Safety Data Sheet

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Issue Date:	28/05/2025	**Supersedes date:**	13/12/2020

This Safety Data Sheet has been prepared in accordance with the New Zealand, Hazardous Substances (Safety Data Sheets) Notice 2017.

IDENTIFICATION:

1.1. Product identifier
RelyX™ Universal Resin Cement Value Pack A1, TR (56978, 56977)

1.2. Recommended use and restrictions on use

Recommended use
Dental Product, Dental Cement

Restrictions on use
For use only by dental professionals in approved indications.

1.3. Supplier's details

Address:	KCI New Zealand Unlimited, Suite 1701, Level 17, PwC Tower 15 Customs Street West, Auckland Central, Auckland 1010 New Zealand
Telephone:	+80 080 8182
E Mail:	psops_supportteam@solventum.com
Website:	Solventum.com

1.4. Emergency telephone number
0800 425 459; (24/7) +1-703-527-3887; (24/7)

This product is a kit or a multipart product which consists of multiple, independently packaged components. A Safety Data Sheet for each of these components is included. Please do not separate the component Safety Data Sheets from this cover page. The document numbers of the SDSs for components of this product are:

41-5399-5, 41-5463-9

One or more components of this KIT is classified as a hazardous substance in accordance with the relevant criteria of the HSNO Act 1996 and the Hazardous Substances (Hazard Classification) Notice 2020.

TRANSPORT INFORMATION

NOT HAZARDOUS FOR TRANSPORT

Marine Pollutant: Not applicable.

Revision information:
Complete document review.

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Safety Data Sheet

Document group:	41-5399-5	**Version number:**	3.00
Issue Date:	24/04/2025	**Supersedes date:**	24/04/2025

This Safety Data Sheet has been prepared in accordance with the New Zealand, Hazardous Substances (Safety Data Sheets) Notice 2017.

SECTION 1: Identification

1.1. Product identifier
3M™ RelyX™ Universal Resin Cement Catalyst Paste

1.2. Recommended use and restrictions on use

Recommended use
Dental Product, Dental Cement

Restrictions on use
For use only by dental professionals in approved indications.

1.3. Supplier's details

Address:	KCI New Zealand Unlimited, Suite 1701, Level 17, PwC Tower 15 Customs Street West, Auckland Central, Auckland 1010 New Zealand
Telephone:	+80 080 8182
E Mail:	psops_supportteam@solventum.com
Website:	Solventum.com

1.4. Emergency telephone number
0800 425 459; (24/7) +1-703-527-3887; (24/7)

SECTION 2: Hazard identification

Classified as hazardous in accordance with the relevant criteria of the HSNO Act 1996 and the Hazardous Substances (Hazard Classification) Notice 2020.
Refer to Section 14 of this Safety Data Sheet for product Dangerous Goods Classification.

2.1. Classification of the substance or mixture
Skin sensitisation: Category 1
Reproductive Toxicity: Category 1
Hazardous to the aquatic environment chronic: Category 3

2.2. Label elements
SIGNAL WORD
Danger

Symbols:
Exclamation mark |Health Hazard |

Pictograms

HAZARD STATEMENTS:

H317	May cause an allergic skin reaction.
H360	May damage fertility or the unborn child.
H412	Harmful to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS

Prevention

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280E	Wear protective gloves.

Response

P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P308 + P313	IF exposed or concerned: Get medical advice/attention.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P362 + P364	Take off contaminated clothing and wash it before reuse.

Storage

P405	Store locked up.

Disposal

P501	Dispose of contents/container via an approved hazardous waste disposal contractor.

SECTION 3: Composition/information on ingredients

Ingredient	CAS Nbr	% by Weight
Diurethanedimethacrylate	72869-86-4	20 - 40
Ytterbium (III) fluoride	13760-80-0	30 - 40
Glass powder (65997-17-3), surface modified with 2-propenoic acid, 2 methyl-.3-(trimethoxysilyl)propyl ester (2530-85-0) and phenyltrimethoxy silane (2996-92-1), bulk material	None	15 - 30
Trithylene Glycol Dimethacrylate	109-16-0	< 10
Silane, trimethoxyoctyl-, hydrolysis products with silica	92797-60-9	< 5
L-Ascorbic acid, 6-hexadecanoate, hydrate (1:2)	2094655-53-3	< 2
Titanium dioxide	13463-67-7	< 1
Triphenyl Phosphite	101-02-0	< 1
2-hydroxyethyl methacrylate	868-77-9	< 0.5
Ethyl 4-dimethylaminobenzoate	10287-53-3	< 0.2

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation
Remove person to fresh air. If you feel unwell, get medical attention.

Skin contact
Immediately wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms develop, get medical attention.

Eye contact
No need for first aid is anticipated. If signs/symptoms persist, get medical attention.

If swallowed
Rinse mouth. If you feel unwell, get medical attention.

4.2. Most important symptoms and effects, both acute and delayed
The most important symptoms and effects based on the CLP classification include:

4.3. Indication of any immediate medical attention and special treatment required
Not applicable

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media
In case of fire: Use a fire fighting agent suitable for ordinary combustible material such as water or foam to extinguish.

5.2. Special hazards arising from the substance or mixture
None inherent in this product.

Hazardous Decomposition or By-Products

Substance	Condition
Carbon monoxide.	During combustion.
Carbon dioxide.	During combustion.
Irritant vapours or gases.	During combustion.

5.3. Special protective actions for fire-fighters
Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

5.4. Hazchem code: Not applicable.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Evacuate area. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice.

6.2. Environmental precautions
Avoid release to the environment.

6.3. Methods and material for containment and cleaning up
Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate

authorities. Clean up residue. Seal the container. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

SECTION 7: Handling and storage

Refer to Section 15 - Controls for more information

7.1. Precautions for safe handling
A no-touch technique is recommended. If skin contact occurs, wash skin with soap and water. Acrylates may penetrate commonly-used gloves. If product contacts glove, remove and discard glove, wash hands immediately with soap and water and then re-glove. Do not handle until all safety precautions have been read and understood. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.) Do not get in eyes. Use personal protective equipment (eg. gloves, respirators…) as required.

7.2. Conditions for safe storage including any incompatibilities
Store away from heat. Store away from oxidising agents.

7.3. Certified handler
Not required

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits
If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

Ingredient	CAS Nbr	Agency	Limit type	Additional comments
Titanium dioxide	13463-67-7	ACGIH	TWA(Respirable nanoscale particles):0.2 mg/m3;TWA(Respirable finescale particles):2.5 mg/m3	A3: Confirmed animal carcinogen.
Titanium dioxide	13463-67-7	New Zealand WES	TWA(8 hours):10 mg/m3	
Fluorides	13760-80-0	ACGIH	TWA(as F):2.5 mg/m3	A4: Not class. as human carcinogin
Fluorides	13760-80-0	New Zealand WES	TWA(as F)(8 hours): 2.5 mg/m3	

ACGIH : American Conference of Governmental Industrial Hygienists
AIHA : American Industrial Hygiene Association
CMRG : Chemical Manufacturer's Recommended Guidelines
New Zealand WES : New Zealand Workplace Exposure Standards.
TWA: Time-Weighted-Average
STEL: Short Term Exposure Limit
ppm: parts per million
mg/m^3: milligrams per cubic metre
CEIL: Ceiling

8.2. Exposure controls

8.2.1. Engineering controls
Use in a well-ventilated area.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:
Safety glasses with side shields.

Refer AS/NZS 1336 - Recommended practices for occupational eye protection and for performance specifications AS/NZS 1337, Parts 1 - 6 - Personal eye-protection.

Skin/hand protection
See Section 7.1 for additional information on skin protection.

Respiratory protection
None required.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Solid.
Specific Physical Form:	Paste
Colour	Yellow
Odour	Slight Acrylic
Odour threshold	*No data available.*
pH	*Not applicable.*
Melting point/Freezing point	*No data available.*
Boiling point/Initial boiling point/Boiling range	*Not applicable.*
Flash point	Flash point > 93 °C (200 °F)
Evaporation rate	*No data available.*
Flammability	Not applicable.
Flammable Limits(LEL)	*Not applicable.*
Flammable Limits(UEL)	*Not applicable.*
Vapour pressure	*No data available.*
Relative Vapour Density	*No data available.*
Density	± 2.1 g/cm3 [*Details:*20°C]
Relative density	± - 2.1 [*Ref Std:*WATER=1]
Water solubility	Negligible
Solubility- non-water	*No data available.*
Partition coefficient: n-octanol/water	*No data available.*
Autoignition temperature	*No data available.*
Decomposition temperature	*No data available.*
Kinematic Viscosity	23,810 mm²/sec
Volatile organic compounds (VOC)	*No data available.*
Percent volatile	*No data available.*
VOC less H2O & exempt solvents	*No data available.*
Molecular weight	*No data available.*

Particle Characteristics	*Not applicable.*

SECTION 10: Stability and reactivity

10.1 Reactivity

This material may be reactive with certain agents under certain conditions - see the remaining headings in this section

10.2 Chemical stability
Stable.

10.3 Possibility of hazardous reactions
Hazardous polymerisation will not occur.

10.4 Conditions to avoid
Heat.

10.5 Incompatible materials
Strong oxidising agents.

10.6 Hazardous decomposition products

Substance	Condition
None known.	

