W-VPZ 12

Version	Revision Date:	SDS Number:	Date of last issue: 09.09.2024
5.1	09.01.2025	9321802-00011	Date of first issue: 20.08.2021

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

1.1 Product identifier

Trade name	:	W-VPZ 12
Product code	:	5915512095
Unique Formula Identifier (UFI)	:	K1V3-R0Q2-D00U-KR3F

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

Use of the Substance/Mixture	:	Construction material, Adhesives Professional use product
Recommended restrictions on use	:	Not applicable

1.3 Details of the supplier of the safety data sheet

Company	:	Adolf Wuerth GmbH & Co. KG Reinhold-Würth-Str. 12-17 74653 Künzelsau
Telephone	:	+49 794015 0
Telefax	:	+49 794015 10 00
E-mail address of person responsible for the SDS	:	isi@wuerth.com

1.4 Emergency telephone number

+49 (0)6132 – 84463

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Skin sensitisation, Category 1	H317: May cause an allergic skin reaction.
Long-term (chronic) aquatic hazard, Category 2	H411: Toxic to aquatic life with long lasting effects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :

Signal word : Warning

Hazard statements :

H317 May cause an allergic skin reaction.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements :

Prevention:

P273 Avoid release to the environment.
P280 Wear protective gloves.

Response:

P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.
P391 Collect spillage.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Hazardous components which must be listed on the label:

Methacrylic acid, monoester with propane-1,2-diol
Dibenzoyl peroxide
Reaction mass of 2-{[2-(2-hydroxyethoxy)ethyl](4-methylphenyl)amino}ethanol and 2,2'-[(4-methylphenyl)imino]diethanol

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

Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
Quartz	14808-60-7 238-878-4	Carc. 1A; H350i STOT RE 1; H372 (Lungs)	>= 30 - < 50
1,6-Hexanediyl bismethacrylate	6606-59-3 229-551-7 01-2120760621-59	Aquatic Chronic 2; H411	>= 2,5 - < 10
Methacrylic acid, monoester with propane-1,2-diol	27813-02-1 248-666-3 01-2119490226-37	Eye Irrit. 2; H319 Skin Sens. 1; H317 STOT SE 3; H335	>= 1 - < 10
propylidynetrimethyl trimethacrylate	3290-92-4 221-950-4 01-2119542176-41	Aquatic Chronic 2; H411	>= 2,5 - < 10
Ethylene dibenzoate	94-49-5 202-338-6 01-2120759933-41	Aquatic Chronic 2; H411	>= 2,5 - < 10
Dibenzoyl peroxide	94-36-0 202-327-6 617-008-00-0 01-2119511472-50	Org. Perox. B; H241 Eye Irrit. 2; H319 Skin Sens. 1; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 M-Factor (Acute aquatic toxicity): 10 M-Factor (Chronic aquatic toxicity): 10	>= 1 - < 2,5
Reaction mass of 2-{[2-(2-hydroxyethoxy)ethyl](4-methylphenyl)amino}ethanol and 2,2'-[(4-methylphenyl)imino]diethanol	Not Assigned 01-2119979579-10	Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Dam. 1; H318 Skin Sens. 1; H317 Aquatic Chronic 3; H412 Acute toxicity estimate Acute oral toxicity: 619 mg/kg	>= 0,25 - < 1

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice : In the case of accident or if you feel unwell, seek medical advice immediately.
When symptoms persist or in all cases of doubt seek medical advice.

Protection of first-aiders : First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists (see section 8).

If inhaled : If inhaled, remove to fresh air.
Get medical attention if symptoms occur.

In case of skin contact : In case of contact, immediately flush skin with soap and plenty of water.
Remove contaminated clothing and shoes.
Get medical attention.
Wash clothing before reuse.
Thoroughly clean shoes before reuse.

In case of eye contact : Flush eyes with water as a precaution.
Get medical attention if irritation develops and persists.

If swallowed : If swallowed, DO NOT induce vomiting.
Get medical attention if symptoms occur.
Rinse mouth thoroughly with water.

4.2 Most important symptoms and effects, both acute and delayed

Risks : May cause an allergic skin reaction.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Treat symptomatically and supportively.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Water spray
Alcohol-resistant foam
Carbon dioxide (CO2)
Dry chemical

Unsuitable extinguishing media : High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire- : Exposure to combustion products may be a hazard to health.

fighting

Hazardous combustion products : Carbon oxides

5.3 Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.
Use personal protective equipment.

Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Use water spray to cool unopened containers.
Remove undamaged containers from fire area if it is safe to do so.
Evacuate area.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protective equipment.
Follow safe handling advice (see section 7) and personal protective equipment recommendations (see section 8).

6.2 Environmental precautions

Environmental precautions : Avoid release to the environment.
Prevent further leakage or spillage if safe to do so.
Prevent spreading over a wide area (e.g. by containment or oil barriers).
Retain and dispose of contaminated wash water.
Local authorities should be advised if significant spillages cannot be contained.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Soak up with inert absorbent material.
For large spills, provide dyking or other appropriate containment to keep material from spreading. If dyked material can be pumped, store recovered material in appropriate container.
Clean up remaining materials from spill with suitable absorbent.
Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable.
Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

6.4 Reference to other sections

See sections: 7, 8, 11, 12 and 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Technical measures : See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.

Local/Total ventilation : Use only with adequate ventilation.

Advice on safe handling : Do not breathe decomposition products.

Do not get on skin or clothing.
Avoid breathing mist or vapours.
Do not swallow.
Avoid contact with eyes.
Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure assessment
Take care to prevent spills, waste and minimize release to the environment.

