REPELLAN TC-6 DRP0150DE

Version	Revision Date:	Date of last issue: 08.04.2021
3.0	13.06.2022	Date of first issue: 07.07.2015

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

1.1 Product identifier

Trade name	:	REPELLAN TC-6	DRP0150DE
Product code	:	000000000000009563	
Unique Formula Identifier (UFI)	:	E8K2-K01P-700R-JRFK	

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

Use of the Sub-stance/Mixture	:	Textile auxiliary, Raw material for industry

1.3 Details of the supplier of the safety data sheet

Company	:	Pulcra Chemicals GmbH Isardamm 79 - 83 82538 Geretsried Germany
Telephone	:	+49 8171 628-200
Responsible/issuing person	:	MSDS-DE@pulcrachem.com

1.4 Emergency telephone number

Telephone	:	GBK GmbH 24H Emergency Telephone Number +49 6132 84463
	:	World directory of poison centres https://apps.who.int/poisoncentres/

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Eye irritation, Category 2	H319: Causes serious eye irritation.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word : Warning

Hazard statements : H319 Causes serious eye irritation.

Precautionary statements : **Prevention:**

P264 Wash skin thoroughly after handling.
P280 Wear eye protection/ face protection.

Response:

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/ attention.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: 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.

Toxicological information: 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.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical nature : Aqueous mixture of: Fluorocarbon resin
additives

Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
Poly(oxy-1,2-ethanediyl), .alpha.-isodecyl-.omega.-hydroxy-	61827-42-7 Polymer	Acute Tox. 4; H302 Eye Dam. 1; H318	>= 1 - < 3
Citric acid	77-92-9 201-069-1 01-2119457026-42	Eye Irrit. 2; H319 STOT SE 3; H335	>= 1 - < 10

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice : First aider needs to protect himself.
Move out of dangerous area.
Do not leave the victim unattended.
Symptoms may be delayed.
Get medical attention immediately.
Show this safety data sheet to the doctor in attendance.
Take off contaminated clothing and shoes immediately.

If inhaled : Move to fresh air.
If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
Call a physician immediately.
Contact a poison control center.

In case of skin contact : Wash with plenty of soap and water.
Cover wound with sterile dressing.
Take off contaminated clothing and shoes immediately.
Call a physician immediately.

In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Keep eye wide open while rinsing.
If easy to do, remove contact lens, if worn.
Protect unharmed eye.
Continue rinsing eyes during transport to hospital.
Get medical attention immediately.

If swallowed : IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
If a person vomits when lying on his back, place him in the recovery position.
Get medical attention immediately.
Contact a poison control center.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : No information available.

Risks : No information available.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Treat symptomatically.
Basic medical care.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Product is compatible with standard fire-fighting agents.

Unsuitable extinguishing media	:	High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-fighting	:	Do not use a solid water stream as it may scatter and spread fire. Hazardous decomposition products formed under fire conditions. Exposure to decomposition products may be a hazard to health.

5.3 Advice for firefighters

Special protective equipment for firefighters	:	Wear self-contained breathing apparatus for firefighting if necessary. Use personal protective equipment as required.
Further information	:	Standard procedure for chemical fires. Evacuate area. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Pay attention to flashback. In the event of fire and/or explosion do not breathe fumes. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions	:	Evacuate area. Immediately evacuate personnel to safe areas. First aider needs to protect himself. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Remove all sources of ignition. In the case of vapour formation use a respirator with an approved filter. In the case of dust or aerosol formation use respirator with an approved filter. Material can create slippery conditions. Contaminated surfaces will be extremely slippery. Only qualified personnel equipped with suitable protective equipment may intervene. Treat recovered material as described in the section "Disposal considerations".

6.2 Environmental precautions

Environmental precautions	:	Avoid release to the environment. Do not flush into surface water or sanitary sewer system.