Refer to Section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labelling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

11.1 Information on Toxicological effects

Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

Inhalation
This product may have a characteristic odour; however, no adverse health effects are anticipated.

Skin contact
Contact with the skin during product use is not expected to result in significant irritation. Allergic skin reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

Eye contact
Contact with the eyes during product use is not expected to result in significant irritation.

Ingestion
Gastrointestinal irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhoea. May cause additional health effects (see below).

Additional Health Effects:

Reproductive/Developmental Toxicity:
Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

Carcinogenicity:
Exposures needed to cause the following health effect(s) are not expected during normal, intended use:

Contains a chemical or chemicals which can cause cancer.

Toxicological Data
If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

Acute Toxicity

Name	Route	Species	Value
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
Ytterbium (III) fluoride	Dermal	Professional judgement	LD50 estimated to be > 5,000 mg/kg
Ytterbium (III) fluoride	Ingestion	Rat	LD50 > 5,000 mg/kg
Diurethanedimethacrylate	Dermal	Rat	LD50 > 2,000 mg/kg
Diurethanedimethacrylate	Ingestion	Rat	LD50 > 5,000 mg/kg
Glass powder (65997-17-3), surface modified with 2-propenoic acid, 2 methyl-.3-(trimethoxysilyl)propyl ester (2530-85-0) and phenyltrimethoxy silane (2996-92-1), bulk material	Dermal		LD50 estimated to be > 5,000 mg/kg
Glass powder (65997-17-3), surface modified with 2-propenoic acid, 2 methyl-.3-(trimethoxysilyl)propyl ester (2530-85-0) and phenyltrimethoxy silane (2996-92-1), bulk material	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
Trithylene Glycol Dimethacrylate	Dermal	Mouse	LD50 > 2,000
Trithylene Glycol Dimethacrylate	Ingestion	Rat	LD50 10,837 mg/kg
Triphenyl Phosphite	Dermal	Rabbit	LD50 > 2,000 mg/kg
Triphenyl Phosphite	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 1.7 mg/l
Triphenyl Phosphite	Ingestion	Rat	LD50 1,590 mg/kg
Titanium dioxide	Dermal	Rabbit	LD50 > 10,000 mg/kg
Titanium dioxide	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 6.82 mg/l
Titanium dioxide	Ingestion	Rat	LD50 > 10,000 mg/kg
2-hydroxyethyl methacrylate	Dermal	Rabbit	LD50 > 5,000 mg/kg
2-hydroxyethyl methacrylate	Ingestion	Rat	LD50 5,564 mg/kg
Ethyl 4-dimethylaminobenzoate	Dermal	Rat	LD50 > 2,000 mg/kg
Ethyl 4-dimethylaminobenzoate	Ingestion	Rat	LD50 > 2,000 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Diurethanedimethacrylate	Rabbit	No significant irritation
Glass powder (65997-17-3), surface modified with 2-propenoic acid, 2 methyl-.3-(trimethoxysilyl)propyl ester (2530-85-0) and phenyltrimethoxy silane (2996-92-1), bulk material	Professional judgement	No significant irritation
Trithylene Glycol Dimethacrylate	Rabbit	No significant irritation
Triphenyl Phosphite	Rabbit	Irritant
Titanium dioxide	Rabbit	No significant irritation
2-hydroxyethyl methacrylate	Rabbit	Minimal irritation
Ethyl 4-dimethylaminobenzoate	Rabbit	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
Ytterbium (III) fluoride	Professional judgement	Mild irritant
Diurethanedimethacrylate	Rabbit	No significant irritation

Glass powder (65997-17-3), surface modified with 2-propenoic acid, 2 methyl-.3-(trimethoxysilyl)propyl ester (2530-85-0) and phenyltrimethoxy silane (2996-92-1), bulk material	Professional judgement	No significant irritation
Trithylene Glycol Dimethacrylate	Rabbit	No significant irritation
Triphenyl Phosphite	Rabbit	Moderate irritant
Titanium dioxide	Rabbit	No significant irritation
2-hydroxyethyl methacrylate	Rabbit	Moderate irritant
Ethyl 4-dimethylaminobenzoate	Rabbit	No significant irritation

Sensitisation:

Skin Sensitisation

Name	Species	Value
Diurethanedimethacrylate	Multiple animal species	Sensitising
Trithylene Glycol Dimethacrylate	Mouse	Sensitising
Triphenyl Phosphite	Mouse	Sensitising
Titanium dioxide	Human and animal	Not classified
2-hydroxyethyl methacrylate	Human and animal	Sensitising
Ethyl 4-dimethylaminobenzoate		Not classified

Respiratory Sensitisation

For the component/components, either no data are currently available or the data are not sufficient for classification.

Germ Cell Mutagenicity

Name	Route	Value
Diurethanedimethacrylate	In Vitro	Not mutagenic
Trithylene Glycol Dimethacrylate	In Vitro	Some positive data exist, but the data are not sufficient for classification
Triphenyl Phosphite	In Vitro	Not mutagenic
Triphenyl Phosphite	In vivo	Not mutagenic
Titanium dioxide	In Vitro	Not mutagenic
Titanium dioxide	In vivo	Not mutagenic
2-hydroxyethyl methacrylate	In vivo	Not mutagenic
2-hydroxyethyl methacrylate	In Vitro	Some positive data exist, but the data are not sufficient for classification
Ethyl 4-dimethylaminobenzoate	In vivo	Not mutagenic
Ethyl 4-dimethylaminobenzoate	In Vitro	Some positive data exist, but the data are not sufficient for classification

Carcinogenicity

Name	Route	Species	Value
Trithylene Glycol Dimethacrylate	Dermal	Mouse	Not carcinogenic
Titanium dioxide	Ingestion	Multiple animal species	Not carcinogenic
Titanium dioxide	Inhalation	Rat	Carcinogenic.

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
Diurethanedimethacrylate	Ingestion	Not classified for female reproduction	Rat	NOAEL	premating

				1,000 mg/kg/day	into lactation
Diurethanedimethacrylate	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,000 mg/kg/day	56 days
Diurethanedimethacrylate	Ingestion	Not classified for development	Rat	NOAEL 1,000 mg/kg/day	premating into lactation
Trithylene Glycol Dimethacrylate	Ingestion	Not classified for female reproduction	Rat	NOAEL 1,000 mg/kg/day	premating into lactation
Trithylene Glycol Dimethacrylate	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,000 mg/kg/day	5 weeks
Trithylene Glycol Dimethacrylate	Ingestion	Not classified for development	Rat	NOAEL 1,000 mg/kg/day	premating into lactation
Triphenyl Phosphite	Ingestion	Not classified for female reproduction	Rat	NOAEL 40 mg/kg/day	premating into lactation
Triphenyl Phosphite	Ingestion	Not classified for male reproduction	Rat	NOAEL 40 mg/kg/day	28 days
Triphenyl Phosphite	Ingestion	Not classified for development	Rat	NOAEL 40 mg/kg/day	during gestation
2-hydroxyethyl methacrylate	Ingestion	Not classified for female reproduction	Rat	NOAEL 1,000 mg/kg/day	premating & during gestation
2-hydroxyethyl methacrylate	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,000 mg/kg/day	49 days
2-hydroxyethyl methacrylate	Ingestion	Not classified for development	Rat	NOAEL 1,000 mg/kg/day	premating & during gestation
Ethyl 4-dimethylaminobenzoate	Ingestion	Not classified for female reproduction	Rat	NOAEL 600 mg/kg/day	premating into lactation
Ethyl 4-dimethylaminobenzoate	Ingestion	Not classified for development	Rat	NOAEL 50 mg/kg/day	premating into lactation
Ethyl 4-dimethylaminobenzoate	Ingestion	Toxic to male reproduction	Rat	NOAEL 50 mg/kg/day	53 days

Target Organ(s)

Specific Target Organ Toxicity - single exposure
For the component/components, either no data are currently available or the data are not sufficient for classification.

