

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Trade name : Predicta Cement - Base Component

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Bioactive Self-Adhesive Cement

1.3. Supplier

Parkell Inc.
300 Executive Drive
Edgewood, NY 11717
T (631) 249-1134

1.4. Emergency telephone number

Emergency number : INFOTRAC 1-800-535-5053

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Acute toxicity (oral), Category 4	Harmful if swallowed.
Skin corrosion/irritation, Category 2	Causes skin irritation.
Serious eye damage/eye irritation, Category 2	Causes serious eye irritation.
Skin sensitisation, Category 1	May cause an allergic skin reaction.
Reproductive toxicity, Category 1B	May damage fertility or the unborn child.
Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation	May cause respiratory irritation.

2.2. GHS Label elements, including precautionary statements

GHS US labelling

Hazard pictograms (GHS US) :



Signal word (GHS US) :

Danger

Hazard statements (GHS US) :

Harmful if swallowed.
Causes skin irritation.
May cause an allergic skin reaction.
Causes serious eye irritation.
May cause respiratory irritation.
May damage fertility or the unborn child.

Precautionary statements (GHS US) :

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Avoid breathing mist, spray.
Wash hands thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Contaminated work clothing must not be allowed out of the workplace.
Wear eye protection, protective clothing, protective gloves.
If swallowed: Call a doctor, a POISON CENTER if you feel unwell.
If on skin: Wash with plenty of water.

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If inhaled: Remove person to fresh air and keep comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Call a doctor, a POISON CENTER if you feel unwell.
Rinse mouth.
If skin irritation or rash occurs: Get medical advice/attention.
If eye irritation persists: Get medical advice/attention.
Take off contaminated clothing and wash it before reuse.
Store in a well-ventilated place. Keep container tightly closed.
Store locked up.
Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
Bicyclo[2.2.1]heptane-2,3-dione, 1,7,7-trimethyl-, (.+.-)-	CAS-No.: 10373-78-1	0 – 25	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335
2-Propenoic acid, 2-methyl-, 1,6-hexanediy l ester	CAS-No.: 6606-59-3	5 – 15	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335
2-Propenoic acid, 2-methyl-, (1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediy l)] ester	CAS-No.: 1565-94-2	5 – 15	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1, H317
N,N-Dimethylaminoethyl methacrylate	CAS-No.: 2867-47-2	0 – 15	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1, H317
Phosphine oxide, phenylbis(2,4,6-trimethylbenzoyl)-	CAS-No.: 162881-26-7	1 – 15	Skin Sens. 1A, H317
Poly(oxy-1,2-ethanediy l), .alpha.,.alpha.'-[(1-methylethylidene)di-4,1-phenylene]bis[.omega.-[(2-methyl-1-oxo-2-propenyl)oxy]-	CAS-No.: 41637-38-1	5 – 10	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1, H317 STOT SE 3, H335
2-Hydroxyethyl methacrylate (HEMA)	CAS-No.: 868-77-9	0 – 10	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317
Benzoic acid, 4-(dimethylamino)-, ethyl ester	CAS-No.: 10287-53-3	0 – 10	Repr. 1B, H360

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Name	Product identifier	%	GHS US classification
Diphenyl-2,4,6-trimethylbenzoyl phosphine oxide	CAS-No.: 75980-60-8	0 – 10	Repr. 2, H361
Thiourea, 2-propenyl-	CAS-No.: 109-57-9	1 – 5	Acute Tox. 3 (Oral), H301
2-Hydroxy-4-methoxybenzophenone	CAS-No.: 131-57-7	0 – 5	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person. IF exposed or concerned: Get medical advice/attention.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Call a poison center or a doctor if you feel unwell.
First-aid measures after skin contact	: Rinse immediately with plenty of water for 15 minutes. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse immediately with plenty of water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. Call a poison center or a doctor if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects	: May damage fertility or the unborn child.
Symptoms/effects after inhalation	: May cause respiratory irritation.
Symptoms/effects after skin contact	: Irritation. May cause an allergic skin reaction.
Symptoms/effects after eye contact	: Eye irritation.
Symptoms/effects after ingestion	: Harmful if swallowed.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Fire hazard	: On combustion forms: Carbon oxides (CO, CO ₂). Toxic fumes may be released.
Explosion hazard	: None known.
Hazardous decomposition products in case of fire	: Toxic fumes may be released.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions	: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.
Protective equipment for firefighters	: Do not enter fire area without proper protective equipment, including respiratory protection. Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- Protective equipment : Wear recommended personal protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
- Emergency procedures : Evacuate unnecessary personnel. Only qualified personnel equipped with suitable protective equipment may intervene. Avoid breathing mist, spray.

