

Sicherheitsdatenblatt

gemäß Verordnung (EG) Nr. 1907/2006

Überarbeitet am: 09.05.2023

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Materialnummer: D300135

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ABSCHNITT 1: Bezeichnung des Stoffs beziehungsweise des Gemischs und des Unternehmens**1.1. Produktidentifikator**

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1.2. Relevante identifizierte Verwendungen des Stoffs oder Gemischs und Verwendungen, von denen abgeraten wird**Verwendung des Stoffs/des Gemischs**

3D-druckbare Materialien auf Harzbasis für die Korrektur oder Rekonstruktion von funktionell beeinträchtigten natürlichen Gebissen.

Verwendungen, von denen abgeraten wird

Keine.

1.3. Einzelheiten zum Lieferanten, der das Sicherheitsdatenblatt bereitstellt

Firmenname:	Saremco Dental AG	
Straße:	Gewerbestrasse 4	
Ort:	CH-9445 Rebstein	
Telefon:	+41 71 775 80 90	Telefax: +41 71 775 80 99
E-Mail:	info@saremco.ch	
Ansprechpartner:	Dr. Christoph Evers	Telefon: +41 71 775 80 60
E-Mail:	Christoph.evers@saremco.ch	
Internet:	www.saremco.ch	
Auskunftgebender Bereich:	Vigilance	

1.4. Notrufnummer: CH: 145
Ausland: +41 44 251 51 51

ABSCHNITT 2: Mögliche Gefahren**2.1. Einstufung des Stoffs oder Gemischs****Verordnung (EG) Nr. 1272/2008**

Skin Irrit. 2; H315
Eye Irrit. 2; H319
Skin Sens. 1; H317
STOT SE 3; H335

Wortlaut der Gefahrenhinweise: siehe ABSCHNITT 16.

2.2. Kennzeichnungselemente**Verordnung (EG) Nr. 1272/2008****Gefahrbestimmende Komponenten zur Etikettierung**

BISPHENOL A POLYETHYLENE GLYCOL DIETHER DIMETHACRYLATE, BisEMA
Methyl benzoylformate

Signalwort: Achtung**Piktogramme:****Gefahrenhinweise**

H315	Verursacht Hautreizungen.
H317	Kann allergische Hautreaktionen verursachen.
H319	Verursacht schwere Augenreizung.
H335	Kann die Atemwege reizen.

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Sicherheitshinweise

P261	Einatmen von Staub/Rauch/Gas/Nebel/Dampf/Aerosol vermeiden.
P264	Nach Gebrauch mit Wasser und Seife gründlich waschen.
P271	Nur im Freien oder in gut belüfteten Räumen verwenden.
P272	Kontaminierte Arbeitskleidung nicht außerhalb des Arbeitsplatzes tragen.
P280	Schutzhandschuhe/Schutzkleidung/Augenschutz/Gesichtsschutz/Gehörschutz tragen.
P302+P352	BEI BERÜHRUNG MIT DER HAUT: Mit viel Wasser waschen.
P321	Besondere Behandlung (siehe hinten auf diesem Kennzeichnungsetikett).
P333+P313	Bei Hautreizung oder -ausschlag: Ärztlichen Rat einholen/ärztliche Hilfe hinzuziehen.
P362+P364	Kontaminierte Kleidung ausziehen und vor erneutem Tragen waschen.
P304+P340	BEI EINATMEN: Die Person an die frische Luft bringen und für ungehinderte Atmung sorgen.
P312	Bei Unwohlsein GIFTINFORMATIONSZENTRUM/Arzt anrufen.
P305+P351+P338	BEI KONTAKT MIT DEN AUGEN: Einige Minuten lang behutsam mit Wasser ausspülen. Eventuell vorhandene Kontaktlinsen nach Möglichkeit entfernen. Weiter ausspülen.
P337+P313	Bei anhaltender Augenreizung: Ärztlichen Rat einholen/ärztliche Hilfe hinzuziehen.
P403+P233	An einem gut belüfteten Ort aufbewahren. Behälter dicht verschlossen halten.
P405	Unter Verschluss aufbewahren.
P501	Inhalt/Behälter Residual waste zuführen.

2.3. Sonstige Gefahren

Es liegen keine Informationen vor.

ABSCHNITT 3: Zusammensetzung/Angaben zu Bestandteilen

3.2. Gemische

Gefährliche Inhaltsstoffe

CAS-Nr.	Stoffname	Anteil
	EG-Nr. Index-Nr. REACH-Nr.	
	Einstufung (Verordnung (EG) Nr. 1272/2008)	
41637-38-1	BISPHENOL A POLYETHYLENE GLYCOL DIETHER DIMETHACRYLATE, BisEMA	50 - < 75 %
	609-946-4	
	Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1, STOT SE 3; H315 H319 H317 H335	
15206-55-0	Methyl benzoylformate	1 - < 5 %
	239-263-3	01-2120101338-67
	Skin Sens. 1; H317	
75980-60-8	Diphenyl(2,4,6-trimethylbenzoyl)phosphinoxid	1 - < 5 %
	278-355-8	
	Repr. 2; H361f	

Wortlaut der H- und EUH-Sätze: siehe Abschnitt 16.

Spezifische Konzentrationsgrenzen, M-Faktoren und ATE

CAS-Nr.	EG-Nr.	Stoffname	Anteil
		Spezifische Konzentrationsgrenzen, M-Faktoren und ATE	
75980-60-8	278-355-8	Diphenyl(2,4,6-trimethylbenzoyl)phosphinoxid	1 - < 5 %
		oral: LD50 = > 5000 mg/kg	

Weitere Angaben

The chemical identity of some or all components present is confidential business information (trade secret), and is being withheld as permitted by 29 CFR 1910.1200(i).
All concentrations are in percent by weight. Components not listed are either non-hazardous or are below reportable limits.

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ABSCHNITT 4: Erste-Hilfe-Maßnahmen**4.1. Beschreibung der Erste-Hilfe-Maßnahmen****Nach Einatmen**

Für Frischluft sorgen. In allen Zweifelsfällen oder wenn Symptome vorhanden sind, ärztlichen Rat einholen.

Nach Hautkontakt

Bei Berührung mit der Haut sofort abwaschen mit viel Wasser und Seife. Alle kontaminierten Kleidungsstücke sofort ausziehen und vor erneutem Tragen waschen. Ärztliche Behandlung notwendig.

Nach Augenkontakt

Bei Augenkontakt die Augen bei geöffneten Lidern ausreichend lange mit Wasser spülen, dann sofort Augenarzt konsultieren.

Nach Verschlucken

Sofort Mund ausspülen und 1 Glas Wasser nachtrinken.

4.2. Wichtigste akute und verzögert auftretende Symptome und Wirkungen

Es liegen keine Informationen vor.

4.3. Hinweise auf ärztliche Soforthilfe oder Spezialbehandlung

Symptomatische Behandlung.

ABSCHNITT 5: Maßnahmen zur Brandbekämpfung**5.1. Löschmittel****Geeignete Löschmittel**

Löschmaßnahmen auf die Umgebung abstimmen.

5.2. Besondere vom Stoff oder Gemisch ausgehende Gefahren

Nicht entzündbar.

5.3. Hinweise für die Brandbekämpfung

Umgebungsluftunabhängiges Atemschutzgerät und Chemikalienschutzanzug tragen. Vollschutzanzug.

Zusätzliche Hinweise

Gase/Dämpfe/Nebel mit Wassersprühstrahl niederschlagen. Kontaminiertes Löschwasser getrennt sammeln. Nicht in die Kanalisation oder Gewässer gelangen lassen.