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Diurethanedimethacrylate	Ingestion	liver | kidney and/or bladder | heart | skin | endocrine system | gastrointestinal tract | bone, teeth, nails, and/or hair | hematopoietic system | immune system | muscles | nervous system | eyes | respiratory system | vascular system	Not classified	Rat	NOAEL 1,000 mg/kg/day	56 days
Trithylene Glycol Dimethacrylate	Dermal	liver	Not classified	Mouse	NOAEL 2,000 mg/kg/day	13 weeks
Trithylene Glycol Dimethacrylate	Dermal	skin	Not classified	Mouse	NOAEL 100 mg/kg/day	13 weeks
Trithylene Glycol	Dermal	gastrointestinal tract	Not classified	Mouse	NOAEL	13 weeks

Dimethacrylate		| hematopoietic system | nervous system | kidney and/or bladder | respiratory system			2,000 mg/kg/day	
Trithylene Glycol Dimethacrylate	Ingestion	hematopoietic system | liver | nervous system | kidney and/or bladder | eyes	Not classified	Rat	NOAEL 3,849 mg/kg/day	13 weeks
Triphenyl Phosphite	Ingestion	nervous system	May cause damage to organs though prolonged or repeated exposure	Rat	NOAEL 15 mg/kg/day	28 days
Triphenyl Phosphite	Ingestion	hematopoietic system | kidney and/or bladder	Not classified	Rat	NOAEL 40 mg/kg/day	28 days
Titanium dioxide	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 0.01 mg/l	2 years
Titanium dioxide	Inhalation	pulmonary fibrosis	Not classified	Human	NOAEL Not available	occupational exposure
Ethyl 4-dimethylaminobenzoate	Ingestion	hematopoietic system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 74 mg/kg/day	28 days
Ethyl 4-dimethylaminobenzoate	Ingestion	liver | heart | endocrine system | gastrointestinal tract | bone, teeth, nails, and/or hair | immune system | muscles | nervous system | eyes | kidney and/or bladder | respiratory system | vascular system	Not classified	Rat	NOAEL 900 mg/kg/day	28 days

Aspiration Hazard
For the component/components, either no data are currently available or the data are not sufficient for classification.

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

SECTION 12: Ecological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. Additional information leading to material classification in Section 2 is available upon request. In addition, environmental fate and effects data on ingredients may not be reflected in this section because an ingredient is present below the threshold for labelling, an ingredient is not expected to be available for exposure, or the data is considered not relevant to the material as a whole.

12.1. Toxicity
Ecotoxic to the aquatic environment.
Acute Aquatic Toxicity: Category 3
Chronic Aquatic Toxicity: Category 3

No product test data available.

Material	CAS Number	Organism	Type	Exposure	Test endpoint	Test result
Diurethanedimethacrylate	72869-86-4	Green algae	Endpoint not reached	72 hours	ErC50	>100 mg/l
Diurethanedim	72869-86-4	Water flea	Experimental	48 hours	EC50	>100 mg/l

ethacrylate						
Diurethanedimethacrylate	72869-86-4	Zebra Fish	Experimental	96 hours	LC50	10.1 mg/l
Diurethanedimethacrylate	72869-86-4	Green algae	Endpoint not reached	72 hours	ErC10	>100 mg/l
Ytterbium (III) fluoride	13760-80-0	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
Glass powder (65997-17-3), surface modified with 2-propenoic acid, 2 methyl-.3-(trimethoxysilyl)propyl ester (2530-85-0) and phenyltrimethoxy silane (2996-92-1), bulk material	None	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
Trithylene Glycol Dimethacrylate	109-16-0	Green algae	Experimental	72 hours	ErC50	>100 mg/l
Trithylene Glycol Dimethacrylate	109-16-0	Zebra Fish	Experimental	96 hours	LC50	16.4 mg/l
Trithylene Glycol Dimethacrylate	109-16-0	Green algae	Experimental	72 hours	NOEC	18.6 mg/l
Trithylene Glycol Dimethacrylate	109-16-0	Water flea	Experimental	21 days	NOEC	32 mg/l
Silane, trimethoxyoctyl-, hydrolysis products with silica	92797-60-9	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
L-Ascorbic acid, 6-hexadecanoate, hydrate (1:2)	2094655-53-3	Green algae	Estimated	72 hours	No tox obs at lmt of water sol	>100 mg/l
L-Ascorbic acid, 6-hexadecanoate, hydrate (1:2)	2094655-53-3	Water flea	Estimated	48 hours	No tox obs at lmt of water sol	>100 mg/l
L-Ascorbic acid, 6-hexadecanoate, hydrate (1:2)	2094655-53-3	Green algae	Estimated	72 hours	No tox obs at lmt of water sol	100 mg/l
Titanium dioxide	13463-67-7	Activated sludge	Experimental	3 hours	NOEC	>=1,000 mg/l

Titanium dioxide	13463-67-7	Diatom	Experimental	72 hours	EC50	>10,000 mg/l
Titanium dioxide	13463-67-7	Fathead minnow	Experimental	96 hours	LC50	>100 mg/l
Titanium dioxide	13463-67-7	Water flea	Experimental	48 hours	EC50	>100 mg/l
Titanium dioxide	13463-67-7	Diatom	Experimental	72 hours	NOEC	5,600 mg/l
Triphenyl Phosphite	101-02-0	Green algae	Experimental	72 hours	ErC50	86 mg/l
Triphenyl Phosphite	101-02-0	Medaka	Experimental	96 hours	LC50	>4.3 mg/l
Triphenyl Phosphite	101-02-0	Water flea	Experimental	48 hours	EC50	0.45 mg/l
Triphenyl Phosphite	101-02-0	Green algae	Experimental	72 hours	NOEC	7.8 mg/l
Triphenyl Phosphite	101-02-0	Activated sludge	Experimental	3 hours	EC50	>100 mg/l
2-hydroxyethyl methacrylate	868-77-9	Turbot	Analogous Compound	96 hours	LC50	833 mg/l
2-hydroxyethyl methacrylate	868-77-9	Fathead minnow	Experimental	96 hours	LC50	227 mg/l
2-hydroxyethyl methacrylate	868-77-9	Green algae	Experimental	72 hours	EC50	710 mg/l
2-hydroxyethyl methacrylate	868-77-9	Water flea	Experimental	48 hours	EC50	380 mg/l
2-hydroxyethyl methacrylate	868-77-9	Green algae	Experimental	72 hours	NOEC	160 mg/l
2-hydroxyethyl methacrylate	868-77-9	Water flea	Experimental	21 days	NOEC	24.1 mg/l
2-hydroxyethyl methacrylate	868-77-9	N/A	Experimental	16 hours	EC0	>3,000 mg/l
2-hydroxyethyl methacrylate	868-77-9	N/A	Experimental	18 hours	LD50	<98 mg per kg of bodyweight
Ethyl 4-dimethylamino benzoate	10287-53-3	Activated sludge	Experimental	3 hours	EC50	>1,000 mg/l
Ethyl 4-dimethylamino benzoate	10287-53-3	Green algae	Experimental	72 hours	EL50	2.8 mg/l
Ethyl 4-dimethylamino benzoate	10287-53-3	Rainbow trout	Experimental	96 hours	LC50	1.9 mg/l
Ethyl 4-dimethylamino benzoate	10287-53-3	Water flea	Experimental	48 hours	EC50	4.5 mg/l
Ethyl 4-dimethylamino benzoate	10287-53-3	Green algae	Experimental	72 hours	ErC10	0.71 mg/l

12.2. Persistence and degradability

Material	CAS Number	Test type	Duration	Study Type	Test result	Protocol
Diurethanedim	72869-86-4	Experimental	28 days	CO2 evolution	22 %CO2	OECD 301B - Modified

ethacrylate		Biodegradation			evolution/THC O2 evolution (does not pass 10-day window)	sturm or CO2
Ytterbium (III) fluoride	13760-80-0	Data not availbl-insufficient	N/A	N/A	N/A	N/A
Glass powder (65997-17-3), surface modified with 2-propenoic acid, 2 methyl-.3-(trimethoxysilyl)propyl ester (2530-85-0) and phenyltrimethoxy silane (2996-92-1), bulk material	None	Data not availbl-insufficient	N/A	N/A	N/A	N/A
Trithylene Glycol Dimethacrylate	109-16-0	Experimental Biodegradation	28 days	CO2 evolution	85 %CO2 evolution/THC O2 evolution	OECD 301B - Modified sturm or CO2
Silane, trimethoxyoctyl-, hydrolysis products with silica	92797-60-9	Data not availbl-insufficient	N/A	N/A	N/A	N/A
L-Ascorbic acid, 6-hexadecanoate, hydrate (1:2)	2094655-53-3	Estimated Biodegradation	28 days	CO2 evolution	93 %CO2 evolution/THC O2 evolution	OECD 301B - Modified sturm or CO2
Titanium dioxide	13463-67-7	Data not availbl-insufficient	N/A	N/A	N/A	N/A
Triphenyl Phosphite	101-02-0	Experimental Biodegradation	28 days	BOD	84 %BOD/ThOD	OECD 301D - Closed bottle test
Triphenyl Phosphite	101-02-0	Experimental Hydrolysis		Hydrolytic half-life (pH 7)	6.5 hours (t 1/2)	OECD 111 Hydrolysis func of pH
2-hydroxyethyl methacrylate	868-77-9	Experimental Biodegradation	28 days	BOD	84 %BOD/COD	OECD 301D - Closed bottle test
2-hydroxyethyl methacrylate	868-77-9	Experimental Hydrolysis		Hydrolytic half-life basic pH	10.9 days (t 1/2)	OECD 111 Hydrolysis func of pH
Ethyl 4-dimethylamino benzoate	10287-53-3	Experimental Biodegradation	28 days	CO2 evolution	40 %CO2 evolution/THC O2 evolution	OECD 301B - Modified sturm or CO2
Ethyl 4-dimethylamino benzoate	10287-53-3	Experimental Hydrolysis		Hydrolytic half-life (pH 7)	>1 years (t 1/2)	OECD 111 Hydrolysis func of pH

