

840079-EU-EN: Solidscape® Printer Model Material

Safety Data Sheet

according to Regulation (EC) No. 453/2010

Revision date: 19/09/2016 Date of issue: 09/22/2016

Rev: A

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture
Product Name : Indura® CAST, plusCAST®
Other means of identification : Solidscape® Printer Model Material
Product code : 970081-02, 970123

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

1.2.1. Relevant identified uses

Industrial/Professional use spec : Industrial.
Use of the substance/mixture : Model material for use with Solidscape® Printer. For professional use only.

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Company

Solidscape®, Inc.
316 Daniel Webster Highway
Merrimack, NH 03054
603-429-9700

www.solid-scape.com

precision@solid-scape.com

1.4. Emergency telephone number

Emergency number : 603-429-9700 8AM - 5pm, Monday - Friday, Eastern Standard Time

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Skin Irrit. 2 H315

Eye Irrit. 2 H319

Aquatic Chronic 3 H412

Full text of H-phrases: see section 16

Classification according to Directive 67/548/EEC or 1999/45/EC

Xi; R36/38

R52/53

Full text of R-phrases: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS07

Signal word (CLP) : Warning

Hazard statements (CLP) :

H315 - Causes skin irritation

H319 - Causes serious eye irritation

H412 - Harmful to aquatic life with long lasting effects

Precautionary statements (CLP) :

P264 - Wash hands, forearms and exposed areas thoroughly after handling

P273 - Avoid release to the environment

P280 - Wear protective clothing, protective gloves, eye protection

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

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

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

P321 - Specific treatment (see Section 4)

P332+P313 - If skin irritation occurs: Get medical advice/attention

P337+P313 - If eye irritation persists: Get medical advice/attention

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P362+P364 - Take off contaminated clothing and wash it before reuse
P501 - Dispose of contents/container according to local, regional, national, and international regulations

Other hazards not contributing to the classification : Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions.

SECTION 3: Composition/information on ingredients

3.1. Substance Not applicable

3.2. Mixture

Name	Product identifier	%	Classification according to Directive 67/548/EEC
p-Ethylbenzenesulfonamide	(CAS No) 138-38-5	5 - 30	Xi; R36/38
Pentaerythritol tetrabenzoate	(CAS No) 4196-86-5 (EC no) 224-079-8	< 15	Xn; R22
Polyester 1	Not available	< 15	Xi; R36
Polyester 2	Not available	< 15	Xi; R36
Polyester 3	Not available	< 15	Xi; R36
2,4,8,10-Tetraoxa-3,9-diphosphaspiro[5.5]undecane, 3,9-bis[2,4-bis(1,1-dimethylethyl)phenoxy]-	(CAS No) 26741-53-7 (EC no) 247-952-5	<1	N; R50/53

Name	Product identifier	%	Classification according to Regulation (EC)No. 1272/2008 [CLP]
p-Ethylbenzenesulfonamide	(CAS No) 138-38-5	5 - 30	Skin Irrit. 2, H315 Eye Irrit. 2, H319
Pentaerythritol tetrabenzoate	(CAS No) 4196-86-5 (EC no) 224-079-8	< 15	Acute Tox. 4 (Oral), H302
Polyester 1	Not available	< 15	Eye Irrit. 2, H319
Polyester 2	Not available	< 15	Eye Irrit. 2, H319
Polyester 3	Not available	< 15	Eye Irrit. 2, H319
2,4,8,10-Tetraoxa-3,9-diphosphaspiro[5.5]undecane, 3,9-bis[2,4-bis(1,1-dimethylethyl)phenoxy]-	(CAS No) 26741-53-7 (EC no) 247-952-5	<1	Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Full text of R- and H-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : When symptoms occur: go into open air and ventilate suspected area.

First-aid measures after skin contact : Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Wash contaminated clothing before reuse. Get medical advice/attention.

First-aid measures after eye contact : Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. Obtain medical attention.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting.

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

Symptoms/injuries : Risk of thermal burns on contact with molten product. The following applies to the product if it is altered in such a way that excessive and/or significant particulates and/or dusts may be generated: Causes serious eye irritation. Causes skin irritation.

Symptoms/injuries after inhalation : May cause respiratory irritation.

Symptoms/injuries after skin contact : Causes skin irritation.

Symptoms/injuries after eye contact : Causes serious eye irritation.

Symptoms/injuries after ingestion : Ingestion is likely to be harmful or have adverse effects.

Chronic symptoms : The chronic effects of this substance are unknown.

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

If you feel unwell, seek medical advice (show the label where possible).

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SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire.
Unsuitable extinguishing media : Do not use a heavy water stream. Use of heavy stream of water may spread fire.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Not flammable.
Explosion hazard : Product is not explosive.
Reactivity : Hazardous reactions will not occur under normal conditions. Reacts exothermically with (some) acids.