ABSCHNITT 6: Maßnahmen bei unbeabsichtigter Freisetzung**6.1. Personenbezogene Vorsichtsmaßnahmen, Schutzausrüstungen und in Notfällen anzuwendende Verfahren****Allgemeine Hinweise**

Gas/Rauch/Dampf/Aerosol nicht einatmen. Kontakt mit Haut, Augen und Kleidung vermeiden. Persönliche Schutzausrüstung verwenden.

6.2. Umweltschutzmaßnahmen

Nicht in die Kanalisation oder Gewässer gelangen lassen.

6.3. Methoden und Material für Rückhaltung und Reinigung**Für Reinigung**

Mechanisch aufnehmen. Das aufgenommene Material gemäß Abschnitt Entsorgung behandeln.

Weitere Angaben

Mechanisch aufnehmen. Das aufgenommene Material gemäß Abschnitt Entsorgung behandeln.

6.4. Verweis auf andere Abschnitte

Sichere Handhabung: siehe Abschnitt 7

Persönliche Schutzausrüstung: siehe Abschnitt 8

Entsorgung: siehe Abschnitt 13

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ABSCHNITT 7: Handhabung und Lagerung**7.1. Schutzmaßnahmen zur sicheren Handhabung****Hinweise zum sicheren Umgang**

Bei offenem Umgang sind Vorrichtungen mit lokaler Absaugung zu verwenden. Staubbildung vermeiden.
Staub nicht einatmen.

Hinweise zum Brand- und Explosionsschutz

Keine besonderen Brandschutzmaßnahmen erforderlich.

Hinweise zu allgemeinen Hygienemaßnahmen am Arbeitsplatz

Beschmutzte, getränkte Kleidung sofort ausziehen. Hautschutzplan erstellen und beachten! Vor den Pausen und bei Arbeitsende Hände und Gesicht gründlich waschen, ggf. duschen. Am Arbeitsplatz nicht essen, trinken, rauchen, schnupfen. Kontaminierte Kleidung ausziehen. Vor den Pausen und bei Arbeitsende Hände waschen. Bei der Arbeit nicht essen und trinken.

7.2. Bedingungen zur sicheren Lagerung unter Berücksichtigung von Unverträglichkeiten**Anforderungen an Lagerräume und Behälter**

Behälter dicht geschlossen halten. Unter Verschluss aufbewahren. An einem Platz lagern, der nur berechtigten Personen zugänglich ist. Für ausreichende Belüftung und punktförmige Absaugung an kritischen Punkten sorgen.

Zusammenlagerungshinweise

Keine besonderen Vorsichtsmaßnahmen erforderlich.

Lagerklasse nach TRGS 510: 11 (Brennbare Feststoffe, die keiner der vorgenannten LGK zuzuordnen sind)

7.3. Spezifische Endanwendungen

3D-druckbare Materialien auf Harzbasis für die Korrektur oder Rekonstruktion von funktionell beeinträchtigten natürlichen Gebissen.

ABSCHNITT 8: Begrenzung und Überwachung der Exposition/Persönliche Schutzausrüstungen**8.1. Zu überwachende Parameter****8.2. Begrenzung und Überwachung der Exposition****Geeignete technische Steuerungseinrichtungen**

Bei offenem Umgang sind Vorrichtungen mit lokaler Absaugung zu verwenden. Gas/Rauch/Dampf/Aerosol nicht einatmen.

Individuelle Schutzmaßnahmen, zum Beispiel persönliche Schutzausrüstung**Augen-/Gesichtsschutz**

Geeigneter Augenschutz: Korbbrille.

Handschutz

Beim Umgang mit chemischen Arbeitsstoffen dürfen nur Chemikalienschutzhandschuhe mit CE-Kennzeichen inklusive vierstelliger Prüfnummer getragen werden. Chemikalienschutzhandschuhe sind in ihrer Ausführung in Abhängigkeit von Gefahrstoffkonzentration und -menge arbeitsplatzspezifisch auszuwählen. Es wird empfohlen, die Chemikalienbeständigkeit der oben genannten Schutzhandschuhe für spezielle Anwendungen mit dem Handschuhhersteller abzuklären.

Körperschutz

Benutzung von Schutzkleidung.

Atemschutz

Bei unzureichender Belüftung Atemschutz tragen.

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ABSCHNITT 9: Physikalische und chemische Eigenschaften**9.1. Angaben zu den grundlegenden physikalischen und chemischen Eigenschaften**

Aggregatzustand:	viskos	
Farbe:	weiss	
Schmelzpunkt/Gefrierpunkt:		nicht bestimmt
Siedepunkt oder Siedebeginn und Siedebereich:		> 150 °C
Entzündbarkeit:		nicht bestimmt
Untere Explosionsgrenze:		nicht bestimmt
Obere Explosionsgrenze:		nicht bestimmt
Flammpunkt:		110 °C
Zündtemperatur:		nicht bestimmt
Zersetzungstemperatur:		nicht bestimmt
pH-Wert:		nicht bestimmt
Wasserlöslichkeit:	Keine Prüfung erforderlich, da der Stoff bekanntermaßen in Wasser unlöslich ist.	
Löslichkeit in anderen Lösungsmitteln		
nicht bestimmt		
Verteilungskoeffizient n-Oktanol/Wasser:		nicht bestimmt
Dampfdruck:		nicht bestimmt
Dichte:		1.4 g/cm ³
Relative Dampfdichte:		nicht bestimmt

9.2. Sonstige Angaben**Angaben über physikalische Gefahrenklassen****Explosionsgefahren**

Das Produkt ist nicht: Explosionsgefährlich.

Oxidierende Eigenschaften

Das Produkt ist nicht: brandfördernd.

Sonstige sicherheitstechnische Kenngrößen

Verdampfungsgeschwindigkeit:	nicht bestimmt
Festkörpergehalt:	nicht bestimmt

ABSCHNITT 10: Stabilität und Reaktivität**10.1. Reaktivität**

Bei bestimmungsgemäßer Handhabung und Lagerung treten keine gefährlichen Reaktionen auf.

10.2. Chemische Stabilität

Lichtempfindlichkeit.

10.3. Möglichkeit gefährlicher Reaktionen

Es sind keine gefährlichen Reaktionen bekannt.

10.4. Zu vermeidende Bedingungen

UV-Einstrahlung/Sonnenlicht.

10.5. Unverträgliche Materialien

Es liegen keine Informationen vor.

10.6. Gefährliche Zersetzungsprodukte

Es sind keine gefährlichen Zersetzungsprodukte bekannt.

ABSCHNITT 11: Toxikologische Angaben

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11.1. Angaben zu den Gefahrenklassen im Sinne der Verordnung (EG) Nr. 1272/2008**Akute Toxizität**

Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

CAS-Nr.	Bezeichnung				
	Expositionsweg	Dosis	Spezies	Quelle	Methode
75980-60-8	Diphenyl(2,4,6-trimethylbenzoyl)phosphinoxid				
	oral	LD50 > 5000 mg/kg	Ratte		

Reiz- und Ätzwirkung

Verursacht Hautreizungen.

Verursacht schwere Augenreizung.

Sensibilisierende Wirkungen

Kann allergische Hautreaktionen verursachen. (BISPHENOL A POLYETHYLENE GLYCOL DIETHER DIMETHACRYLATE, BisEMA; Methyl benzoylformate)

Krebserzeugende, erbgutverändernde und fortpflanzungsgefährdende Wirkungen

Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

Spezifische Zielorgan-Toxizität bei einmaliger Exposition

Kann die Atemwege reizen. (BISPHENOL A POLYETHYLENE GLYCOL DIETHER DIMETHACRYLATE, BisEMA)

Spezifische Zielorgan-Toxizität bei wiederholter Exposition

Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

Aspirationsgefahr

Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

11.2. Angaben über sonstige Gefahren**Allgemeine Bemerkungen**

Das Gemisch ist als gefährlich eingestuft im Sinne der Verordnung (EG) Nr. 1272/2008 [CLP].