Do not allow contact with soil, surface or ground water.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.
Retain and dispose of contaminated wash water.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Ventilate the area.
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Keep in suitable, closed containers for disposal.
Clean contaminated surface thoroughly.
Large spills should be collected mechanically (remove by pumping) for disposal.

6.4 Reference to other sections

For personal protection see section 8., For disposal considerations see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Technical measures : Ground and bond container and receiving equipment.
Technical measures and the application of appropriate working methods take precedence over the use of personal protective equipment.

Local/Total ventilation : Use only with adequate ventilation.

Advice on safe handling : For personal protection see section 8.
Avoid inhalation, ingestion and contact with skin and eyes.
Do not breathe vapours or spray mist.
Avoid release to the environment.
Keep container tightly closed.
Wash face, hands and any exposed skin thoroughly after handling.
Ensure that eye flushing systems and safety showers are located close to the working place.
Floors, walls and other surfaces must be regularly cleaned.

Advice on protection against fire and explosion : Normal measures for preventive fire protection. Avoid formation of aerosol. Keep away from heat and sources of ignition. Take precautionary measures against static discharge.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothing. When using do not eat, drink or smoke. Wash hands before breaks and at the end of workday. Regular cleaning of equipment, work area and clothing. Contaminated work clothing should not be allowed out of the workplace. Store personal protection equipment in a clean location away from the work area.

Dust explosion class : Not applicable

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat and sources of ignition. Observe label precautions.

Further information on storage conditions : Do not store in or use containers except the original product package.

Advice on common storage : Keep away from food and drink.
Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.

Storage class (TRGS 510) : 10

Recommended storage temperature : 5 - 35 °C

Further information on storage stability : No decomposition if stored and applied as directed.

7.3 Specific end use(s)

Specific use(s) : For further information, refer to the product technical data sheet.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Citric acid	77-92-9	AGW (Inhalable fraction)	2 mg/m3	DE TRGS 900
	Peak-limit: excursion factor (category): 2;(I)			
	Further information: When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child			

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Remarks:	No data available

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
Citric acid	Fresh water	0,44 mg/l
	Marine water	0,044 mg/l
	Sewage treatment plant	1000 mg/l
	Fresh water sediment	34,6 mg/kg dry weight (d.w.)
	Marine sediment	3,46 mg/kg dry weight (d.w.)

	Soil	33,1 mg/kg dry weight (d.w.)

Lead componentsLCID method

Component Type	Value type	Component	Remarks
Lead substance(s)	aquatic environment		Not relevant
Lead substance(s)	ozone layer		Not relevant
Lead substance(s)	Inhalation		Not relevant
Lead substance(s)	Dermal		Not relevant
Lead substance(s)	Oral		Not approved
Local effects	Skin		Not relevant
Local effects	Inhalation	Citric acid	applicable
Local effects	Eyes	Poly(oxy-1,2-ethanediyl), .alpha.-isodecyl-.omega.-hydroxy-, Citric acid	applicable

8.2 Exposure controls

Engineering measures

Handle only in a place equipped with local exhaust (or other appropriate exhaust).

Personal protective equipment

Eye protection : Tightly fitting safety goggles
Wear a faceshield or other full face protection if there is a potential for direct contact to the face with dusts, mists, or aerosols.
Equipment should conform to EN 166

Hand protection
Material : Protective gloves complying with EN 374.

Remarks : Gloves must be inspected prior to use. Wash hands before breaks and at the end of workday. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough. The suitability for a specific workplace should be discussed with the producers of the protective gloves. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. When handling hot material, use heat resistant gloves.

Skin and body protection : Choose body protection according to the amount and concentration of the dangerous substance at the work place. Additional body garments should be used based upon the task being performed (e.g., sleevelets, apron, gauntlets, disposable suits) to avoid exposed skin surfaces.