12.3 : Bioaccumulative potential

Material	CAS Number	Test type	Duration	Study Type	Test result	Protocol
Diurethanedimethacrylate	72869-86-4	Experimental Bioconcentration		Log Kow	3.39	
Ytterbium (III) fluoride	13760-80-0	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Glass powder (65997-17-3), surface modified with 2-propenoic acid, 2 methyl-.3-(trimethoxysilyl)propyl ester (2530-85-0) and phenyltrimethoxy silane (2996-92-1), bulk material	None	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Trithylene Glycol Dimethacrylate	109-16-0	Experimental Bioconcentration		Log Kow	2.3	EC A.8 Partition Coefficient
Silane, trimethoxyoctyl-, hydrolysis products with silica	92797-60-9	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
L-Ascorbic acid, 6-hexadecanoate, hydrate (1:2)	2094655-53-3	Estimated Bioconcentration		Log Kow	>6.5	
Titanium dioxide	13463-67-7	Experimental BCF - Fish	42 days	Bioaccumulation factor	9.6	
Triphenyl Phosphite	101-02-0	Hydrolysis product Bioconcentration		Log Kow	1.47	
2-hydroxyethyl methacrylate	868-77-9	Experimental Bioconcentration		Log Kow	0.42	OECD 107 log Kow shke flsk mtd
Ethyl 4-dimethylamino benzoate	10287-53-3	Experimental Bioconcentration		Log Kow	3.2	OECD 117 log Kow HPLC method

12.4. Mobility in soil
Please contact manufacturer for more details

12.5 Other adverse effects
No information available.

SECTION 13: Disposal considerations

13.1. Disposal methods
In accordance with the Hazardous Substances (Disposal) Notice 2017 and the relevant criteria of the HSNO Act 1996.

Dispose of waste product in a permitted industrial waste facility. As a disposal alternative, incinerate in a permitted waste incineration facility.

Packaging (that may or may not contain any residual substance) may be lawfully disposed of by householders or other consumers through public or commercial waste collection services.

SECTION 14: Transport Information

New Zealand Land Transport Rule: Dangerous Goods - Road/Rail Transport
UN No.: Not applicable.
Proper Shipping Name: Not applicable.
Class/Division: Not applicable.
Sub Risk: Not applicable.
Packing Group: Not applicable.

Hazchem Code: Not applicable.
IERG: Not applicable.

International Air Transport Association (IATA) - Air Transport
UN No.: Not applicable.
Proper Shipping Name: Not applicable.
Class/Division: Not applicable.
Sub Risk: Not applicable.
Packing Group: Not applicable.

International Maritime Dangerous Goods Code (IMDG) - Marine Transport
UN No.: Not applicable.
Proper Shipping Name: Not applicable.
Class/Division: Not applicable.
Sub Risk: Not applicable.
Packing Group: Not applicable.
Marine Pollutant: Not applicable.

SECTION 15: Regulatory information

HSNO Approval number	HSR002558
Group standard name	Dental Products (Subsidiary Hazard) Group Standard 2020
HSNO Hazard classification	Refer to Section 2: Hazard identification

NZ Inventory of Chemicals (NZIoC) Status

Controls in accordance with The Health and Safety at Work Act 2015, Health and Safety at Work (Hazardous Substances) Regulations 2017 and the HSNO Act 1996, Hazardous Substances (Hazardous Property Controls) Notice 2017

Certified handler	Not required
Location Compliance Certificate	Not required
Hazardous atmosphere zone	Not required
Fire extinguishers	Not required
Emergency response plan	100 L or 100 kg (for Hazardous to the aquatic environment Category 1

	substances); or 1 000 L or 1 000 kg (for Acute toxicity Category 4, Skin sensitisation Category 1, Respiratory sensitisation Category 1, Hazardous to the aquatic environment Category 2 or Hazardous to the aquatic environment Category 3 substances); or 10 000 L or 10 000 kg (for Germ cell mutagenicity Category 1, Reproductive toxicity Category 1, Specific target organ toxicity Category 1, Serious eye damage Category 1, Hazardous to the aquatic environment Category 4 substances)
Secondary containment	100 L or 100 kg (for Hazardous to the aquatic environment Category 1 substances); or 1 000 L or 1 000 kg (for Acute toxicity Category 4, Skin sensitisation Category 1, Respiratory sensitisation Category 1, Hazardous to the aquatic environment Category 2 or Hazardous to the aquatic environment Category 3 substances); or 10 000 L or 10 000 kg (for Germ cell mutagenicity Category 1, Reproductive toxicity Category 1, Specific target organ toxicity Category 1, Serious eye damage Category 1, Hazardous to the aquatic environment Category 4 substances)
Tracking	Not required
Warning signage	100 L or 100 kg (for Hazardous to the aquatic environment Category 1 substances); or 1 000 L or 1 000 kg (for Serious eye damage Category 1, Hazardous to the aquatic environment Category 2 or Hazardous to the aquatic environment Category 3 substances); or 10 000 L or 10 000 kg (for Acute toxicity Category 4 or Hazardous to the aquatic environment Category 4 substances)

SECTION 16: Other information

Revision information:
Complete document review.

Document group:	41-5399-5	**Version number:**	3.00
Issue Date:	24/04/2025	**Supersedes date:**	24/04/2025

Key to abbreviations and acronyms
GHS refers to the Globally Harmonised System of Classification and Labelling of Chemicals, 7th revised edition of 2017
HSNO means Hazardous Substances and New Organisms Act 1996

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Safety Data Sheet

Document group:	41-5463-9	**Version number:**	2.00
Issue Date:	24/04/2025	**Supersedes date:**	13/12/2020

This Safety Data Sheet has been prepared in accordance with the New Zealand, Hazardous Substances (Safety Data Sheets) Notice 2017.

SECTION 1: Identification

1.1. Product identifier
RelyX™ Universal Resin Cement Base Paste

1.2. Recommended use and restrictions on use

Recommended use
Dental Product, Dental Cement

Restrictions on use
For use only by dental professionals in approved indications.

1.3. Supplier's details

Address:	KCI New Zealand Unlimited, Suite 1701, Level 17, PwC Tower 15 Customs Street West, Auckland Central, Auckland 1010 New Zealand
Telephone:	+80 080 8182
E Mail:	psops_supportteam@solventum.com
Website:	Solventum.com

1.4. Emergency telephone number
0800 425 459; (24/7) +1-703-527-3887; (24/7)

SECTION 2: Hazard identification

Classified as hazardous in accordance with the relevant criteria of the HSNO Act 1996 and the Hazardous Substances (Hazard Classification) Notice 2020.
Refer to Section 14 of this Safety Data Sheet for product Dangerous Goods Classification.

2.1. Classification of the substance or mixture
Skin irritation: Category 2
Serious eye damage: Category 1
Skin sensitisation: Category 1
Hazardous to the aquatic environment chronic: Category 3

2.2. Label elements
SIGNAL WORD
Danger

Symbols:
Corrosion |Exclamation mark |

Pictograms

HAZARD STATEMENTS:

H315	Causes skin irritation.
H318	Causes serious eye damage.
H317	May cause an allergic skin reaction.
H412	Harmful to aquatic life with long lasting effects.

2.3. Other hazards
This material has been tested for eye damage/irritation and the test results are reflected in the assigned classification.

SECTION 3: Composition/information on ingredients

Ingredient	CAS Nbr	% by Weight
2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propyl ester, reaction products with vitreous silica	122334-95-6	20 - 35
DIURETHANDIMETHACRYLATE	72869-86-4	20 - 35
2,2'-Ethylenedioxydiethyl dimethacrylate	109-16-0	20 - 35
MIXTURE OF MONO- DI- AND TRI- GLYCEROL DIMETHACRYLATE ESTER OF PHOSPHORIC ACID	1224866-76-5	5 - 15
Silane, trimethoxyoctyl-, hydrolysis products with silica	92797-60-9	1 - 10
T-AMYL HYDROPEROXIDE	3425-61-4	< 2.5
2,6-Di-tert-butyl-p-cresol	128-37-0	< 1
2-Hydroxyethyl methacrylate	868-77-9	< 0.5
Methyl methacrylate	80-62-6	< 0.5
ACETIC ACID, COPPER(2+) SALT, MONOHYDRATE	6046-93-1	< 0.1

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation
Remove person to fresh air. If you feel unwell, get medical attention.

Skin contact
Immediately wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms develop, get medical attention.

Eye contact
Immediately flush with large amounts of water for at least 15 minutes. Remove contact lenses if easy to do. Continue rinsing. Immediately get medical attention.
A product risk assessment is recommended to determine if eye wash facilities may be required when using this product in the workplace.

If swallowed
Rinse mouth. If you feel unwell, get medical attention.