ABSCHNITT 12: Umweltbezogene Angaben**12.1. Toxizität**

Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

12.2. Persistenz und Abbaubarkeit

Das Produkt wurde nicht geprüft.

12.3. Bioakkumulationspotenzial

Das Produkt wurde nicht geprüft.

12.4. Mobilität im Boden

Das Produkt wurde nicht geprüft.

12.5. Ergebnisse der PBT- und vPvB-Beurteilung

Die Stoffe im Gemisch erfüllen nicht die PBT/vPvB Kriterien gemäß REACH, Anhang XIII.

Das Produkt wurde nicht geprüft.

12.6. Endokrinschädliche Eigenschaften

Dieses Produkt enthält keinen Stoff, der gegenüber Nichtzielorganismen endokrine Eigenschaften aufweist, da kein Inhaltstoff die Kriterien erfüllt.

12.7. Andere schädliche Wirkungen

Es liegen keine Informationen vor.

Weitere Hinweise

Freisetzung in die Umwelt vermeiden.

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ABSCHNITT 13: Hinweise zur Entsorgung**13.1. Verfahren der Abfallbehandlung****Empfehlungen zur Entsorgung**

Nicht in die Kanalisation oder Gewässer gelangen lassen. Entsorgung gemäß den behördlichen Vorschriften.

Entsorgung ungereinigter Verpackung und empfohlene Reinigungsmittel

Mit reichlich Wasser abwaschen. Vollständig entleerte Verpackungen können einer Verwertung zugeführt werden.

ABSCHNITT 14: Angaben zum Transport**Landtransport (ADR/RID)****14.1. UN-Nummer oder ID-Nummer:**

Kein Gefahrgut im Sinne dieser Transportvorschriften.

14.2. Ordnungsgemäße

Kein Gefahrgut im Sinne dieser Transportvorschriften.

UN-Versandbezeichnung:**14.3. Transportgefahrenklassen:**

Kein Gefahrgut im Sinne dieser Transportvorschriften.

14.4. Verpackungsgruppe:

Kein Gefahrgut im Sinne dieser Transportvorschriften.

Seeschifftransport (IMDG)**Sonstige einschlägige Angaben zum Seeschifftransport**

Kein Gefahrgut im Sinne dieser Transportvorschriften.

Lufttransport (ICAO-TI/IATA-DGR)**Sonstige einschlägige Angaben zum Lufttransport**

Kein Gefahrgut im Sinne dieser Transportvorschriften.

14.6. Besondere Vorsichtsmaßnahmen für den Verwender

Es liegen keine Informationen vor.

14.7. Massengutbeförderung auf dem Seeweg gemäß IMO-Instrumenten

nicht anwendbar

ABSCHNITT 15: Rechtsvorschriften**15.1. Vorschriften zu Sicherheit, Gesundheits- und Umweltschutz/spezifische Rechtsvorschriften für den Stoff oder das Gemisch****EU-Vorschriften**Angaben zur SEVESO III-Richtlinie
2012/18/EU:

Unterliegt nicht der SEVESO III-Richtlinie

Nationale Vorschriften

Beschäftigungsbeschränkung:

Beschäftigungsbeschränkungen für Jugendliche beachten (§ 22
JArbSchG).

Wassergefährdungsklasse:

- - nicht wassergefährdend

Status:

Einstufung von Gemischen gemäß Anlage 1, Nr. 5 AwSV

Hautresorption/Sensibilisierung:

Löst Überempfindlichkeitsreaktionen allergischer Art aus.

15.2. Stoffsicherheitsbeurteilung

Stoffsicherheitsbeurteilungen für Stoffe in dieser Mischung wurden nicht durchgeführt.

ABSCHNITT 16: Sonstige Angaben**Abkürzungen und Akronyme**ADR: Accord européen sur le transport des marchandises dangereuses par Route
(European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

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GHS: Globally Harmonized System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service
LC50: Lethal concentration, 50%
LD50: Lethal dose, 50%
CLP: Classification, labelling and Packaging
REACH: Registration, Evaluation and Authorization of Chemicals
GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals
UN: United Nations
DNEL: Derived No Effect Level
DMEL: Derived Minimal Effect Level
PNEC: Predicted No Effect Concentration
ATE: Acute toxicity estimate
LL50: Lethal loading, 50%
EL50: Effect loading, 50%
EC50: Effective Concentration 50%
ErC50: Effective Concentration 50%, growth rate
NOEC: No Observed Effect Concentration
BCF: Bio-concentration factor
PBT: persistent, bioaccumulative, toxic
vPvB: very persistent, very bioaccumulative
RID: Regulations concerning the international carriage of dangerous goods by rail
MARPOL: International Convention for the Prevention of Marine Pollution from Ships
IBC: Intermediate Bulk Container
VOC: Volatile Organic Compounds
SVHC: Substance of Very High Concern
@1605.B000001

Einstufung von Gemischen und verwendete Bewertungsmethode gemäß Verordnung (EG) Nr. 1272/2008**[CLP]**

Einstufung	Einstufungsverfahren
Skin Irrit. 2; H315	Berechnungsverfahren
Eye Irrit. 2; H319	Berechnungsverfahren
Skin Sens. 1; H317	Berechnungsverfahren
STOT SE 3; H335	Berechnungsverfahren

Wortlaut der H- und EUH-Sätze (Nummer und Volltext)

H315	Verursacht Hautreizungen.
H317	Kann allergische Hautreaktionen verursachen.
H319	Verursacht schwere Augenreizung.
H335	Kann die Atemwege reizen.
H361f	Kann vermutlich die Fruchtbarkeit beeinträchtigen.

Weitere Angaben

Die Angaben stützen sich auf den heutigen Stand unserer Kenntnisse, sie stellen jedoch keine Zusicherung von Produkteigenschaften dar und begründen kein vertragliches Rechtsverhältnis. Bestehende Gesetze und Bestimmungen sind vom Empfänger unserer Produkte in eigener Verantwortung zu beachten.

(Die Daten der gefährlichen Inhaltsstoffe wurden jeweils dem letztgültigen Sicherheitsdatenblatt des Vorlieferanten entnommen.)



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Technische Daten

Konsistenz	mittelviskose homogene Flüssigkeit
Farbe	entsprechend Vita Farbring (A1, A2, A3, A3.5, B1, Snow White (Bleach))
Durchhärtungstiefe (DIN EN ISO 4049)	≥ 1,5 mm
Biegefestigkeit (DIN EN ISO 4049)	> 130 MPa
E-Modul (DIN EN ISO 4049)	> 4000 MPa
Barcol-Härte	> 40
Haltbarkeit	3 Jahre

Tray Resin
MATERIAL SAFETY DATA SHEET

MSDS code: XL/QES-C-RDMS-035

Creation Date: August 13,2021

Revision Date: None

Revision instructions: None

SHINING 3D TECH CO.,LTD.

Stock code:830978

SECTION 1: Chemical product and company identification

English product name: Tray Resin

English product code: TR01

Chemical Chinese name: 光敏聚合物树脂

Chemical English name: Photopolymer Resin

Product description: Mixture of acrylic and methacrylic acid esters, photoinitiators, proprietary pigment and additive package.

Identified uses: Photopolymer Resin for AccuFab Series 3D Printer.

Company: SHINING 3D TECH Co., Ltd.