Hygiene measures : If exposure to chemical is likely during typical use, provide eye flushing systems and safety showers close to the working place. When using do not eat, drink or smoke. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before re-use.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Keep in properly labelled containers. Store in accordance with the particular national regulations.

Advice on common storage : Do not store with the following product types:
Strong oxidizing agents
Gases

Storage class (TRGS 510) : 10

7.3 Specific end use(s)

Specific use(s) : No data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Quartz	14808-60-7	TWA (Respirable dust)	0,1 mg/m3	2004/37/EC
	Further information: Carcinogens or mutagens			

Dibenzoyl peroxide	94-36-0	AGW (Inhalable fraction)	5 mg/m3	DE TRGS 900
	Peak-limit: excursion factor (category): 1;(I)			
		MAK (measured as the alveolate fraction)	1 mg/m3	DE DFG MAK
	Peak-limit: excursion factor (category): 2; I			
	Further information: Damage to the embryo or foetus is unlikely when the MAK value or the BAT value is observed			
		MAK (inhalable fraction)	4 mg/m3	DE DFG MAK
	Peak-limit: excursion factor (category): 2; I			
	Further information: Damage to the embryo or foetus is unlikely when the MAK value or the BAT value is observed			

This substance(s) is not bioavailable and therefore does not contribute to a dust inhalation hazard.

Quartz

Occupational exposure limits of decomposition products

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Benzoic acid	65-85-0	AGW (Vapour and aerosols)	0,1 ppm 0,5 mg/m3	DE TRGS 900
	Peak-limit: excursion factor (category): 4;(II)			
	Further information: Skin absorption, When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child			
		MAK (measured as the alveolate fraction)	0,1 ppm 0,5 mg/m3	DE DFG MAK
	Peak-limit: excursion factor (category): 4; II			
	Further information: Danger of absorption through the skin, Damage to the embryo or foetus is unlikely when the MAK value or the BAT value is observed			
		MAK (inhalable fraction)	0,39 ppm 2 mg/m3	DE DFG MAK
	Peak-limit: excursion factor (category): 4; II			
	Further information: Danger of absorption through the skin, Damage to the embryo or foetus is unlikely when the MAK value or the BAT value is observed			
Benzene	71-43-2	TWA	0,5 ppm 1,65 mg/m3	2004/37/EC
	Further information: Skin, Carcinogens or mutagens			
	Further information: Substances that cause cancer in man and can be assumed to contribute to cancer risk, Danger of absorption through the skin, Substances which have been shown to induce genetic damage in germ cells of humans or animals, or which produce mutagenic effects in somatic cells of mammals in vivo and have been shown to reach the germ cells in an active form			
		Tolerable concentration	0,6 ppm 1,9 mg/m3	DE TRGS 910

	Peak-limit: excursion factor (category): 8 - Excursion factor according to Number 3.2.6			
	Further information: Skin-resorptive			
		Acceptable concentration	0,06 ppm 0,2 mg/m3	DE TRGS 910
	Further information: Skin-resorptive			
	Further information: Substances that cause concern that they could be carcinogenic for man but cannot be assessed conclusively because of lack of data, Danger of absorption through the skin			

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

Substance name	End Use	Exposure routes	Potential health effects	Value
Dibenzoyl peroxide	Workers	Inhalation	Long-term systemic effects	39 mg/m3
	Workers	Skin contact	Long-term systemic effects	13,3 mg/kg bw/day
	Workers	Skin contact	Long-term local effects	0,034 mg/cm2
	Consumers	Ingestion	Long-term systemic effects	2 mg/kg bw/day
Methacrylic acid, monoester with propane-1,2-diol	Workers	Inhalation	Long-term systemic effects	14,7 mg/m3
	Workers	Skin contact	Long-term systemic effects	4,2 mg/kg bw/day
	Consumers	Inhalation	Long-term systemic effects	4,35 mg/m3
	Consumers	Skin contact	Long-term systemic effects	2,5 mg/kg bw/day
	Consumers	Ingestion	Long-term systemic effects	2,5 mg/kg bw/day
Ethoxylated bisphenol A dimethacrylate	Workers	Inhalation	Long-term systemic effects	98,7 mg/m3
	Workers	Skin contact	Long-term systemic effects	140 mg/kg bw/day
	Consumers	Inhalation	Long-term systemic effects	17,4 mg/m3
	Consumers	Skin contact	Long-term systemic effects	50 mg/kg bw/day
	Consumers	Ingestion	Long-term systemic effects	5 mg/kg bw/day
Reaction mass of 2-{[2-(2-hydroxyethoxy)ethyl](4-methylphenyl)amino}ethanol and 2,2'-[(4-methylphenyl)imino]diethanol	Workers	Inhalation	Long-term systemic effects	9,8 mg/m3
	Workers	Skin contact	Long-term systemic	1,4 mg/kg

			effects	bw/day
	Consumers	Inhalation	Long-term systemic effects	2,9 mg/m3
	Consumers	Skin contact	Long-term systemic effects	0,83 mg/kg bw/day
	Consumers	Ingestion	Long-term systemic effects	0,83 mg/kg bw/day
Ethylene dibenzoate	Workers	Inhalation	Long-term systemic effects	10,6 mg/m3
	Workers	Skin contact	Long-term systemic effects	3 mg/kg bw/day
1,6-Hexanediyl bis-methacrylate	Workers	Inhalation	Long-term systemic effects	14,5 mg/m3
	Workers	Skin contact	Long-term systemic effects	4,2 mg/kg bw/day
	Consumers	Inhalation	Long-term systemic effects	4,3 mg/m3
	Consumers	Skin contact	Long-term systemic effects	2,5 mg/kg bw/day
	Consumers	Ingestion	Long-term systemic effects	2,5 mg/kg bw/day

