

# Safety Data Sheet

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 Document group:
 26-5786-4
 Version number:
 2.00

 Issue Date:
 21/11/2025
 Supersedes date:
 18/07/2025

This Safety Data Sheet has been prepared in accordance with the GHS guidelines & India Hazardous substances (Classification, Labeling & Packaging) Draft Rules 2011.

# **SECTION 1: Identification**

#### 1.1. Product identifier

Filtek<sup>TM</sup> Z350 XT Universal Restorative (7018, 7019)

#### **Product Identification Numbers**

70-2010-5788-5	70-2010-5790-1	70-2010-5982-4	70-2010-5983-2	70-2010-5984-0
70-2010-5985-7	70-2010-5986-5	70-2010-5987-3	70-2010-5988-1	70-2010-5989-9
70-2010-5990-7	70-2010-5991-5	70-2010-5992-3	70-2010-5994-9	70-2010-5995-6
70-2010-5996-4	70-2010-5998-0	70-2010-5999-8	70-2010-7602-6	70-2010-7603-4
70-2010-7604-2	70-2010-7605-9	70-2010-7606-7	70-2010-7607-5	70-2010-7608-3
70-2010-7610-9	70-2010-7612-5	70-2010-7618-2	70-2010-7619-0	70-2010-7620-8
70-2010-7621-6	70-2010-7622-4	70-2010-7623-2	70-2010-7624-0	70-2010-7625-7
70-2010-7626-5				

### 1.2. Recommended use and restrictions on use

#### Recommended use

Dental Product, Restorative

#### Restrictions on use

For use by dental professionals only.

#### 1.3. Supplier's details

Address: KCI Medical India Private Limited, S - 327, Greater Kailash - II, New Delhi, Delhi, 110048, India

**Telephone:** 1-855-423-6725

E Mail: psops\_supportteam@solventum.com

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thereon.

# 1.4. Emergency telephone number

CHEMTREC 1-800-424-9300 OR 1-703-527-3887, Contract number# 1015211

# **SECTION 2: Hazard identification**

Under MSIHC Rules, information is noted below on flammability, acute toxicity and explosivity relevant to this product. In line with international standards, information on other hazard classes and associated precautionary statements relevant to this product are included as well.

# 2.1. Classification of the substance or mixture

Acute Toxicity (oral): Category 5. Skin Sensitizer: Category 1B. Carcinogenicity: Category 2.

# 2.2. Label elements

# Signal Word

Warning

# **Symbols**

Exclamation mark | Health Hazard |







#### **HAZARD STATEMENTS:**

H303 May be harmful if swallowed.
 H317 May cause an allergic skin reaction.
 H351 Suspected of causing cancer by inhalation.

### PRECAUTIONARY STATEMENTS

**Prevention:** 

P280F Wear respiratory protection.

**Response:** 

P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.

# 2.3. Other hazards

Titanium dioxide - no exposure Although titanium dioxide is classified as a carcinogen, exposures associated with this health effect are not expected during normal, intended use of this product.

# **SECTION 3: Composition/information on ingredients**

This material is a mixture.

Ingredient	CAS Nbr	% by Wt
Silane Treated Ceramic	444758-98-9	60 - 80
Silane Treated Silica	248596-91-0	1 - 10
(1-methylethylidene)bis[4,1-	1565-94-2	1 - 10
phenyleneoxy(2-hydroxy-3,1-propanediyl)]		
bismethacrylate		
Bisphenol A Polyethylene Glycol Diether	41637-38-1	1 - 10
Dimethacrylate (BISEMA-6)		
Diurethane Dimethacrylate (UDMA)	72869-86-4	1 - 10
Polyethylene Glycol Dimethacrylate	25852-47-5	< 5
(PEGDMA)		

### Filtek™ Z350 XT Universal Restorative (7018, 7019)

Silane treated zirconia	3032439-23-6	1 - 5
Triethylene glycol dimethacrylate	109-16-0	< 1
Bis(2,4,6-	162881-26-7	< 0.05
trimethylbenzoyl)phenylphosphine oxide		

# **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.

#### Eve contact

Flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. 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

Allergic skin reaction (redness, swelling, blistering, and itching).

