.

ED: Endocrine Disruptor

Classification:

Chemical name		Specific concentration limits / ATE / M-Factor:	Notes
Dodecamethylcyclohexasiloxan	None known.		
е			

The full text for all H-statements is displayed in section 16.

SECTION 4: First aid measures

SDS_GB - PRCO90001250 2/83

[#] This substance has workplace exposure limit(s).

^{##} This substance is listed as SVHC.



Cyclopentasiloxane - CHEM12

Version: 9.2

Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

General information:

No specific first aid measures noted. Get medical attention if symptoms occur.

4.1 Description of first aid measures:

Inhalation:

Under normal conditions of intended use, this material is not expected to be an inhalation hazard. In case of inhalation: Move person into fresh air and keep at rest. Get medical attention if symptoms occur.

Skin contact:

Remove contaminated clothing and shoes. Wash skin with soap and water. Get medical attention if symptoms occur. Wash contaminated clothing before reuse.

Eye contact:

In the event of contact with the eyes, rinse thoroughly with clean water for at least 15 minutes. Get medical attention promptly if symptoms occur after washing.

Ingestion:

Do not induce vomiting. Rinse mouth thoroughly with water. Get medical attention if symptoms occur.

Personal Protection for First-aid Responders:

First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). Refer to sections 5 and 8 for information on emergency procedures and protective equipment.

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

No specific symptoms noted. For further information, please refer to Section 11 of the SDS.

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

Notes to the physician:

No specific recommendations. Show this Safety Data Sheet to the attending physician.

SECTION 5: Firefighting measures

5.1 Extinguishing media:

Suitable extinguishing media:

Water spray, foam, dry powder or carbon dioxide.

Unsuitable extinguishing media:

Avoid water in straight hose stream; will scatter and spread fire.

5.2 Special hazards arising from the substance or mixture:

Product will burn under fire conditions. Thermal decomposition or combustion may liberate carbon oxides, silicon oxides and other toxic gases or vapors.

5.3 Advice for firefighters:

Special fire fighting procedures:

Use standard firefighting procedures and consider the hazards of other involved materials. Remove undamaged containers from fire area if it is safe to do so. Evacuate to a safe location and contact the emergency services. Water spray should be used to cool containers.

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

Special protective equipment for fire-fighters:

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

SECTION 6: Accidental release measures

SDS_GB - PRCO90001250 3/83

Cyclopentasiloxane - CHEM12

Version: 9.2

Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

6.1 Personal precautions, protective equipment and emergency procedures:

Use personal protective equipment. See Section 8 of the SDS for Personal Protective Equipment.

6.2 Environmental Precautions:

Do not discharge into drains, water courses or onto the ground. Collect spillage. Use containment for a large spill.

6.3 Methods and material for containment and cleaning up:

Containers with collected spillage must be properly labelled with correct contents and hazard symbol. Container must be kept tightly closed. Absorb with sand or other inert absorbent. To clean the floor and all objects contaminated by this material, use an appropriate solvent (see § 9). Flush area with plenty of water. Incinerate in suitable combustion chamber.

6.4 Reference to other sections:

Caution: Contaminated surfaces may be slippery. For waste disposal, see Section 13 of the SDS.

SECTION 7: Handling and storage

7.1 Precautions for safe handling:

Precautions:

Handle in accordance with good industrial hygiene and safety practices. No special precautions are necessary beyond normal good hygiene practices. See Section 8 of the SDS for additional personal protection advice when handling this product. Take care to prevent spills, waste and minimize release to the environment. In case of spills, beware of slippery floors and surfaces.

Hygiene measures:

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

7.2 Conditions for safe storage, including any incompatibilities:

Store in accordance with local/regional/national regulations. Avoid discharge into drains, water courses or onto the ground. Store in a dry place. Keep in properly labelled containers. Keep above the chemical's freezing point. Protect against physical damage and/or friction. Store away from incompatible materials. For further information, refer to section 10: "Stability and Reactivity".

Packaging frequently used at our sites:

Steel drums coated with epoxy-resin.

7.3 Specific end use(s):

No specific recommendations. See the technical data sheet on this product for further information.

SECTION 8: Exposure controls/personal protection

8.1 Control Parameters:

Occupational Exposure Limits:

None of the components have assigned exposure limits.

DNEL-Values:

Decamethylcyclopentasiloxane

Туре	Route of Exposure	DNEL-Values	Remarks
Workers ; Systemic, long-term	Inhalation	97,3 mg/m3	Repeated dose toxicity
Workers ; Systemic, short-term	Inhalation	-	No hazard identified
Workers ; Local, long-term	Inhalation	24,2 mg/m3	Repeated dose toxicity
Workers ; Local, short-term	Inhalation	-	No hazard identified

SDS_GB - PRCO90001250 4/83



Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

•	S	F	C	•
---	---	---	---	---

Workers ; Systemic, long-term	Dermal	-	No hazard identified
Workers ; Systemic, short-term	Dermal	-	No hazard identified
Workers ; Local, long-term	Dermal	-	No hazard identified
Workers ; Local, short-term	Dermal	-	No hazard identified
Workers ; Local effect	Eyes	-	No hazard identified
General population ; Systemic, long-term	Inhalation	17,3 mg/m3	Repeated dose toxicity
General population ; Systemic, short-term	Inhalation	-	No hazard identified
General population ; Local, long-term	Inhalation	4,3 mg/m3	Repeated dose toxicity
General population ; Local, short-term	Inhalation	-	No hazard identified
General population ; Systemic, long-term	Dermal	-	No hazard identified
General population ; Systemic, short-term	Dermal	-	No hazard identified
General population ; Local, long-term	Dermal	-	No hazard identified
General population ; Local, short-term	Dermal	-	No hazard identified
General population ; Systemic, long-term	Oral	5 mg/kg bw/day	Repeated dose toxicity
General population ; Systemic, short-term	Oral	-	No hazard identified
General population ; Local effect	Eyes	-	No hazard identified

PNEC-Values:

Decamethylcyclopentasiloxane

Environmental compartment	PNEC-Values	Remarks
Aquatic (freshwater)	> 1,2 µg/l	
Aquatic (marine water)	> 0,12 µg/l	
Sediment (freshwater)	11 mg/kg dry weight	
Sediment (marine water)	1,1 mg/kg dry weight	
Sewage treatment plant	> 10 mg/l	
Soil	1,27 mg/kg soil dw	
Air	-	No hazard identified
Predator	16 mg/kg food	Oral

Monitoring methods:

Ensure workers' exposure monitoring in accordance with national and European regulations in force, in particular Directives 98/24/EC and 2004/37/EC.

8.2 Exposure controls:

Appropriate Engineering Controls:

Use engineering controls to reduce air contamination to permissible exposure level. The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Engineering controls are always preferable to personal protective equipment. Control measures to consider: Provide adequate ventilation. In case of inadequate ventilation: Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station and safety shower.

Individual protection measures, such as personal protective equipment:

Avoid inhalation of vapors/aerosols/dusts and contact with skin and eyes. Personal protective equipment should be chosen according to applicable standards, adapted to the conditions of use of the product and in discussion with the supplier of the personal protective equipment.

Eye/face protection: Safety glasses with side shields.

SDS_GB - PRCO90001250 5/83



Cyclopentasiloxane - CHEM12

Version: 9.2

Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

Hand Protection:

This recommendation is valid only for the product named in this safety data sheet supplied by us, and only for the indicated intended use purposes. In case this product will be mixed with other substances, you need to contact a supplier of CE approved protective gloves in order to determine the appropriate gloves.

Prolonged or repeated contact:

Material: Nitrile.

Glove thickness: 1,25 mm Guideline: EN374-3

Additional Information: Gloves commonly used in Elkem's

facilities.

Short contact:

Material: Nitrile / Neoprene Glove thickness: 0,198 mm Guideline: EN374-3

Additional Information: Gloves commonly used in Elkem's

labs.

Skin and Body Protection: Wear appropriate clothing to prevent any possibility of skin

contact. Isolate contaminated clothing and wash before reuse. In case of splashes: Wear apron or special protective

clothing.

Respiratory Protection: If engineering controls do not maintain airborne

concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Use the following CE approved airpurifying respirator: Breathing apparatus with combined filter type ABEK. Wear respiratory protection with combination filter (dust and gas filter) during operations leading to the

formation of dust/aerosols.

Environmental Controls:

See sections 7 and 13 of the Safety Data Sheet.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties:

Appearance:

Physical state: Liquid

Form: Slightly viscous

Color: Colorless
Odor: Odorless

pH: By definition, pH measurement consists in the

determination of hydrogen ions concentration in solution, generally aqueous. Silicones products are hydrophobic and therefore, not soluble in water. By consequence, it is

not possible to measure the pH value.

Melting point/freezing point: -38 °C

Boiling Point: 211 °C (1 013 hPa)

Flash Point: 80 °C / 176 °F (Closed cup according to method Afnor T

60103.)

Flammability: Not applicable.
Flammability Limit - Upper (%): No data available.

SDS_GB - PRCO90001250 6/83



·SFC·

Version: 9.2

Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

Flammability Limit - Lower (%): No data available.

Vapor pressure: 0,332 hPa (23 °C)

Relative vapor density: 12,8

Evaporation Rate:No data available.

Density: Approximate 0,96 kg/dm3 (20 °C)

Solubility(ies):

Solubility in Water: 0,017 mg/l (23 °C,)

Solubility (other): Common organic solvents.: Miscible (in all proportions).

Partition coefficient (n-octanol/water): Log Kow: 8,02 (25 °C, OECD 123)

Self Ignition Temperature:372 °C (1 013 hPa)Decomposition Temperature:No data available.

Kinematic viscosity: Approximate 3,7 mm2/s (25 °C)

Particle characteristics: Not applicable.

9.2 Other information:

Molecular weight: 370,5 g/mol (C10H30O5Si5)

Dynamic viscosity: 3,5 mPa.s (25 °C)

Explosive properties: The molecule has no chemical groups that are associated

with explosive properties.

Oxidizing properties: Not considered as oxidizing.

(evaluation by structure-activity relationship)

SECTION 10: Stability and reactivity

10.1 Reactivity:

No other information noted.

10.2 Chemical Stability:

Stable

10.3 Possibility of hazardous reactions:

Will not occur.

10.4 Conditions to avoid:

No other information noted.

10.5 Incompatible Materials:

Strong oxidizing agents.

10.6 Hazardous Decomposition Products:

Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors. Amorphous silica.

SECTION 11: Toxicological information

Information on likely routes of exposure:

Inhalation:

No effects expected.

Ingestion:

No effects expected.

SDS_GB - PRCO90001250 7/83



Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

Skin contact:

No effects expected.

Eye contact:

No effects expected.

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

Acute toxicity:

Oral:

Not classified for acute toxicity based on available data.

Dermal:

Not classified for acute toxicity based on available data.

Inhalation:

Not classified for acute toxicity based on available data.

Repeated dose toxicity:

Based on our knowledge of the composition information:

DECAMETHYLCYCLOPENTASILOXANE (541-02-6):

NOAEL: 1 000 mg/kg; (Rat; Female, Male; Oral); Method: OECD 408; Subchronic exposure.

NOAEL: 2,42 mg/l; (Rat; Female, Male; Inhalation - vapour); Method: OECD 453; Chronic exposure.

NOAEL: 1 600 mg/kg; (Rat; Female, Male; Dermal); Method: OECD 410; Subacute exposure

DODECAMETHYLCYCLOHEXASILOXANE (540-97-6):

NOAEL: 1 000 mg/kg; (Rat; Female, Male; Oral); Method: OECD 422; Subacute exposure NOAEL: 0,0182 mg/l; (Rat; Female, Male; Inhalation - vapour); Method: OECD 413; Subchronic exposure.

Skin Corrosion/Irritation:

Based on our knowledge of the composition information:

DECAMETHYLCYCLOPENTASILOXANE (541-02-6):

Not irritating (Rabbit); Method: OECD 404

DODECAMETHYLCYCLOHEXASILOXANE (540-97-6):

Not irritating (Rabbit); Method: OECD 404

Serious Eye Damage/Eye Irritation:

Based on our knowledge of the composition information:

DECAMETHYLCYCLOPENTASILOXANE (541-02-6):

Not irritating (Rabbit); Method: OECD 405

DODECAMETHYLCYCLOHEXASILOXANE (540-97-6):

Not irritating (Rabbit); Method: OECD 405

Respiratory or Skin Sensitization:

Based on our knowledge of the composition information:

DECAMETHYLCYCLOPENTASILOXANE (541-02-6):

Skin sensitization: Not a skin sensitizer. (Mouse); Method: OECD 429

DODECAMETHYLCYCLOHEXASILOXANE (540-97-6):

Skin sensitization: Not a skin sensitizer. (Guinea Pig); Method: OECD 406

Germ Cell Mutagenicity:

SDS_GB - PRCO90001250 8/83



Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

In vitro: Based on our knowledge of the composition information:

DECAMETHYLCYCLOPENTASILOXANE (541-02-6):

Bacterial reverse mutation test: No mutagenic components identified. (Salmonella typhimurium and Escherichia coli; with and without metabolic activation); Method: OECD 471

In vitro gene mutations test on mammalian cells: No mutagenic components identified. (Mouse lymphoma cells; with and without metabolic activation); Method: OECD 476

Chromosomal aberration: No clastogenic effect. (Chinese hamster lung cells; with and without metabolic activation); Method: OECD 473

DODECAMETHYLCYCLOHEXASILOXANE (540-97-6):

Bacterial reverse mutation test: No mutagenic effect. (Salmonella typhimurium and Escherichia coli ; with and without metabolic activation); Method: OECD 471

In vitro gene mutations test on mammalian cells: No mutagenic effect. (Mouse lymphoma cells; with and without metabolic activation): Method: OECD 476

In vivo: Based on our knowledge of the composition information:

DECAMETHYLCYCLOPENTASILOXANE (541-02-6):

Mammalian erythrocyte micronucleus test: negative (Rat; Female, Male; Inhalation); Method: OECD 474 Unscheduled DNA Synthesis (UDS) Test with mammalian liver cells in vivo: negative (Rat; Female, Male; Inhalation); Method: OECD 486

DODECAMETHYLCYCLOHEXASILOXANE (540-97-6):

Mammalian erythrocyte micronucleus test: No mutagenic effect. (Mouse ; Intraperitoneal) ; Method: OECD 474

Carcinogenicity:

Based on our knowledge of the composition information:

DECAMETHYLCYCLOPENTASILOXANE (541-02-6):

Not classified

NOAEC: >= 2,42 mg/l (Rat; Female, Male; Inhalation - vapor); Method: Similar to OECD 453; Chronic exposure. No carcinogenic effects relevant to humans.

Reproductive toxicity:

Fertility: Based on our knowledge of the composition information:

DECAMETHYLCYCLOPENTASILOXANE (541-02-6):

Not classified

Fertility study 2 generations: NOAEL (parent): > 2,496 mg/l; NOAEL (F1): 2,496 mg/l; NOAEL (F2): None. (Rat; Female, Male; Inhalation - vapor); Method: OECD 416

DODECAMETHYLCYCLOHEXASILOXANE (540-97-6):

Not classified

Reproduction/developmental toxicity screening test: NOAEL (parent): >= 1 000 mg/kg; NOAEL (F1): 1 000 mg/kg; NOAEL (F2): None. (Rat; Female, Male; Gavage (Oral)); Method: OECD 422; The product is not considered to affect fertility.

Teratogenicity: Based on our knowledge of the composition information:

DODECAMETHYLCYCLOHEXASILOXANE (540-97-6):

Not classified

NOAEL (terato): >= 1 000 mg/kg ; NOAEL (mater): >= 1 000 mg/kg (Rabbit ; Gavage (Oral)) ; Method:

OECD 414

NOAEL (terato): >= 1 000 mg/kg ; NOAEL (mater): >= 1 000 mg/kg (Rat ; Gavage (Oral)) ; Method: OECD 414

Specific Target Organ Toxicity - Single Exposure:

Based on our knowledge of the composition information:

SDS_GB - PRCO90001250 9/83



Revision Date: 06.10.2021 Supersedes Date: 15.09.2020



DECAMETHYLCYCLOPENTASILOXANE (541-02-6):

Based on available data, the classification criteria are not met.

DODECAMETHYLCYCLOHEXASILOXANE (540-97-6):

Based on available data, the classification criteria are not met.

Specific Target Organ Toxicity - Repeated Exposure:

Based on our knowledge of the composition information:

DECAMETHYLCYCLOPENTASILOXANE (541-02-6):

Based on available data, the classification criteria are not met.

DODECAMETHYLCYCLOHEXASILOXANE (540-97-6):

Based on available data, the classification criteria are not met.

Aspiration Hazard:

Based on our knowledge of the composition information:

DECAMETHYLCYCLOPENTASILOXANE (541-02-6):

Based on available data, the classification criteria are not met.

DODECAMETHYLCYCLOHEXASILOXANE (540-97-6):

Based on available data, the classification criteria are not met.

11.2 Information on other hazards:

Endocrine disrupting properties:

No data available.