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

Substance name	Environmental Compartment	Value
Dibenzoyl peroxide	Fresh water	0,02 µg/l
	Marine water	0,002 µg/l
	Intermittent use/release	0,602 µg/l
	Sewage treatment plant	0,35 mg/l
	Fresh water sediment	0,013 mg/kg
	Marine sediment	0,001 mg/kg
	Soil	0,003 mg/kg
Methacrylic acid, monoester with propane-1,2-diol	Fresh water	0,904 mg/l
	Freshwater - intermittent	0,972 mg/l
	Marine water	0,09 mg/l
	Sewage treatment plant	10 mg/l
	Fresh water sediment	6,28 mg/kg dry weight (d.w.)
	Marine sediment	6,28 mg/kg dry weight (d.w.)
	Soil	0,727 mg/kg dry weight (d.w.)
Reaction mass of 2-{[2-(2-hydroxyethoxy)ethyl](4-methylphenyl)amino}ethanol and 2,2'-[(4-methylphenyl)imino]diethanol	Fresh water	0,048 mg/l
	Freshwater - intermittent	0,48 mg/l
	Marine water	0,005 mg/l
	Sewage treatment plant	10 mg/l
	Fresh water sediment	1,2 mg/kg dry weight (d.w.)

	Marine sediment	0,12 mg/kg dry weight (d.w.)
	Soil	0,21 mg/kg dry weight (d.w.)
propylidynetrimethyl trimethacrylate	Fresh water	2,76 µg/l
	Marine water	0,276 µg/l
	Intermittent use/release	20 µg/l
	Sewage treatment plant	10 µg/l
	Fresh water sediment	0,4951 mg/kg
	Marine sediment	0,04951 mg/kg
	Soil	0,0974 mg/kg
Ethylene dibenzoate	Fresh water	7,3 µg/l
	Marine water	0,73 µg/l
	Sewage treatment plant	128 mg/l
	Fresh water sediment	2,23 mg/kg dry weight (d.w.)
	Marine sediment	0,223 mg/kg dry weight (d.w.)
	Soil	0,44 mg/kg dry weight (d.w.)
1,6-Hexanediyl bismethacrylate	Fresh water	0,0048 mg/l
	Freshwater - intermittent	0,045 mg/l
	Marine water	0,000488 mg/l
	Sewage treatment plant	800 mg/l
	Fresh water sediment	0,262 mg/kg dry weight (d.w.)
	Marine sediment	0,026 mg/kg dry weight (d.w.)
	Soil	0,05 mg/kg dry weight (d.w.)

8.2 Exposure controls

Engineering measures

Processing may form hazardous compounds (see section 10).
Ensure adequate ventilation, especially in confined areas.
Minimize workplace exposure concentrations.

Personal protective equipment

Eye/face protection : Wear the following personal protective equipment:
Safety glasses
Equipment should conform to DIN EN 166

Hand protection

Material : Nitrile rubber
Break through time : > 480 min
Glove thickness : 0,2 mm
Directive : Equipment should conform to EN 374

Remarks : Choose gloves to protect hands against chemicals depending on the concentration and quantity of the hazardous sub-

stance and specific to place of work. For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer. Wash hands before breaks and at the end of workday.

Skin and body protection : Select appropriate protective clothing based on chemical resistance data and an assessment of the local exposure potential.
Skin contact must be avoided by using impervious protective clothing (gloves, aprons, boots, etc).

Respiratory protection : If adequate local exhaust ventilation is not available or exposure assessment demonstrates exposures outside the recommended guidelines, use respiratory protection.
Equipment should conform to DIN EN 14387

Filter type : Combined particulates and organic vapour type (A-P)

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	:	liquid
Colour	:	White to light yellow
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 (solid, gas)	:	Not applicable
Flammability (liquids)	:	No data available
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available

Flash point	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
pH	:	substance/mixture is non-soluble (in water)
Viscosity		
Viscosity, kinematic	:	No data available
Solubility(ies)		
Water solubility	:	No data available
Partition coefficient: n-octanol/water	:	Not applicable
Vapour pressure	:	No data available
Relative density	:	No data available
Density	:	No data available
Relative vapour density	:	No data available
Particle characteristics		
Particle size	:	Not applicable

9.2 Other information

Explosives	:	Not explosive
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.
Evaporation rate	:	No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

Not classified as a reactivity hazard.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions : Can react with strong oxidizing agents.
Hazardous decomposition products will be formed at elevated temperatures.

10.4 Conditions to avoid

Conditions to avoid : None known.

10.5 Incompatible materials

Materials to avoid : Oxidizing agents

10.6 Hazardous decomposition products

Thermal decomposition : Benzoic acid
Benzene
Phenyl benzoate
Biphenyl

SECTION 11: Toxicological information

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

Information on likely routes of exposure : Inhalation
Skin contact
Ingestion
Eye contact

Acute toxicity

Not classified based on available information.