Address: 1398 Xiangbin Road, Wenyan, Xiaoshan, Hangzhou, China

Telephone: +86-0571-82999589

Email: cnsales@shining3d.com

MSDS code: XL/QES-C-RDMS-035

SECTION 2: Hazards summarizing

GHS(Globally Harmonized System of Classification and Labeling of Chemicals):

Acute toxicity - Oral, Category 4

Serious eye damage, Category 1

Skin sensitization, Category 1

Specific target organ toxicity - repeated exposure, Category 2

Pictogram(s):



Signal word Danger

Hazard statement(s)

H318 Causes serious eye damage.

H315 Causes skin irritation.

H302 Harmful if swallowed.

H317 May cause an allergic skin reaction.

H373 May cause damage to organs (state all organs affected, if known) through prolonged or repeated exposure (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)

H412 Harmful to aquatic life with long lasting effects.

Precautionary statement(s)

Prevention

P260 Do not breathing vapour. (uncured material only)

P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P272 Contaminated work clothing should not be allowed out of the workplace.

P273 Avoid release to the environment.

P280 Wear protective gloves, protective clothing, eye protection, face protection.

Response

P301 + P312 IF SWALLOWED: Call a POISON CENTER/doctor/...if you feel unwell.

P302 + P352 IF ON SKIN: Wash with plenty of water/...

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes.

Remove lenses, if present and easy to do. Continue rinsing.

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

P362 + P364 Take off contaminated clothing and wash it before reuse.

P314 Get medical advice and attention if you feel unwell.

Storage: Not applicable.

Disposal

P501 Dispose of contents/container to...

Other hazards which do not result in classification

None

SECTION 3: Composition/information on ingredients

Ingredients: Photopolymer Resin/Mixture

Ingredients:	CAS No.	Composition (%)
Methacrylated monomers	(Patent)	N/A
Methacrylated oligomers	(Patent)	N/A
Photoinitiator	(Patent)	N/A

SECTION 4: First-aid measures

General advice: Consult a physician. Show this safety data sheet to the doctor in attendance.

Skin contact: Wash off with soap and plenty of water. Consult a physician.

Eye contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

Inhaled: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

Ingestion: Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

SECTION 5: Fire-fighting measures

Specific Hazards

Toxic and irritating gases may be formed from decomposition of acrylate resin. High temperatures, accidental impurities, or exposure to radiation or oxidizers may cause spontaneous polymerization generating heat/pressure. Closed containers may rupture or explode during runaway polymerization. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

5.1 Extinguishing Media**Hazards from Combustion Products**

Carbon monoxide, carbon dioxide and nitrogen oxides.

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Specific hazards arising from the chemical

No data available

5.3 Special protective actions for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up

Small spill: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material^[1] and place in an appropriate waste disposal container. Dispose of via a licensed^[1] waste disposal contractor.

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

SECTION 7: Handling and storage**7.1 Precautions for safe handling**

Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this

product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapour or mist. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous.

Do not reuse container.

7.2 Conditions for safe storage, including any incompatibilities

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

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure limit values

No date available

Biological limit values

No date available

8.2 Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

8.3 Individual protection measures, such as personal protective equipment(PPE)

Eye/face protection

Safety glasses with side-shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH(US) or EN 166(EU).

Skin protection

Wear impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique(without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Respiratory protection

Wear dust mask when handing large quantities.

Thermal hazards

No date available

SECTION 9: Physical and chemical properties

Physical state	Liquid
Colour	White
Odour	Ester-like Odor
Melting point/freezing point	No date available
Boiling point or initial boiling point and boiling rang	No date available
Flammability	No date available
Lower and upper explosion limit/flammability limit	No date available
Flash point	No date available
Auto-ignition temperature	No date available
Decomposition temperature	No date available
PH	No date available
Kinematic viscosity	No date available
Solubility	Almost insoluble in water, good solubility in most organic solvents.
Partition coefficient n-octanol/water(log value)	No date available
Vapour pressure	No date available
Density and/or relative density	No date available
Relative vapour density	No date available
Particle characteristics	No date available

SECTION 10: Stability and reactivity

10.1 Reactivity

no data available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

no data available

10.4 Conditions to avoid

Light, electrostatic discharge, heat, humidity.

10.5 Incompatible materials

no data available

SECTION 11: Toxicological information

Acute toxicity

Oral: No date available

Inhalation: No date available

Dermal: No date available

Skin corrosion/irritation

No date available

Serious eye damage/irritation

No date available

Respiratory or skin sensitization

No date available

Germ cell mutagenicity

No date available

Carcinogenicity

No date available

Reproductive toxicity

No date available

STOT-single exposure

No date available

STOT-repeated exposure

No date available

Aspiration hazard

No date available

SECTION 12: Ecological information

12.1 Toxicity

No date available

12.2 Persistence and degradability

No date available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Other adverse effects

No data available

SECTION 13: disposal

Disposal methods

Product

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

SECTION 14: Transport information

14.1 UN Number

ADR/RID: Not dangerous goods.	IMDG: Not dangerous goods.	IATA: Not dangerous goods.
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14.2 UN Proper Shipping Name

ADR/RID: unknown
IMDG: unknown
IATA: unknown

14.3 Transport hazard class(es)

ADR/RID: Not dangerous goods.	IMDG: Not dangerous goods.	IATA: Not dangerous goods.
-------------------------------	----------------------------	----------------------------

14.4 Packing group, if applicable

ADR/RID: Not dangerous goods.	IMDG: Not dangerous goods.	IATA: Not dangerous goods.
-------------------------------	----------------------------	----------------------------

14.5 Environmental hazards

ADR/RID: No	IMDG: No	IATA: No
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14.6 Special precautions for user

no data available

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

no data available

SECTION 15: Regulatory information

Chemical name	Common names and synonyms	CAS number	EC number
Photopolymer Resin	Photopolymer Resin	Patent	None
European Inventory of Existing Commercial Chemical Substances (EINECS)			Not Listed
EC Inventor			Not Listed
United States Toxic Substances Control Act (TSCA) Inventory			Not Listed
China Catalog of Hazardous chemicals 2015			Not Listed
New Zealand Inventory of Chemicals (NZIoC)			Not Listed
Philippines Inventory of Chemicals and Chemical Substances (PICCS)			Not Listed
Chinese Chemical Inventory of Existing Chemical Substances (China IECSC)			Not Listed

SECTION 16: Other information

Information on revision

Creation Date	August 13,2021
Revision Date	--

Abbreviations and acronyms

CAS: Chemical Abstracts Service

● ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

● RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

● IMDG: International Maritime Dangerous Goods

● IATA: International Air Transportation Association

● LC50: Lethal Concentration 50%

● LD50: Lethal Dose 50%

● EC50: Effective Concentration 50%

References

● IPCS - The International Chemical Safety Cards (ICSC), website:

<http://www.ilo.org/dyn/icsc/showcard.home>

● HSDB - Hazardous Substances Data Bank, website:

<https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm>

● IARC - International Agency for Research on Cancer, website: <http://www.iarc.fr/>

● eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website:

● http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en

● CAMEO Chemicals, website: <http://cameochemicals.noaa.gov/search/simple>

● ChemIDplus, website: <http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp>

● ERG - Emergency Response Guidebook by U.S. Department of Transportation, website:

● <http://www.phmsa.dot.gov/hazmat/library/erg>

● Germany GESTIS-database on hazard substance, website:

http://www.dguv.de/ifa/gestis/gestis_stoffdatenbank/index-2.jsp

● ECHA - European Chemicals Agency, website: <https://echa.europa.eu/>

Gingiva Mask
MATERIAL SAFETY DATA SHEET

SHINING 3D TECH CO.,LTD.

Stock code:830978

SECTION 1 : Chemical product and company identification

English product name: Gingiva Mask

Chemical Chinese Name: 光敏聚合物树脂

Chemical English Name: Photopolymer Resin

Company: SHINING 3D TECH Co.,Ltd.