SECTION 12: Ecological information

12.1 Toxicity:

Acute toxicity:

Fish: Based on our knowledge of the composition information:

DECAMETHYLCYCLOPENTASILOXANE (541-02-6):

LC 50 (Oncorhynchus mykiss; 96 h; Flow through) : > 0,016 mg/l; Method: OECD 204 NOEC (Oncorhynchus mykiss; 96 h; Flow through) : >= 0,016 mg/l; Method: OECD 204

DODECAMETHYLCYCLOHEXASILOXANE (540-97-6):

LC 50 (Oncorhynchus mykiss; 96 h; Flow through) : > 0,016 mg/l; Method: OECD 204; No toxicity at the limit of solubility

Aquatic Invertebrates: Based on our knowledge of the composition information:

DECAMETHYLCYCLOPENTASILOXANE (541-02-6):

EC 50 (Water flea (Daphnia magna); 48 h; Flow through) : > 0,0029 mg/l; Method: OECD 202 NOEC (Water flea (Daphnia magna); 48 h; Flow through) : >= 0,0029 mg/l; Method: OECD 202

DODECAMETHYLCYCLOHEXASILOXANE (540-97-6):

EC 50 (Water flea (Daphnia magna); 48 h; Flow through) : > 0,0029 mg/l; Method: OECD 202; No toxicity at the limit of solubility

Aquatic plants: Based on our knowledge of the composition information:

DECAMETHYLCYCLOPENTASILOXANE (541-02-6):

EC 50 (Algae (Pseudokirchneriella subcapitata); 96 h; Static) : > 0,012 mg/l; Method: OECD 201 NOEC (Algae (Pseudokirchneriella subcapitata); 96 h; Static) : >= 0,012 mg/l; Method: OECD 201

DODECAMETHYLCYCLOHEXASILOXANE (540-97-6):

NOEC (growth rate) (Algae (Pseudokirchneriella subcapitata); 72 h; Static) : >= 0,002 mg/l; Method: OECD

SDS_GB - PRCO90001250 10/83



Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

201; No toxicity at the limit of solubility

ErC50 (Algae (Pseudokirchneriella subcapitata); 72 h; Static) : > 0,002 mg/l; Method: OECD 201; No toxicity at the limit of solubility

Toxicity to microorganisms: No data available.

Chronic Toxicity:

Fish: Based on our knowledge of the composition information:

DECAMETHYLCYCLOPENTASILOXANE (541-02-6):

NOEC (Oncorhynchus mykiss; 90 d; Flow through): >= 0,014 mg/l; Method: OECD 210

DODECAMETHYLCYCLOHEXASILOXANE (540-97-6):

NOEC (Oncorhynchus mykiss; 90 d ; Flow through) : \geq 0,014 mg/l ; Method: OECD 210 ; No toxicity at the limit of solubility

Aquatic Invertebrates: Based on our knowledge of the composition information:

DECAMETHYLCYCLOPENTASILOXANE (541-02-6):

NOEC (Water flea (Daphnia magna); 21 d; semi-static) : >= 0,015 mg/l; Method: OECD 211

DODECAMETHYLCYCLOHEXASILOXANE (540-97-6):

NOEC (Water flea (Daphnia magna); 21 d; semi-static) : >= 0,0046 mg/l; Method: OECD 211; No toxicity at the limit of solubility

12.2 Persistence and Degradability:

Biodegradation: Based on our knowledge of the composition information:

DECAMETHYLCYCLOPENTASILOXANE (541-02-6):

0,14 % (28 d); The product is not readily biodegradable.

DODECAMETHYLCYCLOHEXASILOXANE (540-97-6):

4,5 % (activated sludge, domestic, non-adapted ; 28 d) ; Method: OECD 310 ; The product is not readily biodegradable.

BOD/COD Ratio: No data available.

12.3 Bioaccumulative potential:

Bioconcentration Factor (BCF): Based on our knowledge of the composition information:

DECAMETHYLCYCLOPENTASILOXANE (541-02-6):

Bioconcentration Factor (BCF): 16 200 (Pimephales promelas); Method: OECD 305; The product is not bioaccumulating.

DODECAMETHYLCYCLOHEXASILOXANE (540-97-6):

Bioconcentration Factor (BCF): 2 860 (Fathead Minnow; 49 d); Method: OECD 305; Has the potential to bioaccumulate.

Partition coefficient (n-octanol/water):

Log Kow: 8,02 (25 °C); Method: OECD 123

12.4 Mobility in soil:

No data available.

12.5 Results of PBT and vPvB assessment:

Based on our knowledge of the composition information:

DECAMETHYLCYCLOPENTASILOXANE (541-02-6):

Meets vPvB criteria (REACH (1907/2006) Ax XIII)

SDS_GB - PRCO90001250 11/83



Cyclopentasiloxane - CHEM12

Version: 9.2

Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

DODECAMETHYLCYCLOHEXASILOXANE (540-97-6): Meets vPvB criteria (REACH (1907/2006) Ax XIII)

12.6 Endocrine disrupting properties:

No data available.

12.7 Other adverse effects:

No data available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods:

The user's attention is drawn to the possible existence of local regulations regarding disposal.

Disposal methods:

Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal. Incinerate.

Contaminated Packaging:

Contaminated packages should be as empty as possible. Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal. Recycle following cleaning or dispose of at an authorised site.

Waste code:

Unused product: 07 02 17

SECTION 14: Transport information

ADR

Not regulated.

ADN

Not regulated.

RID

Not regulated.

IMDG / IMO

Not regulated.

IATA

Not regulated.

SECTION 15: Regulatory information

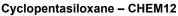
15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:

EU Regulations:

Regulation 1005/2009/EC on substances that deplete the ozone layer, Annex I, Controlled Substances: None present or none present in regulated quantities.

Regulation 1005/2009/EC on substances that deplete the ozone layer, Annex II, New Substances: None present or none present in regulated quantities.

SDS_GB - PRCO90001250 12/83



Revision Date: 06.10.2021 Supersedes Date: 15.09.2020



EU. Regulation 2019/1021/EU on persistent organic pollutants (POPs) (recast), as amended: None present or none present in regulated quantities.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended: None present or none present in regulated quantities.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended: None present or none present in regulated quantities.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended: None present or none present in regulated quantities.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended: None present or none present in regulated quantities.

EU. Directive 2010/75/EU on Industrial Emissions (IPPC), Annex II, L 334/17: None present or none present in regulated quantities.

EU. REACH Annex XIV, Substances Subject to Authorization: None present or none present in regulated quantities.

EU. REACH Candidate List of Substances of Very High Concern for Authorization (SVHC):

Chemical name	CAS-No.	Concentration	Additional Information:
Decamethylcyclopentasiloxane	541-02-6	90 - 100%	very Persistent and very Bioaccumulative (vPvB)
Dodecamethylcyclohexasiloxane	540-97-6	0,1 - 1,0%	very Persistent and very Bioaccumulative (vPvB)

Regulation (EC) No. 1907/2006 Annex XVII Substances subject to restriction on marketing and use:

Chemical name	CAS-No.	Entry No:	Concentration:
Decamethylcyclopentasiloxane	541-02-6	70	90 - 100%

Directive 98/24/EC on the protection of workers from the risks related to chemical agents at work: None present or none present in regulated quantities.

EU. Regulation No. 166/2006 PRTR (Pollutant Release and Transfer Registry), Annex II: Pollutants: None present or none present in regulated quantities.

EU. Directive 2012/18/EU (SEVESO III) on major accident hazards involving dangerous substances, Annex I: Not applicable.

15.2 Chemical safety assessment:

Chemical Safety Assessment has been carried out.

Inventory Status:

Australia AICS:

Canada DSL Inventory List:

EINECS, ELINCS or NLP:

Japan (ENCS) List:

China Inv. Existing Chemical Substances:

Korea Existing Chemicals Inv. (KECI):

On or in compliance with the inventory.

SDS_GB - PRCO90001250 13/83



Cyclopentasiloxane - CHEM12

Version: 9.2

Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

Philippines PICCS: US TSCA Inventory: New Zealand Inventory of Chemicals: Taiwan Chemical Substance Inventory: On or in compliance with the inventory. On or in compliance with the inventory. On or in compliance with the inventory. On or in compliance with the inventory.

SECTION 16: Other information

Revision Information:

Not relevant.

Abbreviations and acronyms:

CLP: Regulation No. 1272/2008.

PBT: persistent, bioaccumulative and toxic substance. vPvB: very persistent and very bioaccumulative substance.

NOAEL - No Observable Adverse Effect Level LOAEL - Lowest Observable Adverse Effect Level

ED: Endocrine Disruptor

SVHC: Listed on the Candidate List of substances of very high concern (SVHC)

Issue Date: 06.10.2021

Disclaimer:

The information given is based on data available for the material, the components of the material, and similar materials. The information is believed to be correct. It is given in good faith. This information should be used to make an independent determination of the methods to safeguard workers and the environment.

SDS_GB - PRCO90001250 14/83

· SFC ·

Version: 9.2

Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

Annex to the extended Safety Data Sheet (eSDS)

Content

Exposure Scenario 1) Monomer

Exposure Scenario 2) Use as an intermediate

Exposure Scenario 3) Use in Electronics manufacture

Exposure Scenario 4) Use in Textiles industry

Exposure Scenario 5) Formulation of Personal care products and Household care products

Exposure Scenario 6) Use of Personal care products

Exposure Scenario 7) Use of Household care products (in industrial settings)

Exposure Scenario 8) Professional and Consumer use in Washing and Cleaning products

Exposure Scenario 9) Professional and Consumer use in Polishes and Waxes

Exposure Scenario 10) Use in Dry Cleaning

Exposure Scenario 11) Laboratory use

Exposure Scenario 1)

Exposure scenario worker

1. Monomer

List of use descriptors	
Life Cycle Stage / Sector(s) of use: IS: Use at industrial sites	
	SU8: Manufacture of bulk, large scale chemicals (including petroleum products)
	SU9: Manufacture of fine chemicals
Product categories [PC]::	PC19: Intermediate (precursor)

Name of contributing environmental scenario and corresponding ERC:	Monomer: ERC6a: Use of intermediate
	ERC6c: Use of monomer in polymerisation processes at industrial site (inclusion or not into/onto article)

SDS_GB - PRCO90001250 15/83



Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

Contributing Scenarios:	Monomer: PROC1: Use in closed process, no likelihood of exposure PROC3: Use in closed batch process (synthesis or formulation) PROC8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities PROC9: Transfer of substance or mixture into small containers (dedicated filling line, including weighing)

2.1. Contributing exposure scenario controlling environmental exposure for: Monomer

Product characteristics

Concentration of the substance in a mixture:	Covers percentage substance in the product up to 100 % (unless stated differently).
Physical form of the product:	Liquid
Vanaur praguirei	22 Da

Physical form of the product:	Liquid
Vapour pressure:	33 Pa
Process temperature:	25 °C
Remarks:	not relevant

Viscosity:	
Kinematic viscosity:	Approximate 3,7 mm2/s (25 °C)
Dynamic viscosity:	Approximate 3,5 mPa.s (25 °C)

Amounts used

Annual amount per site:	1000 t
Daily amount per site:	10 t

Frequency and duration of use

Batch process:	not relevant	
Continuous process:	100 Emission days per year	

Environment factors not influenced by risk management

Flow rate of receiving surface water (m³/d):	not relevant
Local freshwater dilution factor:	40
Local marine water dilution factor:	not relevant
Type of sewage treatment plant (STP):	Onsite Sewage Treatment Plant. Municipal Sewage Treatment Plant.

Other given operational conditions affecting environmental exposure

Type	Emission days	Emission factors	Remarks

SDS_GB - PRCO90001250 16/83



Revision Date: 06.10.2021 Supersedes Date: 15.09.2020



		Air	Soil	Water	
Continuous release	100	0,05 %	-	0,005 %	

Other relevant operational conditions:	not relevant
--	--------------

Risk management measures (RMM)

Technical conditions and measures at process level (source) to prevent release

See chapter 8 of the safety data sheet (Environmental exposure controls).

Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil

Air:	Exhaust air scrubber. Condensation.	
Soil:	not relevant	
Water:	Ensure all waste water is collected and treated via a WWTP. Before discharge into sewage plants the product normally needs to be neutralised. Control of pH value.	
Sediment:	not relevant	
Remarks:	not relevant	

Organisational measures to prevent/limit release from site:

none

Conditions and measures related to sewage treatment plant

Type:	industrial
Discharge rate:	10 000 m3/d
Treatment effectiveness:	not relevant
Sludge treatment technique:	Sewage sludge incineration. Recover sludge.
Measures to limit air emissions:	not relevant
Remarks:	Before discharge into sewage plants the product normally needs to be neutralised. Control of pH value.

Type:	municipal
Discharge rate:	10 000 m3/d
Treatment effectiveness:	not relevant
Sludge treatment technique:	External treatment and disposal of waste should comply with applicable local and/or national regulations.
Measures to limit air emissions:	not relevant
Remarks:	See section 13 of the safety data sheet.

Conditions and measures related to external treatment of waste for disposal

Fraction of used amount transferred to external waste treatment:

Suitable waste treatment	Treatment effectiveness	Remarks
Incineration, disposal or recycling at specific offsite provider. External treatment and disposal of waste		See section 13 of the safety data sheet.

SDS_GB - PRCO90001250 17/83



Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

should comply with applicable local and/or national regulations.		
--	--	--

Conditions and measures related to external recovery of waste

This information is not available.

Additional good practice advice beyond the REACH CSA

This information is not available.

2.2. Contributing exposure scenario controlling worker exposure for: Monomer

Process Categories:	PROC1: Use in closed process, no likelihood of exposure
	PROC3: Use in closed batch process (synthesis or formulation)
	PROC8b: Transfer of substance or preparation
	(charging/discharging) from/to vessels/large containers at
	dedicated facilities
	PROC9: Transfer of substance or mixture into small containers
	(dedicated filling line, including weighing)

Product characteristics

Concentration of the substance in a	Covers percentage substance in the product up to 100 %		
mixture:	(unless stated differently).		

Physical form of the product:	Liquid
Vapour pressure:	33 Pa
Process temperature:	25 °C
Remarks:	not relevant

Amounts used

Annual amount per site:	1000 t
Daily amount per site:	10 t

Frequency and duration of use

	Use duration:	Frequency of use:	Remarks:
Exposure time:	<= 1 h	1 Exposure time per day	PROC1, PROC3
Exposure time:	<= 15 min	1 Exposure time per day	PROC8b
Hours per shift:	8 h		PROC9

Human factors not influenced by risk management

Exposed skin areas:

Palm of one hand: 240 cm ² - PROC1, PROC3
--

h	
Palm of both hands:	480 cm ² - PROC8b, PROC9

18/83 SDS_GB - PRCO90001250



Cyclopentasiloxane - CHEM12

Version: 9.2

Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

Body weight: 70 kg

Other given operational conditions affecting workers exposure

Other relevant operational conditions: not relevant

Risk management measures (RMM)

Technical conditions and measures at process level (source) to prevent release

See chapter 7 of the safety data sheet

Technical conditions and measures to control dispersion from source towards the worker

Route of Exposure	Protective Measures	Effectiven ess	Remarks
Inhalation	without local exhaust ventilation		PROC1
Inhalation	with local exhaust ventilation	90 %	PROC3, PROC9
Inhalation	with local exhaust ventilation	97 %	PROC8b

Organisational measures to prevent/limit releases, dispersion and exposure

Route of Exposure	Protective Measures	Remarks
Worker - all relevant routes	Take care for general good hygiene and housekeeping.	All relevant Process Categories (PROC)

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

Route of Exposure	Protective Measures	Effectiven ess	Remarks
Inhalation	Work in well-ventilated zones or use proper respiratory protection.		All relevant Process Categories (PROC)
Worker - all relevant routes	See chapter 8 of the safety data sheet (Personal protection equipment)		All relevant Process Categories (PROC)

Additional good practice advice beyond the REACH CSA

This information is not available.

3. Exposure estimation and reference to its source

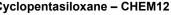
Environment:

Monomer:

ERC6a, ERC6c:

Compartment	PEC	RCR	Method	Remarks
freshwater	0,000106 mg/l	< 0,0885	EUSES v2.1	none
marine water	0,000118 mg/l	< 3,46	EUSES v2.1	Risk from environmental exposure is driven by marine water. Ensure all waste water is collected and treated via a WWTP.