Components:

Quartz:

Acute oral toxicity : LD50 (Rat): > 5.000 mg/kg

1,6-Hexanediyl bismethacrylate:

Acute oral toxicity : LD50 (Rat): > 2.000 mg/kg
Method: OECD Test Guideline 423
Assessment: The substance or mixture has no acute oral toxicity

Acute dermal toxicity : LD50 (Rat): > 2.000 mg/kg

Method: OECD Test Guideline 402
Remarks: Based on data from similar materials

Methacrylic acid, monoester with propane-1,2-diol:

Acute oral toxicity : LD50 (Rat): > 2.000 mg/kg
Method: OECD Test Guideline 401
Assessment: The substance or mixture has no acute oral toxicity

Acute dermal toxicity : LD50 (Rabbit, male): > 5.000 mg/kg

propylidynetrimethyl trimethacrylate:

Acute oral toxicity : LD50 (Rat): > 2.000 mg/kg
Assessment: The substance or mixture has no acute oral toxicity

Acute dermal toxicity : LD50 (Rat): > 2.000 mg/kg
Method: OECD Test Guideline 402
Assessment: The substance or mixture has no acute dermal toxicity

Ethylene dibenzoate:

Acute oral toxicity : LD50 (Rat, female): > 2.000 mg/kg
Method: OECD Test Guideline 423
Assessment: The substance or mixture has no acute oral toxicity

Acute dermal toxicity : LD50 (Rat): > 2.000 mg/kg
Method: OECD Test Guideline 402
Assessment: The substance or mixture has no acute dermal toxicity

Dibenzoyl peroxide:

Acute oral toxicity : LD50 (Mouse): > 2.000 mg/kg
Method: OECD Test Guideline 401
Assessment: The substance or mixture has no acute oral toxicity

Acute inhalation toxicity : LC0 (Rat): 24,3 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist

Reaction mass of 2-{[2-(2-hydroxyethoxy)ethyl](4-methylphenyl)amino}ethanol and 2,2'-[(4-methylphenyl)imino]diethanol:

Acute oral toxicity : LD50 (Rat, male): 619 mg/kg
Method: OECD Test Guideline 401

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

Skin corrosion/irritation

Not classified based on available information.

Components:

1,6-Hexanediyl bismethacrylate:

Species	:	Rabbit
Result	:	No skin irritation

Methacrylic acid, monoester with propane-1,2-diol:

Species	:	Rabbit
Result	:	No skin irritation

propylidynetrimethyl trimethacrylate:

Species	:	Rabbit
Method	:	OECD Test Guideline 404
Result	:	No skin irritation

Ethylene dibenzoate:

Species	:	Rabbit
Method	:	OECD Test Guideline 404
Result	:	No skin irritation

Dibenzoyl peroxide:

Species	:	Rabbit
Result	:	No skin irritation

Reaction mass of 2-{[2-(2-hydroxyethoxy)ethyl](4-methylphenyl)amino}ethanol and 2,2'-[(4-methylphenyl)imino]diethanol:

Species	:	reconstructed human epidermis (RhE)
Method	:	OECD Test Guideline 431
Species	:	reconstructed human epidermis (RhE)
Method	:	OECD Test Guideline 439
Result	:	Skin irritation

Serious eye damage/eye irritation

Not classified based on available information.

Components:

1,6-Hexanediyl bismethacrylate:

Result	:	No eye irritation
Remarks	:	Based on data from similar materials

Methacrylic acid, monoester with propane-1,2-diol:

Species	:	Rabbit
Result	:	Irritation to eyes, reversing within 21 days

propylidynetrimethyl trimethacrylate:

Species	:	Rabbit
Method	:	OECD Test Guideline 405
Result	:	No eye irritation

Ethylene dibenzoate:

Species	:	Rabbit
Method	:	OECD Test Guideline 405
Result	:	No eye irritation

Dibenzoyl peroxide:

Species	:	Rabbit
Result	:	Irritation to eyes, reversing within 21 days
Remarks	:	Based on national or regional regulation.

Reaction mass of 2-{[2-(2-hydroxyethoxy)ethyl](4-methylphenyl)amino}ethanol and 2,2'-[(4-methylphenyl)imino]diethanol:

Species	:	Rabbit
Method	:	OECD Test Guideline 405
Result	:	Irreversible effects on the eye

Respiratory or skin sensitisation

Skin sensitisation

May cause an allergic skin reaction.

Respiratory sensitisation

Not classified based on available information.

Components:

1,6-Hexanediyl bismethacrylate:

Test Type	:	Local lymph node assay (LLNA)
Exposure routes	:	Skin contact
Species	:	Mouse
Method	:	OECD Test Guideline 429
Result	:	negative

Methacrylic acid, monoester with propane-1,2-diol:

Exposure routes	:	Skin contact
Species	:	Humans
Result	:	positive
Assessment	:	Probability or evidence of skin sensitisation in humans

propylidynetrimethyl trimethacrylate:

Test Type	:	Maximisation Test
Exposure routes	:	Skin contact
Species	:	Guinea pig
Method	:	OECD Test Guideline 406
Result	:	negative

Ethylene dibenzoate:

Test Type	:	Local lymph node assay (LLNA)
Exposure routes	:	Skin contact
Species	:	Mouse
Method	:	OECD Test Guideline 429
Result	:	negative

Dibenzoyl peroxide:

Test Type	:	Local lymph node assay (LLNA)
Exposure routes	:	Skin contact
Species	:	Mouse
Result	:	positive
Assessment	:	Probability or evidence of skin sensitisation in humans

Reaction mass of 2-{[2-(2-hydroxyethoxy)ethyl](4-methylphenyl)amino}ethanol and 2,2'-[(4-methylphenyl)imino]diethanol:

Test Type	:	Local lymph node assay (LLNA)
Exposure routes	:	Skin contact
Species	:	Mouse
Method	:	OECD Test Guideline 429
Result	:	positive
Assessment	:	Probability or evidence of skin sensitisation in humans

Germ cell mutagenicity

Not classified based on available information.