# 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**

SubstanceConditionCarbon monoxide.During combustion.Carbon dioxide.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.

# **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 PPE - Exposure Assessment

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**

# 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. Avoid breathing dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. 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. 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.

# **SECTION 8: Exposure controls/personal protection**

# 8.1 Control parameters

# Occupational exposure limits

No occupational exposure limit values exist for any of the components listed in Section 3 of this Safety Data Sheet.

# 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.

# 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

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Physical state	Solid.			
Specific Physical Form:	Paste			
Color	Tooth			
Odor	Slight Acrylate			
Odour threshold	No data available.			
рН	Not applicable.			
Melting point/Freezing point: NA	No data available.			
Boiling point/Initial boiling point/Boiling range	Not applicable.			
Flash point	No flash point			
Evaporation rate	Not applicable.			
Flammability	Not applicable.			
Flammable Limits(LEL)	Not applicable.			
Flammable Limits(UEL)	Not applicable.			
Vapour pressure	Not applicable.			
Relative Vapor Density	Not applicable.			
Density	1.9 g/cm3			
Relative density	1.9 [Ref Std:WATER=1]			
Water solubility	No data available.			
Solubility- non-water	No data available.			
Partition coefficient: n-octanol/water	Not applicable.			
Autoignition temperature	No data available.			
Decomposition temperature	No data available.			
Kinematic Viscosity No data available.				
Volatile organic compounds (VOC)	Not applicable.			
Percent volatile	No data available.			
VOC less H2O & exempt solvents	Not applicable.			
Molecular weight	No data available.			
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27 1. 11
Not annlicable
Not applicable.

# **SECTION 10: Stability and reactivity**

# 10.1 Reactivity

This material is considered to be non reactive under normal use conditions

# 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** 

None known.

Condition

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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

May cause additional health effects (see below).

### 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.

#### Eve contact

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

#### **Ingestion**

May be harmful if swallowed.

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

# **Additional Health Effects:**

# Carcinogenicity:

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 >2,000 - =5,000 mg/kg
Silane Treated Ceramic	Dermal		LD50 estimated to be > 5,000 mg/kg
Silane Treated Ceramic	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
Diurethane Dimethacrylate (UDMA)	Dermal	Rat	LD50 > 2,000 mg/kg
Diurethane Dimethacrylate (UDMA)	Ingestion	Rat	LD50 > 5,000 mg/kg
Bisphenol A Polyethylene Glycol Diether Dimethacrylate (BISEMA-6)	Dermal	Rat	LD50 > 2,000 mg/kg
Bisphenol A Polyethylene Glycol Diether Dimethacrylate (BISEMA-6)	Ingestion	Rat	LD50 > 35,000 mg/kg
Silane Treated Silica	Dermal		LD50 estimated to be > 5,000 mg/kg
Silane Treated Silica	Ingestion		LD50 estimated to be > 5,000 mg/kg
(1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)] bismethacrylate	Dermal	Professio nal judgeme nt	LD50 estimated to be > 5,000 mg/kg

(1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)] bismethacrylate	Ingestion	Rat	LD50 > 11,700 mg/kg
Silane treated zirconia	Dermal		LD50 estimated to be > 5,000 mg/kg
Silane treated zirconia	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
Polyethylene Glycol Dimethacrylate (PEGDMA)	Dermal	Rabbit	LD50 15,500 mg/kg
Polyethylene Glycol Dimethacrylate (PEGDMA)	Ingestion	Rat	LD50 9,400 mg/kg
Triethylene glycol dimethacrylate	Dermal	Mouse	LD50 > 2,000
Triethylene glycol dimethacrylate	Ingestion	Rat	LD50 10,837 mg/kg
Bis(2,4,6-trimethylbenzoyl)phenylphosphine oxide	Dermal	Rat	LD50 > 2,000  mg/kg
Bis(2,4,6-trimethylbenzoyl)phenylphosphine oxide	Ingestion	Rat	LD50 > 2,000  mg/kg