6.1.2. For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. Equip cleanup crew with proper protection. For further information refer to section 8: "Exposure controls/personal protection".
- Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

- For containment : Collect spillage.
- Methods for cleaning up : Mechanically recover the product. On land, sweep or shovel into suitable containers. Store away from other materials. Notify authorities if product enters sewers or public waters.
- Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For disposal of residues refer to section 13: "Disposal considerations".

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Provide good ventilation in process area to prevent formation of vapour. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment. Use only outdoors or in a well-ventilated area. Avoid breathing spray, mist. Avoid contact with skin and eyes.
- Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Separate working clothes from town clothes. Launder separately. Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Keep container tightly closed in a cool, well-ventilated place. Keep container closed when not in use. Store locked up.
- Incompatible materials : Strong acids.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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No additional information available

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2-Propenoic acid, 2-methyl-, 1,6-hexanediyl ester (6606-59-3)
No additional information available
Poly(oxy-1,2-ethanediyl), .alpha.,.alpha.'-[(1-methylethylidene)di-4,1-phenylene]bis[.omega.-[(2-methyl-1-oxo-2-propenyl)oxy]- (41637-38-1)
No additional information available
2-Hydroxyethyl methacrylate (HEMA) (868-77-9)
No additional information available
2-Propenoic acid, 2-methyl-, (1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)] ester (1565-94-2)
No additional information available
Thiourea, 2-propenyl- (109-57-9)
No additional information available
N,N-Dimethylaminoethyl methacrylate (2867-47-2)
No additional information available
Bicyclo[2.2.1]heptane-2,3-dione, 1,7,7-trimethyl-, (.+.)- (10373-78-1)
No additional information available
Benzoic acid, 4-(dimethylamino)-, ethyl ester (10287-53-3)
No additional information available
Diphenyl-2,4,6-trimethylbenzoyl phosphine oxide (75980-60-8)
No additional information available
Phosphine oxide, phenylbis(2,4,6-trimethylbenzoyl)- (162881-26-7)
No additional information available
2-Hydroxy-4-methoxybenzophenone (131-57-7)
No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.
Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Avoid all unnecessary exposure.

Hand protection:

Impermeable protective gloves.

Eye protection:

Chemical goggles or safety glasses.

Skin and body protection:

Long sleeved protective clothing

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Respiratory protection:

An approved organic vapour respirator/supplied air or self-contained breathing apparatus must be used when vapour concentration exceeds applicable exposure limits

Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Paste.
Colour	: Colourless
Odour	: Characteristic
Odour threshold	: No data available
pH	: No data available
Melting point	: No data available
Freezing point	: Not applicable
Boiling point	: No data available
Flash point	: Not applicable
Relative evaporation rate (butylacetate=1)	: No data available
Flammability (solid, gas)	: Non flammable.
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No data available
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: No data available
Explosive limits	: Not applicable
Explosive properties	: No data available
Oxidising properties	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

The product is stable at normal handling and storage conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use. Hazardous polymerization will not occur.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

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10.5. Incompatible materials

Strong acids.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Harmful if swallowed.
Acute toxicity (dermal) : Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation) : Not classified (Based on available data, the classification criteria are not met)

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ATE US (oral)	1250 mg/kg bodyweight
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2-Hydroxyethyl methacrylate (HEMA) (868-77-9)

LD50 dermal rabbit	> 3000 mg/kg
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Thiourea, 2-propenyl- (109-57-9)

ATE US (oral)	100 mg/kg bodyweight
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N,N-Dimethylaminoethyl methacrylate (2867-47-2)