4.2. Most important symptoms and effects, both acute and delayed
The most important symptoms and effects based on the CLP classification include:

4.3. Indication of any immediate medical attention and special treatment required
Not applicable

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media
In case of fire: Use a fire fighting agent suitable for ordinary combustible material such as water or foam to extinguish.

5.2. Special hazards arising from the substance or mixture
None inherent in this product.

Hazardous Decomposition or By-Products

Substance	Condition
Carbon monoxide.	During combustion.
Carbon dioxide.	During combustion.
Irritant vapours or gases.	During combustion.

5.3. Special protective actions for fire-fighters
Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

5.4. Hazchem code: Not applicable.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Evacuate area. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Use personal protective equipment based on the results of an exposure assessment. Refer to Section 8 for PPE recommendations. If anticipated exposure resulting from an accidental release exceeds the protective capabilities of the PPE listed in Section 8, or are unknown, select PPE that offers an appropriate level of protection. Consider the physical and chemical hazards of the material when doing so. Examples of PPE ensembles for emergency response could include wearing bunker gear for a release of flammable material; wearing chemical protective clothing if the spilled material is a corrosive, a sensitizer, a significant dermal irritant, or can be absorbed through the skin; or donning a positive pressure supplied-air respirator for chemicals with inhalation hazards. For information regarding physical and health hazards, refer to sections 2 and 11 of the SDS.

6.2. Environmental precautions
Avoid release to the environment.

6.3. Methods and material for containment and cleaning up
Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Clean up residue. Seal the container. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

SECTION 7: Handling and storage

Refer to Section 15 - Controls for more information

7.1. Precautions for safe handling
A no-touch technique is recommended. If skin contact occurs, wash skin with soap and water. Acrylates may penetrate commonly-used gloves. If product contacts glove, remove and discard glove, wash hands immediately with soap and water and then re-glove. Avoid breathing dust/fume/gas/mist/vapours/spray. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.) Do not get in eyes.

7.2. Conditions for safe storage including any incompatibilities
Store away from heat. Store away from oxidising agents.

7.3. Certified handler
Not required

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits
If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

Ingredient	CAS Nbr	Agency	Limit type	Additional comments
2,6-Di-tert-butyl-p-cresol	128-37-0	ACGIH	TWA(inhalable fraction and vapor):2 mg/m3	A4: Not class. as human carcinogin
2,6-Di-tert-butyl-p-cresol	128-37-0	New Zealand WES	TWA(8 hours):10 mg/m3	
Copper compounds	6046-93-1	ACGIH	TWA(as Cu, fume):0.2 mg/m3;TWA(as Cu dust or mist):1 mg/m3	
Copper, inorganic compounds	6046-93-1	New Zealand WES	TWA(as Cu, respirable)(8 hours):0.01 mg/m3	Dermal sensitizer
Methyl methacrylate	80-62-6	ACGIH	TWA:50 ppm;STEL:100 ppm	A4: Not class. as human carcin, Dermal Sensitizer
Methyl methacrylate	80-62-6	New Zealand WES	TWA(8 hours):208 mg/m3(50 ppm);STEL(15 minutes):416 mg/m3(100 ppm)	Dermal sensitizer, SKIN

ACGIH : American Conference of Governmental Industrial Hygienists
AIHA : American Industrial Hygiene Association
CMRG : Chemical Manufacturer's Recommended Guidelines
New Zealand WES : New Zealand Workplace Exposure Standards.
TWA: Time-Weighted-Average
STEL: Short Term Exposure Limit
ppm: parts per million
mg/m^3: milligrams per cubic metre
CEIL: Ceiling

8.2. Exposure controls

8.2.1. Engineering controls
Use in a well-ventilated area.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:

Safety glasses with side shields.

Refer AS/NZS 1336 - Recommended practices for occupational eye protection and for performance specifications AS/NZS 1337, Parts 1 - 6 - Personal eye-protection.

Skin/hand protection
See Section 7.1 for additional information on skin protection.

Respiratory protection
None required.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Solid.
Specific Physical Form:	Paste
Colour	White
Odour	Slight Acrylic
Odour threshold	*No data available.*
pH	*Not applicable.*
Melting point/Freezing point	*Not applicable.*
Boiling point/Initial boiling point/Boiling range	*Not applicable.*
Flash point	Flash point > 93 °C (200 °F)
Evaporation rate	*No data available.*
Flammability	Not applicable.
Flammable Limits(LEL)	*No data available.*
Flammable Limits(UEL)	*No data available.*
Vapour pressure	*No data available.*
Relative Vapour Density	*No data available.*
Density	± - 2 g/cm3
Relative density	± - 2 [*Ref Std:*WATER=1]
Water solubility	Negligible
Solubility- non-water	*No data available.*
Partition coefficient: n-octanol/water	*No data available.*
Autoignition temperature	*No data available.*
Decomposition temperature	*No data available.*
Kinematic Viscosity	23,810 mm²/sec
Volatile organic compounds (VOC)	*No data available.*
Percent volatile	*No data available.*
VOC less H2O & exempt solvents	*No data available.*
Molecular weight	*No data available.*

Particle Characteristics	*Not applicable.*

SECTION 10: Stability and reactivity

10.1 Reactivity
This material may be reactive with certain agents under certain conditions - see the remaining headings in this section

10.2 Chemical stability
Stable.

10.3 Possibility of hazardous reactions
Hazardous polymerisation will not occur.

10.4 Conditions to avoid
Heat.

10.5 Incompatible materials
Strong oxidising agents.

10.6 Hazardous decomposition products

Substance	Condition
None known.	

Refer to Section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labelling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

11.1 Information on Toxicological effects

Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

Inhalation
Respiratory tract irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Skin contact
Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, dryness, cracking, blistering, and pain. Allergic skin reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

Eye contact
Corrosive (eye burns): Signs/symptoms may include cloudy appearance of the cornea, chemical burns, severe pain, tearing, ulcerations, significantly impaired vision or complete loss of vision.

Ingestion
Gastrointestinal irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhoea.

Toxicological Data
If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

Acute Toxicity

Name	Route	Species	Value
Overall product	Dermal		No data available; calculated ATE >5,000 mg/kg
Overall product	Inhalation-Vapor(4 hr)		No data available; calculated ATE >50 mg/l
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg

2,2'-Ethylenedioxydiethyl dimethacrylate	Dermal	Mouse	LD50 > 2,000
2,2'-Ethylenedioxydiethyl dimethacrylate	Ingestion	Rat	LD50 10,837 mg/kg
2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propyl ester, reaction products with vitreous silica	Dermal	Rabbit	LD50 > 5,000 mg/kg
2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propyl ester, reaction products with vitreous silica	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 0.691 mg/l
2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propyl ester, reaction products with vitreous silica	Ingestion	Rat	LD50 > 5,110 mg/kg
DIURETHANDIMETHACRYLATE	Dermal	Rat	LD50 > 2,000 mg/kg
DIURETHANDIMETHACRYLATE	Ingestion	Rat	LD50 > 5,000 mg/kg
MIXTURE OF MONO- DI- AND TRI- GLYCEROL DIMETHACRYLATE ESTER OF PHOSPHORIC ACID	Dermal		LD50 estimated to be > 5,000 mg/kg
MIXTURE OF MONO- DI- AND TRI- GLYCEROL DIMETHACRYLATE ESTER OF PHOSPHORIC ACID	Ingestion	Rat	LD50 > 2,000 mg/kg
T-AMYL HYDROPEROXIDE	Dermal	Rat	LD50 354 mg/kg
T-AMYL HYDROPEROXIDE	Inhalation-Vapor (4 hours)	Rat	LC50 2.4 mg/l
T-AMYL HYDROPEROXIDE	Ingestion	Rat	LD50 483 mg/kg
2,6-Di-tert-butyl-p-cresol	Dermal	Rat	LD50 > 2,000 mg/kg
2,6-Di-tert-butyl-p-cresol	Ingestion	Rat	LD50 > 2,930 mg/kg
2-Hydroxyethyl methacrylate	Dermal	Rabbit	LD50 > 5,000 mg/kg
Methyl methacrylate	Dermal	Rabbit	LD50 > 5,000 mg/kg
2-Hydroxyethyl methacrylate	Ingestion	Rat	LD50 5,564 mg/kg
Methyl methacrylate	Inhalation-Vapor (4 hours)	Rat	LC50 29.8 mg/l
Methyl methacrylate	Ingestion	Rat	LD50 7,900 mg/kg
ACETIC ACID, COPPER(2+) SALT, MONOHYDRATE	Dermal	Rat	LD50 > 2,000 mg/kg
ACETIC ACID, COPPER(2+) SALT, MONOHYDRATE	Ingestion	Rat	LD50 > 300, < 2000 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
2,2'-Ethylenedioxydiethyl dimethacrylate	Rabbit	No significant irritation
2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propyl ester, reaction products with vitreous silica	Rabbit	No significant irritation
DIURETHANDIMETHACRYLATE	Rabbit	No significant irritation
MIXTURE OF MONO- DI- AND TRI- GLYCEROL DIMETHACRYLATE ESTER OF PHOSPHORIC ACID	Rabbit	Minimal irritation
T-AMYL HYDROPEROXIDE	Rabbit	Corrosive
2,6-Di-tert-butyl-p-cresol	Human and animal	Minimal irritation
2-Hydroxyethyl methacrylate	Rabbit	Minimal irritation
Methyl methacrylate	Rabbit	Irritant
ACETIC ACID, COPPER(2+) SALT, MONOHYDRATE	In vitro data	Corrosive