ATE = acute toxicity estimate

# Skin Corrosion/Irritation

Name	Species	Value
Silane Treated Ceramic	similar compoun ds	No significant irritation
Diurethane Dimethacrylate (UDMA)	Rabbit	No significant irritation
Bisphenol A Polyethylene Glycol Diether Dimethacrylate (BISEMA-6)	Rabbit	Minimal irritation
Silane Treated Silica	Professio	No significant irritation
	nal judgemen t	
(1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)] bismethacrylate	Rabbit	No significant irritation
Silane treated zirconia	Rabbit	No significant irritation
Polyethylene Glycol Dimethacrylate (PEGDMA)	Rabbit	Mild irritant
Triethylene glycol dimethacrylate	Rabbit	No significant irritation
Bis(2,4,6-trimethylbenzoyl)phenylphosphine oxide	Rabbit	No significant irritation

**Serious Eye Damage/Irritation** 

Name	Species	Value
Silane Treated Ceramic	similar compoun ds	Mild irritant
Diurethane Dimethacrylate (UDMA)	Rabbit	No significant irritation
Bisphenol A Polyethylene Glycol Diether Dimethacrylate (BISEMA-6)	Rabbit	No significant irritation
Silane Treated Silica	Professio nal judgemen t	No significant irritation
(1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)] bismethacrylate	In vitro data	No significant irritation
Silane treated zirconia	Rabbit	Mild irritant
Polyethylene Glycol Dimethacrylate (PEGDMA)	Rabbit	Moderate irritant
Triethylene glycol dimethacrylate	Rabbit	No significant irritation
Bis(2,4,6-trimethylbenzoyl)phenylphosphine oxide	Rabbit	Mild irritant

# **Sensitization:**

# **Skin Sensitisation**

Name	Species	Value
Silane Treated Ceramic	similar compoun ds	Not classified
Diurethane Dimethacrylate (UDMA)	Multiple animal species	Sensitising
Bisphenol A Polyethylene Glycol Diether Dimethacrylate (BISEMA-6)	Guinea pig	Not classified

(1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)]	Mouse	Not classified
bismethacrylate		
Polyethylene Glycol Dimethacrylate (PEGDMA)	Guinea	Not classified
	pig	
Triethylene glycol dimethacrylate	Mouse	Sensitising
Bis(2,4,6-trimethylbenzoyl)phenylphosphine oxide	Guinea	Sensitising
	pig	

**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
Diurethane Dimethacrylate (UDMA)	In Vitro	Not mutagenic
Bisphenol A Polyethylene Glycol Diether Dimethacrylate (BISEMA-6)	In Vitro	Not mutagenic
(1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)]	In Vitro	Not mutagenic
bismethacrylate		
Silane treated zirconia	In Vitro	Some positive data exist, but the data are not
		sufficient for classification
Triethylene glycol dimethacrylate	In Vitro	Some positive data exist, but the data are not
		sufficient for classification
Bis(2,4,6-trimethylbenzoyl)phenylphosphine oxide	In Vitro	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
Silane Treated Ceramic	Inhalation	similar compoun ds	Some positive data exist, but the data are not sufficient for classification
Silane treated zirconia	Inhalation	Multiple animal species	Some positive data exist, but the data are not sufficient for classification
Triethylene glycol dimethacrylate	Dermal	Mouse	Not carcinogenic

# Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
Diurethane Dimethacrylate (UDMA)	Ingestion	Not classified for female reproduction	Rat	NOAEL 1,000 mg/kg/day	premating into lactation
Diurethane Dimethacrylate (UDMA)	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,000 mg/kg/day	56 days
Diurethane Dimethacrylate (UDMA)	Ingestion	Not classified for development	Rat	NOAEL 1,000 mg/kg/day	premating into lactation
(1-methylethylidene)bis[4,1- phenyleneoxy(2-hydroxy-3,1-propanediyl)] bismethacrylate	Ingestion	Not classified for development	Rat	NOAEL 1,000 mg/kg/day	during gestation
Triethylene glycol dimethacrylate	Ingestion	Not classified for female reproduction	Rat	NOAEL 1,000 mg/kg/day	premating into lactation
Triethylene glycol dimethacrylate	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,000 mg/kg/day	5 weeks
Triethylene glycol dimethacrylate	Ingestion	Not classified for development	Rat	NOAEL 1,000 mg/kg/day	premating into lactation
Bis(2,4,6- trimethylbenzoyl)phenylphosphine oxide	Ingestion	Not classified for development	Rat	NOAEL 1,000 mg/kg/day	during gestation

# Target Organ(s)

**Specific Target Organ Toxicity - single exposure** 

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure
						Duration
Polyethylene Glycol	Inhalation	respiratory irritation	Some positive data exist, but the	similar	NOAEL Not	
Dimethacrylate			data are not sufficient for	health	available	
(PEGDMA)			classification	hazards		

**Specific Target Organ Toxicity - repeated exposure** 

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Silane Treated Ceramic	Inhalation	pulmonary fibrosis	Not classified	similar compoun ds	NOAEL Not available	
Diurethane Dimethacrylate (UDMA)	Ingestion	liver	Not classified	Rat	NOAEL 1,000 mg/kg/day	56 days
Diurethane Dimethacrylate (UDMA)	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 1,000 mg/kg/day	56 days
Diurethane Dimethacrylate (UDMA)	Ingestion	heart	Not classified	Rat	NOAEL 1,000 mg/kg/day	56 days
Diurethane Dimethacrylate (UDMA)	Ingestion	skin	Not classified	Rat	NOAEL 1,000 mg/kg/day	56 days
Diurethane Dimethacrylate (UDMA)	Ingestion	endocrine system	Not classified	Rat	NOAEL 1,000 mg/kg/day	56 days
Diurethane Dimethacrylate (UDMA)	Ingestion	gastrointestinal tract	Not classified	Rat	NOAEL 1,000 mg/kg/day	56 days
Diurethane Dimethacrylate (UDMA)	Ingestion	bone, teeth, nails, and/or hair	Not classified	Rat	NOAEL 1,000 mg/kg/day	56 days
Diurethane Dimethacrylate (UDMA)	Ingestion	hematopoietic system	Not classified	Rat	NOAEL 1,000 mg/kg/day	56 days
Diurethane Dimethacrylate (UDMA)	Ingestion	immune system	Not classified	Rat	NOAEL 1,000 mg/kg/day	56 days
Diurethane Dimethacrylate (UDMA)	Ingestion	muscles	Not classified	Rat	NOAEL 1,000 mg/kg/day	56 days
Diurethane Dimethacrylate (UDMA)	Ingestion	nervous system	Not classified	Rat	NOAEL 1,000 mg/kg/day	56 days
Diurethane Dimethacrylate (UDMA)	Ingestion	eyes	Not classified	Rat	NOAEL 1,000 mg/kg/day	56 days
Diurethane Dimethacrylate (UDMA)	Ingestion	respiratory system	Not classified	Rat	NOAEL 1,000 mg/kg/day	56 days
Diurethane Dimethacrylate (UDMA)	Ingestion	vascular system	Not classified	Rat	NOAEL 1,000 mg/kg/day	56 days
(1- methylethylidene)bis[4,1- phenyleneoxy(2-hydroxy- 3,1-propanediyl)] bismethacrylate	Ingestion	endocrine system	Not classified	Rat	NOAEL 1,000 mg/kg/day	90 days
(1- methylethylidene)bis[4,1- phenyleneoxy(2-hydroxy- 3,1-propanediyl)] bismethacrylate	Ingestion	hematopoietic system	Not classified	Rat	NOAEL 1,000 mg/kg/day	90 days