5.3. Advice for firefighters

- Precautionary measures fire : Do not breathe fumes from fires or vapours from decomposition.
Firefighting instructions : Exercise caution when fighting any chemical fire.
Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be safe.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Avoid all unnecessary exposure. Do not breathe dust or fumes. Avoid generating dust. Do not allow product to spread into the environment.

6.1.1. For non-emergency personnel

- Protective equipment : Use appropriate personal protection equipment (PPE).
Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

- Protective equipment : Equip cleanup crew with proper protection.
Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

- For containment : Sweep spilled substance into containers; if appropriate, moisten first to prevent dusting.
Methods for cleaning up : Clear up spills immediately and dispose of waste safely.

6.4. Reference to other sections

 See heading 8, Exposure Controls and Personal Protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Additional hazards when processed : Risk of thermal burns on contact with molten product.
Precautions for safe handling : To reduce contamination of product, it is recommended to wear lint free gloves when handling material. Keep away from heat and open flame.
Hygiene measures : Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Comply with applicable regulations.
Storage conditions : Store in a dry, cool and well-ventilated place. Keep container closed when not in use.
Incompatible products : Strong acids. Strong oxidizers.

7.3. Specific end use(s)

 Model material for use with Solidscape® Printer. For professional use only.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

 No additional information available

8.2. Exposure controls

- Appropriate engineering controls : Not generally required. Site-specific risk assessments should be conducted to determine the appropriate exposure control measures. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits.
Personal protective equipment : Not generally required. The use of personal protective equipment may be necessary as conditions warrant.

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Materials for protective clothing	: With molten material wear thermally protective clothing.
Hand protection	: Wear protective gloves.
Eye protection	: Safety glasses.
Respiratory protection	: The following applies to the product if it is cut, sanded or altered in such a way that excessive and/or significant particulates and/or dusts may be generated: Dust mask.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Colour	: Blue
Odour	: Faint
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: 95 - 115 °C (203 - 239 °F)
Freezing point	: No data available
Boiling point	: No data available
Flash point	: > 175 °C (347 °F)
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Solubility	: Negligible
Partition coefficient: n-octanol/water	: No data available
Viscosity	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: Not applicable

9.2. Other information

VOC content	: < 1 %
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SECTION 10: Stability and reactivity

10.1. Reactivity

Hazardous reactions will not occur under normal conditions. Reacts exothermically with (some) acids.

10.2. Chemical stability

Stable under recommended handling and storage conditions (see section 7).

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong oxidizers.

10.6. Hazardous decomposition products

Thermal decomposition generates toxic vapours. Ammonia. Nitrogen oxides. Sulphur dioxide. Carbon oxides (CO, CO₂).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Pentaerythritol tetrabenzoate (4196-86-5)	
ATE CLP (oral)	500,000 mg/kg bodyweight
Polyester 1	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 5000 mg/kg
Polyester 2	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 5000 mg/kg

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Polyester 3	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 5000 mg/kg

Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Harmful to aquatic life with long lasting effects.

Polyester 1	
LC50 fishes 1	> 100 mg/l (96 hours)
EC50 Daphnia 1	> 100 mg/l (48 hours)
EC50 other aquatic organisms 1	> 100 mg/l (Algae, 72 hours)

Polyester 2	
LC50 fishes 1	> 100 mg/l (96 hours)
EC50 Daphnia 1	> 100 mg/l (48 hours)
EC50 other aquatic organisms 1	> 100 mg/l (Algae, 72 hours)

Polyester 3	
LC50 fishes 1	> 100 mg/l (96 hours)
EC50 Daphnia 1	> 100 mg/l (48 hours)
EC50 other aquatic organisms 1	> 100 mg/l (Algae, 72 hours)

12.2. Persistence and degradability

Not established. May cause long-term adverse effects in the environment.

12.3. Bioaccumulative potential

Not established.

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose of waste material in accordance with all local, regional, national, and international regulations.

Ecology - waste materials : This material is hazardous to the aquatic environment. Keep out of sewers and waterways.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

Not regulated for transport

14.2. UN proper shipping name

Not applicable

14.3. Transport hazard class(es)

Not applicable

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14.4. Packing group

Not applicable

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

14.6.1. Overland transport No additional information available

14.6.2. Transport by sea No additional information available

14.6.3. Air transport No additional information available

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

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:

3.b. Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10	Pentaerythritol tetrabenzoate
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Contains no REACH candidate substance

VOC content : < 1 %

15.1.2. National regulations No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Revision date : 04/08/2016

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006

Full text of R-, H- and EUH-phrases:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
H302	Harmful if swallowed
H315	Causes skin irritation
H319	Causes serious eye irritation
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects
R22	Harmful if swallowed
R36	Irritating to eyes
R36/38	Irritating to eyes and skin
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment
N	Dangerous for the environment
Xi	Irritant
Xn	Harmful

SDS EU (REACH Annex II) 10pt

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