Serious Eye Damage/Irritation

Name	Species	Value
Overall product	In vitro data	Corrosive
2,2'-Ethylenedioxydiethyl dimethacrylate	Rabbit	No significant irritation
2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propyl ester, reaction products with vitreous silica	Rabbit	No significant irritation
DIURETHANDIMETHACRYLATE	Rabbit	No significant irritation
MIXTURE OF MONO- DI- AND TRI- GLYCEROL DIMETHACRYLATE ESTER OF PHOSPHORIC ACID	Rabbit	Corrosive
T-AMYL HYDROPEROXIDE	Rabbit	Corrosive
2,6-Di-tert-butyl-p-cresol	Rabbit	Mild irritant

2-Hydroxyethyl methacrylate	Rabbit	Moderate irritant
Methyl methacrylate	Rabbit	Mild irritant
ACETIC ACID, COPPER(2+) SALT, MONOHYDRATE	Rabbit	Corrosive

Sensitisation:

Skin Sensitisation

Name	Species	Value
2,2'-Ethylenedioxydiethyl dimethacrylate	Mouse	Sensitising
2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propyl ester, reaction products with vitreous silica	Human and animal	Not classified
DIURETHANDIMETHACRYLATE	Multiple animal species	Sensitising
MIXTURE OF MONO- DI- AND TRI- GLYCEROL DIMETHACRYLATE ESTER OF PHOSPHORIC ACID	Guinea pig	Not classified
T-AMYL HYDROPEROXIDE	similar compounds	Sensitising
2,6-Di-tert-butyl-p-cresol	Human	Not classified
2-Hydroxyethyl methacrylate	Human and animal	Sensitising
Methyl methacrylate	Human and animal	Sensitising
ACETIC ACID, COPPER(2+) SALT, MONOHYDRATE	Guinea pig	Not classified

Respiratory Sensitisation

Name	Species	Value
Methyl methacrylate	Human	Not classified

Germ Cell Mutagenicity

Name	Route	Value
2,2'-Ethylenedioxydiethyl dimethacrylate	In Vitro	Some positive data exist, but the data are not sufficient for classification
2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propyl ester, reaction products with vitreous silica	In Vitro	Not mutagenic
DIURETHANDIMETHACRYLATE	In Vitro	Not mutagenic
MIXTURE OF MONO- DI- AND TRI- GLYCEROL DIMETHACRYLATE ESTER OF PHOSPHORIC ACID	In Vitro	Not mutagenic
T-AMYL HYDROPEROXIDE	In vivo	Not mutagenic
T-AMYL HYDROPEROXIDE	In Vitro	Some positive data exist, but the data are not sufficient for classification
2,6-Di-tert-butyl-p-cresol	In Vitro	Not mutagenic
2,6-Di-tert-butyl-p-cresol	In vivo	Not mutagenic
2-Hydroxyethyl methacrylate	In vivo	Not mutagenic
2-Hydroxyethyl methacrylate	In Vitro	Some positive data exist, but the data are not sufficient for classification
Methyl methacrylate	In vivo	Not mutagenic
Methyl methacrylate	In Vitro	Some positive data exist, but the data are not sufficient for classification
ACETIC ACID, COPPER(2+) SALT, MONOHYDRATE	In Vitro	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
2,2'-Ethylenedioxydiethyl dimethacrylate	Dermal	Mouse	Not carcinogenic
2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propyl ester,	Not	Mouse	Some positive data exist, but the data are not

reaction products with vitreous silica	specified.		sufficient for classification
2,6-Di-tert-butyl-p-cresol	Ingestion	Multiple animal species	Some positive data exist, but the data are not sufficient for classification
Methyl methacrylate	Ingestion	Rat	Not carcinogenic
Methyl methacrylate	Inhalation	Human and animal	Not carcinogenic

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
2,2'-Ethylenedioxydiethyl dimethacrylate	Ingestion	Not classified for female reproduction	Rat	NOAEL 1,000 mg/kg/day	premating into lactation
2,2'-Ethylenedioxydiethyl dimethacrylate	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,000 mg/kg/day	5 weeks
2,2'-Ethylenedioxydiethyl dimethacrylate	Ingestion	Not classified for development	Rat	NOAEL 1,000 mg/kg/day	premating into lactation
2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propyl ester, reaction products with vitreous silica	Ingestion	Not classified for female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation
2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propyl ester, reaction products with vitreous silica	Ingestion	Not classified for male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propyl ester, reaction products with vitreous silica	Ingestion	Not classified for development	Rat	NOAEL 1,350 mg/kg/day	during organogenesis
DIURETHANDIMETHACRYLATE	Ingestion	Not classified for female reproduction	Rat	NOAEL 1,000 mg/kg/day	premating into lactation
DIURETHANDIMETHACRYLATE	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,000 mg/kg/day	56 days
DIURETHANDIMETHACRYLATE	Ingestion	Not classified for development	Rat	NOAEL 1,000 mg/kg/day	premating into lactation
T-AMYL HYDROPEROXIDE	Ingestion	Not classified for female reproduction	Rat	NOAEL 100 mg/kg/day	premating into lactation
T-AMYL HYDROPEROXIDE	Ingestion	Not classified for male reproduction	Rat	NOAEL 100 mg/kg/day	5 weeks
T-AMYL HYDROPEROXIDE	Ingestion	Not classified for development	Rat	NOAEL 100 mg/kg/day	premating into lactation
2,6-Di-tert-butyl-p-cresol	Ingestion	Not classified for female reproduction	Rat	NOAEL 500 mg/kg/day	2 generation
2,6-Di-tert-butyl-p-cresol	Ingestion	Not classified for male reproduction	Rat	NOAEL 500 mg/kg/day	2 generation
2,6-Di-tert-butyl-p-cresol	Ingestion	Not classified for development	Rat	NOAEL 100 mg/kg/day	2 generation
2-Hydroxyethyl methacrylate	Ingestion	Not classified for female reproduction	Rat	NOAEL 1,000 mg/kg/day	premating & during gestation
2-Hydroxyethyl methacrylate	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,000 mg/kg/day	49 days
2-Hydroxyethyl methacrylate	Ingestion	Not classified for development	Rat	NOAEL 1,000 mg/kg/day	premating & during gestation
Methyl methacrylate	Ingestion	Not classified for female reproduction	Rat	NOAEL 400 mg/kg/day	2 generation
Methyl methacrylate	Ingestion	Not classified for male reproduction	Rat	NOAEL 400 mg/kg/day	2 generation
Methyl methacrylate	Ingestion	Not classified for development	Rabbit	NOAEL 450	during

				mg/kg/day	gestation
Methyl methacrylate	Inhalation	Not classified for development	Rat	NOAEL 8.3 mg/l	during organogenesis

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
T-AMYL HYDROPEROXIDE	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	
Methyl methacrylate	Inhalation	respiratory irritation	May cause respiratory irritation	Human	NOAEL Not available	occupational exposure
ACETIC ACID, COPPER(2+) SALT, MONOHYDRATE	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
2,2'-Ethylenedioxydiethyl dimethacrylate	Dermal	liver	Not classified	Mouse	NOAEL 2,000 mg/kg/day	13 weeks
2,2'-Ethylenedioxydiethyl dimethacrylate	Dermal	skin	Not classified	Mouse	NOAEL 100 mg/kg/day	13 weeks
2,2'-Ethylenedioxydiethyl dimethacrylate	Dermal	gastrointestinal tract | hematopoietic system | nervous system | kidney and/or bladder | respiratory system	Not classified	Mouse	NOAEL 2,000 mg/kg/day	13 weeks
2,2'-Ethylenedioxydiethyl dimethacrylate	Ingestion	hematopoietic system | liver | nervous system | kidney and/or bladder | eyes	Not classified	Rat	NOAEL 3,849 mg/kg/day	13 weeks
2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propyl ester, reaction products with vitreous silica	Inhalation	respiratory system | silicosis	Not classified	Human	NOAEL Not available	occupational exposure
DIURETHANDIMETHACRYLATE	Ingestion	liver | kidney and/or bladder | heart | skin | endocrine system | gastrointestinal tract | bone, teeth, nails, and/or hair | hematopoietic system | immune system | muscles | nervous system | eyes | respiratory system | vascular system	Not classified	Rat	NOAEL 1,000 mg/kg/day	56 days
T-AMYL HYDROPEROXIDE	Inhalation	endocrine system | liver | immune system | kidney and/or bladder | hematopoietic system | nervous system	Not classified	Rat	NOAEL 0.337 mg/l	28 days
T-AMYL HYDROPEROXIDE	Ingestion	liver | kidney and/or bladder	Not classified	Rat	NOAEL 100 mg/kg/day	5 weeks
2,6-Di-tert-butyl-p-cresol	Ingestion	liver	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 250 mg/kg/day	28 days