SDS_GB - PRCO90001250 19/83



Cyclopentasiloxane – CHEM12 Version: 9.2 Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

Sewage treatment plant	0,00233 mg/l	<	EUSES v2.1	none
		0,000117		

<u>Health:</u> Monomer:

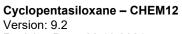
PROC1:

Route of Exposure	Specific condition	Exposure level	RCR	Method	Remarks
Worker - inhalative, long-term - systemic		0,03 mg/m³	< 0,000074	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - dermal, long- term - systemic		0,34 mg/kg bw/day	not relevant	Qualitative approach used to conclude safe use.	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - combined, long-term - systemic			< 0,000074	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - inhalative, long-term - local		0,03 mg/m³	0,000297	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - dermal, long- term - local		0,1 mg/cm²	not relevant	Qualitative approach used to conclude safe use.	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

PROC3:

Route of Exposure	Specific condition	Exposure level	RCR	Method	Remarks
Worker - inhalative, long-term - systemic		0,91 mg/m³	< 0,0022	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - dermal, long- term - systemic		0,034 mg/kg bw/day	not relevant	Qualitative approach used to conclude safe use.	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - combined, long-term - systemic			< 0,0022	ECETOC TRA worker	Estimated workplace exposures are not

SDS_GB - PRCO90001250 20/83



Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

			v2.0	expected to exceed DNELs when the identified risk management measures are adopted.
Worker - inhalative, long-term - local	0,91 mg/m³	0,009	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - dermal, long- term - local	0,01 mg/cm ²	not relevant	Qualitative approach used to conclude safe use.	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

PROC8b:

·SFC·

Route of Exposure	Specific condition	Exposure level	RCR	Method	Remarks
Worker - inhalative, long-term - systemic		0,22 mg/m³	< 0,00054	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - dermal, long- term - systemic		0,69 mg/kg bw/day	not relevant	Qualitative approach used to conclude safe use.	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - combined, long-term - systemic			< 0,00054	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - inhalative, long-term - local		0,22 mg/m³	0,0022	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - dermal, long- term - local		0,1 mg/cm²	not relevant	Qualitative approach used to conclude safe use.	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

PROC9.

Route of Exposure	Specific condition	Exposure level	RCR	Method	Remarks
Worker - inhalative, long-term - systemic		7,6 mg/m³	< 0,019	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed

SDS_GB - PRCO90001250 21/83



Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

				DNELs when the identified risk management measures are adopted.
Worker - dermal, long- term - systemic	0,69 mg/kg bw/day	not relevant	Qualitative approach used to conclude safe use.	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - combined, long-term - systemic		< 0,019	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - inhalative, long-term - local	7,6 mg/m³	0,075	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - dermal, long- term - local	0,1 mg/cm²	not relevant	Qualitative approach used to conclude safe use.	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

For scaling see http://echa.europa.eu/guidance-documents/guidance-on-reach (ECHA Guidance for Downstream Users). If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required.

Exposure Scenario 2)

Exposure scenario worker

1. Use as an intermediate

List of use descriptors	
Life Cycle Stage / Sector(s) of use:	IS: Use at industrial sites
	SU8: Manufacture of bulk, large scale chemicals (including petroleum products)
	SU9: Manufacture of fine chemicals
Product categories [PC]::	PC19: Intermediate (precursor)

Name of contributing environmental scenario and corresponding ERC:	<u>Use as an intermediate:</u> ERC6a: Use of intermediate

SDS_GB - PRCO90001250 22/83



· SFC ·

Version: 9.2 Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

Contributing Scenarios:	Use as an intermediate: PROC1: Use in closed process, no likelihood of exposure
	PROC2: Use in closed, continuous process with occasional controlled exposure
	PROC3: Use in closed batch process (synthesis or formulation)
	PROC4: Use in batch and other process (synthesis) where opportunity for exposure arises
	PROC8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities
	PROC9: Transfer of substance or mixture into small containers (dedicated filling line, including weighing)

2.1. Contributing exposure scenario controlling environmental exposure for: Use as an intermediate

Product characteristics

Concentration of the substance in a mixture:	Covers percentage substance in the product up to 100 % (unless stated differently).
Γ	T
Physical form of the product:	Liquid
Vapour pressure:	33 Pa
Process temperature:	25 °C
Remarks:	not relevant

Viscosity:		
Kinematic viscosity:	Approximate 3,7 mm2/s (25 °C)	
Dynamic viscosity:	Approximate 3,5 mPa.s (25 °C)	

Amounts used

Annual amount per site:	1000 t
Daily amount per site:	10 t

Frequency and duration of use

Batch process:	not relevant
Continuous process:	100 Emission days per year

Environment factors not influenced by risk management

Flow rate of receiving surface water (m³/d):	not relevant
Local freshwater dilution factor:	40
Local marine water dilution factor:	not relevant
Type of sewage treatment plant (STP):	Onsite Sewage Treatment Plant. Municipal Sewage Treatment
	l Plant.

SDS_GB - PRCO90001250 23/83



Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

·SFC·

Other given operational conditions affecting environmental exposure

Type	Emission days	Emission factors			Remarks
Туре	Emission days	Air	Soil	Water	Remarks
Continuous release	100	0,05 %	-	0,005 %	

Other relevant operational conditions:	not relevant
--	--------------

Risk management measures (RMM)

Technical conditions and measures at process level (source) to prevent release

See chapter 8 of the safety data sheet (Environmental exposure controls).

Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil

Air:	Exhaust air scrubber. Condensation.
Soil:	not relevant
Water:	Ensure all waste water is collected and treated via a WWTP. Before discharge into sewage plants the product normally needs to be neutralised. Control of pH value.
Sediment:	not relevant
Remarks:	not relevant

Organisational measures to prevent/limit release from site:

none

Conditions and measures related to sewage treatment plant

Type:	industrial
Discharge rate:	10 000 m3/d
Treatment effectiveness:	not relevant
Sludge treatment technique:	Recover sludge. Sewage sludge incineration.
Measures to limit air emissions:	not relevant
Remarks:	Before discharge into sewage plants the product normally needs to be neutralised. Control of pH value.

Type:	municipal
Discharge rate:	10 000 m3/d
Treatment effectiveness:	not relevant
Sludge treatment technique:	External treatment and disposal of waste should comply with applicable local and/or national regulations.
Measures to limit air emissions:	not relevant
Remarks:	See section 13 of the safety data sheet.

Conditions and measures related to external treatment of waste for disposal

Fraction of used amount transferred to external waste treatment:

Suitable waste treatment	Treatment effectiveness	Remarks
--------------------------	-------------------------	---------

SDS_GB - PRCO90001250 24/83



Revision Date: 06.10.2021 Supersedes Date: 15.09.2020



should comply with applicable local and/or national regulations.
--

Conditions and measures related to external recovery of waste

This information is not available.

Additional good practice advice beyond the REACH CSA

This information is not available.

2.2. Contributing exposure scenario controlling worker exposure for: Use as an intermediate

Process Categories:	PROC1: Use in closed process, no likelihood of exposure PROC2: Use in closed, continuous process with occasional controlled exposure PROC3: Use in closed batch process (synthesis or formulation)
	PROC4: Use in batch and other process (synthesis) where opportunity for exposure arises PROC8b: Transfer of substance or preparation
	(charging/discharging) from/to vessels/large containers at dedicated facilities
	PROC9: Transfer of substance or mixture into small containers (dedicated filling line, including weighing)

Product characteristics

Concentration of the substance in a	Covers percentage substance in the product up to 100 %
mixture:	(unless stated differently).

Physical form of the product:	Liquid
Vapour pressure:	33 Pa
Process temperature:	25 °C
Remarks:	not relevant

Amounts used

Annual amount per site:	1000 t
Daily amount per site:	10 t

Frequency and duration of use

	Use duration:	Frequency of use:	Remarks:
Exposure time:	<= 1 h	1 Exposure time per day	PROC1, PROC2, PROC3, PROC4
Exposure time:	<= 15 min	1 Exposure time per day	PROC8b
Hours per shift:	8 h		PROC9

Human factors not influenced by risk management

Exposed skin areas:

SDS_GB - PRCO90001250 25/83



Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

· SFC ·

Palm of one hand: 240 cm² - PROC1, PROC3

Palm of both hands: 480 cm² - PROC2, PROC4, PROC8b, PROC9

Body weight: 70 kg

Other given operational conditions affecting workers exposure

Other relevant operational conditions: not relevant

Risk management measures (RMM)

Technical conditions and measures at process level (source) to prevent release

See chapter 7 of the safety data sheet

Technical conditions and measures to control dispersion from source towards the worker

Route of Exposure	Protective Measures	Effectiven ess	Remarks
Inhalation	without local exhaust ventilation		PROC1
Inhalation	with local exhaust ventilation	90 %	PROC2, PROC3, PROC4, PROC9
Inhalation	with local exhaust ventilation	97 %	PROC8b

Organisational measures to prevent/limit releases, dispersion and exposure

Route of Exposure	Protective Measures	Remarks
Worker - all relevant routes	Take care for general good hygiene and housekeeping.	All relevant Process Categories (PROC)

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

Route of Exposure	Protective Measures	Effectiven ess	Remarks
Inhalation	Work in well-ventilated zones or use proper respiratory protection.		All relevant Process Categories (PROC)
Worker - all relevant routes	See chapter 8 of the safety data sheet (Personal protection equipment)		All relevant Process Categories (PROC)

Additional good practice advice beyond the REACH CSA

This information is not available.

3. Exposure estimation and reference to its source

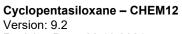
Environment:

Use as an intermediate:

ERC6a:

Compartment	PEC	RCR	Method	Remarks

SDS_GB - PRCO90001250 26/83



Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

freshwater	0,000106 mg/l	< 0,0885	EUSES v2.1	none
marine water	0,000118 mg/l	< 3,46	EUSES v2.1	Risk from environmental exposure is driven by marine water. Ensure all waste water is collected and treated via a WWTP.
Sewage treatment plant	0,00233 mg/l	< 0,000117	EUSES v2.1	none

<u>Health:</u> Use as an intermediate:

PROC1:

Route of Exposure	Specific condition	Exposure level	RCR	Method	Remarks
Worker - inhalative, long-term - systemic		0,03 mg/m³	< 0,000074	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - dermal, long- term - systemic		0,34 mg/kg bw/day	not relevant	Qualitative approach used to conclude safe use.	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - combined, long-term - systemic			< 0,000074	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - inhalative, long-term - local		0,03 mg/m³	0,000297	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - dermal, long- term - local		0,1 mg/cm²	not relevant	Qualitative approach used to conclude safe use.	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

PROC2:

Route of Exposure	Specific condition	Exposure level	RCR	Method	Remarks
Worker - inhalative, long-term - systemic		0,03 mg/m³	< 0,000074	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - dermal, long-		0,14	not	Qualitative	Estimated workplace

SDS_GB - PRCO90001250 27/83

Cyclopentasiloxane – CHEM12 Version: 9.2

Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

term - systemic	mg/kg bw/day	relevant	approach used to conclude safe use.	exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - combined, long-term - systemic		< 0,000074	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - inhalative, long-term - local	0,03 mg/m³	0,000297	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - dermal, long- term - local	0,02 mg/cm ²	not relevant	Qualitative approach used to conclude safe use.	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

PROC3:

· SFC ·

Route of Exposure	Specific condition	Exposure level	RCR	Method	Remarks
Worker - inhalative, long-term - systemic		0,91 mg/m³	< 0,0022	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - dermal, long- term - systemic		0,034 mg/kg bw/day	not relevant	Qualitative approach used to conclude safe use.	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - combined, long-term - systemic			< 0,0022	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - inhalative, long-term - local		0,91 mg/m³	0,009	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - dermal, long- term - local		0,01 mg/cm²	not relevant	Qualitative approach used to conclude safe use.	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

SDS_GB - PRCO90001250 28/83



Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

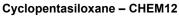
PROC4:

Route of Exposure	Specific condition	Exposure level	RCR	Method	Remarks
Worker - inhalative, long-term - systemic		1,5 mg/m³	< 0,0037	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - dermal, long- term - systemic		0,69 mg/kg bw/day	not relevant	Qualitative approach used to conclude safe use.	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - combined, long-term - systemic			< 0,0037	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - inhalative, long-term - local		1,5 mg/m³	0,015	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - dermal, long- term - local		0,1 mg/cm²	not relevant	Qualitative approach used to conclude safe use.	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

PROC8b:

Route of Exposure	Specific condition	Exposure level	RCR	Method	Remarks
Worker - inhalative, long-term - systemic		0,22 mg/m³	< 0,00054	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - dermal, long- term - systemic		0,69 mg/kg bw/day	not relevant	Qualitative approach used to conclude safe use.	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - combined, long-term - systemic			< 0,00054	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - inhalative,		0,22	0,0022	ECETOC	Estimated workplace

SDS_GB - PRCO90001250 29/83



Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

long-term - local	mg/m³		TRA worker v2.0	exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - dermal, long- term - local	0,1 mg/cm²	not relevant	Qualitative approach used to conclude safe use.	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

PROC9:

·SFC·

Route of Exposure	Specific condition	Exposure level	RCR	Method	Remarks
Worker - inhalative, long-term - systemic		7,6 mg/m³	< 0,019	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - dermal, long- term - systemic		0,69 mg/kg bw/day	not relevant	Qualitative approach used to conclude safe use.	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - combined, long-term - systemic			< 0,019	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - inhalative, long-term - local		7,6 mg/m ³	0,075	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - dermal, long- term - local		0,1 mg/cm²	not relevant	Qualitative approach used to conclude safe use.	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

For scaling see http://echa.europa.eu/guidance-documents/guidance-on-reach (ECHA Guidance for Downstream Users). If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required.

Exposure Scenario 3)

Exposure scenario worker

SDS_GB - PRCO90001250 30/83



Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

1. Use in Electronics manufacture

List of use descriptors	
Life Cycle Stage / Sector(s) of use:	IS: Use at industrial sites
	SU16: Manufacture of computer, electronic and optical products, electrical equipment
Product categories [PC]::	PC1: Adhesives, sealants
Name of a stable Control of the stable of th	
Name of contributing environmental scenario and corresponding ERC:	Use in Electronics manufacture: ERC5: Industrial use resulting in inclusion into or onto a matrix
Contributing Scenarios:	Use in Electronics manufacture: PROC7: Industrial spraying
	PROC8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities
	PROC9: Transfer of substance or mixture into small containers (dedicated filling line, including weighing)
	PROC10: Roller application or brushing
	PROC13: Treatment of articles by dipping and pouring.
	PROC14: Production of preparations or articles by tabletting, compression, extrusion, pelletisation

2.1. Contributing exposure scenario controlling environmental exposure for: Use in Electronics manufacture

No exposure assessment presented for the environment. The environmental release is considered negligible.

Product characteristics

Concentration of the substance in a mixture:	Covers percentage substance in the product up to 5 %.
Physical form of the product:	Liquid
Vapour pressure:	33 Pa
Process temperature:	25 °C
Remarks:	not relevant

Viscosity:			
Kinematic viscosity:	Approximate 3,7 mm2/s (25 °C)		
Dynamic viscosity:	Approximate 3,5 mPa.s (25 °C)		

Amounts used

SDS_GB - PRCO90001250 31/83



Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

· SFC ·

		ation			

Frequency and duration of use

Batch process:	not relevant
Continuous process:	not relevant

Environment factors not influenced by risk management

Flow rate of receiving surface water (m³/d):	not relevant
Local freshwater dilution factor:	not relevant
Local marine water dilution factor:	not relevant

Other given operational conditions affecting environmental exposure

Other relevant operational conditions:	not relevant
--	--------------

Risk management measures (RMM)

Technical conditions and measures at process level (source) to prevent release

See chapter 8 of the safety data sheet (Environmental exposure controls).

Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil

Air:	not relevant
Soil:	not relevant
Water:	not relevant
Sediment:	not relevant
Remarks:	not relevant

Organisational measures to prevent/limit release from site:

none

Conditions and measures related to sewage treatment plant

Type:	not relevant
Discharge rate:	not relevant
Treatment effectiveness:	not relevant
Sludge treatment technique:	not relevant
Measures to limit air emissions:	not relevant
Remarks:	not relevant

Conditions and measures related to external treatment of waste for disposal

Fraction of used amount transferred to external waste treatment:

Suitable waste treatment	Treatment effectiveness	Remarks
External treatment and disposal of waste should comply with applicable local and/or national regulations.		See section 13 of the safety data sheet.

SDS_GB - PRCO90001250 32/83



Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

· SFC ·

Conditions and measures related to external recovery of waste

This information is not available.

Additional good practice advice beyond the REACH CSA

This information is not available.

2.2. Contributing exposure scenario controlling worker exposure for: Use in Electronics manufacture

Process Categories:	PROC7: Industrial spraying
_	PROC8b: Transfer of substance or preparation
	(charging/discharging) from/to vessels/large containers at
	dedicated facilities
	PROC9: Transfer of substance or mixture into small containers
	(dedicated filling line, including weighing)
	PROC10: Roller application or brushing
	PROC13: Treatment of articles by dipping and pouring.
	PROC14: Production of preparations or articles by tabletting,
	compression, extrusion, pelletisation

Product characteristics

Concentration of the substance in a mixture:	Covers percentage substance in the product up to 5 %.
Physical form of the product:	Liquid
Vapour pressure:	33 Pa
Process temperature:	25 °C
Remarks:	not relevant

Amounts used

This information is not available.

Frequency and duration of use

	Use duration:	Frequency of use:	Remarks:
Hours per shift:	8 h	1 use(s) per day	PROC8b, PROC9, PROC10, PROC13, PROC14

Human factors not influenced by risk management

Exposed skin areas:

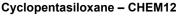
Palm of both hands:	480 cm ² - PROC8b, PROC9, PROC13, PROC14
---------------------	---

Both hands:	960 cm ² - PROC10

3	
Body weight:	70 kg

Other given operational conditions affecting workers exposure

SDS_GB - PRCO90001250 33/83



Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

· SFC ·

Other relevant operational conditions: not relevant

Risk management measures (RMM)

Technical conditions and measures at process level (source) to prevent release

See chapter 7 of the safety data sheet

Technical conditions and measures to control dispersion from source towards the worker

Route of Exposure	Protective Measures	Effectiven ess	Remarks
Worker - all relevant routes	Automated process with (semi) closed systems		PROC7

Organisational measures to prevent/limit releases, dispersion and exposure

This information is not available.