Components:

1,6-Hexanediyl bismethacrylate:

Genotoxicity in vitro	:	Test Type: Bacterial reverse mutation assay (AMES) Method: OECD Test Guideline 471 Result: negative Remarks: Based on data from similar materials Test Type: In vitro mammalian cell gene mutation test Method: OECD Test Guideline 476 Result: negative Remarks: Based on data from similar materials Test Type: Chromosome aberration test in vitro Method: OECD Test Guideline 473

Result: negative
Remarks: Based on data from similar materials

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
Species: Mouse
Application Route: Ingestion
Method: OECD Test Guideline 474
Result: negative
Remarks: Based on data from similar materials

Methacrylic acid, monoester with propane-1,2-diol:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Method: OECD Test Guideline 471
Result: negative

Test Type: In vitro mammalian cell gene mutation test
Method: OECD Test Guideline 476
Result: negative

Test Type: Chromosome aberration test in vitro
Result: positive

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
Species: Mouse
Application Route: Ingestion
Method: OECD Test Guideline 474
Result: negative

propylidynetrimethyl trimethacrylate:

Genotoxicity in vitro : Test Type: In vitro mammalian cell gene mutation test
Method: OECD Test Guideline 476
Result: negative

Genotoxicity in vivo : Test Type: Unscheduled DNA synthesis (UDS) test with mammalian liver cells in vivo
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 486
Result: negative

Ethylene dibenzoate:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Method: OECD Test Guideline 471
Result: negative

Test Type: In vitro mammalian cell gene mutation test
Method: OECD Test Guideline 490
Result: negative

Test Type: Chromosome aberration test in vitro
Method: OECD Test Guideline 473
Result: negative

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
Species: Mouse
Application Route: Ingestion
Method: OECD Test Guideline 474
Result: negative

Dibenzoyl peroxide:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Result: negative

Test Type: In vitro mammalian cell gene mutation test
Method: OECD Test Guideline 476
Result: negative

Test Type: Chromosome aberration test in vitro
Result: negative

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
Species: Mouse
Application Route: Intraperitoneal injection
Method: OECD Test Guideline 474
Result: negative

Reaction mass of 2-{[2-(2-hydroxyethoxy)ethyl](4-methylphenyl)amino}ethanol and 2,2'-[(4-methylphenyl)imino]diethanol:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Method: OECD Test Guideline 471
Result: negative

Test Type: In vitro mammalian cell gene mutation test
Method: OECD Test Guideline 476
Result: positive

Test Type: Chromosome aberration test in vitro
Method: OECD Test Guideline 473
Result: negative

Genotoxicity in vivo : Test Type: In vivo mammalian alkaline comet assay
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 489
Result: negative

Carcinogenicity

Not classified based on available information.

Components:

Quartz:

Species	:	Humans
Application Route	:	inhalation (dust/mist/fume)
Result	:	positive
Remarks	:	This substance(s) is not bioavailable and therefore does not contribute to a dust inhalation hazard.
Carcinogenicity - Assessment	:	Positive evidence from human epidemiological studies (inhalation)

1,6-Hexanediyl bismethacrylate:

Species	:	Rat
Application Route	:	inhalation (vapour)
Exposure time	:	2 Years
Result	:	negative
Remarks	:	Based on data from similar materials

Methacrylic acid, monoester with propane-1,2-diol:

Species	:	Rat
Application Route	:	Ingestion
Exposure time	:	2 Years
Result	:	negative
Remarks	:	Based on data from similar materials

propylidynetrimethyl trimethacrylate:

Species	:	Mouse
Application Route	:	Skin contact
Exposure time	:	80 weeks
Result	:	negative

Dibenzoyl peroxide:

Species	:	Rat
Application Route	:	Skin contact
Exposure time	:	104 weeks
Result	:	negative

Reproductive toxicity

Not classified based on available information.

Components:

1,6-Hexanediyl bismethacrylate:

Effects on fertility	:	Test Type: Two-generation reproduction toxicity study Species: Rat Application Route: Ingestion Method: OECD Test Guideline 416 Result: negative Remarks: Based on data from similar materials

Effects on foetal development	:	Test Type: Embryo-foetal development Species: Rat Application Route: Ingestion Method: OECD Test Guideline 414 Result: negative Remarks: Based on data from similar materials

Methacrylic acid, monoester with propane-1,2-diol:

Effects on fertility	:	Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test Species: Rat Application Route: Ingestion Method: OECD Test Guideline 422 Result: negative
Effects on foetal development	:	Test Type: Embryo-foetal development Species: Rabbit Application Route: Ingestion Method: OECD Test Guideline 414 Result: negative Remarks: Based on data from similar materials

propylidynetrimethyl trimethacrylate:

Effects on fertility	:	Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test Species: Rat Application Route: Ingestion Method: OECD Test Guideline 422 Result: negative
Effects on foetal development	:	Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test Species: Rat Application Route: Ingestion Method: OECD Test Guideline 422 Result: negative

Ethylene dibenzoate:

Effects on fertility	:	Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test Species: Rat Application Route: Ingestion Method: OECD Test Guideline 422 Result: negative
Effects on foetal development	:	Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test Species: Rat Application Route: Ingestion Method: OECD Test Guideline 422

Result: negative

Dibenzoyl peroxide:

Effects on fertility	:	Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test Species: Rat Application Route: Ingestion Method: OECD Test Guideline 422 Result: negative
Effects on foetal development	:	Test Type: Embryo-foetal development Species: Rat Application Route: Ingestion Method: OECD Test Guideline 414 Result: negative

Reaction mass of 2-{[2-(2-hydroxyethoxy)ethyl](4-methylphenyl)amino}ethanol and 2,2'-[(4-methylphenyl)imino]diethanol:

Effects on foetal development	:	Test Type: Embryo-foetal development Species: Rat Application Route: Ingestion Method: OECD Test Guideline 414 Result: negative

STOT - single exposure

Not classified based on available information.

