

Safety Data Sheet

according to 29 CFR 1910.1200(g)

EmeraldCast

Revision date: 05.06.2019

Product code: 970181

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1. Identification**Product identifier**

EmeraldCast

Further trade names

1000 g: 970181-1000

500 g: 970181-500

Recommended use of the chemical and restrictions on use**Use of the substance/mixture**

light curing resin for technical applications

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

Emergency phone number: +1 603-429-9700 8am - 5pm, Monday - Friday, Eastern Standard Time**2. Hazard(s) identification****Classification of the chemical****29 CFR Part 1910.1200**

Skin corrosion/irritation: Skin Irrit. 2

Respiratory or skin sensitization: Skin Sens. 1A

Hazardous to the aquatic environment: Aquatic Chronic 3

Label elements**29 CFR Part 1910.1200****Signal word:** Warning**Pictograms:****Hazard statements**

Causes skin irritation

May cause an allergic skin reaction

Harmful to aquatic life with long lasting effects

Precautionary statements

Avoid breathing dust/fume/gas/mist/vapors/spray.

Avoid release to the environment.

Wear protective gloves/protective clothing/eye protection.

If on skin: Wash with plenty of soap and water.

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

Dispose of contents/container in accordance with local regulation.

Hazards not otherwise classified

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

3. Composition/information on ingredients

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Mixtures

Chemical characterization

Mixture of acrylic resins and initiators.

Hazardous components

CAS No	Components	Quantity
66492-51-1	trimethylolpropane formal acrylate (CTFA)	* < 20 %
	phosphine oxide	* 1 - < 5 %
15625-89-5	2,2-bis(acryloyloxymethyl)butyl acrylate; trimethylolpropane triacrylate	* < 1 %

Further Information

* The specific chemical identity and/or exact percentage (concentration) of this composition has been withheld as a trade secret.

4. First-aid measures

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.

Most important symptoms and effects, both acute and delayed

No information available.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

Foam. Extinguishing powder Carbon dioxide

Unsuitable extinguishing media

Full water jet

Specific hazards arising from the chemical

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

Special protective equipment and precautions for fire-fighters

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.

6. Accidental release measures

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Personal precautions, protective equipment and emergency procedures

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

Environmental precautions

Do not allow to enter into surface water or drains.

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.

Reference to other sections

Safe handling: see section 7

Personal protection equipment (PPE): see section 8

Disposal: see section 13

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

Do not breathe gas/fume/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.

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 (40 -75°F). Can polymerize with intense heat release. Keep container tightly closed.

Hints on joint storage

No special measures are necessary.

8. Exposure controls/personal protection**Control parameters****Exposure controls****Appropriate engineering controls**

Do not breathe gas/fume/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.

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9. Physical and chemical properties

Information on basic physical and chemical properties

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

Changes in the physical state

Melting point/freezing 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
Vapor 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
Vapor density:		not determined
Evaporation rate:		not determined

Other information

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

10. Stability and reactivity

Reactivity

No hazardous reaction when handled and stored according to provisions.

Chemical stability

Stability:	Stable
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The product is stable under storage at normal ambient temperatures.

Possibility of hazardous reactions

Hazardous reactions:	Will not occur
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Conditions to avoid

Protect from the action of light. Keep only in the original container at a temperature between 4 -25 °C (40 -75°F). Can polymerize with intense heat release. Keep container tightly closed.

Incompatible materials

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

Hazardous decomposition products

No known hazardous decomposition products.

11. Toxicological information

Information on toxicological effects

Acute toxicity

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

CAS No	Components				
	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.

Sensitizing 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.

Specific target organ toxicity (STOT) - single exposure

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

Specific target organ toxicity (STOT) - repeated exposure

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

Carcinogenicity (OSHA): No ingredient of this mixture is listed.

Carcinogenicity (IARC): No ingredient of this mixture is listed.

Carcinogenicity (NTP): No ingredient of this mixture is listed.

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]. Specific hazards arising from the chemical!

Further information

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

12. Ecological information

Ecotoxicity

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

Persistence and degradability

The product has not been tested.

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Bioaccumulative potential

The product has not been tested.

Mobility in soil

The product has not been tested.

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.

13. Disposal considerations**Waste treatment methods****Advice on disposal**

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

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.

14. Transport information**US DOT 49 CFR 172.101****Proper shipping name:**

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.

Special precautions for user

No information available.

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

not applicable

15. Regulatory information**U.S. Regulations****National Inventory TSCA**

All components of this product are included on the TSCA Chemical Inventory or are not required to be listed on the TSCA Chemical Inventory.

National regulatory information

SARA Section 311/312 Hazards:

trimethylolpropane formal acrylate (CTFA) (66492-51-1): Immediate (acute) health hazard

phosphine oxide (-): Immediate (acute) health hazard

2,2-bis(acryloyloxymethyl)butyl acrylate; trimethylolpropane triacrylate (15625-89-5): Immediate (acute) health hazard

State Regulations**Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65, State of California)**

This product can not expose you to chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

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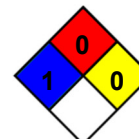
16. Other information

Hazardous Materials Information Label (HMIS)

Health:	1
Flammability:	0
Physical Hazard:	0

NFPA Hazard Ratings

Health:	1
Flammability:	0
Reactivity:	0
Unique Hazard:	



Changes

Revision date:	05.06.2019
Revision No:	1,10
SECTION 4: First aid measures	

Abbreviations and acronyms

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
 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%

Other data

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.)