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

See chapter 8 of the safety data sheet (Personal protection equipment)

Additional good practice advice beyond the REACH CSA

This information is not available.

3. Exposure estimation and reference to its source

Environment:

none

Health:

Use in Electronics manufacture:

PROC7:

Route of Exposure	Specific condition	Exposure level	RCR	Method	Remarks
			not relevant		No exposure assessment presented for human health. Automated process with (semi) closed systems

PROC8b:

Route of Exposure	Specific condition	Exposure level	RCR	Method	Remarks
Worker - inhalative, long-term - systemic		0,45 mg/m³	< 0,0011	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - dermal, long- term - systemic		0,035 mg/kg	not relevant	Qualitative approach	Estimated workplace exposures are not

SDS_GB - PRCO90001250 34/83

Cyclopentasiloxane – CHEM12 Version: 9.2

Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

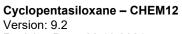
	bw/day		used to conclude safe use.	expected to exceed DNELs when the identified risk management measures are adopted.
Worker - combined, long-term - systemic		< 0,0011	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - inhalative, long-term - local	0,45 mg/m³	0,0045	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - dermal, long- term - local	0,005 mg/cm²	not relevant	Qualitative approach used to conclude safe use.	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

PROC9:

· SFC ·

Route of Exposure	Specific condition	Exposure level	RCR	Method	Remarks
Worker - inhalative, long-term - systemic		1,5 mg/m³	< 0,0037	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - dermal, long- term - systemic		0,035 mg/kg bw/day	not relevant	Qualitative approach used to conclude safe use.	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - combined, long-term - systemic			< 0,0037	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - inhalative, long-term - local		1,5 mg/m³	0,015	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - dermal, long- term - local		0,005 mg/cm²	not relevant	Qualitative approach used to conclude safe use.	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

SDS_GB - PRCO90001250 35/83



Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

PROC10:

Route of Exposure	Specific condition	Exposure level	RCR	Method	Remarks
Worker - inhalative, long-term - systemic		3 mg/m³	< 0,0074	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - dermal, long- term - systemic		0,07 mg/kg bw/day	not relevant	Qualitative approach used to conclude safe use.	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - combined, long-term - systemic			< 0,0074	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - inhalative, long-term - local		3 mg/m³	0,03	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - dermal, long- term - local		0,005 mg/cm ²	not relevant	Qualitative approach used to conclude safe use.	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

PROC13:

Route of Exposure	Specific condition	Exposure level	RCR	Method	Remarks
Worker - inhalative, long-term - systemic		3 mg/m³	< 0,0074	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - dermal, long- term - systemic		0,035 mg/kg bw/day	not relevant	Qualitative approach used to conclude safe use.	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - combined, long-term - systemic			< 0,0074	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - inhalative, long-term - local		3 mg/m³	0,03	ECETOC TRA worker	Estimated workplace exposures are not

SDS_GB - PRCO90001250 36/83



Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

			v2.0	expected to exceed DNELs when the identified risk management measures are adopted.
Worker - dermal, long- term - local	0,005 mg/cm²	not relevant	Qualitative approach used to conclude safe use.	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

PROC14:

Route of Exposure	Specific condition	Exposure level	RCR	Method	Remarks
Worker - inhalative, long-term - systemic		1,5 mg/m³	< 0,0037	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - dermal, long- term - systemic		0,017 mg/kg bw/day	not relevant	Qualitative approach used to conclude safe use.	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - combined, long-term - systemic			< 0,0037	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - inhalative, long-term - local		1,5 mg/m³	0,015	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - dermal, long- term - local		0,0025 mg/cm²	not relevant	Qualitative approach used to conclude safe use.	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

For scaling see http://echa.europa.eu/guidance-documents/guidance-on-reach (ECHA Guidance for Downstream Users). If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required.

Exposure Scenario 4)

Exposure scenario worker

SDS_GB - PRCO90001250 37/83



Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

1. Use in Textiles industry

List of use descriptors	
Life Cycle Stage / Sector(s) of use:	IS: Use at industrial sites
	F: Formulation or re-packaging
	PW: Widespread use by professional workers
	C: Consumer use
	SU5: Manufacture of textiles, leather, fur
Product categories [PC]::	PC34: Textile dyes and impregnating products

Name of contributing environmental scenario and corresponding ERC:	Use in Textiles industry: ERC2: Formulation into mixture (mixtures)
	ERC4: Use of non-reactive processing aid at industrial site (no inclusion into or onto article)
	ERC6b: Industrial use of reactive processing aids
	ERC8a: Wide dispersive indoor use of processing aids in open systems
	ERC8b: Wide dispersive indoor use of reactive substances in open systems

Contributing Scenarios:	Use in Textiles industry: PROC5: Mixing or blending in batch processes
	PROC7: Industrial spraying
	PROC8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities
	PROC9: Transfer of substance or mixture into small containers (dedicated filling line, including weighing)
	PROC10: Roller application or brushing
	PROC13: Treatment of articles by dipping and pouring.

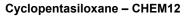
2.1. Contributing exposure scenario controlling environmental exposure for: Use in Textiles industry

No exposure assessment presented for the environment. The environmental release is considered negligible.

Product characteristics

Concentration of the substance in a	Covers percentage substance in the product up to 5 %.
mixture:	

SDS_GB - PRCO90001250 38/83





Version: 9.2 Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

Physical form of the product:	Liquid
Vapour pressure:	33 Pa
Process temperature:	25 °C
Remarks:	not relevant

Viscosity:	
Kinematic viscosity:	Approximate 3,7 mm2/s (25 °C)
Dynamic viscosity:	Approximate 3,5 mPa.s (25 °C)

Amounts used

This information is not available.

Frequency and duration of use

Batch process:	not relevant
Continuous process:	not relevant

Environment factors not influenced by risk management

Flow rate of receiving surface water (m³/d):	not relevant
Local freshwater dilution factor:	not relevant
Local marine water dilution factor:	not relevant

Other given operational conditions affecting environmental exposure

Other relevant operational conditions:	not relevant
--	--------------

Risk management measures (RMM)

Technical conditions and measures at process level (source) to prevent release

See chapter 8 of the safety data sheet (Environmental exposure controls).

Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil

Air:	not relevant
Soil:	not relevant
Water:	not relevant
Sediment:	not relevant
Remarks:	not relevant

Organisational measures to prevent/limit release from site:

none

Conditions and measures related to sewage treatment plant

Туре:	not relevant
Discharge rate:	not relevant
Treatment effectiveness:	not relevant

SDS_GB - PRCO90001250 39/83



Cyclopentasiloxane - CHEM12

Version: 9.2

Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

Sludge treatment technique:	not relevant
Measures to limit air emissions:	not relevant
Remarks:	not relevant

Conditions and measures related to external treatment of waste for disposal

Fraction of used amount transferred to external waste treatment:

Suitable waste treatment	Treatment effectiveness	Remarks
External treatment and disposal of waste should comply with applicable local and/or national regulations.		See section 13 of the safety data sheet.

Conditions and measures related to external recovery of waste

This information is not available.

Additional good practice advice beyond the REACH CSA

This information is not available.

2.2. Contributing exposure scenario controlling worker exposure for: Use in Textiles industry

Process Categories:	PROC5: Mixing or blending in batch processes
	PROC7: Industrial spraying
	PROC8b: Transfer of substance or preparation
	(charging/discharging) from/to vessels/large containers at
	dedicated facilities
	PROC9: Transfer of substance or mixture into small containers
	(dedicated filling line, including weighing)
	PROC10: Roller application or brushing
	PROC13: Treatment of articles by dipping and pouring.

Product characteristics

Concentration of the substance in a mixture:	Covers percentage substance in the product up to 5 %.

Physical form of the product:	Liquid
Vapour pressure:	33 Pa
Process temperature:	25 °C
Remarks:	not relevant

Amounts used

This information is not available.

Frequency and duration of use

	Use duration:	Frequency of use:	Remarks:
Hours per shift:	8 h	1 use(s) per day	PROC7, PROC10, PROC13
Exposure time:	<= 1 h	1 Exposure time per	PROC5, PROC8b, PROC9
		year	

SDS_GB - PRCO90001250 40/83



Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

·SFC·

Human factors not influenced by risk management

Exposed skin areas:

Palm of both hands: 480 cm² - PROC5, PROC8b, PROC9, PROC13

Both hands: 960 cm² - PROC10

Hands and forearms: 1500 cm² - PROC7

Body weight: 70 kg

Other given operational conditions affecting workers exposure

Area of use	Room size	Temperature	Ventilation rate	Remarks
Indoor use	< 100. m3			

Other relevant operational conditions: not relevant

Risk management measures (RMM)

Technical conditions and measures at process level (source) to prevent release

See chapter 7 of the safety data sheet

Technical conditions and measures to control dispersion from source towards the worker

Route of Exposure	Protective Measures	Effectiven ess	Remarks
Inhalation	with local exhaust ventilation	>= 70 %	PROC7

Organisational measures to prevent/limit releases, dispersion and exposure

This information is not available.

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

See chapter 8 of the safety data sheet (Personal protection equipment)

Additional good practice advice beyond the REACH CSA

This information is not available.

3. Exposure estimation and reference to its source

Environment:

none

Health:

Use in Textiles industry:

PROC5:

SDS_GB - PRCO90001250 41/83

Cyclopentasiloxane – CHEM12 Version: 9.2

Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

Route of Exposure	Specific condition	Exposure level	RCR	Method	Remarks
Worker - inhalative, long-term - systemic		3 mg/m³	< 0,0074	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - dermal, long- term - systemic		0,69 mg/kg bw/day	not relevant	Qualitative approach used to conclude safe use.	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - combined, long-term - systemic			< 0,0074	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - inhalative, long-term - local		3 mg/m³	0,03	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - dermal, long- term - local		0,1 mg/cm²	not relevant	Qualitative approach used to conclude safe use.	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

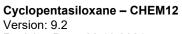
PROC7:

· SFC ·

Route of Exposure	Specific condition	Exposure level	RCR	Method	Remarks
Worker - inhalative, long-term - systemic		31,3 mg/m³	< 0,077	StoffenManag er (inhalation exposure)	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - dermal, long- term - systemic			not relevant		Not relevant.
Worker - combined, long-term - systemic			not relevant		Not relevant.
Worker - inhalative, long-term - local		31,3 mg/m³	0,31	StoffenManag er (inhalation exposure)	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - dermal, long- term - local			not relevant		Not relevant.

ERC8b:

SDS_GB - PRCO90001250 42/83



Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

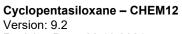
Route of Exposure	Specific condition	Exposure level	RCR	Method	Remarks
Worker - inhalative, long-term - systemic		3 mg/m³	< 0,0074	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - dermal, long- term - systemic		0,34 mg/kg bw/day	not relevant	Qualitative approach used to conclude safe use.	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - combined, long-term - systemic			< 0,0074	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - inhalative, long-term - local		3 mg/m³	0,03	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - dermal, long- term - local		0,05 mg/cm²	not relevant	Qualitative approach used to conclude safe use.	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

PROC9:

· SFC ·

Route of Exposure	Specific condition	Exposure level	RCR	Method	Remarks
Worker - inhalative, long-term - systemic		3 mg/m³	< 0,0074	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - dermal, long- term - systemic		0,34 mg/kg bw/day	not relevant	Qualitative approach used to conclude safe use.	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - combined, long-term - systemic			< 0,0074	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - inhalative, long-term - local		3 mg/m³	0,03	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed

SDS_GB - PRCO90001250 43/83



Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

				DNELs when the identified risk management measures are adopted.
Worker - dermal, long- term - local	0,05 mg/cm²	not relevant	Qualitative approach used to conclude safe use.	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

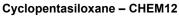
PROC10:

Route of Exposure	Specific condition	Exposure level	RCR	Method	Remarks
Worker - inhalative, long-term - systemic		30 mg/m³	< 0,074	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - dermal, long- term - systemic		1,4 mg/kg bw/day	not relevant	Qualitative approach used to conclude safe use.	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - combined, long-term - systemic			< 0,0074	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - inhalative, long-term - local		30 mg/m³	0,3	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - dermal, long- term - local		0,1 mg/cm²	not relevant	Qualitative approach used to conclude safe use.	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

PROC13:

Route of Exposure	Specific condition	Exposure level	RCR	Method	Remarks
Worker - inhalative, long-term - systemic		30 mg/m³	< 0,074	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - dermal, long- term - systemic		0,69 mg/kg bw/day	not relevant	Qualitative approach used to conclude safe	Estimated workplace exposures are not expected to exceed DNELs when the identified

SDS_GB - PRCO90001250 44/83



Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

•	S	F	C	•
•	5	r		•

			use.	risk management measures are adopted.
Worker - combined, long-term - systemic		< 0,0074	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - inhalative, long-term - local	30 mg/m³	0,3	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - dermal, long- term - local	0,1 mg/cm²	0	Qualitative approach used to conclude safe use.	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

For scaling see http://echa.europa.eu/guidance-documents/guidance-on-reach (ECHA Guidance for Downstream Users). If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required.

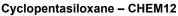
Exposure Scenario 5)

Exposure scenario worker

1. Formulation of Personal care products and Household care products

List of use descriptors	
Life Cycle Stage / Sector(s) of use:	IS: Use at industrial sites
	F: Formulation or re-packaging
Product categories [PC]::	PC31: Polishes and wax blends
	PC35: Washing and cleaning products
	PC39: Cosmetics, personal care products
Name of contributing environmental	Formulation of Personal care products and Household care
scenario and corresponding ERC:	<u>products:</u> ERC2: Formulation into mixture (mixtures)
Contributing Scenarios:	Formulation of Personal care products and Household care
	<u>products:</u> PROC1: Use in closed process, no likelihood of exposure
	PROC2: Use in closed, continuous process with occasional controlled exposure

SDS_GB - PRCO90001250 45/83



SFC

Version: 9.2

Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

PROC3: Use in closed batch process (synthesis or formulation)

PROC4: Use in batch and other process (synthesis) where opportunity for exposure arises

PROC5: Mixing or blending in batch processes

PROC7: Industrial spraying

PROC8a: Transfer of substance or preparation

(charging/discharging) from/to vessels/large containers at non-

dedicated facilities

PROC8b: Transfer of substance or preparation

(charging/discharging) from/to vessels/large containers at

dedicated facilities

PROC9: Transfer of substance or mixture into small containers

(dedicated filling line, including weighing)

2.1. Contributing exposure scenario controlling environmental exposure for: Formulation of Personal care products and Household care products

Product characteristics

Concentration of the substance in a	Covers percentage substance in the product up to 100 %
mixture:	(unless stated differently).

Physical form of the product:	Liquid
Vapour pressure:	33 Pa
Process temperature:	25 °C
Remarks:	not relevant

Viscosity:	
Kinematic viscosity:	Approximate 3,7 mm2/s (25 °C)
Dynamic viscosity:	Approximate 3.5 mPa s (25 °C)

Amounts used

Annual amount per site:	500 t
Daily amount per site:	2000 kg

Frequency and duration of use

Batch process:	not relevant
Continuous process:	300 Emission days per year

Environment factors not influenced by risk management

Flow rate of receiving surface water (m³/d):	not relevant
Local freshwater dilution factor:	10
Local marine water dilution factor:	not relevant

SDS_GB - PRCO90001250 46/83



Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

·SFC·

Type of sewage treatment plant (STP): Municipal Sewage Treatment Plant.	Type of sewage treatment plant (STP):	Municipal Sewage Treatment Plant.
---	---------------------------------------	-----------------------------------

Other given operational conditions affecting environmental exposure

Туре	Emission days	Emission	factors		Remarks
туре	Ellission days	Air	Soil	Water	Remarks
Continuous release	300	0,02 %	-	0,09 %	

Other relevant operational conditions:	not relevant
--	--------------

Risk management measures (RMM)

Technical conditions and measures at process level (source) to prevent release

See chapter 8 of the safety data sheet (Environmental exposure controls).

Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil

Air:	not relevant
Soil:	not relevant
Water:	Ensure all waste water is collected and treated via a WWTP.
Sediment:	not relevant
Remarks:	not relevant

Organisational measures to prevent/limit release from site:

none

Conditions and measures related to sewage treatment plant

Туре:	municipal
Discharge rate:	2 000 m3/d
Treatment effectiveness:	not relevant
Sludge treatment technique:	External treatment and disposal of waste should comply with applicable local and/or national regulations.
Measures to limit air emissions:	not relevant
Remarks:	See section 13 of the safety data sheet.

Conditions and measures related to external treatment of waste for disposal

Fraction of used amount transferred to external waste treatment:

Suitable waste treatment	Treatment effectiveness	Remarks
Incineration, disposal or recycling at specific offsite provider. External treatment and disposal of waste should comply with applicable local and/or national regulations.		See section 13 of the safety data sheet.

Conditions and measures related to external recovery of waste

This information is not available.

SDS_GB - PRCO90001250 47/83



Revision Date: 06.10.2021 Supersedes Date: 15.09.2020



Additional good practice advice beyond the REACH CSA

This information is not available.

