Material safety data sheet

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

1.1 Product identifier

Product name	: RayCure VE
Product identifier	: xxxxxxxxxxx

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

Recommended use	: Resins system used in the production of fiber reinforced plastics or non-reinforced filled products.

1.3 Details of the supplier of the safety data sheet

Supplier	: I.S.T. Innovative Sewer Technologies GmbH Rombacher Hütte 17-19 44795 Bochum Germany
Email address of the person responsible for this SDS	: peppel@ist-web.com

1.4 Emergency telephone number

Emergency telephone number	: +49 234 57988-0
National advisory body	: +49-30-18412-0

SECTION 2 : Hazards identification

2.1 Classification of the substance or mixture

Product definition	: Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]
Skin Irritation. 2, H315
Eye Irritation. 2, H319
STOT SE 3, H335

2.2 Label elements

Hazard pictograms	:
Signal word	: Warning
Hazard statements	: H319 - Causes serious eye irritation. : H315 - Causes skin irritation. : H335 - May cause respiratory irritation.
Supplemental label elements	: Not applicable.

<u>Precautionary statements</u>

General	: Not applicable.
Prevention	: P280 - Wear protective gloves: < 1 hour (breakthrough time): Butyl rubber (0.3 mm). Wear eye or face protection.

P271 - Use only outdoors or in a well-ventilated area.
P261 - Avoid breathing vapor.
P264 - Wash hands thoroughly after handling.

Response : P304 + P340 + P312 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell.
P302 + P352 + P362+P364 - IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse.
P332 + P313 - If skin irritation occurs: Get medical attention
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 attention.

Storage : P403 - Store in a well-ventilated place.

Disposal : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazardous ingredients : methacrylic acid

2.3 Other hazards

Other hazards which do Not result in classification : none known

SECTION 3 : Composition/information on ingredients

Product/ingredient name	Identifiers	%	Classification Regulation (EC) No. 1272/2008 [CLP]
silicon dioxide	REACH #: 01-2119379499-16 EC: 231-545-4 CAS: 7631-86-9	**≤3**	Not classified.
methacrylic acid	REACH #: 01-2119463884-26 EC: 201-204-4 CAS: 79-41-4 Index: 607-088-00-5	≤2,9	Acute Tox. 4, H302 Acute Tox. 3, H311 Acute Tox. 4, H332 Skin Corr. 1A, H314 STOT SE 3, H335
2,2-dimethoxy-1,2-diphenylethan-1-one	EC: 246-386-6 CAS: 24650-42-8	≤0,29	Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1) See Section 16 for the full text of the H statements declared above.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs or vPvBs or have been assigned a workplace exposure limit and hence require reporting in this section.

SECTION 4 : First aid measures

4.1 Description of first aid measures

Eye contact	: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids.Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
Inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it issuspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Skin contact	: Wash contaminated skin with soap and water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	: Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Protection of first-aiders	: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

4.2 Most important symptoms and effects, both acute and delayed

<u>Over-exposure signs/symptoms</u>

Eye contact	: Adverse symptoms may include the following: pain or irritation watering

	redness
Inhalation	: Adverse symptoms may include the following: respiratory tract irritation coughing
Skin contact	: Adverse symptoms may include the following: irritation redness
Ingestion	: nausea or vomiting

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician	: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	: No specific treatment.

SECTION 5 : Firefighting measures

5.1 Extinguishing media

Suitable	: Use an extinguishing agent suitable for the surrounding fire
Not suitable	: None known

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture	: In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous combustion Products	: Decomposition products may include the following materials: carbon dioxide carbon monoxide metal oxide/oxides (dense) black smoke aldehydes organic acids

5.3 Advice for firefighters

Special protective Actions for fire-fighters	: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters	: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for firefighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

Remarks	: Combustible when exposed to heat or flame.

SECTION 6 : Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency Personnel	: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment
For emergency Responders	: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental

Precautions	: Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and material for containment and cleaning up

Small spill	: Stop leak if without risk. Move containers from spill area. Absorb spill with inert material (e.g. dry sand or earth) and place in a chemical waste container.
Large spill	: Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

6.4 Reference to other Sections	: See Section 1 for emergency contact information. See Section 8 for information on appropriate personal protective equipment. See Section 13 for additional waste treatment information.