Respiratory protection	:	In case of inadequate ventilation wear respiratory protection. In case of mist, spray or aerosol exposure wear suitable personal respiratory protection and protective suit. Suitable respiratory equipment: Respirator with combination filter for vapour/particulate (EN 141) See information supplied by the manufacturer.
Filter type	:	Combined particulates, inorganic and acidic gas/vapour, ammonia/amines and organic vapour type (ABEK-P)
Protective measures	:	Handle in accordance with good industrial hygiene and safety practice. Follow the skin protection plan. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	:	Emulsion
Colour	:	white, beige
Odour	:	No data available
Odour Threshold	:	No data available
Melting point/freezing point	:	No data available
Initial boiling point and boiling range	:	No data available
Flammability	:	No data available
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Flash point	:	> 100 °C
Decomposition temperature	:	No data available
pH	:	2,1 - 4,0 Concentration: 100 %
Viscosity		
Viscosity, dynamic	:	No data available

Viscosity, kinematic	:	No data available
Solubility(ies)		
Water solubility	:	emulsifiable
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Self-ignition	:	No data available
Vapour pressure	:	No data available
Relative density	:	No data available
Density	:	ca. 1,1 g/cm3 (20 °C)
Relative vapour density	:	No data available

9.2 Other information

Explosives	:	No data available
Oxidizing properties	:	No data available
Dust explosion class	:	Not applicable
Evaporation rate	:	No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No decomposition if stored and applied as directed.

10.2 Chemical stability

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

Hazardous reactions	:	Avoid radical-forming starting agents, peroxides and reactive metals.No decomposition if stored and applied as directed.

10.4 Conditions to avoid

Conditions to avoid	:	Protect from contamination. Extremes of temperature and direct sunlight.

10.5 Incompatible materials

Materials to avoid	:	Strong oxidizing agents Strong reducing agents

10.6 Hazardous decomposition products

Thermal decomposition : No decomposition if stored and applied as directed.
Thermal decomposition can lead to release of irritating gases and vapours.
In case of fire hazardous decomposition products may be produced such as:
Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), dense black smoke.
Other hazardous decomposition products may be formed.

SECTION 11: Toxicological information

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

Acute toxicity

Product:

Acute oral toxicity : Acute toxicity estimate: > 2.000 mg/kg
Method: Calculation method

Acute inhalation toxicity : No data available

Acute dermal toxicity : No data available

Components:

Poly(oxy-1,2-ethanediyl), .alpha.-isodecyl-.omega.-hydroxy-:

Acute oral toxicity : LD50 (Rat): 1.140 mg/kg
Method: No information available.
GLP: No information available.
Information taken from reference works and the literature.

Acute inhalation toxicity : No data available

Acute dermal toxicity : No data available

Citric acid:

Acute oral toxicity : LD50 (Mouse, male and female): 5.400 mg/kg
Method: OECD Test Guideline 401
GLP: no
Information taken from reference works and the literature.

LD50 (Rat, male and female): 3.000 mg/kg
Method: No information available.
GLP: No information available.
Information taken from reference works and the literature.

Acute inhalation toxicity : No data available

Acute dermal toxicity : LD50 (Rat, male and female): > 2.000 mg/kg
Method: OECD Test Guideline 402

GLP: yes
Information taken from reference works and the literature.

Skin corrosion/irritation

Product:

Remarks : No data available

Components:

Poly(oxy-1,2-ethanediyl), .alpha.-isodecyl-.omega.-hydroxy-:

Species	:	Rabbit
Assessment	:	No skin irritation
Method	:	OECD Test Guideline 404
Result	:	No skin irritation
GLP	:	No information available.
Remarks	:	CESIO recommendations for the harmonized classification and labelling of surfactants

Citric acid:

Species	:	Rabbit
Exposure time	:	4 h
Assessment	:	No skin irritation
Method	:	OECD Test Guideline 404
Result	:	Mild skin irritation
GLP	:	No information available.
Remarks	:	Information taken from reference works and the literature.