2.2. Contributing exposure scenario controlling worker exposure for: Formulation of Personal care products and Household care products

Process Categories:	PROC1: Use in closed process, no likelihood of exposure PROC2: Use in closed, continuous process with occasional controlled exposure PROC3: Use in closed batch process (synthesis or formulation) PROC4: Use in batch and other process (synthesis) where
	opportunity for exposure arises PROC5: Mixing or blending in batch processes PROC7: Industrial spraying PROC8a: Transfer of substance or preparation
	(charging/discharging) from/to vessels/large containers at non- dedicated facilities PROC8b: Transfer of substance or preparation
	(charging/discharging) from/to vessels/large containers at dedicated facilities PROC9: Transfer of substance or mixture into small containers (dedicated filling line, including weighing)

Product characteristics

Concentration of the substance in a mixture:	Covers percentage substance in the product up to 100 % (unless stated differently).

Physical form of the product:	Liquid
Vapour pressure:	33 Pa
Process temperature:	25 °C
Remarks:	not relevant

Amounts used

Annual amount per site:	500 t
Daily amount per site:	2000 kg

Frequency and duration of use

	Use duration:	Frequency of use:	Remarks:
Exposure time:	<= 1 h	1 Exposure time per day	PROC5
Hours per shift:	8 h		PROC8a, PROC8b, PROC9

Human factors not influenced by risk management

Exposed skin areas:

Palm of both hands: 480 cm ² - PROC5, PROC8b, PROC9
--

Both hands:	960 cm² - PROC8a
-------------	------------------

SDS_GB - PRCO90001250 48/83



Cyclopentasiloxane - CHEM12

Version: 9.2

Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

Body weight: 70 kg

Other given operational conditions affecting workers exposure

Other relevant operational conditions: not relevant

Risk management measures (RMM)

Technical conditions and measures at process level (source) to prevent release

See chapter 7 of the safety data sheet

Technical conditions and measures to control dispersion from source towards the worker

Route of Exposure	Protective Measures	Effectiven ess	Remarks
Inhalation	without local exhaust ventilation		PROC1
Inhalation	with local exhaust ventilation	90 %	PROC5, PROC8a, PROC9
Inhalation	with local exhaust ventilation	97 %	PROC8b

Organisational measures to prevent/limit releases, dispersion and exposure

Route of Exposure	Protective Measures	Remarks
Worker - all relevant routes	Take care for general good hygiene and housekeeping.	All relevant Process Categories (PROC)

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

Route of Exposure	Protective Measures	Effectiven ess	Remarks
Inhalation	Work in well-ventilated zones or use proper respiratory protection.		All relevant Process Categories (PROC)
Worker - all relevant routes	See chapter 8 of the safety data sheet (Personal protection equipment)		All relevant Process Categories (PROC)

Additional good practice advice beyond the REACH CSA

This information is not available.

3. Exposure estimation and reference to its source

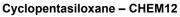
Environment:

Formulation of Personal care products and Household care products:

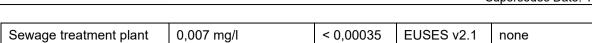
ERC2:

Compartment	PEC	RCR	Method	Remarks
freshwater	0,000631 mg/l	< 0,526	EUSES v2.1	none
marine water	0,00123 mg/l	< 10,3	EUSES v2.1	Risk from environmental exposure is driven by marine water. Ensure all waste water is collected and treated via a WWTP.

SDS_GB - PRCO90001250 49/83



Revision Date: 06.10.2021 Supersedes Date: 15.09.2020



Health

Formulation of Personal care products and Household care products:

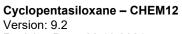
PROC5:

Route of Exposure	Specific condition	Exposure level	RCR	Method	Remarks
Worker - inhalative, long-term - systemic		0,15 mg/m³	< 0,00037	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - dermal, long- term - systemic		0,07 mg/kg bw/day	not relevant	Qualitative approach used to conclude safe use.	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - combined, long-term - systemic			< 0,00037	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - inhalative, long-term - local		0,15 mg/m³	0,0015	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - dermal, long- term - local		0,01 mg/cm²	not relevant	Qualitative approach used to conclude safe use.	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

PROC8a:

Route of Exposure	Specific condition	Exposure level	RCR	Method	Remarks
Worker - inhalative, long-term - systemic		15 mg/m³	< 0,037	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - dermal, long- term - systemic		0,14 mg/kg bw/day	not relevant	Qualitative approach used to conclude safe use.	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - combined, long-term - systemic			< 0,037	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed

SDS_GB - PRCO90001250 50/83



Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

				DNELs when the identified risk management measures are adopted.
Worker - inhalative, long-term - local	15 mg/m³	0,15	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - dermal, long- term - local	0,01 mg/cm²	not relevant	Qualitative approach used to conclude safe use.	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

PROC8b:

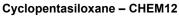
· SFC ·

Route of Exposure	Specific condition	Exposure level	RCR	Method	Remarks
Worker - inhalative, long-term - systemic		2,3 mg/m³	< 0,0054	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - dermal, long- term - systemic		0,69 mg/kg bw/day	not relevant	Qualitative approach used to conclude safe use.	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - combined, long-term - systemic			< 0,0054	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - inhalative, long-term - local		2,3 mg/m³	0,022	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - dermal, long- term - local		0,1 mg/cm²	not relevant	Qualitative approach used to conclude safe use.	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

PROC9.

Route of Exposure	Specific condition	Exposure level	RCR	Method	Remarks
Worker - inhalative, long-term - systemic		1,5 mg/m³	< 0,0037	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified

SDS_GB - PRCO90001250 51/83



Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

				risk management measures are adopted.
Worker - dermal, long- term - systemic	0,69 mg/kg bw/day	not relevant	Qualitative approach used to conclude safe use.	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - combined, long-term - systemic		< 0,0037	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - inhalative, long-term - local	1,5 mg/m³	0,015	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - dermal, long- term - local	0,1 mg/cm²	not relevant	Qualitative approach used to conclude safe use.	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

For scaling see http://echa.europa.eu/guidance-documents/guidance-on-reach (ECHA Guidance for Downstream Users). If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required.

Exposure Scenario 6)

Exposure scenario consumer

1. Use of Personal care products

List of use descriptors	
Life Cycle Stage / Sector(s) of use: PW: Widespread use by professional workers	
	C: Consumer use
Product categories [PC]::	PC39: Cosmetics, personal care products

Name of contributing environmental scenario and corresponding ERC:	Use of Personal care products: ERC8a: Wide dispersive indoor use of processing aids in open systems

Contributing Scenarios:	Use of Personal care products:
	PROC10: Roller application or brushing

SDS_GB - PRCO90001250 52/83



Revision Date: 06.10.2021 Supersedes Date: 15.09.2020



PROC11: Non industrial spraying
PROC19: Hand-mixing with intimate contact and only PPE available

2.1. Contributing exposure scenario controlling environmental exposure for: Use of Personal care products

Product characteristics

Physical form of the product:	Liquid
Vapour pressure:	33 Pa
Process temperature:	25 °C
Remarks:	not relevant

Viscosity	
Kinematic viscosity: Approximate 3,7 mm2/s (25 °C)	
Dynamic viscosity:	Approximate 3,5 mPa.s (25 °C)

Amounts used

This information is not available.

Frequency and duration of use

Batch process:	not relevant
Continuous process:	365 Emission days per year

Environment factors not influenced by risk management

Flow rate of receiving surface water (m³/d):	not relevant	
Local freshwater dilution factor:	10	
Local marine water dilution factor:	not relevant	
Type of sewage treatment plant (STP):	Municipal Sewage Treatment Plant.	

Other given operational conditions affecting environmental exposure

Туре	Emission days	Emission factors			Remarks
Type Emission days		Air	Soil	Water	Remarks
Continuous release	365	90 %	-	10 %	

Other relevant operational conditions:	not relevant
--	--------------

Risk management measures (RMM)

Conditions and measures related to municipal sewage treatment plant

Туре:	municipal
Discharge rate:	2 000 m3/d

SDS_GB - PRCO90001250 53/83



Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

•	S	FC	•
•	2	ГC	•

Treatment effectiveness:	not relevant
Sludge treatment technique:	External treatment and disposal of waste should comply with applicable local and/or national regulations.
Measures to limit air emissions:	not relevant
Remarks:	not relevant

Conditions and measures related to external treatment of waste for disposal

Fraction of used amount transferred to external waste treatment:

Suitable waste treatment	Treatment effectiveness	Remarks
Incineration, disposal or recycling at specific offsite provider. External recovery and recycling of waste should comply with applicable local and/or national regulations.		

Conditions and measures related to external recovery of waste

none

Additional good practice advice beyond the REACH CSA

This information is not available.

2.2. Contributing exposure scenario controlling consumer exposure for: Use of Personal care products

No exposure assessment presented for human health. Consumer uses e.g. as a carrier in cosmetics/personal care products, perfumes and fragrances. Note: For cosmetic and personal care products, risk assessment only required for the environment under REACH as human health is covered by alternative legislation.

Product Categories:	PC39: Cosmetics, personal care products
---------------------	---

Product characteristics

Physical form of the product:	Liquid
Vapour pressure:	33 Pa
Process temperature:	25 °C
Remarks:	not relevant
Application:	not relevant

Amounts used

This information is not available.

Frequency and duration of use

Human factors not influenced by risk management

This information is not available.

Other given operational conditions affecting consumers exposure

Other relevant operational conditions:	not relevant
--	--------------

SDS_GB - PRCO90001250 54/83



Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

Risk management measures (RMM)

Conditions and measures related to information and behavioural advice to consumers

This information is not available.

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

See chapter 8 of the safety data sheet (Personal protection equipment)

Additional good practice advice beyond the REACH CSA

not relevant

3. Exposure estimation and reference to its source

Environment:

Use of Personal care products:

ERC8a:.

Compartment	PEC	RCR	Method	Remarks
freshwater	0,000257 mg/l	< 0,214	EUSES v2.1	No specific risk management measure identified beyond those operational conditions stated.
marine water	0,0000255 mg/l	< 0,213	EUSES v2.1	No specific risk management measure identified beyond those operational conditions stated.
Sewage treatment plant	0,00243 mg/l	< 0,00015	EUSES v2.1	No specific risk management measure identified beyond those operational conditions stated.
Indirect exposure to humans via the environment	0,00305 mg/kg bw/day	0,00012	EUSES v2.1	No specific risk management measure identified beyond those operational conditions stated.

Health:

none

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

This information is not available.

Exposure Scenario 7)

Exposure scenario worker

1. Use of Household care products (in industrial settings)

List of use descriptors

SDS_GB - PRCO90001250 55/83



Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

C	F	-	
J			

Local freshwater dilution factor: Local marine water dilution factor:

Life Cycle Stage / Sector(s) of use: Product categories [PC]: PC31: Polishes and wax blends PC35: Washing and cleaning products Name of contributing environmental scenario and corresponding ERC: Use of Household care products (in industrial settings): ERC4: Use of non-reactive processing aid at industrial site (no inclusion into or onto article) Contributing Scenarios: Use of Household care products (in industrial settings): PROC7: Industrial spraying PROC10: Roller application or brushing PROC19: Hand-mixing with intimate contact and only PPE available 2.1. Contributing exposure scenario controlling environmental exposure for: Use of Household care products (in industrial settings) No exposure assessment presented for the environment. The environmental release is considered negligible. Product characteristics Concentration of the substance in a mixture: Drysical form of the product: Liquid Vapour pressure: 33 Pa Process temperature: 25 °C Remarks: not relevant Viscosity: Kinematic viscosity: Approximate 3.7 mm2/s (25 °C) Dynamic viscosity: Approximate 3.5 mPa.s (25 °C) Amounts used This information is not available. Frequency and duration of use Batch process: not relevant Environment factors not influenced by risk management Flow rate of receiving surface water (m²/d): not relevant		·
Name of contributing environmental scenario and corresponding ERC: Use of Household care products (in industrial settings): ERC4: Use of non-reactive processing aid at industrial site (no inclusion into or onto article) Contributing Scenarios:	Life Cycle Stage / Sector(s) of use:	IS: Use at industrial sites
Name of contributing environmental scenario and corresponding ERC: Use of Household care products (in industrial settings): ERC4: Use of non-reactive processing aid at industrial site (no inclusion into or onto article) Use of Household care products (in industrial settings): PROC7: Industrial spraying PROC7: Industrial spraying PROC10: Roller application or brushing PROC10: Hand-mixing with intimate contact and only PPE available 2.1. Contributing exposure scenario controlling environmental exposure for: Use of Household care products (in industrial settings) No exposure assessment presented for the environment. The environmental release is considered negligible. Product characteristics Concentration of the substance in a mixture: Covers percentage substance in the product up to 10%.	Product categories [PC]::	PC31: Polishes and wax blends
Name of contributing environmental scenario and corresponding ERC: Use of Household care products (in industrial settings): ERC4: Use of non-reactive processing aid at industrial site (no inclusion into or onto article) Use of Household care products (in industrial settings): PROC7: Industrial spraying PROC7: Industrial spraying PROC10: Roller application or brushing PROC10: Hand-mixing with intimate contact and only PPE available 2.1. Contributing exposure scenario controlling environmental exposure for: Use of Household care products (in industrial settings) No exposure assessment presented for the environment. The environmental release is considered negligible. Product characteristics Concentration of the substance in a mixture: Covers percentage substance in the product up to 10%.		PC35: Washing and cleaning products
ERC4: Use of non-reactive processing aid at industrial site (no inclusion into or onto article) Contributing Scenarios: Use of Household care products (in industrial settings): PROC7: Industrial spraying PROC19: Roller application or brushing PROC19: Hand-mixing with intimate contact and only PPE available 2.1. Contributing exposure scenario controlling environmental exposure for: Use of Household care products (in industrial settings) No exposure assessment presented for the environment. The environmental release is considered negligible. Product characteristics Concentration of the substance in a mixture: Covers percentage substance in the product up to 10%, mixture: 133 Pa		1 000. Washing and oldaring products
Contributing Scenarios: Use of Household care products (in industrial settings): PROC7: Industrial spraying PROC10: Roller application or brushing PROC19: Hand-mixing with intimate contact and only PPE available PROC19: Hand-mixing with intimate contact and only PPE available PROC19: Hand-mixing with intimate contact and only PPE available PROC19: Hand-mixing with intimate contact and only PPE available PROC19: Hand-mixing with intimate contact and only PPE available PROC19: Hand-mixing with intimate contact and only PPE available PROC19: Hand-mixing with intimate contact and only PPE available PROC19: Hand-mixing with intimate contact and only PPE available Procuser eassessment presented for the environment. The environmental release is considered negligible. Product characteristics Covers percentage substance in the product up to 10%. Mixing pressure: 33 Pa Process temperature: 25 °C Remarks: 33 Pa Process temperature: 25 °C Process t	Name of contributing environmental	Use of Household care products (in industrial settings):
Contributing Scenarios: Use of Household care products (in industrial settings): PROC7: Industrial spraying PROC10: Roller application or brushing PROC19: Hand-mixing with intimate contact and only PPE available PROC19: Hand-mixing with intimate contact and only PPE available PROC19: Hand-mixing with intimate contact and only PPE available PROC19: Hand-mixing with intimate contact and only PPE available PROC19: Hand-mixing with intimate contact and only PPE available Product characteristics Product characteristics	scenario and corresponding ERC:	
PROC7: Industrial spraying PROC10: Roller application or brushing PROC19: Hand-mixing with intimate contact and only PPE available 2.1. Contributing exposure scenario controlling environmental exposure for: Use of Household care products (in industrial settings) No exposure assessment presented for the environment. The environmental release is considered negligible. Product characteristics Concentration of the substance in a mixture: Covers percentage substance in the product up to 10%. Liquid Vapour pressure:		inclusion into or onto article)
PROC7: Industrial spraying PROC10: Roller application or brushing PROC19: Hand-mixing with intimate contact and only PPE available 2.1. Contributing exposure scenario controlling environmental exposure for: Use of Household care products (in industrial settings) No exposure assessment presented for the environment. The environmental release is considered negligible. Product characteristics Concentration of the substance in a mixture: Covers percentage substance in the product up to 10%. Liquid Vapour pressure:		
PROC7: Industrial spraying PROC10: Roller application or brushing PROC19: Hand-mixing with intimate contact and only PPE available 2.1. Contributing exposure scenario controlling environmental exposure for: Use of Household care products (in industrial settings) No exposure assessment presented for the environment. The environmental release is considered negligible. Product characteristics Concentration of the substance in a mixture: Covers percentage substance in the product up to 10%. Liquid Vapour pressure: Physical form of the product: Liquid Vapour pressure: 33 Pa Process temperature: 25 °C Remarks: not relevant Viscosity: Kinematic viscosity: Approximate 3,7 mm2/s (25 °C) Amounts used This information is not available. Frequency and duration of use Batch process: not relevant Frequency and duration of use Batch process: not relevant Frequency and frequency on tinfluenced by risk management Flow rate of receiving surface water (m²/d): not relevant		
PROC19: Hand-mixing with intimate contact and only PPE available 2.1. Contributing exposure scenario controlling environmental exposure for: Use of Household care products (in industrial settings) No exposure assessment presented for the environment. The environmental release is considered negligible. Product characteristics Concentration of the substance in a mixture: Covers percentage substance in the product up to 10%. mixture: Physical form of the product: Vapour pressure: 33 Pa Process temperature: 25 °C Remarks: not relevant Viscosity: Kinematic viscosity: Approximate 3,7 mm2/s (25 °C) Dynamic viscosity: Approximate 3,5 mPa.s (25 °C) Amounts used This information is not available. Frequency and duration of use Batch process: not relevant Environment factors not influenced by risk management Flow rate of receiving surface water (m²/d): not relevant	Contributing Scenarios:	
PROC19: Hand-mixing with intimate contact and only PPE available 2.1. Contributing exposure scenario controlling environmental exposure for: Use of Household care products (in industrial settings) No exposure assessment presented for the environment. The environmental release is considered negligible. Product characteristics Concentration of the substance in a mixture: Physical form of the product: Liquid Vapour pressure: 33 Pa Process temperature: 25 °C Remarks: not relevant Viscosity: Kinematic viscosity: Approximate 3,7 mm2/s (25 °C) Dynamic viscosity: Approximate 3,5 mPa.s (25 °C) Amounts used This information is not available. Frequency and duration of use Batch process: not relevant Continuous process: not relevant Environment factors not influenced by risk management Flow rate of receiving surface water (m³/d): not relevant		PROC7: Industrial spraying
PROC19: Hand-mixing with intimate contact and only PPE available 2.1. Contributing exposure scenario controlling environmental exposure for: Use of Household care products (in industrial settings) No exposure assessment presented for the environment. The environmental release is considered negligible. Product characteristics Concentration of the substance in a mixture: Physical form of the product: Liquid Vapour pressure: 33 Pa Process temperature: 25 °C Remarks: not relevant Viscosity: Kinematic viscosity: Approximate 3,7 mm2/s (25 °C) Dynamic viscosity: Approximate 3,5 mPa.s (25 °C) Amounts used This information is not available. Frequency and duration of use Batch process: not relevant Continuous process: not relevant Environment factors not influenced by risk management Flow rate of receiving surface water (m³/d): not relevant		PROC10: Roller application or brushing
2.1. Contributing exposure scenario controlling environmental exposure for: Use of Household care products (in industrial settings) No exposure assessment presented for the environment. The environmental release is considered negligible. Product characteristics Concentration of the substance in a mixture: Physical form of the product: Liquid Vapour pressure: 33 Pa Process temperature: 25 °C Remarks: not relevant Viscosity: Kinematic viscosity: Approximate 3,7 mm2/s (25 °C) Dynamic viscosity: Approximate 3,5 mPa.s (25 °C) Amounts used This information is not available. Frequency and duration of use Batch process: not relevant Continuous process: not relevant Environment factors not influenced by risk management Flow rate of receiving surface water (m³/d): not relevant		
2.1. Contributing exposure scenario controlling environmental exposure for: Use of Household care products (in industrial settings) No exposure assessment presented for the environment. The environmental release is considered negligible. Product characteristics Concentration of the substance in a mixture: Physical form of the product: Vapour pressure: 25 °C Remarks: not relevant Viscosity: Kinematic viscosity: Approximate 3,7 mm2/s (25 °C) Dynamic viscosity: Approximate 3,5 mPa.s (25 °C) Amounts used This information is not available. Frequency and duration of use Batch process: not relevant Environment factors not influenced by risk management Flow rate of receiving surface water (m³/d): not relevant		, , , , , , , , , , , , , , , , , , , ,
Household care products (in industrial settings) No exposure assessment presented for the environment. The environmental release is considered negligible. Product characteristics Concentration of the substance in a mixture: Physical form of the product: Vapour pressure: 25 °C Remarks: Not relevant Viscosity: Kinematic viscosity: Approximate 3,7 mm2/s (25 °C) Dynamic viscosity: Approximate 3,5 mPa.s (25 °C) Amounts used This information is not available. Frequency and duration of use Batch process: not relevant Environment factors not influenced by risk management Flow rate of receiving surface water (m³/d): not relevant		avaliable
Household care products (in industrial settings) No exposure assessment presented for the environment. The environmental release is considered negligible. Product characteristics Concentration of the substance in a mixture: Physical form of the product: Vapour pressure: 25 °C Remarks: Intervention of relevant Viscosity: Kinematic viscosity: Approximate 3,7 mm2/s (25 °C) Dynamic viscosity: Approximate 3,5 mPa.s (25 °C) Amounts used This information is not available. Frequency and duration of use Batch process: Intervention of relevant Intervention of relevant Continuous process: Intervention of relevant Interventi		
Household care products (in industrial settings) No exposure assessment presented for the environment. The environmental release is considered negligible. Product characteristics Concentration of the substance in a mixture: Physical form of the product: Liquid Vapour pressure: 33 Pa Process temperature: 25 °C Remarks: not relevant Viscosity: Kinematic viscosity: Approximate 3,7 mm2/s (25 °C) Dynamic viscosity: Approximate 3,5 mPa.s (25 °C) Amounts used This information is not available. Frequency and duration of use Batch process: not relevant Continuous process: not relevant Environment factors not influenced by risk management Flow rate of receiving surface water (m³/d): not relevant		
No exposure assessment presented for the environment. The environmental release is considered negligible. Product characteristics Concentration of the substance in a mixture: Physical form of the product: Vapour pressure: 33 Pa Process temperature: 25 °C Remarks: not relevant Viscosity: Kinematic viscosity: Approximate 3,7 mm2/s (25 °C) Dynamic viscosity: Approximate 3,5 mPa.s (25 °C) Amounts used This information is not available. Frequency and duration of use Batch process: not relevant not relevant Environment factors not influenced by risk management Flow rate of receiving surface water (m²/d): not relevant		•
Product characteristics Concentration of the substance in a mixture: Physical form of the product: Vapour pressure: 33 Pa Process temperature: 25 °C Remarks: not relevant Viscosity: Kinematic viscosity: Approximate 3,7 mm2/s (25 °C) Dynamic viscosity: Approximate 3,5 mPa.s (25 °C) Amounts used This information is not available. Frequency and duration of use Batch process: not relevant Continuous process: not relevant Environment factors not influenced by risk management Flow rate of receiving surface water (m³/d): not relevant	Household care products (in industrial s	settings)
Product characteristics Concentration of the substance in a mixture: Physical form of the product: Vapour pressure: 33 Pa Process temperature: 25 °C Remarks: not relevant Viscosity: Kinematic viscosity: Approximate 3,7 mm2/s (25 °C) Dynamic viscosity: Approximate 3,5 mPa.s (25 °C) Amounts used This information is not available. Frequency and duration of use Batch process: not relevant Continuous process: not relevant Environment factors not influenced by risk management Flow rate of receiving surface water (m³/d): not relevant	No exposure assessment presented for the env	ironment. The environmental release is considered negligible
Concentration of the substance in a mixture: Physical form of the product: Vapour pressure: 25 °C Remarks: Inot relevant Viscosity: Kinematic viscosity: Approximate 3,7 mm2/s (25 °C) Dynamic viscosity: Approximate 3,5 mPa.s (25 °C) Amounts used This information is not available. Frequency and duration of use Batch process: not relevant Continuous process: not relevant Environment factors not influenced by risk management Flow rate of receiving surface water (m³/d): not relevant	The exposure assessment presented for the env	monimenta. The environmental release is considered negligible.
Physical form of the product: Vapour pressure: 33 Pa Process temperature: 25 °C Remarks: not relevant Viscosity: Kinematic viscosity: Approximate 3,7 mm2/s (25 °C) Dynamic viscosity: Approximate 3,5 mPa.s (25 °C) Amounts used This information is not available. Frequency and duration of use Batch process: not relevant Continuous process: not relevant Environment factors not influenced by risk management Flow rate of receiving surface water (m³/d): not relevant	Product characteristics	
Physical form of the product: Vapour pressure: 33 Pa Process temperature: 25 °C Remarks: not relevant Viscosity: Kinematic viscosity: Approximate 3,7 mm2/s (25 °C) Dynamic viscosity: Approximate 3,5 mPa.s (25 °C) Amounts used This information is not available. Frequency and duration of use Batch process: not relevant Continuous process: not relevant Environment factors not influenced by risk management Flow rate of receiving surface water (m³/d): not relevant		
Physical form of the product: Vapour pressure: 33 Pa Process temperature: 25 °C Remarks: not relevant Viscosity: Kinematic viscosity: Approximate 3,7 mm2/s (25 °C) Dynamic viscosity: Approximate 3,5 mPa.s (25 °C) Amounts used This information is not available. Frequency and duration of use Batch process: not relevant Continuous process: not relevant Environment factors not influenced by risk management Flow rate of receiving surface water (m³/d): not relevant		Covers percentage substance in the product up to 10%.
Vapour pressure: Process temperature: 25 °C Remarks: not relevant Viscosity: Kinematic viscosity: Approximate 3,7 mm2/s (25 °C) Dynamic viscosity: Approximate 3,5 mPa.s (25 °C) Amounts used This information is not available. Frequency and duration of use Batch process: not relevant Continuous process: not relevant Environment factors not influenced by risk management Flow rate of receiving surface water (m³/d): not relevant	IIIIALUIG.	
Vapour pressure: Process temperature: 25 °C Remarks: not relevant Viscosity: Kinematic viscosity: Approximate 3,7 mm2/s (25 °C) Dynamic viscosity: Approximate 3,5 mPa.s (25 °C) Amounts used This information is not available. Frequency and duration of use Batch process: not relevant Continuous process: not relevant Environment factors not influenced by risk management Flow rate of receiving surface water (m³/d): not relevant	Physical form of the product:	Liquid
Process temperature: 25 °C Remarks: not relevant Viscosity: Kinematic viscosity: Approximate 3,7 mm2/s (25 °C) Dynamic viscosity: Approximate 3,5 mPa.s (25 °C) Amounts used This information is not available. Frequency and duration of use Batch process: not relevant Continuous process: not relevant Environment factors not influenced by risk management Flow rate of receiving surface water (m³/d): not relevant		
Remarks: Not relevant Viscosity: Kinematic viscosity: Approximate 3,7 mm2/s (25 °C) Dynamic viscosity: Approximate 3,5 mPa.s (25 °C) Amounts used This information is not available. Frequency and duration of use Batch process: Continuous process: not relevant Continuous process: not relevant Environment factors not influenced by risk management Flow rate of receiving surface water (m³/d): not relevant		
Viscosity: Kinematic viscosity: Approximate 3,7 mm2/s (25 °C) Dynamic viscosity: Approximate 3,5 mPa.s (25 °C) Amounts used This information is not available. Frequency and duration of use Batch process: Continuous process: not relevant Continuous process: not relevant Environment factors not influenced by risk management Flow rate of receiving surface water (m³/d): not relevant	-	not relevant
Kinematic viscosity: Approximate 3,7 mm2/s (25 °C) Approximate 3,5 mPa.s (25 °C) Amounts used This information is not available. Frequency and duration of use Batch process: not relevant Continuous process: not relevant Environment factors not influenced by risk management Flow rate of receiving surface water (m³/d): not relevant		
Kinematic viscosity: Approximate 3,7 mm2/s (25 °C) Approximate 3,5 mPa.s (25 °C) Amounts used This information is not available. Frequency and duration of use Batch process: Continuous process: not relevant Environment factors not influenced by risk management Flow rate of receiving surface water (m³/d): not relevant	[
Dynamic viscosity: Approximate 3,5 mPa.s (25 °C) Amounts used This information is not available. Frequency and duration of use Batch process: not relevant Continuous process: not relevant Environment factors not influenced by risk management Flow rate of receiving surface water (m³/d): not relevant		1
Amounts used This information is not available. Frequency and duration of use Batch process: not relevant Continuous process: not relevant Environment factors not influenced by risk management Flow rate of receiving surface water (m³/d): not relevant		
This information is not available. Frequency and duration of use Batch process: not relevant Continuous process: not relevant Environment factors not influenced by risk management Flow rate of receiving surface water (m³/d): not relevant	рупатіс viscosity:	Approximate 3,5 mPa.s (25 °C)
This information is not available. Frequency and duration of use Batch process: not relevant Continuous process: not relevant Environment factors not influenced by risk management Flow rate of receiving surface water (m³/d): not relevant	Amounts used	
Batch process: Continuous process: In not relevant not relevant Environment factors not influenced by risk management Flow rate of receiving surface water (m³/d): not relevant		
Batch process: Continuous process: not relevant not relevant Environment factors not influenced by risk management Flow rate of receiving surface water (m³/d): not relevant	This information is not available.	
Batch process: Continuous process: not relevant not relevant Environment factors not influenced by risk management Flow rate of receiving surface water (m³/d): not relevant		
Continuous process: not relevant Environment factors not influenced by risk management Flow rate of receiving surface water (m³/d): not relevant	rrequency and duration of use	
Continuous process: not relevant Environment factors not influenced by risk management Flow rate of receiving surface water (m³/d): not relevant	Batch process:	T
Environment factors not influenced by risk management Flow rate of receiving surface water (m³/d): not relevant	-	not relevant
Flow rate of receiving surface water (m³/d): not relevant		
	Environment factors not influenced by risk n	not relevant
Local troopwater dilution tactor: I not relevant		not relevant management
Local freshwater dilution factor.	Flow rate of receiving surface water (m³/d):	not relevant not relevant not relevant

SDS_GB - PRCO90001250 56/83

not relevant



Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

· SFC ·

Other relevant operational conditions: not relevant

Risk management measures (RMM)

Technical conditions and measures at process level (source) to prevent release

See chapter 8 of the safety data sheet (Environmental exposure controls).

Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil

Air:	not relevant
Soil:	not relevant
Water:	not relevant
Sediment:	not relevant
Remarks:	not relevant

Organisational measures to prevent/limit release from site:

none

Conditions and measures related to sewage treatment plant

Туре:	not relevant
Discharge rate:	not relevant
Treatment effectiveness:	not relevant
Sludge treatment technique:	not relevant
Measures to limit air emissions:	not relevant
Remarks:	not relevant

Conditions and measures related to external treatment of waste for disposal

Fraction of used amount transferred to external waste treatment:

Suitable waste treatment	Treatment effectiveness	Remarks
Incineration, disposal or recycling at specific offsite provider. External treatment and disposal of waste should comply with applicable local and/or national regulations.		See section 13 of the safety data sheet.

Conditions and measures related to external recovery of waste

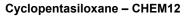
This information is not available.

Additional good practice advice beyond the REACH CSA

This information is not available.

2.2. Contributing exposure scenario controlling worker exposure for: Use of Household care products (in industrial settings)

SDS_GB - PRCO90001250 57/83



Version: 9.2 Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

	C		
•	2		•

Process Categories:	PROC7: Industrial spraying
	PROC10: Roller application or brushing
	PROC19: Hand-mixing with intimate contact and only PPE
	available

Product characteristics

Concentration of the substance in a mixture: Covers percentage substance in the product up to 10%.

Physical form of the product:	Liquid
Vapour pressure:	33 Pa
Process temperature:	25 °C
Remarks:	not relevant

Amounts used

This information is not available.

Frequency and duration of use

	Use duration:	Frequency of use:	Remarks:
Hours per shift:	8 h	1 use(s) per day	PROC7, PROC10, PROC19

Human factors not influenced by risk management

Exposed skin areas:

Both hands: 960 cm² - PROC10

Hands and forearms:	1500 cm² - PROC7	

Covers skin contact area up to:	1500 cm ² - PROC19	

Body weight: 70 kg		
--------------------	--	--

Other given operational conditions affecting workers exposure

Area of use	Room size	Temperature	Ventilation rate	Remarks
Indoor use, Worst				
case assumption.				

Other relevant operational conditions:	not relevant
--	--------------

Risk management measures (RMM)

Technical conditions and measures at process level (source) to prevent release

See chapter 7 of the safety data sheet	apter 7 of the safety data sheet
--	----------------------------------

SDS_GB - PRCO90001250 58/83



Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

· SFC ·

Technical conditions and measures to control dispersion from source towards the worker

Route of Exposure Protective Measures		Effectiven ess	Remarks
Inhalation	without local exhaust ventilation		PROC7, PROC10, PROC19

Organisational measures to prevent/limit releases, dispersion and exposure

Route of Exposure	Protective Measures	Remarks
Worker - all relevant routes	Take care for general good hygiene and housekeeping.	All relevant Process Categories (PROC)

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

See chapter 8 of the safety data sheet (Personal protection equipment)

Additional good practice advice beyond the REACH CSA

This information is not available.