(1- methylethylidene)bis[4,1- phenyleneoxy(2-hydroxy- 3,1-propanediyl)] bismethacrylate	Ingestion	liver	Not classified	Rat	NOAEL 1,000 mg/kg/day	90 days
(1- methylethylidene)bis[4,1- phenyleneoxy(2-hydroxy- 3,1-propanediyl)] bismethacrylate	Ingestion	heart	Not classified	Rat	NOAEL 1,000 mg/kg/day	90 days
(1- methylethylidene)bis[4,1- phenyleneoxy(2-hydroxy- 3,1-propanediyl)] bismethacrylate	Ingestion	skin	Not classified	Rat	NOAEL 1,000 mg/kg/day	90 days
(1- methylethylidene)bis[4,1- phenyleneoxy(2-hydroxy- 3,1-propanediyl)] bismethacrylate	Ingestion	gastrointestinal tract	Not classified	Rat	NOAEL 1,000 mg/kg/day	90 days
(1- methylethylidene)bis[4,1- phenyleneoxy(2-hydroxy- 3,1-propanediyl)] bismethacrylate	Ingestion	bone, teeth, nails, and/or hair	Not classified	Rat	NOAEL 1,000 mg/kg/day	90 days
(1- methylethylidene)bis[4,1- phenyleneoxy(2-hydroxy- 3,1-propanediyl)] bismethacrylate	Ingestion	immune system	Not classified	Rat	NOAEL 1,000 mg/kg/day	90 days
(1- methylethylidene)bis[4,1- phenyleneoxy(2-hydroxy- 3,1-propanediyl)] bismethacrylate	Ingestion	muscles	Not classified	Rat	NOAEL 1,000 mg/kg/day	90 days
(1- methylethylidene)bis[4,1- phenyleneoxy(2-hydroxy- 3,1-propanediyl)] bismethacrylate	Ingestion	nervous system	Not classified	Rat	NOAEL 1,000 mg/kg/day	90 days
(1- methylethylidene)bis[4,1- phenyleneoxy(2-hydroxy- 3,1-propanediyl)] bismethacrylate	Ingestion	eyes	Not classified	Rat	NOAEL 1,000 mg/kg/day	90 days
(1- methylethylidene)bis[4,1- phenyleneoxy(2-hydroxy- 3,1-propanediyl)] bismethacrylate	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 1,000 mg/kg/day	90 days
(1- methylethylidene)bis[4,1- phenyleneoxy(2-hydroxy- 3,1-propanediyl)] bismethacrylate	Ingestion	respiratory system	Not classified	Rat	NOAEL 1,000 mg/kg/day	90 days
(1- methylethylidene)bis[4,1- phenyleneoxy(2-hydroxy- 3,1-propanediyl)] bismethacrylate	Ingestion	vascular system	Not classified	Rat	NOAEL 1,000 mg/kg/day	90 days
Silane treated zirconia	Inhalation	pulmonary fibrosis	Not classified	Multiple animal species	NOAEL Not available	
Silane treated zirconia	Inhalation	respiratory system	Not classified	Human	NOAEL Not available	occupational exposure
Triethylene glycol dimethacrylate	Dermal	liver	Not classified	Mouse	NOAEL 2,000 mg/kg/day	13 weeks
Triethylene glycol	Dermal	skin	Not classified	Mouse	NOAEL 100	13 weeks