Serious eye damage/eye irritation

Product:

Remarks : No data available

Components:

Poly(oxy-1,2-ethanediyl), .alpha.-isodecyl-.omega.-hydroxy-:

Species	:	Rabbit
Method	:	OECD Test Guideline 405
Result	:	irritating
GLP	:	No information available.
Remarks	:	Risk of serious damage to eyes.

Species	:	Rabbit
Method	:	OECD Test Guideline 405
Result	:	irritating
GLP	:	No information available.
Remarks	:	Risk of serious damage to eyes.

Citric acid:

Species : Rabbit

Assessment	:	Causes serious eye irritation.
Method	:	OECD Test Guideline 405
Result	:	Severe eye irritation
GLP	:	yes
Remarks	:	Information taken from reference works and the literature.

Respiratory or skin sensitisation

Product:

Remarks	:	No data available

Components:

Poly(oxy-1,2-ethanediyl), .alpha.-isodecyl-.omega.-hydroxy-:

Remarks	:	No data available

Citric acid:

Method	:	No information available.
Result	:	Did not cause sensitisation on laboratory animals.
GLP	:	No information available.
Remarks	:	Information taken from reference works and the literature.

Germ cell mutagenicity

Product:

Genotoxicity in vitro	:	No data available
Genotoxicity in vivo	:	No data available
Germ cell mutagenicity- Assessment	:	No data available

Components:

Poly(oxy-1,2-ethanediyl), .alpha.-isodecyl-.omega.-hydroxy-:

Genotoxicity in vitro	:	No data available
Genotoxicity in vivo	:	No data available
Germ cell mutagenicity- Assessment	:	No data available

Citric acid:

Genotoxicity in vitro	:	Test Type: Ames test Test system: Salmonella typhimurium Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative GLP: No information available.

Information taken from reference works and the literature.

Test Type: Micronucleus test
Test system: Human lymphocytes
Metabolic activation: no
Method: OECD Test Guideline 487
Result: positive
GLP: No information available.
Information taken from reference works and the literature.

Test Type: Chromosome aberration test in vitro
Test system: Human lymphocytes
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 473
Result: positive
GLP: No information available.
Information taken from reference works and the literature.

Genotoxicity in vivo : Test Type: dominant lethal test
Species: Rat (male and female)
Application Route: Oral
Exposure time: 5 days
Dose: 3 g / kg
Method: Regulation (EC) No. 440/2008, Annex, B.22
Result: negative
GLP: no
Information taken from reference works and the literature.

Test Type: Chromosomal aberration
Species: Rat (male)
Application Route: Oral
Exposure time: 1, 5 days
Dose: 1,2 - 3500 mg/kg
Method: OECD Test Guideline 475
Result: negative
GLP: no
Information taken from reference works and the literature.

Germ cell mutagenicity- Assessment : In vivo tests did not show mutagenic effects

Carcinogenicity

Product:

Remarks : No data available

Carcinogenicity - Assessment : No data available

Components:

Poly(oxy-1,2-ethanediyl), .alpha.-isodecyl-.omega.-hydroxy-:

Remarks : No data available

Carcinogenicity - Assessment : No data available

Citric acid:

Remarks : No data available

Carcinogenicity - Assessment : No data available

Reproductive toxicity

Product:

Effects on fertility : No data available

Effects on foetal development : No data available

Reproductive toxicity - Assessment : No data available

Components:

Poly(oxy-1,2-ethanediyl), .alpha.-isodecyl-.omega.-hydroxy-:

Effects on fertility : No data available

Effects on foetal development : No data available

Reproductive toxicity - Assessment : No data available

Citric acid:

Effects on fertility : No data available

Effects on foetal development : No data available

Reproductive toxicity - Assessment : Animal testing did not show any effects on fertility.