Components:

Methacrylic acid, monoester with propane-1,2-diol:

Assessment	:	May cause respiratory irritation.

STOT - repeated exposure

Not classified based on available information.

Components:

Quartz:

Exposure routes	:	inhalation (dust/mist/fume)
Target Organs	:	Lungs
Assessment	:	Shown to produce significant health effects in animals at concentrations of 0.02 mg/l/6h/d or less.

Repeated dose toxicity

Components:

Quartz:

Species	:	Humans
LOAEL	:	0,053 mg/m3
Application Route	:	inhalation (dust/mist/fume)

Remarks : This substance(s) is not bioavailable and therefore does not contribute to a dust inhalation hazard.

1,6-Hexanediyl bismethacrylate:

Species	:	Rat
NOAEL	:	> 300 mg/kg
Application Route	:	Ingestion
Exposure time	:	54 Days
Method	:	OECD Test Guideline 422
Remarks	:	Based on data from similar materials

Methacrylic acid, monoester with propane-1,2-diol:

Species	:	Rat
NOAEL	:	300 mg/kg
Application Route	:	Ingestion
Exposure time	:	54 Days
Method	:	OECD Test Guideline 422

propylidynetrimethyl trimethacrylate:

Species	:	Rat
NOAEL	:	> 900 mg/kg
Application Route	:	Ingestion
Exposure time	:	5 Weeks
Method	:	OECD Test Guideline 422

Species	:	Rabbit
NOAEL	:	300 mg/kg
Application Route	:	Skin contact
Exposure time	:	2 Weeks

Ethylene dibenzoate:

Species	:	Rat
NOAEL	:	300 mg/kg
LOAEL	:	1.000 mg/kg
Application Route	:	Ingestion
Exposure time	:	92 - 98 Days
Method	:	OECD Test Guideline 422

Dibenzoyl peroxide:

Species	:	Rat
NOAEL	:	500 mg/kg
Application Route	:	Ingestion
Exposure time	:	54 Days
Method	:	OECD Test Guideline 422

Reaction mass of 2-{[2-(2-hydroxyethoxy)ethyl](4-methylphenyl)amino}ethanol and 2,2'-[(4-methylphenyl)imino]diethanol:

Species	:	Rat, female
NOAEL	:	100 mg/kg
LOAEL	:	300 mg/kg
Application Route	:	Ingestion
Exposure time	:	28 Days
Method	:	OECD Test Guideline 407

Aspiration toxicity

Not classified based on available information.

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.

SECTION 12: Ecological information

12.1 Toxicity

Components:

Quartz:

Ecotoxicology Assessment

Acute aquatic toxicity	:	No toxicity at the limit of solubility
Chronic aquatic toxicity	:	No toxicity at the limit of solubility

1,6-Hexanediyl bismethacrylate:

Toxicity to fish	:	LC50 (Danio rerio (zebra fish)): 4,5 mg/l Exposure time: 96 h Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): > 10 - 100 mg/l Exposure time: 48 h Remarks: Based on data from similar materials
Toxicity to algae/aquatic plants	:	ErC50 (Raphidocelis subcapitata (freshwater green alga)): > 1 - 10 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 Remarks: Based on data from similar materials NOEC (Raphidocelis subcapitata (freshwater green alga)): > 1 mg/l

Exposure time: 72 h
Method: OECD Test Guideline 201
Remarks: Based on data from similar materials

Toxicity to microorganisms : NOEC (Pseudomonas putida): > 800 mg/l
Exposure time: 16 h

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: > 1 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)
Remarks: Based on data from similar materials

Methacrylic acid, monoester with propane-1,2-diol:

Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): 493 mg/l
Exposure time: 48 h
Method: DIN 38412

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 143 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants : ErC50 (Raphidocelis subcapitata (freshwater green alga)): > 97,2 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

NOEC (Raphidocelis subcapitata (freshwater green alga)): >= 97,2 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 45,2 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)
Method: OECD Test Guideline 211

propylidynetrimethyl trimethacrylate:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 2 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 9,22 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (green algae)): 3,88 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 201

Toxicity to microorganisms : EC50 : > 1.000 mg/l
Exposure time: 3 h
Method: OECD Test Guideline 209

Toxicity to fish (Chronic toxicity)	:	NOEC: 0,138 mg/l Exposure time: 32 d Species: Pimephales promelas (fathead minnow) Method: OECD Test Guideline 210

Ethylene dibenzoate:

Toxicity to fish	:	LL50 (Danio rerio (zebra fish)): > 100 mg/l Exposure time: 96 h Test substance: Water Accommodated Fraction Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): > 2,4 mg/l Exposure time: 48 h Test substance: Water Accommodated Fraction Method: OECD Test Guideline 202 Remarks: No toxicity at the limit of solubility
Toxicity to algae/aquatic plants	:	ErC50 (Pseudokirchneriella subcapitata (green algae)): > 0,87 mg/l Exposure time: 72 h Test substance: Water Accommodated Fraction Method: OECD Test Guideline 201 Remarks: No toxicity at the limit of solubility NOEC (Pseudokirchneriella subcapitata (green algae)): 0,045 mg/l Exposure time: 72 h Test substance: Water Accommodated Fraction Method: OECD Test Guideline 201
Toxicity to microorganisms	:	EC10 (activated sludge): > 1.280 mg/l Exposure time: 3 h Method: OECD Test Guideline 209
Toxicity to fish (Chronic toxicity)	:	NOEC: 0,073 mg/l Exposure time: 34 d Species: Danio rerio (zebra fish) Test substance: Water Accommodated Fraction Method: OECD Test Guideline 210
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	EC10: 0,79 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea) Test substance: Water Accommodated Fraction Method: OECD Test Guideline 211