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dimethacrylate					mg/kg/day	
Triethylene glycol dimethacrylate	Dermal	gastrointestinal tract	Not classified	Mouse	NOAEL 2,000 mg/kg/day	13 weeks
Triethylene glycol dimethacrylate	Dermal	hematopoietic system	Not classified	Mouse	NOAEL 2,000 mg/kg/day	13 weeks
Triethylene glycol dimethacrylate	Dermal	nervous system	Not classified	Mouse	NOAEL 2,000 mg/kg/day	13 weeks
Triethylene glycol dimethacrylate	Dermal	kidney and/or bladder	Not classified	Mouse	NOAEL 2,000 mg/kg/day	13 weeks
Triethylene glycol dimethacrylate	Dermal	respiratory system	Not classified	Mouse	NOAEL 2,000 mg/kg/day	13 weeks
Triethylene glycol dimethacrylate	Ingestion	hematopoietic system	Not classified	Rat	NOAEL 3,849 mg/kg/day	13 weeks
Triethylene glycol dimethacrylate	Ingestion	liver	Not classified	Rat	NOAEL 3,849 mg/kg/day	13 weeks
Triethylene glycol dimethacrylate	Ingestion	nervous system	Not classified	Rat	NOAEL 3,849 mg/kg/day	13 weeks
Triethylene glycol dimethacrylate	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 3,849 mg/kg/day	13 weeks
Triethylene glycol dimethacrylate	Ingestion	eyes	Not classified	Rat	NOAEL 3,849 mg/kg/day	13 weeks
Bis(2,4,6- trimethylbenzoyl)phenylph osphine oxide	Ingestion	gastrointestinal tract	Not classified	Rat	NOAEL 1,000 mg/kg/day	92 days
Bis(2,4,6- trimethylbenzoyl)phenylph osphine oxide	Ingestion	hematopoietic system	Not classified	Rat	NOAEL 1,000 mg/kg/day	92 days
Bis(2,4,6- trimethylbenzoyl)phenylph osphine oxide	Ingestion	heart	Not classified	Rat	NOAEL 1,000 mg/kg/day	92 days
Bis(2,4,6- trimethylbenzoyl)phenylph osphine oxide	Ingestion	endocrine system	Not classified	Rat	NOAEL 1,000 mg/kg/day	92 days
Bis(2,4,6- trimethylbenzoyl)phenylph osphine oxide	Ingestion	liver	Not classified	Rat	NOAEL 1,000 mg/kg/day	92 days
Bis(2,4,6- trimethylbenzoyl)phenylph osphine oxide	Ingestion	immune system	Not classified	Rat	NOAEL 1,000 mg/kg/day	92 days
Bis(2,4,6- trimethylbenzoyl)phenylph osphine oxide	Ingestion	nervous system	Not classified	Rat	NOAEL 1,000 mg/kg/day	92 days
Bis(2,4,6- trimethylbenzoyl)phenylph osphine oxide	Ingestion	eyes	Not classified	Rat	NOAEL 1,000 mg/kg/day	92 days
Bis(2,4,6- trimethylbenzoyl)phenylph osphine oxide	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 1,000 mg/kg/day	92 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**

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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

### Acute aquatic hazard:

Not acutely toxic to aquatic life by GHS criteria.

# Chronic aquatic hazard:

Not chronically toxic to aquatic life by GHS criteria.

No product test data available.

