

Safety Data Sheet

according to Regulation (EC) No 1907/2006

EmeraldCast

Revision date: 05.06.2019

Product code: 970181

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SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

EmeraldCast

Further trade names

1000 g: 970181-1000

500 g: 970181-500

1.2. Relevant identified uses of the substance or mixture and uses advised against**Use of the substance/mixture**

light curing resin for technical applications

1.3. Details of the supplier of the safety data sheet

Company name: Solidscape, Inc.
Street: 316 Daniel Webster Highway
Place: USA-NH 03054 Merrimack
Telephone: +1 603 429-9700
e-mail (Contact person): precision@solidscape.com
Internet: <https://www.solidscape.com>

1.4. Emergency telephone number:

+1 603-429-9700 8am - 5pm, Monday - Friday, Eastern Standard Time

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Regulation (EC) No. 1272/2008**

Hazard categories:

Skin corrosion/irritation: Skin Irrit. 2

Respiratory or skin sensitisation: Skin Sens. 1A

Hazardous to the aquatic environment: Aquatic Chronic 3

Hazard Statements:

Causes skin irritation.

May cause an allergic skin reaction.

Harmful to aquatic life with long lasting effects.

2.2. Label elements**Regulation (EC) No. 1272/2008****Hazard components for labelling**

trimethylolpropane formal acrylate (CTFA)

phosphine oxide

2,2-bis(acryloyloxymethyl)butyl acrylate; trimethylolpropane triacrylate

Signal word: Warning**Pictograms:****Hazard statements**

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

Precautionary statements

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P273 Avoid release to the environment.

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P280 Wear protective gloves/protective clothing/eye protection.
 P302+P352 IF ON SKIN: Wash with plenty of soap and water.
 P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
 P501 Dispose of contents/container in accordance with local regulation.

Special labelling of certain mixtures

Restricted to professional users.

2.3. Other hazards

Polymerization with heat evolution may occur in the presence of radical forming substances (e.g. peroxides), reducing substances, and/or heavy metal ions.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Mixture of acrylic resins and initiators.

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	GHS Classification			
66492-51-1	trimethylolpropane formal acrylate (CTFA)			< 20 %
	Skin Irrit. 2, Skin Sens. 1, Aquatic Chronic 2; H315 H317 H411			
	phosphine oxide			1 - < 5 %
	Skin Sens. 1A, Aquatic Chronic 4; H317 H413			
15625-89-5	2,2-bis(acryloyloxymethyl)butyl acrylate; trimethylolpropane triacrylate			< 1 %
	239-701-3	607-111-00-9		
	Eye Irrit. 2, Skin Irrit. 2, Skin Sens. 1; H319 H315 H317			

Full text of H and EUH statements: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Get medical advice/attention if you feel unwell. Immediately remove any contaminated clothing, shoes or stockings.

After inhalation

Get medical advice/attention if you feel unwell. Provide fresh air.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Immediately remove any contaminated clothing, shoes or stockings. If skin irritation occurs: Get medical advice/attention.

After contact with eyes

After eye contact: Rinse immediately carefully and thoroughly with eye-bath or water.
 If eye irritation persists: Get medical advice/attention.

After ingestion

Do NOT induce vomiting. Medical treatment necessary.

4.2. Most important symptoms and effects, both acute and delayed

No information available.

4.3. Indication of any immediate medical attention and special treatment needed

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Treat symptomatically.

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

Foam. Extinguishing powder Carbon dioxide

Unsuitable extinguishing media

Full water jet

5.2. Special hazards arising from the substance or mixture

In case of fire may be liberated: Carbon monoxide Carbon dioxide Hazardous decomposition products

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

Additional information

Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

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

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

Larger quantities: Take up mechanically (by pumping). Smaller quantities and/or residues: Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

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

Do not breathe gas/fumes/vapour/spray.

Provide fresh air.

Advice on protection against fire and explosion

In the event of fire, cool the endangered containers with water. Keep away from sources of ignition --- No smoking. Take precautionary measures against static discharges. When heated above the flash point and/or during spraying (atomizing), ignitable mixtures may form in air.

7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

Protect from the action of light. Keep only in the original container at a temperature between 4 -25 °C. Can polymerize with intense heat release. Keep container tightly closed.

Hints on joint storage

No special measures are necessary.

SECTION 8: Exposure controls/personal protection

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8.1. Control parameters

8.2. Exposure controls

Appropriate engineering controls

Do not breathe gas/fumes/vapour/spray.

Protective and hygiene measures

It is essential for pregnant women to avoid inhaling the product and not to let it come in contact with the skin. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

Eye/face protection

Eye glasses with side protection

Hand protection

Gloves should be replaced regularly, especially after extended contact with the product. For each work-place a suitable glove type has to be selected.

Skin protection

Wear suitable protective clothing.