Dibenzoyl peroxide:

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): 0,0602 mg/l Exposure time: 96 h Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 0,11 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
Toxicity to algae/aquatic plants	:	ErC50 (Pseudokirchneriella subcapitata (green algae)): 0,0711 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 NOEC (Pseudokirchneriella subcapitata (green algae)): 0,02 mg/l Exposure time: 72 h Method: OECD Test Guideline 201
M-Factor (Acute aquatic toxicity)	:	10
Toxicity to microorganisms	:	EC50 : 35 mg/l Exposure time: 0,5 h Method: OECD Test Guideline 209
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	EC10: 0,001 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea) Method: OECD Test Guideline 211
M-Factor (Chronic aquatic toxicity)	:	10

Reaction mass of 2-{[2-(2-hydroxyethoxy)ethyl](4-methylphenyl)amino}ethanol and 2,2'-[(4-methylphenyl)imino]diethanol:

Toxicity to fish	:	LC50 (Cyprinus carpio (Carp)): > 100 mg/l Exposure time: 96 h Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 48 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
Toxicity to algae/aquatic plants	:	ErC50 (Pseudokirchneriella subcapitata (green algae)): > 100 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 NOEC (Pseudokirchneriella subcapitata (green algae)): 100 mg/l Exposure time: 72 h Method: OECD Test Guideline 201
Toxicity to microorganisms	:	EC50 (activated sludge): > 1.000 mg/l Exposure time: 3 h Method: OECD Test Guideline 209

12.2 Persistence and degradability

Components:

1,6-Hexanediyl bismethacrylate:

Biodegradability : Result: Readily biodegradable.
Biodegradation: 91,1 %
Exposure time: 28 d
Method: OECD Test Guideline 301F

Methacrylic acid, monoester with propane-1,2-diol:

Biodegradability : Result: Readily biodegradable.
Biodegradation: 81 %
Exposure time: 28 d
Method: OECD Test Guideline 301C

propylidynetrimethyl trimethacrylate:

Biodegradability : Result: Not readily biodegradable.
Biodegradation: 53 %
Exposure time: 28 d
Method: OECD Test Guideline 301B

Ethylene dibenzoate:

Biodegradability : Result: Readily biodegradable.
Biodegradation: 81 %
Exposure time: 28 d
Method: OECD Test Guideline 301D

Dibenzoyl peroxide:

Biodegradability : Result: Readily biodegradable.
Biodegradation: 71 %
Exposure time: 28 d
Method: OECD Test Guideline 301D

Reaction mass of 2-{[2-(2-hydroxyethoxy)ethyl](4-methylphenyl)amino}ethanol and 2,2'-[(4-methylphenyl)imino]diethanol:

Biodegradability : Result: Not readily biodegradable.
Biodegradation: 1,5 %
Exposure time: 29 d
Method: OECD Test Guideline 301B

12.3 Bioaccumulative potential

Components:

1,6-Hexanediyl bismethacrylate:

Partition coefficient: n-octanol/water : log Pow: 4,08
Method: OECD Test Guideline 117

Methacrylic acid, monoester with propane-1,2-diol:

Partition coefficient: n-octanol/water : log Pow: 0,97

propylidynetrimethyl trimethacrylate:

Partition coefficient: n-octanol/water : log Pow: 2,749 - 4,193

Ethylene dibenzoate:

Partition coefficient: n-octanol/water : log Pow: 3,75
Method: OECD Test Guideline 117

Dibenzoyl peroxide:

Partition coefficient: n-octanol/water : log Pow: 3,2

Reaction mass of 2-{[2-(2-hydroxyethoxy)ethyl](4-methylphenyl)amino}ethanol and 2,2'-[(4-methylphenyl)imino]diethanol:

Partition coefficient: n-octanol/water : log Pow: 2,17
Method: OECD Test Guideline 117

12.4 Mobility 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.

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.

12.7 Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Dispose of in accordance with local regulations.
According to the European Waste Catalogue, Waste Codes are not product specific, but application specific.
Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.
Do not dispose of waste into sewer.

Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.
If not otherwise specified: Dispose of as unused product.

Waste Code : The following Waste Codes are only suggestions:

used product
08 04 09*, waste adhesives and sealants containing organic solvents or other hazardous substances

unused product
08 04 09*, waste adhesives and sealants containing organic solvents or other hazardous substances

uncleaned packagings
15 01 10*, packaging containing residues of or contaminated by hazardous substances

Acc. Packaging Act properly emptied packaging:
Properly emptied, non-contaminated packaging of non-hazardous products can be supplied to a system for the collection of sales packaging.