LD50 oral rat	> 2000 mg/kg
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LD50 dermal rat	> 2000 mg/kg
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LD50 dermal rabbit	> 3000 mg/kg
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LC50 Inhalation - Rat	0.62 mg/l/4h
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Benzoic acid, 4-(dimethylamino)-, ethyl ester (10287-53-3)

LD50 dermal rat	> 2000 mg/kg
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Diphenyl-2,4,6-trimethylbenzoyl phosphine oxide (75980-60-8)

LD50 oral rat	> 5000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
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LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: EU Method B.3 (Acute Toxicity (Dermal)), Guideline: EPA OPPTS 870.1200 (Acute Dermal Toxicity), Guideline: other:Japan MAFF Testing Guideline of 12 Nosan No. 8147
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2-Hydroxy-4-methoxybenzophenone (131-57-7)

LD50 oral rat	> 12.8 g/kg
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LD50 dermal rabbit	> 16 g/kg
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Skin corrosion/irritation : Causes skin irritation.
Serious eye damage/irritation : Causes serious eye irritation.
Respiratory or skin sensitisation : May cause an allergic skin reaction.
Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity : Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity : May damage fertility or the unborn child.
STOT-single exposure : May cause respiratory irritation.

2-Propenoic acid, 2-methyl-, 1,6-hexanediyl ester (6606-59-3)

STOT-single exposure	May cause respiratory irritation.
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Poly(oxy-1,2-ethanediyl), .alpha.,.alpha.'-[(1-methylethylidene)di-4,1-phenylene]bis[.omega.-[(2-methyl-1-oxo-2-propenyl)oxy]- (41637-38-1)	
STOT-single exposure	May cause respiratory irritation.
Bicyclo[2.2.1]heptane-2,3-dione, 1,7,7-trimethyl-, (.+.)- (10373-78-1)	
STOT-single exposure	May cause respiratory irritation.
2-Hydroxy-4-methoxybenzophenone (131-57-7)	
STOT-single exposure	May cause respiratory irritation.
STOT-repeated exposure	: Not classified (Based on available data, the classification criteria are not met)
2-Hydroxyethyl methacrylate (HEMA) (868-77-9)	
NOAEL (oral, rat, 90 days)	< 30 mg/kg bodyweight/day OECD 422.
Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met)
Viscosity, kinematic	: Not applicable
Symptoms/effects	: May damage fertility or the unborn child.
Symptoms/effects after inhalation	: May cause respiratory irritation.
Symptoms/effects after skin contact	: Irritation. May cause an allergic skin reaction.
Symptoms/effects after eye contact	: Eye irritation.
Symptoms/effects after ingestion	: Harmful if swallowed.
Other information	: Likely routes of exposure: ingestion, inhalation, skin and eye.

SECTION 12: Ecological information

12.1. Toxicity

2-Hydroxyethyl methacrylate (HEMA) (868-77-9)	
LC50 - Fish [2]	227 mg/l 96 hours
ErC50 algae	836 mg/l 72 hours
NOEC (acute)	171 mg/l 48 hours- daphnia
NOEC (chronic)	24.1 mg/l 21 days- microorganism
N,N-Dimethylaminoethyl methacrylate (2867-47-2)	
LC50 - Fish [1]	19.1 mg/l (Exposure time: 96 h - Species: Oryzias latipes [semi-static])
EC50 - Crustacea [1]	53 mg/l (Exposure time: 48 h - Species: Daphnia magna)
Diphenyl-2,4,6-trimethylbenzoyl phosphine oxide (75980-60-8)	
EC50 - Crustacea [1]	3.53 mg/l Test organisms (species): Daphnia magna
2-Hydroxy-4-methoxybenzophenone (131-57-7)	
LC50 - Fish [1]	3.8 mg/l (Exposure time: 96 h - Species: Oryzias latipes [semi-static])

12.2. Persistence and degradability

Predicta Cement - Base Component	
Persistence and degradability	Not established.

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12.3. Bioaccumulative potential

Predicta Cement - Base Component

Bioaccumulative potential	Not established.
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12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other information : Avoid release to the environment.





SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
 Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.
 Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with Department of Transport / Transportation of Dangerous Goods / IMDG / IATA

DOT	TDG	IMDG	IATA
14.1. UN number			
3082	UN3082	3082	3082
14.2. Proper Shipping Name			
Environmentally hazardous substances, liquid, n.o.s. (2,6-di-tert-butyl-p-cresol)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2,6-di-tert-butyl-p-cresol)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2,6-di-tert-butyl-p-cresol)	Environmentally hazardous substance, liquid, n.o.s. (2,6-di-tert-butyl-p-cresol)
14.3. Transport hazard class(es)			
9	9	9	9
			
14.4. Packing group			
III	III	III	III
14.5. Environmental hazards			
Dangerous for the environment: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes Marine pollutant: Yes	Dangerous for the environment: Yes
No supplementary information available			

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SECTION 15: Regulatory information

15.1. US Federal regulations

No additional information available

15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

National regulations

No additional information available

15.3. US State regulations

No additional information available

SECTION 16: Other information

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Revision date : 07 July 2021

Other information : None.

Safety Data Sheet (SDS), USA

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Trade name : Predicta Cement - Catalyst Component

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Bioactive Self-Adhesive Cement

1.3. Supplier

Parkell Inc.
300 Executive Drive
Edgewood, NY 11717
T (631) 249-1134

1.4. Emergency telephone number

Emergency number : INFOTRAC 1-800-535-5053

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Organic Peroxide Category E	Heating may cause a fire.
Acute toxicity (dermal), Category 4	Harmful in contact with skin
Skin corrosion/irritation Category 1C	Causes severe skin burns and eye damage
Serious eye damage/eye irritation Category 1	Causes serious eye damage
Skin sensitization, Category 1	May cause an allergic skin reaction
Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation	May cause respiratory irritation
Specific target organ toxicity (repeated exposure) Category 2	May cause damage to organs through prolonged or repeated exposure

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) : Danger

Hazard statements (GHS US) :

- Heating may cause a fire.
- Harmful in contact with skin.
- Causes severe skin burns and eye damage
- May cause an allergic skin reaction
- Causes serious eye damage
- May cause respiratory irritation
- May cause damage to organs through prolonged or repeated exposure

Precautionary statements (GHS US) :

- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- Keep/Store away from combustible materials
- Keep only in original container.
- Wash hands thoroughly after handling.
- Do not breathe mist, spray.
- Wash hands thoroughly after handling.

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Use only outdoors or in a well-ventilated area.
Contaminated work clothing must not be allowed out of the workplace.
Wear eye protection, protective clothing, protective gloves.
If swallowed: rinse mouth. Do NOT induce vomiting.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
If inhaled: Remove person to fresh air and keep comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a poison centre or doctor.
If skin irritation or rash occurs: Get medical advice/attention.
Take off contaminated clothing and wash it before reuse.
Store in a well-ventilated place. Keep container tightly closed.
Store locked up.
Protect from sunlight.
Store at temperatures not exceeding 60 °C/140 °F. Keep cool.
Store away from other materials.
Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
Poly(oxy-1,2-ethanediyl), .alpha.,.alpha.'-[(1-methylethylidene)di-4,1-phenylene]bis[.omega.-[(2-methyl-1-oxo-2-propenyl)oxy]-	CAS-No.: 41637-38-1	10 – 25	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1, H317 STOT SE 3, H335
2-Propenoic acid, 2-methyl-, 1,6-hexanediyl ester	CAS-No.: 6606-59-3	1 – 20	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335
2-Hydroxyethyl methacrylate (HEMA)	CAS-No.: 868-77-9	1 – 15	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317
2-Propenoic acid, 2-methyl-, 2-hydroxy-1,3-propanediyl ester	CAS-No.: 1830-78-0	5 – 15	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335

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Name	Product identifier	%	GHS US classification
Cumene hydroperoxide	CAS-No.: 80-15-9	1 – 10	Org. Perox. E, H242 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 3 (Inhalation:gas), H331 Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT RE 2, H373
10- Methacryloyloxydecyl dihydrogen phosphate (10-MDP)	CAS-No.: 85590-00-7	5 – 10	Eye Irrit. 2, H319 Skin Sens. 1, H317
2-Propenoic acid, 2-methyl-, (1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)] ester	CAS-No.: 1565-94-2	1 – 10	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1, H317
2-[(2-Methyl-1-oxoallyl)oxy]ethyl 1,3-dihydro-1,3-dioxoisobenzofuran-5-carboxylate	CAS-No.: 70293-55-9	1 – 3	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1, H317