SECTION 7 : Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

Protective measures	: Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
Advice on general occupational hygiene	: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

: Store in accordance with local regulations. Store in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10). Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. Store in original container, protected from direct sunlight.

7.3 Specific end use(s)

Recommendations	: Resins system used in the production of fiber reinforced plastics or non-reinforced filled products
Industrial sector specific Solutions	: Not available.
Remarks	: shake/mix before use

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be

required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
silicon dioxide	EH40/2005 WELs (United Kingdom (UK), 12/2011). TWA: 6 mg/m³ 8 hours. Form: inhalable dust TWA: 2.4 mg/m³ 8 hours. Form: respirable dust
methacrylic acid	EH40/2005 WELs (United Kingdom (UK), 12/2011). STEL: 143 mg/m³ 15 minutes. STEL: 40 ppm 15 minutes. TWA: 72 mg/m³ 8 hours. TWA: 20 ppm 8 hours.

Recommended monitoring Procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or othercontrol measures and/or the necessity to use respiratory protective equipment. Referenceshould be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Product/ingredient	Type	Exposure	Value	Population	Effects
methacrylic acid	DNEL	Long term Dermal	4.25 mg/kg bw/day	Workers	Systemic
	DNEL DNEL DNEL	Long term Inhalation Long term Inhalation Long term Dermal	29.6 mg/m³ 88 mg/m³ 2.55 mg/kg bw/day	Workers Workers Consumers	Systemic Systemic Local
	DNEL DNEL	Long term Inhalation Long term Inhalation	6.3 mg/m³ 6.3 mg/m³	Consumers Consumers	Systemic Local

PNECs

Product/ingredient	Compartment Detail	Value	Method Detail
methacrylic acid	Fresh water Marine Sewage treatment plant Soil	0.82 mg/l 0.82 mg/l 10 mg/l 1.2 mg/kg dwt	- - - -

8.2 Exposure controls

Appropriate engineering Controls : Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety glasses with side shields.

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. < 1 hour (breakthrough time): Butyl rubber (0.3 mm)

Skin and body : Wear suitable protective clothing.

Respiratory protection : Gas filter mask must be worn.

Environmental exposure Controls	: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
Remarks	: Replace damaged gloves.

Advice on personal protection is applicable for high exposure levels. Select proper personal protection based on a risk assessment of the actual exposure situation.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	: Liquid
Color	: yellowish
Odor	: sweet
Odor threshold	: not available
pH	: 7 (Concentration 0.02 %)
Melting point/freezing point	: Not available
Initial boiling point and boiling rang:	: Not available
Softening range	: Not available
Flash point	:113°C
Flammability (solid, gas)	: Not available
Evaporation rate	: Not available
Upper/lower flammability or explosive limits	: Not available
Vapor pressure	: Not available
Vapor density	: Not available
Relative density	: 1.1 (Water=1)
Density (g/cm³)	: 1.1 g/cm³ (Temperature: 23°C)
Bulk density	: 1100 kg/m3 (Temperature: 23 °C)
Solubility	: Insoluble in the following materials: cold water and hot water.
Solubility in water	: <0.02 g/100 ml
Solubility at room Temperature	: <0.02 g/l
Partition coefficient n-octanol/water	: Not available
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
Viscosity	: Dynamic (room temperature): 1200 to 1500 mPa·s (1200 to 1500 cP) Kinematic (room temperature): >111 cm2/s (>11100 cSt) Kinematic (40°C): >0.205 cm2/s (>20.5 cSt)
Explosive properties	: Not available
Oxidizing properties	: Not available

SECTION 10: Stability and reactivity

10.1 Reactivity : No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability. : The product is stable.
Stable under recommended storage and handling conditions (see Section 7).

10.3 Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid : Keep away from heat/sparks/open flames/hot surfaces. No smoking.