Respiratory protection

Breathing apparatus in case of high concentrations, short term: filter appliance, filter A In case of inadequate ventilation wear respiratory protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Liquid	
Colour:	various, depending on coloration	
Odour:	No data available	
pH-Value:		not determined

Changes in the physical state

Melting point:	not determined
Initial boiling point and boiling range:	> 150 °C
Flash point:	> 100 °C

Flammability

Solid:	not applicable
Gas:	not applicable
Lower explosion limits:	not determined
Upper explosion limits:	not determined

Auto-ignition temperature

Solid:	not applicable
Gas:	not applicable
Decomposition temperature:	not determined
Vapour pressure:	not determined
Density:	not determined
Water solubility:	The study does not need to be conducted because the substance is known to be insoluble in water.

Solubility in other solvents

The substance is not soluble in water.

Partition coefficient:	not determined
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Vapour density: not determined

Evaporation rate: not determined

9.2. Other information

Solid content: not determined

The product has not been tested. The statement is derived from the properties of the single components.

SECTION 10: Stability and reactivity

10.1. Reactivity

No hazardous reaction when handled and stored according to provisions.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Polymerization with heat evolution may occur in the presence of radical forming substances (e.g. peroxides), reducing substances, and/or heavy metal ions.

10.4. Conditions to avoid

Protect from the action of light. Keep only in the original container at a temperature between 4 -25 °C. Can polymerize with intense heat release. Keep container tightly closed.

10.5. Incompatible materials

Oxidising agent, Reducing agent, Heavy metals, Acids, Alkali (lye)

10.6. Hazardous decomposition products

No known hazardous decomposition products.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Based on available data, the classification criteria are not met.

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
	phosphine oxide				
	oral	LD50 > 2000 mg/kg	Rat		
	dermal	LD50 > 2000 mg/kg	Rat		

Irritation and corrosivity

Causes skin irritation.

Serious eye damage/eye irritation: Based on available data, the classification criteria are not met.

Sensitising effects

May cause an allergic skin reaction. (trimethylolpropane formal acrylate (CTFA); phosphine oxide; 2,2-bis(acryloyloxymethyl)butyl acrylate; trimethylolpropane triacrylate)

May cause sensitization by skin contact.

Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

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Aspiration hazard

Based on available data, the classification criteria are not met.

Additional information on tests

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP]. Special hazards arising from the substance or mixture!

Further information

The product has not been tested. The statement is derived from the properties of the single components.

SECTION 12: Ecological information

12.1. Toxicity

Aquatic toxicity: The classification criteria for this hazard class are not met by definition.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
	phosphine oxide					
	Acute fish toxicity	LC50 mg/l	(> 0,09)	96 h	Brachydanio rerio (zebra-fish)	
	Acute crustacea toxicity	EC50 mg/l	(> 1,175)	48 h	Daphnia magna (Big water flea)	

12.2. Persistence and degradability

The product has not been tested.

12.3. Bioaccumulative potential

The product has not been tested.

12.4. Mobility in soil

The product has not been tested.

12.5. Results of PBT and vPvB assessment

The product has not been tested.

12.6. Other adverse effects

No information available.

Further information

Do not allow uncontrolled discharge of product into the environment. Do not allow to enter into surface water or drains.

SECTION 13: Disposal considerations

13.1. Waste treatment methods**Advice on disposal**

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

Waste disposal number of waste from residues/unused products

070208 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the MFSU of plastics, synthetic rubber and man-made fibres; other still bottoms and reaction residues; hazardous waste

Waste disposal number of used product

070208 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the MFSU of plastics, synthetic rubber and man-made fibres; other still bottoms and reaction residues; hazardous waste

Waste disposal number of contaminated packaging

070208 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the MFSU of plastics, synthetic rubber and man-made fibres; other still bottoms and reaction residues; hazardous waste

Contaminated packaging

This material and its container must be disposed of as hazardous waste. Handle contaminated packages in the same way as the substance itself.

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SECTION 14: Transport information**Land transport (ADR/RID)****Other applicable information (land transport)**

No dangerous good in sense of these transport regulations.

Inland waterways transport (ADN)**Other applicable information (inland waterways transport)**

No dangerous good in sense of these transport regulations.

Marine transport (IMDG)**Other applicable information (marine transport)**

No dangerous good in sense of these transport regulations.

Air transport (ICAO-TI/IATA-DGR)**Other applicable information (air transport)**

No dangerous good in sense of these transport regulations.

14.6. Special precautions for user

No information available.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

not applicable

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information**

Restrictions on use (REACH, annex XVII):

Entry 3: 2,2-bis(acryloyloxymethyl)butyl acrylate; trimethylolpropane triacrylate

National regulatory information

Water contaminating class (D): 2 - clearly water contaminating

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information**Changes**

SECTION 4: First aid measures

Abbreviations and acronymsADR: 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

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%

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Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]

Classification	Classification procedure
Skin Irrit. 2; H315	Calculation method
Skin Sens. 1A; H317	Calculation method
Aquatic Chronic 3; H412	Calculation method

Relevant H and EUH statements (number and full text)

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)