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general	: Call a poison center/doctor/physician if you feel unwell.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor/physician if you feel unwell.
First-aid measures after skin contact	: Wash off immediately and plentifully with water for at least 20 minutes. Take off immediately all contaminated clothing. Get medical advice if skin irritation persists.
First-aid measures after eye contact	: Wash off immediately and plentifully with water for at least 20 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if pain, blinking or redness persists.
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. Call a poison center/doctor/physician if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects	: May cause damage to organs through prolonged or repeated exposure.
Symptoms/effects after inhalation	: May cause respiratory irritation.
Symptoms/effects after skin contact	: Harmful in contact with skin. Burns. May cause an allergic skin reaction.
Symptoms/effects after eye contact	: Serious damage to eyes.
Symptoms/effects after ingestion	: Burns.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Fire hazard	: Heating may cause a fire.
Hazardous decomposition products in case of fire	: Toxic fumes may be released.

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5.3. Special protective equipment and precautions for fire-fighters

- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Evacuate unnecessary personnel.

6.1.1. For non-emergency personnel

- Protective equipment : Wear personal protective equipment.
- Emergency procedures : No open flames, no sparks, and no smoking. Avoid contact with skin and eyes.

6.1.2. For emergency responders

- Protective equipment : Wear recommended personal protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Mechanically recover the product. Store away from other materials.
- Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For disposal of residues refer to section 13: "Disposal considerations".

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wear personal protective equipment. Use only outdoors or in a well-ventilated area. Avoid contact with skin and eyes. Do not breathe mist, spray.
- Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Keep only in the original container in a cool well ventilated place. Keep container closed when not in use. Keep away from combustible materials. Store away from other materials. Protect from sunlight. Store locked up.
- Incompatible materials : Combustible materials.
- Storage temperature : < 60 °C (140 °F)

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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No additional information available	
Cumene hydroperoxide (80-15-9)	
USA - AIHA - Occupational Exposure Limits	
WEEL TWA [ppm]	1 ppm
AIHA chemical category	skin notation
10- Methacryloyloxydecyl dihydrogen phosphate (10-MDP) (85590-00-7)	
No additional information available	
2-[(2-Methyl-1-oxoallyl)oxy]ethyl 1,3-dihydro-1,3-dioxoisobenzofuran-5-carboxylate (70293-55-9)	
No additional information available	
2-Hydroxyethyl methacrylate (HEMA) (868-77-9)	
No additional information available	
2-Propenoic acid, 2-methyl-, 2-hydroxy-1,3-propanediyl ester (1830-78-0)	
No additional information available	
2-Propenoic acid, 2-methyl-, (1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)] ester (1565-94-2)	
No additional information available	
Poly(oxy-1,2-ethanediyl), .alpha.,.alpha.'-[(1-methylethylidene)di-4,1-phenylene]bis[.omega.-[(2-methyl-1-oxo-2-propenyl)oxy]- (41637-38-1)	
No additional information available	
2-Propenoic acid, 2-methyl-, 1,6-hexanediyl ester (6606-59-3)	
No additional information available	

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.
Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Impermeable protective gloves

Eye protection:

Chemical goggles or safety glasses

Skin and body protection:

Long sleeved protective clothing

Respiratory protection:

An approved organic vapor respirator/supplied air or self-contained breathing apparatus must be used when vapor concentration exceeds applicable exposure limits

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Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Paste.
Color	: Colorless
Odor	: Characteristic
Odor threshold	: No data available
pH	: No data available
Melting point	: No data available
Freezing point	: Not applicable
Boiling point	: No data available
Flash point	: Not applicable
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Heating may cause a fire.
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No data available
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: No data available
Explosion limits	: Not applicable
Explosive properties	: No data available
Oxidizing properties	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Heating may cause a fire.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

Combustible materials.