Address: 1398 Xiangbin Road, Wenyan, Xiaoshan, Hangzhou, China

Telepone/Fax: +86-0571-82999589

Email: cnsales@shining3d.com

MSDS code: XL-QES-C-QA-216

SECTION 2 : Hazards summarizing

GHS(Globally Harmonized System of Classification and Labeling of Chemicals) :

Acute toxicity - Oral, Category 4

Serious eye damage, Category 1

Skin sensitization, Category 1

Specific target organ toxicity - repeated exposure, Category 2

Pictogram(s):



Signal word Danger

Hazard statement(s)

H302 Harmful if swallowed

H317 May cause an allergic skin reaction

H318 Causes serious eye damage

Precautionary statement(s)

Prevention

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 Wash...thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P272 Contaminated work clothing should not be allowed out of the workplace.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response

P301 + P312 IF SWALLOWED: Call a POISON CENTER/doctor/...if you feel unwell.

P302 + P352 IF ON SKIN: Wash with plenty of water/...

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER/doctor/...

P321 Specific treatment(see...on this label).

P330 Rinse mouth.
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.
P314 Get medical advice/attention if you feel unwell.

Storage

none

Disposal

P501 Dispose of contents/container to...

Other hazards which do not result in classification

None

SECTION 3 : Composition/information on ingredients

Ingredients: Photopolymer Resin/Mixture

Ingredients:	CAS No.	Composition (%)
Acrylic oligomer	(Patent)	N/A
Photoinitiator	(Patent)	N/A

SECTION 4 : First-aid measures

General advice: Consult a physician. Show this safety data sheet to the doctor in attendance.

In case of skin contact: Wash off with soap and plenty of water. Consult a physician.

In case of eye contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If inhaled: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

If swallowed: Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

SECTION 5 : Fire-fighting measures**Specific Hazards**

Toxic and irritating gases may be formed from decomposition of acrylate resin. High temperatures, accidental impurities, or exposure to radiation or oxidizers may cause spontaneous polymerization generating heat/pressure. Closed containers may rupture or explode during runaway polymerization. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

5.1 Extinguishing Media**Hazards from Combustion Products**

Carbon monoxide, carbon dioxide and nitrogen oxides.

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Specific hazards arising from the chemical

no data available

5.3 Special protective actions for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6 : Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up

Pick up and arrange disposal. Sweep up and shovel. Keep in suitable, closed containers for disposal.

SECTION 7 : Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Avoid exposure - obtain special instructions before use. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

SECTION 8 : Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure limit values

No data available

Biological limit values

No data available

8.2 Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

8.3 Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

Safety glasses with side-shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH(US) or EN 166(EU).

Skin protection

Wear impervious clothing. The type of protective equipment must be selected according to the

concentration and amount of the dangerous substance at the specific workplace. Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Respiratory protection

Wear dust mask when handling large quantities.

Thermal hazards

No data available

SECTION 9 : Physical and chemical properties

Physical state	Liquid
Colour	Red Brown
Odour	Weak Odor
Melting point/freezing point	-35°C - lit.
Boiling point or initial boiling point and boiling range	158°C / 67mmHg(lit.)
Flammability	No date available
Lower and upper explosion limit/flammability limit	No date available
Flash point	126.5°C
Auto-ignition temperature	No date available
Decomposition temperature	No date available
PH	No date available
Kinematic viscosity	No date available
Solubility	Almost insoluble in water, good solubility in most organic solvents.
Partition coefficient n-octanol/water(log value)	No date available
Vapour pressure	No date available
Density and/or relative density	1.122 g/mL at 25°C (lit.)
Relative vapour density	No date available
Particle characteristics	No date available

SECTION 10 : Stability and reactivity

10.1 Reactivity

no data available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

no data available

10.4 Conditions to avoid

Light, electrostatic discharge, heat, humidity.

10.5 Incompatible materials

no data available

SECTION 11 : Toxicological information

Acute toxicity

- Oral:No date available
- Inhalation:No date available
- Dermal:No date available

Skin corrosion/irritation

No date available

Serious eye damage/irritation

No date available

Respiratory or skin sensitization

No date available

Germ cell mutagenicity

No date available

Carcinogenicity

No date available

Reproductive toxicity

No date available

STOT-single exposure

No date available

STOT-repeated exposure

No date available

Aspiration hazard

No date available

SECTION 12 : Ecological information

12.1 Toxicity

- Toxicity to fish:no date available
- Toxicity to daphnia and other aquatic invertebrates:no date available

- Toxicity to algae: no date available
- Toxicity to microorganisms: no date available

12.2 Persistence and degradability

no date available

12.3 Bioaccumulative potential

no data available

12.4 Mobility in soil

no data available

12.5 Other adverse effects

no data available

SECTION 13 : disposal**Disposal methods****Product**

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

SECTION 14 : Transport information**14.1 UN Number**

ADR/RID: Not dangerous goods.	IMDG: Not dangerous goods.	IATA: Not dangerous goods.
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14.2 UN Proper Shipping Name

ADR/RID: unknown
IMDG: unknown
IATA: unknown

14.3 Transport hazard class(es)

ADR/RID: Not dangerous goods.	IMDG: Not dangerous goods.	IATA: Not dangerous goods.
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14.4 Packing group, if applicable

ADR/RID: Not dangerous goods.	IMDG: Not dangerous goods.	IATA: Not dangerous goods.
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14.5 Environmental hazards

ADR/RID: No	IMDG: No	IATA: No
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14.6 Special precautions for user

no data available

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

no data available

SECTION 15 : Regulatory information

Chemical name	Common names and synonyms	CAS number	EC number
Photopolymer Resin	Photopolymer Resin	Patent	None
European Inventory of Existing Commercial Chemical Substances (EINECS)			Not Listed
EC Inventor			Not Listed
United States Toxic Substances Control Act (TSCA) Inventory			Not Listed
China Catalog of Hazardous chemicals 2015			Not Listed
New Zealand Inventory of Chemicals (NZIoC)			Not Listed
Philippines Inventory of Chemicals and Chemical Substances (PICCS)			Not Listed
Chinese Chemical Inventory of Existing Chemical Substances (China IECSC)			Not Listed

SECTION 16 : Other information**Information on revision**

Creation Date	Oct 23,2018
Revision Date	Oct 23,2018

Abbreviations and acronyms

- CAS: Chemical Abstracts Service
- ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
- RID: Regulation concerning the International Carriage of Dangerous Goods by Rail
- IMDG: International Maritime Dangerous Goods
- IATA: International Air Transportation Association
- LC50: Lethal Concentration 50%
- LD50: Lethal Dose 50%
- EC50: Effective Concentration 50%

References

- IPCS - The International Chemical Safety Cards (ICSC), website:
<http://www.ilo.org/dyn/icsc/showcard.home>
- HSDB - Hazardous Substances Data Bank, website:
<https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm>
- IARC - International Agency for Research on Cancer, website: <http://www.iarc.fr/>
- eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website:
 - http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en
 - CAMEO Chemicals, website: <http://cameochemicals.noaa.gov/search/simple>
 - ChemIDplus, website: <http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp>
 - ERG - Emergency Response Guidebook by U.S. Department of Transportation, website:
<http://www.phmsa.dot.gov/hazmat/library/erg>
 - Germany GESTIS-database on hazard substance, website:
http://www.dguv.de/ifa/gestis/gestis_stoffdatenbank/index-2.jsp
 - ECHA - European Chemicals Agency, website: <https://echa.europa.eu/>



Surgical Guide

MATERIAL SAFETY DATA SHEET

SHINING 3D TECH CO.,LTD.

Stock code:830978

SECTION 1 : Chemical product and company identification

English product name: Surgical Guide

Chemical Chinese Name: 光敏聚合物树脂

Chemical English Name: Photopolymer Resin

Company: SHINING 3D TECH Co.,Ltd.