STOT - single exposure

Product:

Remarks : No data available

Components:

Poly(oxy-1,2-ethanediyl), .alpha.-isodecyl-.omega.-hydroxy-:

Remarks : No data available

Citric acid:

Remarks : No data available

STOT - repeated exposure

Product:

Remarks : No data available

Components:

Poly(oxy-1,2-ethanediyl), .alpha.-isodecyl-.omega.-hydroxy-:

Remarks : No data available

Citric acid:

Remarks : No data available

Repeated dose toxicity

Product:

Remarks : No data available

Components:

Poly(oxy-1,2-ethanediyl), .alpha.-isodecyl-.omega.-hydroxy-:

Remarks : No data available

Citric acid:

Species	:	Rat, male
NOAEL	:	> 1.000 mg/kg
Application Route	:	Oral
Exposure time	:	2 years
Number of exposures	:	daily
Dose	:	2 g/kd bw/day
Control Group	:	yes
Method	:	No information available.
GLP	:	No information available.
Remarks	:	Information taken from reference works and the literature.

Aspiration toxicity

Product:

No data available

Components:

Poly(oxy-1,2-ethanediyl), .alpha.-isodecyl-.omega.-hydroxy-:

No data available

Citric acid:
No data available

11.2 Information on other hazards

Endocrine disrupting properties

Product:

Assessment : 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.

Components:

Poly(oxy-1,2-ethanediyl), .alpha.-isodecyl-.omega.-hydroxy-:

Remarks : No data available

Citric acid:

Remarks : No data available

Experience with human exposure

Product:

General Information : No data available

Inhalation : No data available

Skin contact : No data available

Eye contact : No data available

Ingestion : No data available

Components:

Poly(oxy-1,2-ethanediyl), .alpha.-isodecyl-.omega.-hydroxy-:

General Information : No data available

Inhalation : No data available

Skin contact : No data available

Eye contact : No data available

Ingestion : No data available

Citric acid:

General Information	:	Target Organs: Eyes Symptoms: irritant effects Target Organs: Mucous membranes Symptoms: irritant effects Target Organs: Respiratory Tract Symptoms: irritant effects Target Organs: Skin Symptoms: irritant effects
Inhalation	:	Target Organs: Respiratory Tract Symptoms: irritant effects Target Organs: Mucous membranes Symptoms: irritant effects
Skin contact	:	Target Organs: Skin Symptoms: irritant effects
Eye contact	:	Target Organs: Eyes Symptoms: irritant effects Target Organs: Mucous membranes Symptoms: irritant effects
Ingestion	:	Target Organs: Gastrointestinal tract Symptoms: irritant effects, Gastrointestinal discomfort, Vomiting

Neurological effects

Product:

Remarks	:	No data available

Components:

Poly(oxy-1,2-ethanediyl), .alpha.-isodecyl-.omega.-hydroxy-:

Remarks	:	No data available

Citric acid:

Remarks	:	No data available

Further information

Product:

Remarks	:	This product is a mixture. Health hazard information is based on its components. The toxicological properties of this material have not been fully

investigated

SECTION 12: Ecological information

12.1 Toxicity

Product:

Toxicity to fish	:	No data available
Toxicity to daphnia and other aquatic invertebrates	:	No data available
Toxicity to algae/aquatic plants	:	No data available
Toxicity to fish (Chronic toxicity)	:	No data available
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	No data available
Toxicity to microorganisms	:	No data available
Toxicity to soil dwelling organisms	:	No data available
Plant toxicity	:	No data available
Sediment toxicity	:	No data available
Toxicity to terrestrial organisms	:	No data available

Components:

Poly(oxy-1,2-ethanediyl), .alpha.-isodecyl-.omega.-hydroxy-:

Toxicity to fish	:	LC50 (Leuciscus idus (Golden orfe)): > 10 - 100 mg/l Exposure time: 96 h Method: OECD Test Guideline 203 GLP: No information available. Information taken from reference works and the literature.
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): > 10 - 100 mg/l Exposure time: 48 h Method: OECD Test Guideline 202 GLP: No information available. Information taken from reference works and the literature.
Toxicity to algae/aquatic plants	:	No data available