SECTION 14: Transport information

14.1 UN number or ID number

ADN : UN 3082

ADR : UN 3082

RID : UN 3082

IMDG : UN 3082

IATA : UN 3082

14.2 UN proper shipping name

ADN : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(DIBENZOYL PEROXIDE, 1,6-Hexanediyl bismethacrylate)

ADR : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.
(DIBENZOYL PEROXIDE, 1,6-Hexanediyl bismethacrylate)

RID : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(DIBENZOYL PEROXIDE, 1,6-Hexanediyl bismethacrylate)

IMDG : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(DIBENZOYL PEROXIDE, 1,6-Hexanediyl bismethacrylate)

IATA : Environmentally hazardous substance, liquid, n.o.s.
(Dibenzoyl peroxide, 1,6-Hexanediyl bismethacrylate)

14.3 Transport hazard class(es)

	Class	Subsidiary risks
ADN	9	
ADR	9	
RID	9	
IMDG	9	
IATA	9	

14.4 Packing group

ADN

Packing group	III
Classification Code	M6
Hazard Identification Number	90
Labels	9
Remarks	Transport in accordance with special regulation 375

ADR

Packing group	III
Classification Code	M6
Hazard Identification Number	90
Labels	9
Tunnel restriction code	(-)
Remarks	Transport in accordance with special regulation 375

RID

Packing group	III
Classification Code	M6
Hazard Identification Number	90
Labels	9
Remarks	Transport in accordance with special regulation 375

IMDG

Packing group	III
Labels	9
EmS Code	F-A, S-F

IATA (Cargo)

Packing instruction (cargo aircraft)	:	964
Packing instruction (LQ)	:	Y964
Packing group	:	III
Labels	:	Miscellaneous

IATA (Passenger)

Packing instruction (passenger aircraft)	:	964
Packing instruction (LQ)	:	Y964
Packing group	:	III
Labels	:	Miscellaneous

14.5 Environmental hazards

ADN
Environmentally hazardous : yes

ADR
Environmentally hazardous : yes

RID
Environmentally hazardous : yes

IMDG
Marine pollutant : yes

IATA (Passenger)
Environmentally hazardous : yes

IATA (Cargo)
Environmentally hazardous : yes

14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

14.7 Maritime transport in bulk according to IMO instruments

Remarks : 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 the market and use of certain dangerous substances, mixtures and articles (Annex XVII) :

Substance(s) or mixture(s) are listed here according to their appearance in the regulation, irrespective of their use/purpose or the conditions of the

restriction. Please refer to the conditions in corresponding Regulation to determine whether an entry is applicable to the placing on the market or not.
Conditions of restriction for the following entries should be considered:
Number on list 3

Number on list 75: If you intend to use this product as tattoo ink, please contact your vendor.

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).	:	Not applicable
Regulation (EU) No 2024/590 on substances that deplete the ozone layer	:	Not applicable
Regulation (EU) 2019/1021 on persistent organic pollutants (recast)	:	Not applicable
Regulation (EU) 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.

		Quantity 1	Quantity 2
E2	ENVIRONMENTAL HAZARDS	200 t	500 t

Water hazard class (Germany)	:	WGK 2 obviously hazardous to water Classification according to AwSV, Annex 1 (5.2)
TA Luft List (Germany)	:	5.2.1: Total dust: Not applicable 5.2.2: Inorganic substances in powdered form: Not applicable 5.2.4: Inorganic substances in gaseous form: Not applicable 5.2.5: Organic Substances: Class 1: 1 % Dibenzoyl peroxide 5.2.7.1.1: Carcinogenic substance: Not applicable 5.2.7.1.1: Quartz fine dust PM4: others: 45 % Quartz 5.2.7.1.1: Formaldehyde: Not applicable 5.2.7.1.1: fibres:

Not applicable
5.2.7.2: Poorly degradable, easily enrichable and highly toxic organic substances:
Not applicable

Volatile organic compounds : Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control)
Volatile organic compounds (VOC) content: 0 %, 0 g/l

Other regulations:

Take note of Directive 94/33/EC on the protection of young people at work or stricter national regulations, where applicable.

15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

Other information : Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

Full text of H-Statements

H241	:	Heating may cause a fire or explosion.
H302	:	Harmful if swallowed.
H315	:	Causes skin irritation.
H317	:	May cause an allergic skin reaction.
H318	:	Causes serious eye damage.
H319	:	Causes serious eye irritation.
H335	:	May cause respiratory irritation.
H350i	:	May cause cancer by inhalation.
H372	:	Causes damage to organs through prolonged or repeated exposure if inhaled.
H400	:	Very toxic to aquatic life.
H410	:	Very toxic to aquatic life with long lasting effects.
H411	:	Toxic to aquatic life with long lasting effects.
H412	:	Harmful to aquatic life with long lasting effects.

Full text of other abbreviations

Acute Tox.	:	Acute toxicity
Aquatic Acute	:	Short-term (acute) aquatic hazard
Aquatic Chronic	:	Long-term (chronic) aquatic hazard
Carc.	:	Carcinogenicity
Eye Dam.	:	Serious eye damage
Eye Irrit.	:	Eye irritation
Org. Perox.	:	Organic peroxides
Skin Irrit.	:	Skin irritation
Skin Sens.	:	Skin sensitisation
STOT RE	:	Specific target organ toxicity - repeated exposure

STOT SE	:	Specific target organ toxicity - single exposure
2004/37/EC	:	Europe. Directive 2004/37/EC on the protection of workers from the risks related to exposure to carcinogens or mutagens at work
DE DFG MAK	:	Germany. MAK BAT Annex IIa
DE TRGS 900	:	Germany. TRGS 900 - Occupational exposure limit values.
DE TRGS 910	:	Germany. TRGS 910 - Substance-specific acceptable and tolerable concentrations and equivalence values for carcinogenic hazardous substances.
2004/37/EC / TWA	:	Long term exposure limit
DE DFG MAK / MAK	:	MAK value
DE TRGS 900 / AGW	:	Time Weighted Average
DE TRGS 910 / Acceptable concentration	:	Acceptable concentration
DE TRGS 910 / Tolerable concentration	:	Tolerable concentration

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

Sources of key data used to compile the Safety Data	:	Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agen-

Sheet cy, http://echa.europa.eu/

Classification of the mixture:		**Classification procedure:**
Skin Sens. 1	H317	Calculation method
Aquatic Chronic 2	H411	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 is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.

DE / EN