3. Exposure estimation and reference to its source

Environment:

none

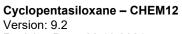
Health:

Use of Household care products (in industrial settings):

PROC7:

Route of Exposure	Specific condition	Exposure level	RCR	Method	Remarks
Worker - inhalative, long-term - systemic		86 mg/m³	< 0,21	StoffenManag er (inhalation exposure)	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - dermal, long- term - systemic		4,3 mg/kg bw/day	not relevant	Qualitative approach used to conclude safe use.	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - combined, long-term - systemic			< 0,21	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - inhalative, long-term - local		86 mg/m³	0,85	StoffenManag er (inhalation exposure)	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

SDS_GB - PRCO90001250 59/83



Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

Worker - dermal, long- term - local	0,2 mg/cm²	not relevant	Qualitative approach used to conclude safe use.	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
--	---------------	-----------------	---	--

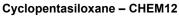
PROC10:

Route of Exposure	Specific condition	Exposure level	RCR	Method	Remarks
Worker - inhalative, long-term - systemic		91 mg/m³	< 0,22	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - dermal, long- term - systemic		2,7 mg/kg bw/day	not relevant	Qualitative approach used to conclude safe use.	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - combined, long-term - systemic			< 0,22	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - inhalative, long-term - local		91 mg/m³	0,9	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - dermal, long- term - local		0,2 mg/cm²	not relevant	Qualitative approach used to conclude safe use.	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

PROC19:

Route of Exposure	Specific condition	Exposure level	RCR	Method	Remarks
Worker - inhalative, long-term - systemic		91 mg/m³	< 0,22	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - dermal, long- term - systemic		14,1 mg/kg bw/day	not relevant	Qualitative approach used to conclude safe use.	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - combined,			< 0,22	ECETOC	Estimated workplace

SDS_GB - PRCO90001250 60/83



Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

long-term - systemic			TRA worker v2.0	exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - inhalative, long-term - local	91 mg/m³	0,9	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - dermal, long- term - local	0,5 mg/cm²	not relevant	Qualitative approach used to conclude safe use.	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

For scaling see http://echa.europa.eu/guidance-documents/guidance-on-reach (ECHA Guidance for Downstream Users). If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required.

Exposure Scenario 8)

Exposure scenario consumer

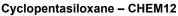
1. Professional and Consumer use in Washing and Cleaning products

List of use descriptors			
Life Cycle Stage / Sector(s) of use: PW: Widespread use by professional workers			
	C: Consumer use		
Product categories [PC]::	PC35: Washing and cleaning products		

Name of contributing environmental scenario and corresponding ERC:	Professional and Consumer use in Washing and Cleaning products: ERC8a: Wide dispersive indoor use of processing aids in open systems
	ERC8d: Wide dispersive outdoor use of processing aids in open systems

Contributing Scenarios:	Professional and Consumer use in Washing and Cleaning products: PROC1: Use in closed process, no likelihood of exposure
	PROC2: Use in closed, continuous process with occasional controlled exposure
	PROC3: Use in closed batch process (synthesis or formulation)

SDS_GB - PRCO90001250 61/83



SFC.

Version: 9.2

Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

PROC4: Use in batch and other process (synthesis) where opportunity for exposure arises

opportunity for exposure arises

PROC5: Mixing or blending in batch processes

PROC7: Industrial spraying

PROC8a: Transfer of substance or preparation

(charging/discharging) from/to vessels/large containers at non-

dedicated facilities

PROC8b: Transfer of substance or preparation

(charging/discharging) from/to vessels/large containers at

dedicated facilities

PROC9: Transfer of substance or mixture into small containers

(dedicated filling line, including weighing)

PROC10: Roller application or brushing

PROC11: Non industrial spraying

PROC19: Hand-mixing with intimate contact and only PPE

available

2.1. Contributing exposure scenario controlling environmental exposure for:

Professional and Consumer use in Washing and Cleaning products

No exposure assessment presented for the environment. The environmental release is considered negligible.

Product characteristics

Concentration of the substance in a	Covers percentage substance in the product up to 10%.
mixture:	

Physical form of the product:	Liquid
Vapour pressure:	33 Pa
Process temperature:	25 °C
Remarks:	not relevant

Viscosity	
Kinematic viscosity:	Approximate 3,7 mm2/s (25 °C)
Dynamic viscosity:	Approximate 3,5 mPa.s (25 °C)

Amounts used

This information is not available.

Frequency and duration of use

Batch process:	not relevant				
Continuous process:	not relevant				

SDS_GB - PRCO90001250 62/83



Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

Environment factors not influenced by risk management

Flow rate of receiving surface water (m³/d):	not relevant
Local freshwater dilution factor:	not relevant
Local marine water dilution factor:	not relevant

Other given operational conditions affecting environmental exposure

Other relevant operational conditions:	not relevant
--	--------------

Risk management measures (RMM)

Conditions and measures related to municipal sewage treatment plant

Туре:	not relevant
Discharge rate:	not relevant
Treatment effectiveness:	not relevant
Sludge treatment technique:	not relevant
Measures to limit air emissions:	not relevant
Remarks:	not relevant

Conditions and measures related to external treatment of waste for disposal

Fraction of used amount transferred to external waste treatment:

Suitable waste treatment	Treatment effectiveness	Remarks
Incineration, disposal or recycling at specific offsite provider. External treatment and disposal of waste should comply with applicable local and/or national regulations.		

Conditions and measures related to external recovery of waste

none

Additional good practice advice beyond the REACH CSA

This information is not available.

2.2. Contributing exposure scenario controlling consumer exposure for: Professional and Consumer use in Washing and Cleaning products

Product Categories:	PC35: Washing and cleaning products
---------------------	-------------------------------------

Product characteristics

Concentration of the substance in a	Covers percentage substance in the product up to 10%.					
mixture:						

Physical form of the product:	Liquid
Vapour pressure:	33 Pa
Process temperature:	25 °C
Remarks:	not relevant

SDS_GB - PRCO90001250 63/83



Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

· SFC ·

					Supersedes Date: 15.09.2020		
Application:	Application: not relevant						
Amounts used							
This information is	not available						
Frequency and du	ıration of us	е					
		Use duration	Fre	equency of use:	Remarks:		
Covers exposure	up to:	(h/d): 8 h	1 u	se(s) per day			
<u> </u>	-		1				
Human factors no		by risk manag	jeme	nt			
Exposed skin areas Professional use,		h hands:	480) cm² - PROC10			
Professional use,	Hands and	forearms:	150	00 cm² - PROC11			
Professional use, up to:	Covers skir	contact area	198	1980 cm² - PROC19			
Professional use,	Body weigh	it:	70	70 kg			
Consumer use, Covers skin contact area up to:			1900 cm ²				
Consumer use, Bo	ody weight:		65	kg			
Other given opera	tional cond	itions affecting	con	sumers exposure			
	Room siz				Damarka		
Area of use Consumer use	58 m3	e Temperatu	ıre	Ventilation rate 0,5	Remarks Liquid cleaners		
Consumer use	15 m3			2,5	Spray cleaners		
Other relevant ope	orational co	nditions	not relevant				
· · · · · · · · · · · · · · · · · · ·			1101	relevant			
Risk management measures (RMM)							
Conditions and m	easures rela	ated to informa	tion	and behavioural ac	dvice to consumers		
This information is not available.							
Conditions and measures related to personal protection, hygiene and health evaluation							
See chapter 8 of the safety data sheet (Personal protection equipment)							
Additional good p	ractice advi	ce beyond the	REA	CH CSA			
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						

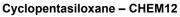
3. Exposure estimation and reference to its source

Environment:

not relevant

none

SDS_GB - PRCO90001250 64/83



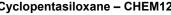
Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

$\frac{\textit{Health:}}{\textit{Professional and Consumer use in Washing and Cleaning products:}}$

PC35:

Route of Exposure	Specific condition	Exposure level	RCR	Method	Remarks
Consumer - dermal,	Liquid	29,2	not	ConsExpo	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
short-term - systemic	cleaners	mg/kg	relevant	v4.1	
Consumer - dermal,	Spray	0,25	not	ConsExpo	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
short-term - systemic	cleaners	mg/kg	relevant	v4.1	
Consumer - inhalative, short-term - systemic	Liquid cleaners	4,07 mg/m³	0,19	ConsExpo v4.1	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Consumer - inhalative,	Spray	0,50	not	ConsExpo	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
short-term - systemic	cleaners	mg/m³	relevant	v4.1	
Consumer - dermal, short-term - local	Liquid cleaners	1 mg/cm²	not relevant	ConsExpo v4.1	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Consumer - inhalative,	Liquid	4,07	not	ConsExpo	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
short-term - local	cleaners	mg/m³	relevant	v4.1	
Consumer - inhalative, short-term - local	Spray cleaners	0,5 mg/m³	not relevant	ConsExpo v4.1	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Consumer - dermal, long-term - systemic	Liquid cleaners	8,32 mg/kg bw/day	not relevant	ConsExpo v4.1	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Consumer - dermal,	Spray	0,25	not	ConsExpo	Estimated workplace exposures are not
long-term - systemic	cleaners	mg/kg	relevant	v4.1	

SDS_GB - PRCO90001250 65/83



Cyclopentasiloxane – CHEM12 Version: 9.2 Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

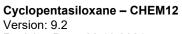
		bw/day			expected to exceed DNELs when the identified risk management measures are adopted.
Consumer - inhalative, long-term - systemic	Liquid cleaners	1,16 mg/m³	< 0,01	ConsExpo v4.1	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Consumer - inhalative, long-term - systemic	Spray cleaners	0,5 mg/m ³	not relevant	ConsExpo v4.1	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Consumer - dermal, long-term - local			not relevant	ConsExpo v4.1	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Consumer - inhalative, long-term - local	Liquid cleaners	1,16 mg/m³	0,06	ConsExpo v4.1	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Consumer - inhalative, long-term - local	Spray cleaners	0,5 mg/m³	not relevant	ConsExpo v4.1	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

PROC10:

· SFC ·

Route of Exposure	Specific condition	Exposure level	RCR	Method	Remarks
Worker - inhalative, long-term - systemic		76 mg/m³	< 0,19	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - dermal, long- term - systemic		2,7 mg/kg bw/day	not relevant	Qualitative approach used to conclude safe use.	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - combined, long-term - systemic			< 0,22	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

SDS_GB - PRCO90001250 66/83



Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

Worker - inhalative, long-term - local	76 mg/m³	0,75	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - dermal, long- term - local	0,2 mg/cm ²	not relevant	Qualitative approach used to conclude safe use.	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

PROC11:

· SFC ·

Route of Exposure	Specific condition	Exposure level	RCR	Method	Remarks
Worker - inhalative, long-term - systemic		86 mg/m³	< 0,21	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - dermal, long- term - systemic		11 mg/kg bw/day	not relevant	Qualitative approach used to conclude safe use.	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - combined, long-term - systemic			< 0,22	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - inhalative, long-term - local		86 mg/m³	0,85	StoffenManag er (inhalation exposure)	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - dermal, long- term - local		0,5 mg/cm²	not relevant	Qualitative approach used to conclude safe use.	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

PROC19:

Route of Exposure	Specific condition	Exposure level	RCR	Method	Remarks
Worker - inhalative, long-term - systemic		76 mg/m³	< 0,19	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - dermal, long-		14 mg/kg	not	Qualitative	Estimated workplace

SDS_GB - PRCO90001250 67/83 · SFC ·

Version: 9.2

Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

term - systemic	bw/day	relevant	approach used to conclude safe use.	exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - combined, long-term - systemic		< 0,22	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - inhalative, long-term - local	76 mg/m³	0,75	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - dermal, long- term - local	0,5 mg/cm²	not relevant	Qualitative approach used to conclude safe use.	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

For scaling see http://echa.europa.eu/guidance-documents/guidance-on-reach (ECHA Guidance for Downstream Users). If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required.

Exposure Scenario 9)

Exposure scenario consumer

1. Professional and Consumer use in Polishes and Waxes

List of use descriptors				
Life Cycle Stage / Sector(s) of use:	PW: Widespread use by professional workers			
	C: Consumer use			
Product categories [PC]::	PC31: Polishes and wax blends			
Name of contributing environmental scenario and corresponding ERC:	Professional and Consumer use in Polishes and Waxes: ERC8a: Wide dispersive indoor use of processing aids in open systems ERC8d: Wide dispersive outdoor use of processing aids in open systems			
Contributing Scenarios:	Professional and Consumer use in Polishes and Waxes:			

SDS_GB - PRCO90001250 68/83

PROC1: Use in closed process, no likelihood of exposure



69/83

Version: 9.2

Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

PROC2: Use in closed, continuous process with occasional controlled exposure

PROC3: Use in closed batch process (synthesis or formulation)

PROC4: Use in batch and other process (synthesis) where opportunity for exposure arises

PROC5: Mixing or blending in batch processes

PROC7: Industrial spraying

PROC8a: Transfer of substance or preparation

(charging/discharging) from/to vessels/large containers at non-

dedicated facilities

PROC8b: Transfer of substance or preparation

(charging/discharging) from/to vessels/large containers at

dedicated facilities

PROC9: Transfer of substance or mixture into small containers

(dedicated filling line, including weighing)

PROC10: Roller application or brushing

PROC11: Non industrial spraying

PROC19: Hand-mixing with intimate contact and only PPE

available

2.1. Contributing exposure scenario controlling environmental exposure for:

Professional and Consumer use in Polishes and Waxes

No exposure assessment presented for the environment. The environmental release is considered negligible.

Product characteristics

Concentration of the substance in a	Covers percentage substance in the product up to 10%.
mixture:	

Physical form of the product:	Liquid
Vapour pressure:	33 Pa
Process temperature:	25 °C
Remarks:	not relevant

Viscosity	
Kinematic viscosity:	Approximate 3,7 mm2/s (25 °C)
Dynamic viscosity:	Approximate 3,5 mPa.s (25 °C)

Amounts used

This information is not available.

Frequency and duration of use

SDS_GB - PRCO90001250



Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

_	C		
•	3	Г	•

Batch process:	not relevant
Continuous process:	not relevant

Environment factors not influenced by risk management

Flow rate of receiving surface water (m³/d):	not relevant
Local freshwater dilution factor:	not relevant
Local marine water dilution factor:	not relevant

Other given operational conditions affecting environmental exposure

Other relevant operational conditions:	not relevant
--	--------------

Risk management measures (RMM)

Conditions and measures related to municipal sewage treatment plant

Туре:	not relevant
Discharge rate:	not relevant
Treatment effectiveness:	not relevant
Sludge treatment technique:	not relevant
Measures to limit air emissions:	not relevant
Remarks:	not relevant

Conditions and measures related to external treatment of waste for disposal

Fraction of used amount transferred to external waste treatment:

Suitable waste treatment	Treatment effectiveness	Remarks
Incineration, disposal or recycling at specific offsite provider. External treatment and disposal of waste should comply with applicable local and/or national regulations.		

Conditions and measures related to external recovery of waste

none

Additional good practice advice beyond the REACH CSA

This information is not available.

2.2. Contributing exposure scenario controlling consumer exposure for: Professional and Consumer use in Polishes and Waxes

Product characteristics

Concentration of the substance in a	Covers percentage substance in the product up to 10%.
mixture:	

SDS_GB - PRCO90001250 70/83



Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

C		
3		

Physical form of the product:	Liquid
Vapour pressure:	33 Pa
Process temperature:	25 °C
Remarks:	not relevant
Application:	not relevant

Amounts used

This information is not available.

Frequency and duration of use

	Use duration (h/d):	Frequency of use:	Remarks:
Covers exposure up to:	8 h	1 use(s) per day	

Human factors not influenced by risk management

Exposed skin areas:

Professional use, Palm of both hands:	480 cm ² - PROC10
---------------------------------------	------------------------------

Professional use, Hands and forearms: 1500 cm² - PROC11

Professional use, Covers skin contact area	1980 cm ² - PROC19
up to:	

Professional use, Body weight:	70 kg
--------------------------------	-------

Consumer use, Covers skin contact area	430 cm ² - Floor polishes
up to:	

Consumer use, Body weight:	65 kg

Other given operational conditions affecting consumers exposure

Area of use	Room size	Temperature	Ventilation rate	Remarks
Consumer use	58 m3		0,5	

Other relevant operational conditions:	not relevant
--	--------------

Risk management measures (RMM)

Conditions and measures related to information and behavioural advice to consumers

This information is not available.

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

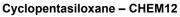
See chapter 8 of the safety data sheet (Personal protection equipment)

Additional good practice advice beyond the REACH CSA

not relevant

3. Exposure estimation and reference to its source

SDS_GB - PRCO90001250 71/83



Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

Environment:

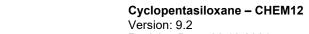
Health:

Professional and Consumer use in Polishes and Waxes:

PC31:

Route of Exposure	Specific condition	Exposure level	RCR	Method	Remarks
Consumer - dermal, short-term - systemic		8,46 mg/kg	not relevant	ConsExpo v4.1	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Consumer - inhalative, short-term - systemic		0,936 mg/m³	0,08	ConsExpo v4.1	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Consumer - dermal, short-term - local		1,28 mg/cm ²	not relevant	ConsExpo v4.1	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Consumer - inhalative, short-term - local		0,936 mg/m³	not relevant	ConsExpo v4.1	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Consumer - dermal, long-term - systemic		0,0463 mg/kg bw/day	not relevant	ConsExpo v4.1	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Consumer - inhalative, long-term - systemic		0,00512 mg/m³	< 0,000112	ConsExpo v4.1	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Consumer - dermal, long-term - local			not relevant	ConsExpo v4.1	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Consumer - inhalative, long-term - local		0,00512 mg/m³	0,000457	ConsExpo v4.1	Estimated workplace exposures are not expected to exceed DNELs when the identified

SDS_GB - PRCO90001250 72/83



Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

		risk management
		measures are adopted.