Toxicity to microorganisms	:	EC10 (Pseudomonas putida): 48 mg/l Exposure time: 17 h Method: No information available. GLP: No information available. Information taken from reference works and the literature.
Toxicity to fish (Chronic toxicity)	:	No data available
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC: 12,5 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea) Method: OECD Test Guideline 202 GLP: No information available. Information taken from reference works and the literature.
Toxicity to soil dwelling organisms	:	No data available
Plant toxicity	:	No data available
Sediment toxicity	:	No data available
Toxicity to terrestrial organisms	:	No data available

Citric acid:

Toxicity to fish	:	LC50 (Leuciscus idus (Golden orfe)): 760 mg/l Exposure time: 48 h Test Type: static test Analytical monitoring: no Method: OECD Test Guideline 203 GLP: no Information taken from reference works and the literature.
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 1.535 mg/l Exposure time: 24 h Test Type: static test Analytical monitoring: no Method: No information available. GLP: no Information taken from reference works and the literature.
Toxicity to algae/aquatic plants	:	NOEC (Scenedesmus quadricauda (Green algae)): 425 mg/l End point: Biomass Exposure time: 8 d Test Type: static test Analytical monitoring: no Method: DIN 38412 GLP: No information available. Information taken from reference works and the literature.

Toxicity to microorganisms	:	EC50 (Pseudomonas putida): > 10.000 mg/l Exposure time: 16 h Test Type: static test Method: No information available. GLP: no Information taken from reference works and the literature.
Toxicity to fish (Chronic toxicity)	:	No data available
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	No data available
Toxicity to soil dwelling organisms	:	No data available
Plant toxicity	:	No data available
Sediment toxicity	:	No data available
Toxicity to terrestrial organisms	:	No data available

12.2 Persistence and degradability

Product:

Biodegradability	:	No data available
Biochemical Oxygen Demand (BOD)	:	No data available
Chemical Oxygen Demand (COD)	:	No data available
BOD/COD	:	No data available
Physico-chemical removability	:	No data available
Stability in water	:	No data available
Photodegradation	:	No data available

Components:

Poly(oxy-1,2-ethanediyl), .alpha.-isodecyl-.omega.-hydroxy-:

Biodegradability	:	Inoculum: activated sludge Result: Readily biodegradable. Biodegradation: 70 % Exposure time: 28 d Method: OECD Test Guideline 301F GLP: no

Information taken from reference works and the literature.
Information given is based on data obtained from similar substances.

Biochemical Oxygen Demand (BOD)	:	No data available
Chemical Oxygen Demand (COD)	:	No data available
BOD/COD	:	No data available
Physico-chemical removability	:	No data available
Stability in water	:	No data available
Photodegradation	:	No data available

Citric acid:

Biodegradability	:	Inoculum: activated sludge Result: Readily biodegradable. Biodegradation: 97 % Exposure time: 28 d Method: OECD Test Guideline 301B GLP: no Information taken from reference works and the literature.
Biochemical Oxygen Demand (BOD)	:	No data available
Chemical Oxygen Demand (COD)	:	No data available
BOD/COD	:	No data available
Physico-chemical removability	:	No data available
Stability in water	:	No data available
Photodegradation	:	No data available

12.3 Bioaccumulative potential

Product:

Bioaccumulation	:	No data available

Components:

Poly(oxy-1,2-ethanediyl), .alpha.-isodecyl-.omega.-hydroxy-:

Bioaccumulation	:	No data available

Partition coefficient: n-octanol/water	:	No data available

Citric acid:

Bioaccumulation	:	No data available
Partition coefficient: n-octanol/water	:	log Pow: -1,8 - -0,2 Method: No information available. GLP: no Information taken from reference works and the literature.

