



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

### 1.1 Product identifier

Trade name: Cast Away

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

General use: Resin, for 3D-Printer

### 1.3 Details of the supplier of the safety data sheet

Company name: Kalman Hafner 3D GmbH  
Street/POB-No.: Schillerstrasse 6  
Postal Code, city: DE-75175 Pforzheim  
WWW: www.hafner-3d.com  
E-mail: info@hafner-3d.com  
Telephone: +49 (0) 7231 15444 20  
Telefax: +49 (0) 7231 15444 15

Department responsible for information:

Telephone: +49 (0) 7231 15444 20  
E-mail: info@hafner-3d.com

### 1.4 Emergency telephone number

**National Poisons Information Service**  
Telephone: +44 844 892 0111

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

#### Classification according to EC regulation 1272/2008 (CLP)

Skin Irrit. 2; H315 Causes skin irritation.  
Eye Irrit. 2; H319 Causes serious eye irritation.  
Skin Sens. 1; H317 May cause an allergic skin reaction.  
Repr. 2; H361d Suspected of damaging the unborn child.  
Aquatic Chronic 2; H411 Toxic to aquatic life with long lasting effects.

### 2.2 Label elements

#### Labelling (CLP)



Signal word:

**Warning**

Hazard statements: H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
H361d Suspected of damaging the unborn child.  
H411 Toxic to aquatic life with long lasting effects.



Precautionary statements:

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P261	Avoid breathing mist/vapours/spray.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P391	Collect spillage.
P405	Store locked up.
P501	Dispose of contents/container to hazardous or special waste collection point.

**Special labelling**

Text for labelling: Contains 2-Phenoxyethyl acrylate; Esterification products of acrylic acid and 2,2,2',2'-tetrakis(hydroxymethyl)-3,3'-oxydipropan-1-ol; 7,7,9(or 7,9,9)-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diyl bismethacrylate

**2.3 Other hazards**

Special danger of slipping by leaking/spilling product.

Results of PBT and vPvB assessment:

No data available

**SECTION 3: Composition/information on ingredients**

3.1 Substances: not applicable

**3.2 Mixtures**

Hazardous ingredients:

Ingredient	Designation	Content	Classification
EC No. 256-360-6 CAS 48145-04-6	2-Phenoxyethyl acrylate	25 - 40 %	Skin Sens. 1A; H317. Repr. 2; H361d. Aquatic Chronic 2; H411.
EC No. 289-200-9 CAS 86178-38-3	3,3,5-Trimethylcyclohexyl acrylate	20 - 30 %	Skin Irrit. 2; H315. Eye Irrit. 2; H319.
list no. 800-838-4 CAS 1384855-91-7	Esterification products of acrylic acid and 2,2,2',2'-tetrakis (hydroxymethyl)-3,3'-oxydipropan-1-ol	20 - 25 %	Eye Irrit. 2; H319. Skin Sens. 1; H317. Aquatic Chronic 3; H412.
EC No. 276-957-5 CAS 72869-86-4	7,7,9(or 7,9,9)-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diyl bismethacrylate	15 - 25 %	Skin Sens. 1; H317. Aquatic Chronic 3; H412.
EC No. 233-814-1 CAS 10373-78-1	DI-bornane-2,3-dione	1 - 5 %	Skin Irrit. 2; H315. Eye Irrit. 2; H319. STOT SE 3; H335.

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



## SECTION 4: First aid measures

### 4.1 Description of first aid measures

General information:	First aider: Pay attention to self-protection! If medical advice is needed, have product container or label at hand. Take off contaminated clothing and wash it before reuse.
In case of inhalation:	If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. If victim is at risk of losing consciousness, position and transport on their side. Do not effect a mouth-to-mouth resuscitation. Seek medical attention if problems persist.
Following skin contact:	Immediately clean with water and soap followed by thorough rinsing. In case of skin reactions, consult a physician.
After eye contact:	Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing. Subsequently consult an ophthalmologist.
After swallowing:	Rinse mouth thoroughly with water. Never give anything by mouth to an unconscious person. Do not induce vomiting. In case of vomiting, position victim on their side. Immediately get medical attention.