10.5 Incompatible materials : Strong acids

10.6 Hazardous decomposition products : No specific data

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient	Result	Species	Dose	Exposure
methacrylic acid	LC50 Inhalation Vapor LD50 Dermal LD50 Dermal LD50 Oral LD50 Oral LD50 Oral	Rat Rabbit Rabbit Mouse-Male Rat Rat-Male	7.1 mg/l Air 500 mg/kg 500 to 1000 mg/kg 1600 mg/kg 1060 mg/kg 1320 mg/kg	4 hours
2,2-dimethoxy-1,2-diphenylethan-1-one	LD50 Dermal LD50 Oral	Rat-Male, Female Rat-Male, Female	>5000 mg/kg >5000 mg/kg	

Conclusion/Summary: There are no data available on the mixture itself.
Acute toxicity estimates

Route	ATE value
Oral	96662.8 mg/kg
Dermal	45595.7 mg/kg
Inhalation (vapors)	1003.1 mg/l

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exp.	Observation
methacrylic acid	Skin - Severe irritant Eyes - Severe irritant Skin – Primary dermal irritation	Rabbit Rabbit Rabbit	- - 6.17	- - -	- - -

	index (PDII) Skin - Non-irritating Eyes - Non-irritating	 Rabbit Rabbit	 0 0	 - -	 - -
2,2-dimethoxy-1,2-diphenylethan-1-one					

Conclusion/Summary
Skin : Not available.
Eyes : Not available.
Respiratory : Not available.

Sensitization

Product/ingredient name	Route of exposure	Species	Result
methacrylic acid	Skin	Guinea pig	Not sensitizing
2,2-dimethoxy-1,2-diphenylethan-1-one			Not sensitizing

Conclusion/Summary

Skin : Not available.

Respiratory : Not available.

Mutagenicity

Product/ ingredient name	Test	Experiment	
methacrylic acid	OECD 471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Bacteria Metabolic activation: with and without	Negative
2,2-dimethoxy-1,2-diphenylethan-1-one	OECD 478 Genetic Toxicology: Rodent Dominant Lethal Test -	Experiment: In vivo Subject: Mammalian-Animal Subject: Bacteria	Negative Negative

Conclusion/Summary : There are no data available on the mixture itself.

Carcinogenicity

Conclusion/Summary : There are no data available on the mixture itself.

Teratogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Product/ ingredient name	Maternal	Fertility	Developmental	Species	Dose	Exposure
methacrylic acid	Negative	-	Negative	Rat-Male,	Oral: 400 mg/	-

				Female	kg No adverse effects observed on fertility or Developmental effects	

Conclusion/Summary : There are no data available on the mixture itself.

Teratogenicity

Product/ ingredient name	Result	Species	Dose	Species	Exposure
methacrylic acid	Negative - Oral	Rabbit	Negative	450 mg/kg Developmental effects	-

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Product/ ingredient name	Category	Route od exposure	Target organs
methacrylic acid	Negative - Oral	Rabbit	Negative

Specific target organ toxicity (repeated exposure) : Not available

Aspiration Hazard : Not available

Potential acute health effects

Inhalation : May cause respiratory irritation.
Ingestion : No known significant effects or critical hazards.
Skin contact : Causes skin irritation.
Eye contact : Causes serious eye irritation.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing

Skin contact : Adverse symptoms may include the following:
irritation

redness

Ingestion : No specific data.

Potential chronic health effects

Product/ ingredient name	Result	Species	Dose	Exposure
methacrylic acid	Sub-chronic NOAEC Inhalation Gas.	Rat-Male, Female	350 ppm	90 days; 6 hours per day

Conclusion/Summary : There are no data available on the mixture itself.
General : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Classification

SECTION 12: Ecological information

12.1 Toxicity

Product/ ingredient name	Result	Species	Exp.	Effects
methacrylic acid	EC10 100 mg/l Fresh water	Micro-organism	16.5 h	-
	EC50 20 mg/l Fresh water	Algae	72 h	(biomass) (growth rate)
	EC50 45 mg/l Fresh water	Algae	72 h	
	EC50 270 mg/l Fresh water	Micro-organism	16.5 h	-
	NOEC 8.2 mg/l Fresh water	Algae	72 h	-
	Acute EC50 >130 mg/l Fresh water	Daphnia	48 h	-
	Acute LC50 85 mg/l Fresh Water	Fish	96 h	Mortality
	Acute NOEC 12 mg/l Fresh Water	Fish	96 h	Mortality
	Chronic LC50 42 mg/l Fresh Water	Fish	35 d	-
	Chronic NOEC 53 mg/l Fresh Water	Daphnia	21 d	-
	Chronic NOEC 53 mg/l Fresh Water	Daphnia magna-Neonate	21 d	Reproduction
	Chronic NOEC 10 mg/l Fresh water	Fish	35 d	-
2,2-dimethoxy-1,	Acute EC50 0.17 mg/l Fresh Water	Algea	72 h	-

2-diphenylethan-1-one	Acute LC50 26 mg/l Fresh Water Acute LC50 6 mg/l	Daphnia Fish	24 h 96 h	- -

Conclusion/Summary : There are no data available on the mixture itself.