12.4 Mobility in soil

Product:

Mobility	:	Medium: Soil No data available Medium: Water No data available Medium: Sediment No data available Medium: Air No data available
Stability in soil	:	No data available

Components:

Poly(oxy-1,2-ethanediyl), .alpha.-isodecyl-.omega.-hydroxy-:

Mobility	:	Medium: Soil No data available
	:	Medium: Water No data available
	:	Medium: Sediment No data available
	:	Medium: Air No data available
Stability in soil	:	No data available

Citric acid:

Mobility	:	Medium: Soil No data available
	:	Medium: Water

No data available

: Medium: Sediment
No data available

: Medium: Air
No data available

Stability in soil : No data available

12.5 Results of PBT and vPvB assessment

Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Components:

Poly(oxy-1,2-ethanediyl), .alpha.-isodecyl-.omega.-hydroxy-:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Citric acid:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Endocrine disrupting properties

Product:

Assessment : 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.

Components:

Poly(oxy-1,2-ethanediyl), .alpha.-isodecyl-.omega.-hydroxy-:

Remarks : No data available

Citric acid:

Remarks : No data available

12.7 Other adverse effects

Product:

Additional ecological information : Information given is based on data on the components and the ecotoxicology of similar products.
The product should not be allowed to enter drains, water courses or the soil.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Dispose of contents/ container to an approved waste disposal plant.
In accordance with local and national regulations.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
Do not dispose of waste into sewer.
Do not dispose of together with household waste.

Contaminated packaging : Dispose of contents/ container to an approved waste disposal plant.
Dispose of as unused product.

SECTION 14: Transport information

14.1 UN number or ID number

Not regulated as a dangerous good

14.2 UN proper shipping name

Not regulated as a dangerous good

14.3 Transport hazard class(es)

Not regulated as a dangerous good

14.4 Packing group

Not regulated as a dangerous good

14.5 Environmental hazards

Not regulated as a dangerous good

14.6 Special precautions for user

Not applicable

14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

REACH - Restrictions on the manufacture, placing on : Conditions of restriction for the fol-

the market and use of certain dangerous substances, mixtures and articles (Annex XVII)		lowing entries should be considered: Number on list 3
REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).	:	Not applicable
Regulation (EC) No 1005/2009 on substances that deplete the ozone layer	:	Not applicable
Regulation (EU) 2019/1021 on persistent organic pollutants (recast)	:	Not applicable
Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals	:	Not applicable
REACH - List of substances subject to authorisation (Annex XIV)	:	Not applicable

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.	Not applicable

Water hazard class (Germany)	:	WGK 2 obviously hazardous to water Classification according to AwSV, Annex 1 (5.2)
TA Luft List (Germany)	:	Total dust: Not applicable Inorganic substances in powdered form: Not applicable Inorganic substances in vapour or gaseous form: Not applicable Organic Substances: Not applicable Carcinogenic substances: Not applicable Mutagenic: Not applicable Toxic to reproduction: Not applicable
Volatile organic compounds	:	Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control) Not applicable

15.2 Chemical safety assessment

A chemical safety assessment (Chemical Safety Assessment) is not required for this mixture.

SECTION 16: Other information

Full text of H-Statements

H302	:	Harmful if swallowed.
H318	:	Causes serious eye damage.
H319	:	Causes serious eye irritation.
H335	:	May cause respiratory irritation.

Full text of other abbreviations

Acute Tox.	:	Acute toxicity
Eye Dam.	:	Serious eye damage
Eye Irrit.	:	Eye irritation
STOT SE	:	Specific target organ toxicity - single exposure
DE TRGS 900	:	Germany. TRGS 900 - Occupational exposure limit values.
DE TRGS 900 / AGW	:	Time Weighted Average

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

Classification of the mixture:		**Classification procedure:**
Eye Irrit. 2	H319	Calculation method

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.