2,6-Di-tert-butyl-p-cresol	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 500 mg/kg/day	2 generation
2,6-Di-tert-butyl-p-cresol	Ingestion	blood	Not classified	Rat	LOAEL 420 mg/kg/day	40 days
2,6-Di-tert-butyl-p-cresol	Ingestion	endocrine system	Not classified	Rat	NOAEL 25 mg/kg/day	2 generation
2,6-Di-tert-butyl-p-cresol	Ingestion	heart	Not classified	Mouse	NOAEL 3,480 mg/kg/day	10 weeks
Methyl methacrylate	Dermal	peripheral nervous system	Not classified	Human	NOAEL Not available	occupational exposure
Methyl methacrylate	Inhalation	olfactory system	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	occupational exposure
Methyl methacrylate	Inhalation	kidney and/or bladder	Not classified	Multiple animal species	NOAEL Not available	14 weeks
Methyl methacrylate	Inhalation	liver	Not classified	Mouse	NOAEL 12.3 mg/l	14 weeks
Methyl methacrylate	Inhalation	respiratory system	Not classified	Human	NOAEL Not available	occupational exposure
Methyl methacrylate	Ingestion	kidney and/or bladder | heart | skin | endocrine system | gastrointestinal tract | hematopoietic system | liver | muscles | nervous system | respiratory system	Not classified	Rat	NOAEL 90.3 mg/kg/day	2 years

Aspiration Hazard
For the component/components, either no data are currently available or the data are not sufficient for classification.

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

SECTION 12: Ecological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. Additional information leading to material classification in Section 2 is available upon request. In addition, environmental fate and effects data on ingredients may not be reflected in this section because an ingredient is present below the threshold for labelling, an ingredient is not expected to be available for exposure, or the data is considered not relevant to the material as a whole.

12.1. Toxicity
Ecotoxic to the aquatic environment.
Acute Aquatic Toxicity: Category 3
Chronic Aquatic Toxicity: Category 3

No product test data available.

Material	CAS Number	Organism	Type	Exposure	Test endpoint	Test result
2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propyl ester, reaction products with vitreous silica	122334-95-6	Activated sludge	Estimated	3 hours	NOEC	>=1,000 mg/l

2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propyl ester, reaction products with vitreous silica	122334-95-6	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
DIURETHAN DIMETHACRYLATE	72869-86-4	Green algae	Endpoint not reached	72 hours	ErC50	>100 mg/l
DIURETHAN DIMETHACRYLATE	72869-86-4	Water flea	Experimental	48 hours	EC50	>100 mg/l
DIURETHAN DIMETHACRYLATE	72869-86-4	Zebra Fish	Experimental	96 hours	LC50	10.1 mg/l
DIURETHAN DIMETHACRYLATE	72869-86-4	Green algae	Endpoint not reached	72 hours	ErC10	>100 mg/l
2,2'-Ethylenedioxydiethyl dimethacrylate	109-16-0	Green algae	Experimental	72 hours	ErC50	>100 mg/l
2,2'-Ethylenedioxydiethyl dimethacrylate	109-16-0	Zebra Fish	Experimental	96 hours	LC50	16.4 mg/l
2,2'-Ethylenedioxydiethyl dimethacrylate	109-16-0	Green algae	Experimental	72 hours	NOEC	18.6 mg/l
2,2'-Ethylenedioxydiethyl dimethacrylate	109-16-0	Water flea	Experimental	21 days	NOEC	32 mg/l
MIXTURE OF MONO- DI- AND TRI-GLYCEROL DIMETHACRYLATE ESTER OF PHOSPHORIC ACID	1224866-76-5	Green algae	Endpoint not reached	72 hours	EC50	>100 mg/l
MIXTURE OF MONO- DI- AND TRI-GLYCEROL DIMETHACRYLATE ESTER OF PHOSPHORIC ACID	1224866-76-5	Water flea	Experimental	48 hours	EC50	>100 mg/l
MIXTURE OF	1224866-76-5	Green algae	Experimental	72 hours	NOEC	56 mg/l

MONO- DI- AND TRI-GLYCEROL DIMETHACRYLATE ESTER OF PHOSPHORIC ACID						
Silane, trimethoxyoctyl-, hydrolysis products with silica	92797-60-9	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
T-AMYL HYDROPEROXIDE	3425-61-4	Activated sludge	Analogous Compound	3 hours	EC50	138 mg/l
T-AMYL HYDROPEROXIDE	3425-61-4	Water flea	Analogous Compound	48 hours	EC50	6.7 mg/l
T-AMYL HYDROPEROXIDE	3425-61-4	Zebra Fish	Analogous Compound	96 hours	LC50	11.3 mg/l
T-AMYL HYDROPEROXIDE	3425-61-4	Green algae	Experimental	72 hours	ErC50	1.2 mg/l
T-AMYL HYDROPEROXIDE	3425-61-4	Green algae	Experimental	72 hours	ErC10	0.38 mg/l
2,6-Di-tert-butyl-p-cresol	128-37-0	Activated sludge	Experimental	3 hours	EC50	>10,000 mg/l
2,6-Di-tert-butyl-p-cresol	128-37-0	Green algae	Experimental	72 hours	EC50	>0.4 mg/l
2,6-Di-tert-butyl-p-cresol	128-37-0	Water flea	Experimental	48 hours	EC50	0.48 mg/l
2,6-Di-tert-butyl-p-cresol	128-37-0	Zebra Fish	Experimental	96 hours	No tox obs at lmt of water sol	>100 mg/l
2,6-Di-tert-butyl-p-cresol	128-37-0	Green algae	Experimental	72 hours	EC10	0.4 mg/l
2,6-Di-tert-butyl-p-cresol	128-37-0	Medaka	Experimental	42 days	NOEC	0.053 mg/l
2,6-Di-tert-butyl-p-cresol	128-37-0	Water flea	Experimental	21 days	NOEC	0.023 mg/l
2-Hydroxyethyl methacrylate	868-77-9	Turbot	Analogous Compound	96 hours	LC50	833 mg/l
2-Hydroxyethyl methacrylate	868-77-9	Fathead minnow	Experimental	96 hours	LC50	227 mg/l
2-Hydroxyethyl methacrylate	868-77-9	Green algae	Experimental	72 hours	EC50	710 mg/l
2-Hydroxyethyl methacrylate	868-77-9	Water flea	Experimental	48 hours	EC50	380 mg/l
2-	868-77-9	Green algae	Experimental	72 hours	NOEC	160 mg/l

Hydroxyethyl methacrylate						
2-Hydroxyethyl methacrylate	868-77-9	Water flea	Experimental	21 days	NOEC	24.1 mg/l
2-Hydroxyethyl methacrylate	868-77-9	N/A	Experimental	16 hours	EC0	>3,000 mg/l
2-Hydroxyethyl methacrylate	868-77-9	N/A	Experimental	18 hours	LD50	<98 mg per kg of bodyweight
Methyl methacrylate	80-62-6	Green algae	Experimental	72 hours	EC50	>110 mg/l
Methyl methacrylate	80-62-6	Rainbow trout	Experimental	96 hours	LC50	>79 mg/l
Methyl methacrylate	80-62-6	Water flea	Experimental	48 hours	EC50	69 mg/l
Methyl methacrylate	80-62-6	Green algae	Experimental	72 hours	NOEC	110 mg/l
Methyl methacrylate	80-62-6	Water flea	Experimental	21 days	NOEC	37 mg/l
Methyl methacrylate	80-62-6	Activated sludge	Experimental	30 minutes	EC20	150 mg/l
Methyl methacrylate	80-62-6	Soil microbes	Experimental	28 days	NOEC	>1,000 mg/kg (Dry Weight)
ACETIC ACID, COPPER(2+) SALT, MONOHYDRATE	6046-93-1	Green algae	Estimated	72 hours	EC50	0.33 mg/l
ACETIC ACID, COPPER(2+) SALT, MONOHYDRATE	6046-93-1	Water flea	Estimated	48 hours	EC50	0.04 mg/l
ACETIC ACID, COPPER(2+) SALT, MONOHYDRATE	6046-93-1	Zebra Fish	Estimated	96 hours	LC50	0.037 mg/l
ACETIC ACID, COPPER(2+) SALT, MONOHYDRATE	6046-93-1	Fathead minnow	Estimated	32 days	EC10	0.019 mg/l
ACETIC ACID, COPPER(2+) SALT, MONOHYDRATE	6046-93-1	Green algae	Estimated	N/A	NOEC	0.069 mg/l