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10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal)	: Harmful in contact with skin.
Acute toxicity (inhalation)	: Not classified (Based on available data, the classification criteria are not met)

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ATE US (dermal)	1260 mg/kg bodyweight

Cumene hydroperoxide (80-15-9)	
LD50 oral rat	382 mg/kg
LD50 dermal rabbit	0.126 ml/kg
LC50 Inhalation - Rat [ppm]	220 ppm/4h

2-[(2-Methyl-1-oxoallyl)oxy]ethyl 1,3-dihydro-1,3-dioxoisobenzofuran-5-carboxylate (70293-55-9)	
LD50 oral rat	> 2 g/kg

2-Hydroxyethyl methacrylate (HEMA) (868-77-9)	
LD50 dermal rabbit	> 3000 mg/kg

Skin corrosion/irritation	: Causes severe skin burns.
Serious eye damage/irritation	: Causes serious eye damage.
Respiratory or skin sensitization	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)
STOT-single exposure	: May cause respiratory irritation.

2-Propenoic acid, 2-methyl-, 2-hydroxy-1,3-propanediyl ester (1830-78-0)	
STOT-single exposure	May cause respiratory irritation.

Poly(oxy-1,2-ethanediyl), .alpha.,.alpha.'-[(1-methylethylidene)di-4,1-phenylene]bis[.omega.-[(2-methyl-1-oxo-2-propenyl)oxy]- (41637-38-1)	
STOT-single exposure	May cause respiratory irritation.

2-Propenoic acid, 2-methyl-, 1,6-hexanediyl ester (6606-59-3)	
STOT-single exposure	May cause respiratory irritation.

STOT-repeated exposure : May cause damage to organs through prolonged or repeated exposure.

Cumene hydroperoxide (80-15-9)	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

2-Hydroxyethyl methacrylate (HEMA) (868-77-9)	
NOAEL (oral,rat,90 days)	< 30 mg/kg bodyweight/day OECD 422.

Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met)
Viscosity, kinematic	: Not applicable
Symptoms/effects	: May cause damage to organs through prolonged or repeated exposure.
Symptoms/effects after inhalation	: May cause respiratory irritation.
Symptoms/effects after skin contact	: Harmful in contact with skin. Burns. May cause an allergic skin reaction.

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Symptoms/effects after eye contact : Serious damage to eyes.
Symptoms/effects after ingestion : Burns.
Other information : Likely routes of exposure: ingestion, inhalation, skin and eye.

SECTION 12: Ecological information

12.1. Toxicity

Cumene hydroperoxide (80-15-9)	
LC50 - Fish [1]	3.9 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])
2-Hydroxyethyl methacrylate (HEMA) (868-77-9)	
LC50 - Fish [2]	227 mg/l 96 hours
ErC50 algae	836 mg/l 72 hours
NOEC (acute)	171 mg/l 48 hours- daphnia
NOEC (chronic)	24.1 mg/l 21 days- microorganism

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

Cumene hydroperoxide (80-15-9)	
BCF - Fish [1]	35.5

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Effect on the ozone layer : No additional information available
Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.
Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with Department of Transport / Transportation of Dangerous Goods / IMDG / IATA

DOT	TDG	IMDG	IATA
14.1. UN number			
3108	UN3108	3108	3108

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DOT	TDG	IMDG	IATA
14.2. Proper Shipping Name			
Organic peroxide type E, solid (Cumene hydroperoxide)	ORGANIC PEROXIDE TYPE E, SOLID (Cumene hydroperoxide)	ORGANIC PEROXIDE TYPE E, SOLID (ORGANIC PEROXIDE TYPE E, LIQUID)	Organic peroxide type e, solid
14.3. Transport hazard class(es)			
5.2	5.2	5.2	5.2
14.4. Packing group			
Not applicable	II	Not applicable	Not applicable
14.5. Environmental hazards			
Dangerous for the environment: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes Marine pollutant: Yes	Dangerous for the environment: Yes
Consult the associated transport regulations for available and applicable exceptions or exemptions.			

SECTION 15: Regulatory information

15.1. US Federal regulations

No additional information available.

15.2. International regulations

CANADA

No additional information available.

National regulations

No additional information available.

15.3. US State regulations

No additional information available.

SECTION 16: Other information

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Revision date : 09 July 2021

Other information : None.

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This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.