Address: 1398 Xiangbin Road, Wenyan, Xiaoshan, Hangzhou, China

Telepone/Fax: +86-0571-82999589

Email: cnsales@shining3d.com

MSDS code: XL-QES-C-QA-217

SECTION 2 : Hazards summarizing

GHS(Globally Harmonized System of Classification and Labeling of Chemicals) :

Acute toxicity - Oral, Category 4

Serious eye damage, Category 1

Skin sensitization, Category 1

Specific target organ toxicity - repeated exposure, Category 2

Pictogram(s):



Signal word Danger

Hazard statement(s)

H302 Harmful if swallowed

H317 May cause an allergic skin reaction

H318 Causes serious eye damage

Precautionary statement(s)

Prevention

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 Wash...thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P272 Contaminated work clothing should not be allowed out of the workplace.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response

P301 + P312 IF SWALLOWED: Call a POISON CENTER/doctor/...if you feel unwell.

P302 + P352 IF ON SKIN: Wash with plenty of water/...

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER/doctor/...

P321 Specific treatment(see...on this label).

P330 Rinse mouth.
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.
P314 Get medical advice/attention if you feel unwell.

Storage

none

Disposal

P501 Dispose of contents/container to...

Other hazards which do not result in classification

None

SECTION 3 : Composition/information on ingredients

Ingredients: Photopolymer Resin/Mixture

Ingredients:	CAS No.	Composition (%)
Acrylic oligomer	(Patent)	N/A
Photoinitiator	(Patent)	N/A

SECTION 4 : First-aid measures

General advice: Consult a physician. Show this safety data sheet to the doctor in attendance.

In case of skin contact: Wash off with soap and plenty of water. Consult a physician.

In case of eye contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If inhaled: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

If swallowed: Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

SECTION 5 : Fire-fighting measures**Specific Hazards**

Toxic and irritating gases may be formed from decomposition of acrylate resin. High temperatures, accidental impurities, or exposure to radiation or oxidizers may cause spontaneous polymerization generating heat/pressure. Closed containers may rupture or explode during runaway polymerization. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

5.1 Extinguishing Media**Hazards from Combustion Products**

Carbon monoxide, carbon dioxide and nitrogen oxides.

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Specific hazards arising from the chemical

no data available

5.3 Special protective actions for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6 : Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up

Pick up and arrange disposal. Sweep up and shovel. Keep in suitable, closed containers for disposal.

SECTION 7 : Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Avoid exposure - obtain special instructions before use. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

SECTION 8 : Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure limit values

No data available

Biological limit values

No data available

8.2 Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

8.3 Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

Safety glasses with side-shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH(US) or EN 166(EU).

Skin protection

Wear impervious clothing. The type of protective equipment must be selected according to the

concentration and amount of the dangerous substance at the specific workplace. Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Respiratory protection

Wear dust mask when handling large quantities.

Thermal hazards

No data available

SECTION 9 : Physical and chemical properties

Physical state	Liquid
Colour	Colorless Transparent
Odour	Weak Odor
Melting point/freezing point	-35°C - lit.
Boiling point or initial boiling point and boiling range	158°C / 67mmHg (lit.)
Flammability	No date available
Lower and upper explosion limit/flammability limit	No date available
Flash point	126.5°C
Auto-ignition temperature	No date available
Decomposition temperature	No date available
PH	No date available
Kinematic viscosity	No date available
Solubility	Almost insoluble in water, good solubility in most organic solvents.
Partition coefficient n-octanol/water (log value)	No date available
Vapour pressure	No date available
Density and/or relative density	1.122 g/mL at 25°C (lit.)
Relative vapour density	No date available
Particle characteristics	No date available

SECTION 10 : Stability and reactivity

10.1 Reactivity

no data available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

no data available

10.4 Conditions to avoid

Light, electrostatic discharge, heat, humidity.

10.5 Incompatible materials

no data available

SECTION 11 : Toxicological information

Acute toxicity

- Oral:No date available
- Inhalation:No date available
- Dermal:No date available

Skin corrosion/irritation

No date available

Serious eye damage/irritation

No date available

Respiratory or skin sensitization

No date available

Germ cell mutagenicity

No date available

Carcinogenicity

No date available

Reproductive toxicity

No date available

STOT-single exposure

No date available

STOT-repeated exposure

No date available

Aspiration hazard

No date available

SECTION 12 : Ecological information

12.1 Toxicity

- Toxicity to fish:no date available
- Toxicity to daphnia and other aquatic invertebrates:no date available

- Toxicity to algae: no date available
- Toxicity to microorganisms: no date available

12.2 Persistence and degradability

no date available

12.3 Bioaccumulative potential

no data available

12.4 Mobility in soil

no data available

12.5 Other adverse effects

no data available

SECTION 13 : disposal**Disposal methods****Product**

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

SECTION 14 : Transport information**14.1 UN Number**

ADR/RID: Not dangerous goods.	IMDG: Not dangerous goods.	IATA: Not dangerous goods.
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14.2 UN Proper Shipping Name

ADR/RID: unknown
IMDG: unknown
IATA: unknown

14.3 Transport hazard class(es)

ADR/RID: Not dangerous goods.	IMDG: Not dangerous goods.	IATA: Not dangerous goods.
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14.4 Packing group, if applicable

ADR/RID: Not dangerous goods.	IMDG: Not dangerous goods.	IATA: Not dangerous goods.
-------------------------------	----------------------------	----------------------------

14.5 Environmental hazards

ADR/RID: No	IMDG: No	IATA: No
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14.6 Special precautions for user

no data available

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

no data available

SECTION 15 : Regulatory information

Chemical name	Common names and synonyms	CAS number	EC number
Photopolymer Resin	Photopolymer Resin	Patent	None
European Inventory of Existing Commercial Chemical Substances (EINECS)			Not Listed
EC Inventor			Not Listed
United States Toxic Substances Control Act (TSCA) Inventory			Not Listed
China Catalog of Hazardous chemicals 2015			Not Listed
New Zealand Inventory of Chemicals (NZIoC)			Not Listed
Philippines Inventory of Chemicals and Chemical Substances (PICCS)			Not Listed
Chinese Chemical Inventory of Existing Chemical Substances (China IECSC)			Not Listed

SECTION 16 : Other information**Information on revision**

Creation Date	Oct 23,2018
Revision Date	Oct 23,2018

Abbreviations and acronyms

- CAS: Chemical Abstracts Service
- ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
- RID: Regulation concerning the International Carriage of Dangerous Goods by Rail
- IMDG: International Maritime Dangerous Goods
- IATA: International Air Transportation Association
- LC50: Lethal Concentration 50%
- LD50: Lethal Dose 50%
- EC50: Effective Concentration 50%

References

- IPCS - The International Chemical Safety Cards (ICSC), website:
<http://www.ilo.org/dyn/icsc/showcard.home>
- HSDB - Hazardous Substances Data Bank, website:
<https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm>
- IARC - International Agency for Research on Cancer, website: <http://www.iarc.fr/>
- eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website:
 - http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en
 - CAMEO Chemicals, website: <http://cameochemicals.noaa.gov/search/simple>
 - ChemIDplus, website: <http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp>
 - ERG - Emergency Response Guidebook by U.S. Department of Transportation, website:
<http://www.phmsa.dot.gov/hazmat/library/erg>
 - Germany GESTIS-database on hazard substance, website:
http://www.dguv.de/ifa/gestis/gestis_stoffdatenbank/index-2.jsp
 - ECHA - European Chemicals Agency, website: <https://echa.europa.eu/>

Cast
MATERIAL SAFETY DATA SHEET

SHINING 3D TECH CO.,LTD.