12.2 Persistence and degradability

Product/ ingredient name	Test	Result	Dose	Inocolum
methacrylic acid	OECD 301 D	86 % - Readily – 28 days	-	-

Conclusion/Summary : There are no data available on the mixture itself.

Product/ ingredient name	Aquatic half-life	Photolysis	Biodegradability
methacrylic acid 2,2-dimethoxy-1, 2-diphenylethan-1-one	- -	- -	Readily Not readily

12.3 Bio accumulative potential

Product/ ingredient name	$LogP_{ow}$	BCF	Petential
methacrylic acid 2,2-dimethoxy-1, 2-diphenylethan-1-one	0.93 3.42	- 42 to 43	Low Low

12.4 Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

PBT : Not applicable.

vPvB : Not applicable.

12.6 Other adverse effects No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. Reference number: 2008/98/EC.

13.1 Waste treatment methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of

surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste : The classification of the product may meet the criteria for a hazardous waste.

Packaging

Methods of disposal : The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

Product/ ingredient name	ADR/RID	AND	IMDG	IATA
14.1 UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-	-
14.3 Transport hazard class(es)	-	-	-	-
14.4 Packing group	-	-	-	-
14.5 Environmental hazards	No	No	No	No

14.6 Special precautions for user : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code : Not available.

SECTION 15: Regulatory information

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

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorization

Annex XIV : None of the components are listed.

Substances of very high concern : None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

Ozone depleting substances (1005/2009/EU) : Not listed

Prior Informed Consent (PIC) (649/2012/EU) : Not listed

National regulations

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Product/ ingredient name	List name	Status
Not listed		

Montreal Protocol (Annexes A, B, C, E)

Product/ ingredient name	List name	Status
Not listed		

Stockholm Convention on Persistent Organic Pollutants

Product/ ingredient name	List name	Status
Not listed		

Rotterdam Convention on Prior Informed Consent (PIC)

Product/ ingredient name	List name	Status
Not listed		

UNECE Aarhus Protocol on POPs and Heavy Metals

Product/ ingredient name	List name	Status
Not listed		

15.2 Chemical safety

Assessment : No Chemical Safety Assessment has been carried out.

Remarks : Note: see section 8 for personal protective equipment and section 13 for waste disposal.

SECTION 16: Other information

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Jusitification
Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335	Calculation method Calculation method Calculation method

Full text of abbreviated H statements

H statement	Fulltext
H302 H311 H314 H315 H319 H332 H335 H400 H410	Harmful if swallowed. Toxic in contact with skin. Causes severe skin burns and eye damage. Causes skin irritation. Causes serious eye irritation. Harmful if inhaled. May cause respiratory irritation. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

Full text of classifications [CLP/GHS]

H statement	Fulltext
Acute Tox. 3, H311 Acute Tox. 4, H302 Acute Tox. 4, H332 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 Eye Irrit. 2, H319 Skin Corr. 1A, H314 Skin Irrit. 2, H315 STOT SE 3, H335	ACUTE TOXICITY (dermal) - Category 3 ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2 SKIN CORROSION/IRRITATION - Category 1A SKIN CORROSION/IRRITATION - Category 2 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract irritation) - Category 3

Alterations compared to the previous version : Alterations compared to the previous version are marked with a little (blue) triangle.

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No.1272/2008]
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement
PBT = Persistent, bio accumulative and Toxic
PNEC = Predicted No Effect Concentration

RRN = REACH Registration Number
vPvB = Very persistent and very bio accumulative

Sources of key data: Literature data and/or investigation reports are available through the manufacturer.

Internal code: 021780WW63852

Training advice: Handling of this substance or preparation is restricted to skilled personnel only.

Notice to reader
The information contained in the Safety Data Sheet is based on our data available on the date of publication. The information is intended to aid the user in controlling the handling risks; it is not to be construed as a warranty or specification of the product quality. The information may not be or may not altogether be applicable to combinations of the product with other substances or to particular applications

The user is responsible for ensuring that appropriate precautions are taken and for satisfying themselves that the data are suitable and sufficient for the product's intended purpose. In case of any unclarity we advise consulting the supplier or an expert.