Material	CAS Nbr	Organism	Туре	Exposure	Test endpoint	Test result
Silane Treated Ceramic	444758-98-9	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
(1- methylethylidene)b is[4,1- phenyleneoxy(2- hydroxy-3,1- propanediyl)] bismethacrylate	1565-94-2	Common Carp	Analogous Compound	96 hours	No tox obs at lmt of water sol	>100 mg/l
(1- methylethylidene)b is[4,1- phenyleneoxy(2- hydroxy-3,1- propanediyl)] bismethacrylate	1565-94-2	Green algae	Endpoint not reached	96 hours	EC50	>100 mg/l
(1- methylethylidene)b is[4,1- phenyleneoxy(2- hydroxy-3,1- propanediyl)] bismethacrylate	1565-94-2	Green algae	Experimental	96 hours	EC10	1.1 mg/l
Bisphenol A Polyethylene Glycol Diether Dimethacrylate (BISEMA-6)	41637-38-1	Activated sludge	Estimated	3 hours	EC50	>1,000 mg/l
Bisphenol A Polyethylene Glycol Diether Dimethacrylate (BISEMA-6)	41637-38-1	Green algae	Estimated	72 hours	EL50	>100 mg/l
Bisphenol A Polyethylene Glycol Diether Dimethacrylate (BISEMA-6)	41637-38-1	Water flea	Estimated	48 hours	EL50	>100 mg/l
Bisphenol A Polyethylene Glycol Diether Dimethacrylate (BISEMA-6)	41637-38-1	Zebra Fish	Estimated	96 hours	LL50	>100 mg/l
Diurethane Dimethacrylate (UDMA)	72869-86-4	Green algae	Endpoint not reached	72 hours	ErC50	>100 mg/l

Diurethane Dimethacrylate	72869-86-4	Water flea	Experimental	48 hours	EC50	>100 mg/l
(UDMA) Diurethane Dimethacrylate (UDMA)	72869-86-4	Zebra Fish	Experimental	96 hours	LC50	10.1 mg/l
Diurethane Dimethacrylate (UDMA)	72869-86-4	Green algae	Endpoint not reached	72 hours	ErC10	>100 mg/l
Silane Treated Silica	248596-91-0	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
Polyethylene Glycol Dimethacrylate (PEGDMA)	25852-47-5	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
Triethylene glycol dimethacrylate	109-16-0	Green algae	Experimental	72 hours	ErC50	>100 mg/l
Triethylene glycol dimethacrylate	109-16-0	Zebra Fish	Experimental	96 hours	LC50	16.4 mg/l
Triethylene glycol dimethacrylate	109-16-0	Green algae	Experimental	72 hours	NOEC	18.6 mg/l
Triethylene glycol dimethacrylate	109-16-0	Water flea	Experimental	21 days	NOEC	32 mg/l
Bis(2,4,6- trimethylbenzoyl)p henylphosphine oxide	162881-26-7	Green algae	Experimental	72 hours	No tox obs at lmt of water sol	>100 mg/l
Bis(2,4,6- trimethylbenzoyl)p henylphosphine oxide	162881-26-7	Zebra Fish	Experimental	96 hours	No tox obs at lmt of water sol	>100 mg/l
Bis(2,4,6- trimethylbenzoyl)p henylphosphine oxide	162881-26-7	Green algae	Experimental	72 hours	No tox obs at lmt of water sol	>100 mg/l
Bis(2,4,6- trimethylbenzoyl)p henylphosphine oxide	162881-26-7	Water flea	Experimental	21 days	No tox obs at lmt of water sol	>100 mg/l
Bis(2,4,6- trimethylbenzoyl)p henylphosphine oxide	162881-26-7	Activated sludge	Experimental	3 hours	EC50	>100 mg/l
Bis(2,4,6- trimethylbenzoyl)p henylphosphine oxide	162881-26-7	Redworm	Experimental	56 days	EC10	>1,000 mg/kg (Dry Weight)
Bis(2,4,6- trimethylbenzoyl)p henylphosphine oxide	162881-26-7	Soil microbes	Experimental	28 days	EC10	>1,000 mg/kg (Dry Weight)