Stock code:830978

SECTION 1 : Chemical product and company identification

English product name: Cast

Chemical Chinese Name: 光敏聚合物树脂

Chemical English Name: Photopolymer Resin

Company: SHINING 3D TECH Co.,Ltd.

Address: 1398 Xiangbin Road, Wenyan, Xiaoshan, Hangzhou, China

Telepone/Fax: +86-0571-82999589

Email: cnsales@shining3d.com

MSDS code: XL-QES-C-QA-218

SECTION 2 : Hazards summarizing

GHS(Globally Harmonized System of Classification and Labeling of Chemicals) :

Acute toxicity - Oral, Category 4

Serious eye damage, Category 1

Skin sensitization, Category 1

Specific target organ toxicity - repeated exposure, Category 2

Pictogram(s):



Signal word Danger

Hazard statement(s)

H302 Harmful if swallowed

H317 May cause an allergic skin reaction

H318 Causes serious eye damage

Precautionary statement(s)

Prevention

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 Wash...thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P272 Contaminated work clothing should not be allowed out of the workplace.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response

P301 + P312 IF SWALLOWED: Call a POISON CENTER/doctor/...if you feel unwell.

P302 + P352 IF ON SKIN: Wash with plenty of water/...

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER/doctor/...

P321 Specific treatment(see...on this label).

P330 Rinse mouth.
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.
P314 Get medical advice/attention if you feel unwell.

Storage

none

Disposal

P501 Dispose of contents/container to...

Other hazards which do not result in classification

None

SECTION 3 : Composition/information on ingredients

Ingredients: Photopolymer Resin/Mixture

Ingredients:	CAS No.	Composition (%)
Acrylic oligomer	(Patent)	N/A
Photoinitiator	(Patent)	N/A

SECTION 4 : First-aid measures

General advice: Consult a physician. Show this safety data sheet to the doctor in attendance.

In case of skin contact: Wash off with soap and plenty of water. Consult a physician.

In case of eye contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If inhaled: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

If swallowed: Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

SECTION 5 : Fire-fighting measures**Specific Hazards**

Toxic and irritating gases may be formed from decomposition of acrylate resin. High temperatures, accidental impurities, or exposure to radiation or oxidizers may cause spontaneous polymerization generating heat/pressure. Closed containers may rupture or explode during runaway polymerization. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

5.1 Extinguishing Media**Hazards from Combustion Products**

Carbon monoxide, carbon dioxide and nitrogen oxides.

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Specific hazards arising from the chemical

no data available

5.3 Special protective actions for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6 : Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up

Pick up and arrange disposal. Sweep up and shovel. Keep in suitable, closed containers for disposal.

SECTION 7 : Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Avoid exposure - obtain special instructions before use. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

SECTION 8 : Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure limit values

No data available

Biological limit values

No data available

8.2 Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

8.3 Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

Safety glasses with side-shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH(US) or EN 166(EU).

Skin protection

Wear impervious clothing. The type of protective equipment must be selected according to the

concentration and amount of the dangerous substance at the specific workplace. Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Respiratory protection

Wear dust mask when handling large quantities.

Thermal hazards

No data available

SECTION 9 : Physical and chemical properties

Physical state	Liquid
Colour	Black green
Odour	Weak Odor
Melting point/freezing point	-35°C - lit.
Boiling point or initial boiling point and boiling range	158°C / 67mmHg(lit.)
Flammability	No date available
Lower and upper explosion limit/flammability limit	No date available
Flash point	126.5°C
Auto-ignition temperature	No date available
Decomposition temperature	No date available
PH	No date available
Kinematic viscosity	No date available
Solubility	Almost insoluble in water, good solubility in most organic solvents.
Partition coefficient n-octanol/water(log value)	No date available
Vapour pressure	No date available
Density and/or relative density	1.122 g/mL at 25°C (lit.)
Relative vapour density	No date available
Particle characteristics	No date available

SECTION 10 : Stability and reactivity

10.1 Reactivity

no data available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

no data available

10.4 Conditions to avoid

Light, electrostatic discharge, heat, humidity.

10.5 Incompatible materials

no data available

SECTION 11 : Toxicological information

Acute toxicity

- Oral:No date available
- Inhalation:No date available
- Dermal:No date available

Skin corrosion/irritation

No date available

Serious eye damage/irritation

No date available

Respiratory or skin sensitization

No date available

Germ cell mutagenicity

No date available

Carcinogenicity

No date available

Reproductive toxicity

No date available

STOT-single exposure

No date available

STOT-repeated exposure

No date available

Aspiration hazard

No date available

SECTION 12 : Ecological information

12.1 Toxicity

- Toxicity to fish:no date available
- Toxicity to daphnia and other aquatic invertebrates:no date available

- Toxicity to algae: no date available
- Toxicity to microorganisms: no date available

12.2 Persistence and degradability

no date available

12.3 Bioaccumulative potential

no data available

12.4 Mobility in soil

no data available

12.5 Other adverse effects

no data available

SECTION 13 : disposal**Disposal methods****Product**

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

SECTION 14 : Transport information**14.1 UN Number**

ADR/RID: Not dangerous goods.	IMDG: Not dangerous goods.	IATA: Not dangerous goods.
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14.2 UN Proper Shipping Name

ADR/RID: unknown
IMDG: unknown
IATA: unknown

14.3 Transport hazard class(es)

ADR/RID: Not dangerous goods.	IMDG: Not dangerous goods.	IATA: Not dangerous goods.
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14.4 Packing group, if applicable

ADR/RID: Not dangerous goods.	IMDG: Not dangerous goods.	IATA: Not dangerous goods.
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14.5 Environmental hazards

ADR/RID: No	IMDG: No	IATA: No
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14.6 Special precautions for user

no data available

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

no data available

SECTION 15 : Regulatory information

Chemical name	Common names and synonyms	CAS number	EC number
Photopolymer Resin	Photopolymer Resin	Patent	None
European Inventory of Existing Commercial Chemical Substances (EINECS)			Not Listed
EC Inventor			Not Listed
United States Toxic Substances Control Act (TSCA) Inventory			Not Listed
China Catalog of Hazardous chemicals 2015			Not Listed
New Zealand Inventory of Chemicals (NZIoC)			Not Listed
Philippines Inventory of Chemicals and Chemical Substances (PICCS)			Not Listed
Chinese Chemical Inventory of Existing Chemical Substances (China IECSC)			Not Listed

SECTION 16 : Other information**Information on revision**

Creation Date	Oct 23,2018
Revision Date	Oct 23,2018

Abbreviations and acronyms

- CAS: Chemical Abstracts Service
- ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
- RID: Regulation concerning the International Carriage of Dangerous Goods by Rail
- IMDG: International Maritime Dangerous Goods
- IATA: International Air Transportation Association
- LC50: Lethal Concentration 50%
- LD50: Lethal Dose 50%
- EC50: Effective Concentration 50%

References

- IPCS - The International Chemical Safety Cards (ICSC), website:
<http://www.ilo.org/dyn/icsc/showcard.home>
- HSDB - Hazardous Substances Data Bank, website:
<https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm>
- IARC - International Agency for Research on Cancer, website: <http://www.iarc.fr/>
- eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website:
 - http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en
 - CAMEO Chemicals, website: <http://cameochemicals.noaa.gov/search/simple>
 - ChemIDplus, website: <http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp>
 - ERG - Emergency Response Guidebook by U.S. Department of Transportation, website:
<http://www.phmsa.dot.gov/hazmat/library/erg>
 - Germany GESTIS-database on hazard substance, website:
http://www.dguv.de/ifa/gestis/gestis_stoffdatenbank/index-2.jsp
 - ECHA - European Chemicals Agency, website: <https://echa.europa.eu/>

Ortho Model
MATERIAL SAFETY DATA SHEET

SHINING 3D TECH CO.,LTD.