PROC10:

· SFC ·

Route of Exposure	Specific condition	Exposure level	RCR	Method	Remarks
Worker - inhalative, long-term - systemic		76 mg/m³	< 0,19	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - dermal, long- term - systemic		2,8 mg/kg bw/day	not relevant	Qualitative approach used to conclude safe use.	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - combined, long-term - systemic			< 0,22	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - inhalative, long-term - local		76 mg/m³	0,75	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - dermal, long- term - local		0,2 mg/cm²	not relevant	Qualitative approach used to conclude safe use.	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

PROC11

Route of Exposure	Specific condition	Exposure level	RCR	Method	Remarks
Worker - inhalative, long-term - systemic		86 mg/m³	< 0,21	StoffenManag er (inhalation exposure)	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - dermal, long- term - systemic		10,7 mg/kg bw/day	not relevant	Qualitative approach used to conclude safe use.	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - combined, long-term - systemic			< 0,22	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management

SDS_GB - PRCO90001250 73/83 · SFC ·

Version: 9.2 Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

					measures are adopted.
Worker - inhalative, long-term - local	86	mg/m³	0,85	StoffenManag er (inhalation exposure)	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - dermal, long- term - local	0,5 mg	/cm²	not relevant	Qualitative approach used to conclude safe use.	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

PROC19:

Route of Exposure	Specific condition	Exposure level	RCR	Method	Remarks
Worker - inhalative, long-term - systemic		76 mg/m³	< 0,19	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - dermal, long- term - systemic		14,1 mg/kg bw/day	not relevant	Qualitative approach used to conclude safe use.	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - combined, long-term - systemic			< 0,22	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - inhalative, long-term - local		76 mg/m³	0,75	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - dermal, long- term - local		0,5 mg/cm²	not relevant	Qualitative approach used to conclude safe use.	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

For scaling see http://echa.europa.eu/guidance-documents/guidance-on-reach (ECHA Guidance for Downstream Users). If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required.

Exposure Scenario 10)

SDS_GB - PRCO90001250 74/83



Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

Exposure scenario worker

1. Use in Dry Cleaning

List of use descriptors	
Life Cycle Stage / Sector(s) of use:	PW: Widespread use by professional workers
Product categories [PC]::	PC35: Washing and cleaning products

Name of contributing environmental scenario and corresponding ERC:	<u>Use in Dry Cleaning:</u> : None.

Contributing Scenarios:	Use in Dry Cleaning: PROC2: Use in closed, continuous process with occasional controlled exposure
	PROC8a: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities

2.1. Contributing exposure scenario controlling environmental exposure for: Use in Dry Cleaning

No exposure assessment presented for the environment. The environmental release is considered negligible.

Product characteristics

mixture: (unless stated differently).

Physical form of the product:	Liquid
Vapour pressure:	33 Pa
Process temperature:	25 °C
Remarks:	not relevant

Viscosity:	
Kinematic viscosity: Approximate 3,7 mm2/s (25 °C)	
Dynamic viscosity:	Approximate 3,5 mPa.s (25 °C)

Amounts used

This information is not available.

Frequency and duration of use

Batch process:	not relevant
Continuous process:	not relevant

Environment factors not influenced by risk management

SDS_GB - PRCO90001250 75/83



Cyclopentasiloxane - CHEM12

Version: 9.2

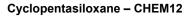
Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

		·			
Flow rate of receiving surface water (m³/d):	not relevant				
Local freshwater dilution factor:	not relevant				
Local marine water dilution factor:	not relevant				
Essai marmo water anation factor.	Hot rolevant				
Other given operational conditions affecting	g environmental expo	osure			
•					
	T				
Other relevant operational conditions: not relevant					
Risk management measures (RMM)					
THOR management model to (Timin)					
Technical conditions and measures at prod	ess level (source) to	prevent release			
See chapter 8 of the safety data sheet (Enviro	nmental exposure conti	rols).			
Technical onsite conditions and measures	to reduce or limit disc	charges air emissions and releases to			
soil	to reduce or minit disc	charges, an emissions and releases to			
Air:	not relevant				
Soil:	not relevant				
Water:	not relevant				
Sediment:	not relevant				
Remarks:	not relevant				
0					
Organisational measures to prevent/limit re	elease from site:				
none					
none					
Conditions and measures related to sewag	e treatment plant				
Type:	not relevant				
Discharge rate:	not relevant				
Treatment effectiveness:	not relevant				
Sludge treatment technique:	not relevant				
Measures to limit air emissions:	not relevant				
Remarks:	not relevant				
Conditions and measures related to extern	al treatment of waste	for disposal			
Conditions and measures related to extern	ar treatment or waste	ioi disposai			
Fraction of used amount transferred to exte	rnal waste treatment:				
Suitable waste treatment Treatment	nent effectiveness	Remarks			
Incineration, disposal or recycling at					
specific offsite provider. External					
treatment and disposal of waste should comply with applicable local					
and/or national regulations.					
<u> </u>		1			
Conditions and measures related to extern	al recovery of waste				

Additional good practice advice beyond the REACH CSA

This information is not available.

This information is not available.



· SFC ·

Version: 9.2 Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

2.2. Contributing exposure scenario controlling worker exposure for: Use in Dry Cleaning

Process Categories:	PROC2: Use in closed, continuous process with occasional	
	controlled exposure	
	PROC8a: Transfer of substance or preparation	
	(charging/discharging) from/to vessels/large containers at non-	
	dedicated facilities	

Product characteristics

Concentration of the substance in a mixture:	Covers percentage substance in the product up to 100 % (unless stated differently).
Physical form of the product:	Liquid
Vapour pressure:	33 Pa
Process temperature:	25 °C

not relevant

Amounts used

Remarks:

This information is not available.

Frequency and duration of use

	Use duration:	Frequency of use:	Remarks:
Exposure time:	<= 1 h	1 Exposure time per day	PROC5
Hours per shift:	8 h		PROC8a, PROC8b, PROC9

Human factors not influenced by risk management

Exposed skin areas:

Both hands:	960 cm ² - PROC8a	

Body weight:	70 kg	

Other given operational conditions affecting workers exposure

Other relevant operational conditions:	not relevant

Risk management measures (RMM)

Technical conditions and measures at process level (source) to prevent release

See chapter 7 of the safety data sheet

SDS_GB - PRCO90001250 77/83



Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

·SFC·

Technical conditions and measures to control dispersion from source towards the worker

Route of Exposure	Protective Measures	Effectiven ess	Remarks
Inhalation	without local exhaust ventilation		PROC1
Inhalation	with local exhaust ventilation		PROC2, PROC3, PROC4, PROC7
Inhalation	with local exhaust ventilation	90 %	PROC5, PROC8a, PROC9
Inhalation	with local exhaust ventilation	97 %	PROC8b

Organisational measures to prevent/limit releases, dispersion and exposure

Route of Exposure	Protective Measures	Remarks
Worker - all relevant routes	Take care for general good hygiene and housekeeping.	All relevant Process Categories (PROC)

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

Route of Exposure	Protective Measures	Effectiven ess	Remarks
Inhalation	Work in well-ventilated zones or use proper respiratory protection.		All relevant Process Categories (PROC)
Worker - all relevant routes	See chapter 8 of the safety data sheet (Personal protection equipment)		All relevant Process Categories (PROC)

Additional good practice advice beyond the REACH CSA

This information is not available.

3. Exposure estimation and reference to its source

Environment:

none

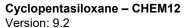
Health:

Use in Dry Cleaning:

PROC2:

Route of Exposure	Specific condition	Exposure level	RCR	Method	Remarks
Worker - inhalative, long-term - systemic		76 mg/m³	< 0,19	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - inhalative, long-term - local		76 mg/m³	0,75	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

SDS_GB - PRCO90001250 78/83



SFC .

Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

PROC8a:

Route of Exposure	Specific condition	Exposure level	RCR	Method	Remarks
Worker - inhalative, short-term - systemic		227 mg/m³	0,88	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

For scaling see http://echa.europa.eu/guidance-documents/guidance-on-reach (ECHA Guidance for Downstream Users). If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required.

Exposure Scenario 11)

Exposure scenario worker

1. Laboratory use	
List of use descriptors	
Life Cycle Stage / Sector(s) of use:	IS: Use at industrial sites
	SU24: Scientific research and development
Product categories [PC]::	PC21: Laboratory chemicals
Name of contributing environmental scenario and corresponding ERC:	<u>Laboratory use:</u> : None.
Contributing Scenarios:	<u>Laboratory use:</u> PROC15: Use as laboratory reagent

2.1. Contributing exposure scenario controlling environmental exposure for: Laboratory

No exposure assessment presented for the environment. The environmental release is considered negligible.

Product characteristics

Concentration of the substance in a	Covers percentage substance in the product up to 100 %
mixture:	(unless stated differently).

Physical form of the product:	Liquid
Vapour pressure:	33 Pa
Process temperature:	25 °C
Remarks:	not relevant

SDS_GB - PRCO90001250 79/83



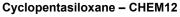
· SFC ·

Version: 9.2 Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

Viceoity					
Viscosity:	A				
Kinematic viscosity:	Approximate 3,7 mm2/s (25 °C)				
Dynamic viscosity:	Approximate 3,5 mPa.s (25 °C)				
Amounts used					
Daily amount per site:	< 10 g				
Frequency and duration of use					
Trequency and duration of use					
Batch process:	not relevant				
Continuous process:	not relevant				
Environment factors not influenced by risk	management				
Flow rate of receiving surface water (m³/d):	not relevant				
Local freshwater dilution factor:	not relevant				
Local marine water dilution factor:	not relevant				
Other given operational conditions affecting	g environmental exposure				
Other relevant operational conditions:	not relevant				
•					
D: ((D1414)					
Risk management measures (RMM)					
Risk management measures (RMM) Technical conditions and measures at proce	ess level (source) to prevent release				
Technical conditions and measures at proce					
Technical conditions and measures at process See chapter 8 of the safety data sheet (Environ	mental exposure controls).				
Technical conditions and measures at process See chapter 8 of the safety data sheet (Environ					
Technical conditions and measures at process See chapter 8 of the safety data sheet (Environ Technical onsite conditions and measures to soil	mental exposure controls). to reduce or limit discharges, air emissions and releases to				
Technical conditions and measures at process See chapter 8 of the safety data sheet (Environ Technical onsite conditions and measures to soil Air:	mental exposure controls). to reduce or limit discharges, air emissions and releases to not relevant				
Technical conditions and measures at process See chapter 8 of the safety data sheet (Environ Technical onsite conditions and measures to soil Air: Soil:	nental exposure controls). to reduce or limit discharges, air emissions and releases to not relevant not relevant				
Technical conditions and measures at process See chapter 8 of the safety data sheet (Environ Technical onsite conditions and measures to soil Air: Soil: Water:	nental exposure controls). to reduce or limit discharges, air emissions and releases to not relevant not relevant not relevant				
Technical conditions and measures at process See chapter 8 of the safety data sheet (Environ Technical onsite conditions and measures to soil Air: Soil: Water: Sediment:	not relevant not relevant not relevant not relevant not relevant				
Technical conditions and measures at process See chapter 8 of the safety data sheet (Environ Technical onsite conditions and measures to soil Air: Soil: Water:	nental exposure controls). to reduce or limit discharges, air emissions and releases to not relevant not relevant not relevant				
Technical conditions and measures at process See chapter 8 of the safety data sheet (Environ Technical onsite conditions and measures to soil Air: Soil: Water: Sediment:	not relevant				
Technical conditions and measures at process See chapter 8 of the safety data sheet (Environ Technical onsite conditions and measures to soil Air: Soil: Water: Sediment: Remarks: Organisational measures to prevent/limit relationship.	not relevant				
Technical conditions and measures at process See chapter 8 of the safety data sheet (Environ Technical onsite conditions and measures to soil Air: Soil: Water: Sediment: Remarks:	not relevant				
Technical conditions and measures at process See chapter 8 of the safety data sheet (Environ Technical onsite conditions and measures to soil Air: Soil: Water: Sediment: Remarks: Organisational measures to prevent/limit release.	nental exposure controls). to reduce or limit discharges, air emissions and releases to not relevant not relevant not relevant not relevant not relevant enterelevant not relevant not relevant				
Technical conditions and measures at process See chapter 8 of the safety data sheet (Environ Technical onsite conditions and measures to soil Air: Soil: Water: Sediment: Remarks: Organisational measures to prevent/limit relationship.	nental exposure controls). to reduce or limit discharges, air emissions and releases to not relevant not relevant not relevant not relevant not relevant enterelevant not relevant not relevant				
Technical conditions and measures at process See chapter 8 of the safety data sheet (Environ Technical onsite conditions and measures to soil Air: Soil: Water: Sediment: Remarks: Organisational measures to prevent/limit release.	nental exposure controls). to reduce or limit discharges, air emissions and releases to not relevant not relevant not relevant not relevant not relevant enterelevant not relevant not relevant				
Technical conditions and measures at process See chapter 8 of the safety data sheet (Environ Technical onsite conditions and measures to soil Air: Soil: Water: Sediment: Remarks: Organisational measures to prevent/limit relations none Conditions and measures related to sewage	not relevant not relevant not relevant not relevant not relevant not relevant et relevant not relevant not relevant not relevant not relevant not relevant				
Technical conditions and measures at process See chapter 8 of the safety data sheet (Environ Technical onsite conditions and measures to soil Air: Soil: Water: Sediment: Remarks: Organisational measures to prevent/limit relations none Conditions and measures related to sewage	not relevant				
Technical conditions and measures at process See chapter 8 of the safety data sheet (Environ Technical onsite conditions and measures to soil Air: Soil: Water: Sediment: Remarks: Organisational measures to prevent/limit release none Conditions and measures related to sewage Type: Discharge rate: Treatment effectiveness: Sludge treatment technique:	mental exposure controls). To reduce or limit discharges, air emissions and releases to not relevant not relevant not relevant not relevant not relevant not relevant not relevant not relevant not relevant to relevant not relevant not relevant				
Technical conditions and measures at process See chapter 8 of the safety data sheet (Environ Technical onsite conditions and measures to soil Air: Soil: Water: Sediment: Remarks: Organisational measures to prevent/limit relations and measures related to sewage Type: Discharge rate: Treatment effectiveness:	not relevant				

SDS_GB - PRCO90001250 80/83

Conditions and measures related to external treatment of waste for disposal



Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

Fraction of used amount transferred to external waste treatment:

· SFC ·

Body weight:

Suitable waste treatment	Trea	atment effectiveness	Remarks		
Incineration, disposal or recyclespecific offsite provider. Extentreatment and disposal of was should comply with applicable and/or national regulations.	nal ste				
Conditions and measures re	elated to exte	rnal recovery of waste			
This information is not availab	le.				
Additional good practice ad	vice beyond	the REACH CSA			
This information is not availab	le.				
2.2. Contributing expos	sure scenai	rio controlling work	er exposure for: Laboratory	use	
Process Categories:		PROC15: Use as la	aboratory reagent		
Product characteristics					
Concentration of the substamixture:	ince in a		Covers percentage substance in the product up to 100 % (unless stated differently).		
Physical form of the produc	t:	Liquid	Liquid		
Vapour pressure:		33 Pa			
Process temperature:		25 °C			
Remarks:		not relevant	not relevant		
Amounts used					
Daily amount per site:		< 10 g			
Frequency and duration of u	ıse				
	T				
	Use duration:	Frequency of use:			
Exposure time: <= 15 min		1 Exposure time pe	PROC15		
Human factors not influence	ed by risk ma	nagement			
Exposed skin areas:					
Palm of one hand:		240 cm² - PROC15			

Risk management measures (RMM)

Other given operational conditions affecting workers exposure

Other relevant operational conditions:

70 kg

not relevant

SDS_GB - PRCO90001250 81/83



Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

Technical conditions and measures at process level (source) to prevent release

See chapter 7 of the safety data sheet

Technical conditions and measures to control dispersion from source towards the worker

Route of Exposure	Protective Measures	Effectiven ess	Remarks
Inhalation	with local exhaust ventilation		PROC15

Organisational measures to prevent/limit releases, dispersion and exposure

Route of Exposure	Protective Measures	Remarks
Worker - all relevant routes	Take care for general good hygiene and housekeeping.	PROC15

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

See chapter 8 of the safety data sheet (Personal protection equipment)

Additional good practice advice beyond the REACH CSA

This information is not available.

3. Exposure estimation and reference to its source

Environment:

none

Health:

Laboratory use:

PROC15:

Route of Exposure	Specific condition	Exposure level	RCR	Method	Remarks
Worker - inhalative, long-term - systemic		0,76 mg/m³	< 0,0019	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - inhalative, long-term - local		0,76 mg/m³	0,0075	ECETOC TRA worker v2.0	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - dermal, long- term - systemic		0,034 mg/kg bw/day	not relevant	Qualitative approach used to conclude safe use.	Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Worker - dermal, long-			not	Qualitative	Estimated workplace

SDS_GB - PRCO90001250 82/83

Cyclopentasiloxane - CHEM12

Version: 9.2

Revision Date: 06.10.2021 Supersedes Date: 15.09.2020

term - local		relevant	approach used to conclude safe use.	exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
--------------	--	----------	--	--

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

For scaling see http://echa.europa.eu/guidance-documents/guidance-on-reach (ECHA Guidance for Downstream Users). If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required.