ACETIC ACID, COPPER(2+) SALT, MONOHYDRATE	6046-93-1	Sediment Worm	Estimated	28 days	NOEC	57.5 mg/kg (Dry Weight)
ACETIC ACID, COPPER(2+) SALT, MONOHYDRATE	6046-93-1	Water flea	Estimated	7 days	NOEC	0.01 mg/l
ACETIC ACID, COPPER(2+) SALT, MONOHYDRATE	6046-93-1	Activated sludge	Estimated	N/A	EC50	22 mg/l
ACETIC ACID, COPPER(2+) SALT, MONOHYDRATE	6046-93-1	Barley	Estimated	4 days	NOEC	50 mg/kg (Dry Weight)
ACETIC ACID, COPPER(2+) SALT, MONOHYDRATE	6046-93-1	Bobwhite quail	Estimated	14 days	LD50	4,402 mg per kg of bodyweight
ACETIC ACID, COPPER(2+) SALT, MONOHYDRATE	6046-93-1	Redworm	Estimated	56 days	NOEC	31 mg/kg (Dry Weight)
ACETIC ACID, COPPER(2+) SALT, MONOHYDRATE	6046-93-1	Soil microbes	Estimated	4 days	NOEC	38 mg/kg (Dry Weight)
ACETIC ACID, COPPER(2+) SALT, MONOHYDRATE	6046-93-1	Springtail	Estimated	28 days	NOEC	87.7 mg/kg (Dry Weight)

12.2. Persistence and degradability

Material	CAS Number	Test type	Duration	Study Type	Test result	Protocol
2-Propenoic acid, 2-methyl-, 3-	122334-95-6	Data not availbl-insufficient	N/A	N/A	N/A	N/A

(trimethoxysilyl)propyl ester, reaction products with vitreous silica						
DIURETHAN DIMETHACRYLATE	72869-86-4	Experimental Biodegradation	28 days	CO2 evolution	22 %CO2 evolution/THCO2 evolution (does not pass 10-day window)	OECD 301B - Modified sturm or CO2
2,2'-Ethylenedioxydiethyl dimethacrylate	109-16-0	Experimental Biodegradation	28 days	CO2 evolution	85 %CO2 evolution/THCO2 evolution	OECD 301B - Modified sturm or CO2
MIXTURE OF MONO- DI- AND TRI-GLYCEROL DIMETHACRYLATE ESTER OF PHOSPHORIC ACID	1224866-76-5	Experimental Biodegradation	28 days	BOD	82 %BOD/ThOD	OECD 301F - Manometric respirometry
Silane, trimethoxyoctyl-, hydrolysis products with silica	92797-60-9	Data not availbl-insufficient	N/A	N/A	N/A	N/A
T-AMYL HYDROPEROXIDE	3425-61-4	Modeled Biodegradation	28 days	BOD	0 %BOD/ThOD	OECD 301D - Closed bottle test
2,6-Di-tert-butyl-p-cresol	128-37-0	Data not availbl-insufficient	N/A	N/A	N/A	N/A
2-Hydroxyethyl methacrylate	868-77-9	Experimental Biodegradation	28 days	BOD	84 %BOD/COD	OECD 301D - Closed bottle test
2-Hydroxyethyl methacrylate	868-77-9	Experimental Hydrolysis		Hydrolytic half-life basic pH	10.9 days (t 1/2)	OECD 111 Hydrolysis func of pH
Methyl methacrylate	80-62-6	Experimental Biodegradation	14 days	BOD	94 %BOD/ThOD	OECD 301C - MITI test (I)
ACETIC ACID, COPPER(2+) SALT, MONOHYDRATE	6046-93-1	Analogous Compound Biodegradation	14 days	BOD	74 %BOD/ThOD	OECD 301C - MITI test (I)

12.3 : Bioaccumulative potential

Material	CAS Number	Test type	Duration	Study Type	Test result	Protocol
2-Propenoic acid, 2-methyl-,	122334-95-6	Data not available or	N/A	N/A	N/A	N/A

3-(trimethoxysilyl)propyl ester, reaction products with vitreous silica		insufficient for classification				
DIURETHAN DIMETHACRYLATE	72869-86-4	Experimental Bioconcentration		Log Kow	3.39	
2,2'-Ethylenedioxydiethyl dimethacrylate	109-16-0	Experimental Bioconcentration		Log Kow	2.3	EC A.8 Partition Coefficient
MIXTURE OF MONO- DI- AND TRI-GLYCEROL DIMETHACRYLATE ESTER OF PHOSPHORIC ACID	1224866-76-5	Experimental Bioconcentration		Log Kow	-0.2	
Silane, trimethoxyoctyl-, hydrolysis products with silica	92797-60-9	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
T-AMYL HYDROPEROXIDE	3425-61-4	Modeled Bioconcentration		Log Kow	1.43	Episuite™
2,6-Di-tert-butyl-p-cresol	128-37-0	Experimental BCF - Fish	56 days	Bioaccumulation factor	1277	OECD305-Bioconcentration
2-Hydroxyethyl methacrylate	868-77-9	Experimental Bioconcentration		Log Kow	0.42	OECD 107 log Kow shke flsk mtd
Methyl methacrylate	80-62-6	Experimental Bioconcentration		Log Kow	1.38	OECD 107 log Kow shke flsk mtd
ACETIC ACID, COPPER(2+) SALT, MONOHYDRATE	6046-93-1	Analogous Compound Bioconcentration		Log Kow	-0.17	

12.4. Mobility in soil
Please contact manufacturer for more details

12.5 Other adverse effects
No information available.

SECTION 13: Disposal considerations

13.1. Disposal methods
In accordance with the Hazardous Substances (Disposal) Notice 2017 and the relevant criteria of the HSNO Act 1996.

Dispose of waste product in a permitted industrial waste facility. As a disposal alternative, incinerate in a permitted waste incineration facility.

Packaging (that may or may not contain any residual substance) may be lawfully disposed of by householders or other consumers through public or commercial waste collection services.

SECTION 14: Transport Information

New Zealand Land Transport Rule: Dangerous Goods - Road/Rail Transport
UN No.: Not applicable.
Proper Shipping Name: Not applicable.
Class/Division: Not applicable.
Sub Risk: Not applicable.
Packing Group: Not applicable.

Hazchem Code: Not applicable.
IERG: Not applicable.

International Air Transport Association (IATA) - Air Transport
UN No.: Not applicable.
Proper Shipping Name: Not applicable.
Class/Division: Not applicable.
Sub Risk: Not applicable.
Packing Group: Not applicable.

International Maritime Dangerous Goods Code (IMDG) - Marine Transport
UN No.: Not applicable.
Proper Shipping Name: Not applicable.
Class/Division: Not applicable.
Sub Risk: Not applicable.
Packing Group: Not applicable.
Marine Pollutant: Not applicable.

SECTION 15: Regulatory information

HSNO Approval number	HSR002558
Group standard name	Dental Products (Subsidiary Hazard) Group Standard 2020
HSNO Hazard classification	Refer to Section 2: Hazard identification

NZ Inventory of Chemicals (NZIoC) Status

Controls in accordance with The Health and Safety at Work Act 2015, Health and Safety at Work (Hazardous Substances) Regulations 2017 and the HSNO Act 1996, Hazardous Substances (Hazardous Property Controls) Notice 2017

Certified handler	Not required
Location Compliance Certificate	Not required
Hazardous atmosphere zone	Not required
Fire extinguishers	Not required
Emergency response plan	100 L or 100 kg (for Hazardous to the aquatic environment Category 1 substances); or 1 000 L or 1 000 kg (for Acute toxicity Category 4, Skin sensitisation Category 1, Respiratory sensitisation Category 1, Hazardous to the aquatic environment Category 2 or Hazardous to the aquatic environment Category 3 substances); or 10 000 L or 10 000 kg (for Germ cell mutagenicity Category 1, Reproductive toxicity Category 1, Specific target organ toxicity

	Category 1, Serious eye damage Category 1, Hazardous to the aquatic environment Category 4 substances)
Secondary containment	100 L or 100 kg (for Hazardous to the aquatic environment Category 1 substances); or 1 000 L or 1 000 kg (for Acute toxicity Category 4, Skin sensitisation Category 1, Respiratory sensitisation Category 1, Hazardous to the aquatic environment Category 2 or Hazardous to the aquatic environment Category 3 substances); or 10 000 L or 10 000 kg (for Germ cell mutagenicity Category 1, Reproductive toxicity Category 1, Specific target organ toxicity Category 1, Serious eye damage Category 1, Hazardous to the aquatic environment Category 4 substances)
Tracking	Not required
Warning signage	100 L or 100 kg (for Hazardous to the aquatic environment Category 1 substances); or 1 000 L or 1 000 kg (for Serious eye damage Category 1, Hazardous to the aquatic environment Category 2 or Hazardous to the aquatic environment Category 3 substances); or 10 000 L or 10 000 kg (for Acute toxicity Category 4 or Hazardous to the aquatic environment Category 4 substances)

SECTION 16: Other information

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Key to abbreviations and acronyms
GHS refers to the Globally Harmonised System of Classification and Labelling of Chemicals, 7th revised edition of 2017
HSNO means Hazardous Substances and New Organisms Act 1996

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