Stock code:830978

SECTION 1 : Chemical product and company identification

English product name: Ortho Model

Chemical Chinese Name: 光敏聚合物树脂

Chemical English Name: Photopolymer Resin

Company: SHINING 3D TECH Co.,Ltd.

Address: 1398 Xiangbin Road, Wenyan, Xiaoshan, Hangzhou, China

Telepone/Fax: +86-0571-82999589

Email: cnsales@shining3d.com

MSDS code: XL-QES-C-QA-220

SECTION 2 : Hazards summarizing

GHS(Globally Harmonized System of Classification and Labeling of Chemicals) :

Acute toxicity - Oral, Category 4

Serious eye damage, Category 1

Skin sensitization, Category 1

Specific target organ toxicity - repeated exposure, Category 2

Pictogram(s):



Signal word Danger

Hazard statement(s)

H302 Harmful if swallowed

H317 May cause an allergic skin reaction

H318 Causes serious eye damage

Precautionary statement(s)

Prevention

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 Wash...thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P272 Contaminated work clothing should not be allowed out of the workplace.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response

P301 + P312 IF SWALLOWED: Call a POISON CENTER/doctor/...if you feel unwell.

P302 + P352 IF ON SKIN: Wash with plenty of water/...

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER/doctor/...

P321 Specific treatment(see...on this label).

P330 Rinse mouth.
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.
P314 Get medical advice/attention if you feel unwell.

Storage

none

Disposal

P501 Dispose of contents/container to...

Other hazards which do not result in classification

None

SECTION 3 : Composition/information on ingredients

Ingredients: Photopolymer Resin/Mixture

Ingredients:	CAS No.	Composition (%)
Acrylic oligomer	(Patent)	N/A
Photoinitiator	(Patent)	N/A

SECTION 4 : First-aid measures

General advice: Consult a physician. Show this safety data sheet to the doctor in attendance.

In case of skin contact: Wash off with soap and plenty of water. Consult a physician.

In case of eye contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If inhaled: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

If swallowed: Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

SECTION 5 : Fire-fighting measures**Specific Hazards**

Toxic and irritating gases may be formed from decomposition of acrylate resin. High temperatures, accidental impurities, or exposure to radiation or oxidizers may cause spontaneous polymerization generating heat/pressure. Closed containers may rupture or explode during runaway polymerization. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

5.1 Extinguishing Media**Hazards from Combustion Products**

Carbon monoxide, carbon dioxide and nitrogen oxides.

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Specific hazards arising from the chemical

no data available

5.3 Special protective actions for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6 : Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up

Pick up and arrange disposal. Sweep up and shovel. Keep in suitable, closed containers for disposal.

SECTION 7 : Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Avoid exposure - obtain special instructions before use. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

SECTION 8 : Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure limit values

No data available

Biological limit values

No data available

8.2 Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

8.3 Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

Safety glasses with side-shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH(US) or EN 166(EU).

Skin protection

Wear impervious clothing. The type of protective equipment must be selected according to the

concentration and amount of the dangerous substance at the specific workplace. Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Respiratory protection

Wear dust mask when handling large quantities.

Thermal hazards

No data available

SECTION 9 : Physical and chemical properties

Physical state	Liquid
Colour	Pale Brown
Odour	Weak Odor
Melting point/freezing point	-35°C - lit.
Boiling point or initial boiling point and boiling range	158°C / 67mmHg (lit.)
Flammability	No date available
Lower and upper explosion limit/flammability limit	No date available
Flash point	126.5°C
Auto-ignition temperature	No date available
Decomposition temperature	No date available
PH	No date available
Kinematic viscosity	No date available
Solubility	Almost insoluble in water, good solubility in most organic solvents.
Partition coefficient n-octanol/water (log value)	No date available
Vapour pressure	No date available
Density and/or relative density	1.122 g/mL at 25°C (lit.)
Relative vapour density	No date available
Particle characteristics	No date available

SECTION 10 : Stability and reactivity

10.1 Reactivity

no data available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

no data available

10.4 Conditions to avoid

Light, electrostatic discharge, heat, humidity.

10.5 Incompatible materials

no data available

SECTION 11 : Toxicological information

Acute toxicity

- Oral:No date available
- Inhalation:No date available
- Dermal:No date available

Skin corrosion/irritation

No date available

Serious eye damage/irritation

No date available

Respiratory or skin sensitization

No date available

Germ cell mutagenicity

No date available

Carcinogenicity

No date available

Reproductive toxicity

No date available

STOT-single exposure

No date available

STOT-repeated exposure

No date available

Aspiration hazard

No date available

SECTION 12 : Ecological information

12.1 Toxicity

- Toxicity to fish:no date available
- Toxicity to daphnia and other aquatic invertebrates:no date available

- Toxicity to algae: no date available
- Toxicity to microorganisms: no date available

12.2 Persistence and degradability

no date available

12.3 Bioaccumulative potential

no data available

12.4 Mobility in soil

no data available

12.5 Other adverse effects

no data available

SECTION 13 : disposal**Disposal methods****Product**

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

SECTION 14 : Transport information**14.1 UN Number**

ADR/RID: Not dangerous goods.	IMDG: Not dangerous goods.	IATA: Not dangerous goods.
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14.2 UN Proper Shipping Name

ADR/RID: unknown
IMDG: unknown
IATA: unknown

14.3 Transport hazard class(es)

ADR/RID: Not dangerous goods.	IMDG: Not dangerous goods.	IATA: Not dangerous goods.
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14.4 Packing group, if applicable

ADR/RID: Not dangerous goods.	IMDG: Not dangerous goods.	IATA: Not dangerous goods.
-------------------------------	----------------------------	----------------------------

14.5 Environmental hazards

ADR/RID: No	IMDG: No	IATA: No
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14.6 Special precautions for user

no data available

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

no data available

SECTION 15 : Regulatory information

Chemical name	Common names and synonyms	CAS number	EC number
Photopolymer Resin	Photopolymer Resin	Patent	None
European Inventory of Existing Commercial Chemical Substances (EINECS)			Not Listed
EC Inventor			Not Listed
United States Toxic Substances Control Act (TSCA) Inventory			Not Listed
China Catalog of Hazardous chemicals 2015			Not Listed
New Zealand Inventory of Chemicals (NZIoC)			Not Listed
Philippines Inventory of Chemicals and Chemical Substances (PICCS)			Not Listed
Chinese Chemical Inventory of Existing Chemical Substances (China IECSC)			Not Listed

SECTION 16 : Other information**Information on revision**

Creation Date	Oct 23,2018
Revision Date	Oct 23,2018

Abbreviations and acronyms

- CAS: Chemical Abstracts Service
- ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
- RID: Regulation concerning the International Carriage of Dangerous Goods by Rail
- IMDG: International Maritime Dangerous Goods
- IATA: International Air Transportation Association
- LC50: Lethal Concentration 50%
- LD50: Lethal Dose 50%
- EC50: Effective Concentration 50%

References

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<http://www.ilo.org/dyn/icsc/showcard.home>
- HSDB - Hazardous Substances Data Bank, website:
<https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm>
- IARC - International Agency for Research on Cancer, website: <http://www.iarc.fr/>
- eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website:
http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en
- CAMEO Chemicals, website: <http://cameochemicals.noaa.gov/search/simple>
- ChemIDplus, website: <http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp>
- ERG - Emergency Response Guidebook by U.S. Department of Transportation, website:
<http://www.phmsa.dot.gov/hazmat/library/erg>
- Germany GESTIS-database on hazard substance, website:
http://www.dguv.de/ifa/gestis/gestis_stoffdatenbank/index-2.jsp
- ECHA - European Chemicals Agency, website: <https://echa.europa.eu/>