# 12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Silane Treated Ceramic	444758-98-9	Data not available-insufficient	N/A	N/A	N/A	N/A
(1- methylethylidene)b is[4,1- phenyleneoxy(2-	1565-94-2	Experimental Biodegradation	28 days	BOD	21 %BOD/ThOD	similar to OECD 301F

hydroxy-3,1- propanediyl)] bismethacrylate	1505.04.2			X	20.1. (1.12)	
(1- methylethylidene)b is[4,1- phenyleneoxy(2- hydroxy-3,1- propanediyl)] bismethacrylate	1565-94-2	Experimental Hydrolysis		Hydrolytic half-life (pH 7)	29 days († 1/2)	
Bisphenol A Polyethylene Glycol Diether Dimethacrylate (BISEMA-6)	41637-38-1	Experimental Biodegradation	28 days	Percent degraded	24 %degraded	
Diurethane Dimethacrylate (UDMA)	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
Silane Treated Silica	248596-91-0	Data not available- insufficient	N/A	N/A	N/A	N/A
Polyethylene Glycol Dimethacrylate (PEGDMA)	25852-47-5	Data not available- insufficient	N/A	N/A	N/A	N/A
Triethylene glycol dimethacrylate	109-16-0	Experimental Biodegradation	28 days	CO2 evolution	85 %CO2 evolution/THCO2 evolution	OECD 301B - Modified sturm or CO2
Bis(2,4,6- trimethylbenzoyl)p henylphosphine oxide	162881-26-7	Experimental Biodegradation	28 days	CO2 evolution	1 %CO2 evolution/THCO2 evolution	OECD 301B - Modified sturm or CO2

# 12.3 : Bioaccumulative potential

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Silane Treated Ceramic	444758-98-9	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
(1- methylethylidene)b is[4,1- phenyleneoxy(2- hydroxy-3,1- propanediyl)] bismethacrylate	1565-94-2	Experimental Bioconcentration		Log Kow	4.63	
Bisphenol A Polyethylene Glycol Diether Dimethacrylate (BISEMA-6)	41637-38-1	Estimated Bioconcentration		Bioaccumulation factor	6.6	
Diurethane Dimethacrylate (UDMA)	72869-86-4	Experimental Bioconcentration		Log Kow	3.39	
Silane Treated Silica	248596-91-0	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Polyethylene Glycol Dimethacrylate (PEGDMA)	25852-47-5	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Triethylene glycol dimethacrylate	109-16-0	Experimental Bioconcentration		Log Kow	2.3	EC A.8 Partition Coefficient
Bis(2,4,6- trimethylbenzoyl)p	162881-26-7	Experimental BCF - Fish	28 days	Bioaccumulation factor	<5	OECD305-Bioconcentration

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henylphosphine oxide				
Bis(2,4,6- trimethylbenzoyl)p henylphosphine oxide	162881-26-7	Experimental Bioconcentration	Log Kow	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

Dispose of contents/ container in accordance with the local/regional/national/international regulations.

Dispose of completely cured (or polymerised) material in a permitted industrial waste facility. As a disposal alternative, incinerate uncured product in a permitted waste incineration facility. If no other disposal options are available, waste product that has been completely cured or polymerised may be placed in a landfill properly designed for industrial waste.

# **SECTION 14: Transport Information**

Not hazardous for transportation.

### Air Transport (IATA)Regulations

UN No Not applicable

Proper Shipping Name Not applicable Hazard Classs/Division Not applicable Subsidiary Risk Not applicable Packing Group: Not applicable

### Marine Transport (IMDG)

UN No Not applicable

Proper Shipping Name Not applicable
Hazard Classs/Division Not applicable
Subsidiary Risk Not applicable
Packing Group: Not applicable
Environmental Hazards: Not applicable

# **SECTION 15: Regulatory information**

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

# Global inventory status

Contact manufacturer for more information

# Applicable Environmental, Health and Safety Regulations

The Manufacture, Storage and Import of Hazardous Chemical Rules, 1989

The following ingredients are listed as hazardous on Part II of Schedule I of the India Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) rules
None.

The following ingredients are classified as hazardous based on the criteria listed under Part I of Schedule I of the India Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) rules:

The product is non-hazardous as per MSIHC Rules, 1989.

# **SECTION 16: Other information**

### NFPA Hazard Classification

Health: 2 Flammability: 1 Instability: 0 Special Hazards: None

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

#### **Revision information:**

Section 11: Target Organs - Repeated Table information was modified.

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