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

May cause an allergic skin reaction. Causes serious eye irritation. Causes skin irritation.

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

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing media:

Alcohol resistant foam, Carbon dioxide, extinguishing powder, water mist

Extinguishing media which must not be used for safety reasons:

Full water jet

### 5.2 Special hazards arising from the substance or mixture

Combustible. The vapours of the product are heavier than air and can accumulate in high concentrations on the ground. Potentially explosive vapour/air mixtures may form. Harmful and/or toxic vapours may be produced in the event of thermal decomposition.

In case of fire may be liberated: Smoke, nitrogen oxides (NO<sub>x</sub>) carbon monoxide and carbon dioxide.

### 5.3 Advice for firefighters

Special protective equipment for firefighters:

Wear a self-contained breathing apparatus and chemical protective clothing.

Additional information:

Hazchem-Code: •3Z

Seal off endangered area. Remove persons not involved upwind. Heating causes rise in pressure with risk of bursting. Use fine water spray to cool endangered containers.

Do not allow water used to extinguish fire to enter drains, ground or waterways.

Fire residuals and contaminated extinguishing water must be disposed of in accordance with the regulations of the local authorities.



## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Avoid exposure. Avoid breathing mist/vapours/spray.  
Avoid contact with the substance. If possible, eliminate leakage. Provide adequate ventilation.  
Wear appropriate protective equipment. Keep unprotected people away.  
Take off contaminated clothing and wash it before reuse.

### 6.2 Environmental precautions

Do not allow to enter into ground-water, surface water or drains.  
In case of release, notify competent authorities.

### 6.3 Methods and material for containment and cleaning up

Clean up small amounts using water. Dispose of waste water according to local, state, and federal regulations. Never return spills in original containers for re-use.  
Large amounts of spillages: Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents) and place in closed containers for disposal.

Additional information: Special danger of slipping by leaking/spilling product.

### 6.4 Reference to other sections

Refer additionally to section 8 and 13.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Advices on safe handling: Obtain special instructions before use. Provide adequate ventilation, and local exhaust as needed. Avoid breathing mist/vapours/spray. Do not get in eyes, on skin, or on clothing.  
Wear appropriate protective equipment.  
Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Take off contaminated clothing and wash it before reuse.  
Work place should be equipped with a shower and an eye rinsing apparatus.

### 7.2 Conditions for safe storage, including any incompatibilities

Requirements for storerooms and containers:

Keep only in the original container.  
Protect from heat and direct sunlight.  
Store containers in upright position.

Hints on joint storage: Keep away from food, drink and animal feedingstuffs.

### 7.3 Specific end use(s)

No information available.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

Additional information: Contains no substances with occupational exposure limit values.



## 8.2 Exposure controls

Provide for good ventilation or exhaust system or work with completely self-contained equipment.

## Personal protection equipment

### Occupational exposure controls

- Respiratory protection: Use filter type A (= against vapours of organic substances) according to EN 14387. The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product.
- Hand protection: Protective gloves according to EN 374.  
Observe glove manufacturer's instructions concerning penetrability and breakthrough time.
- Eye protection: Tightly sealed goggles according to EN 166.
- Body protection: Wear suitable protective clothing.
- General protection and hygiene measures:  
Obtain special instructions before use. Provide adequate ventilation, and local exhaust as needed.  
Avoid breathing mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Wear appropriate protective equipment.  
Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Take off contaminated clothing and wash it before reuse.  
Work place should be equipped with a shower and an eye rinsing apparatus.

## Environmental exposure controls

Refer to "6.2 Environmental precautions".

# SECTION 9: Physical and chemical properties

## 9.1 Information on basic physical and chemical properties

Appearance:	Physical state at 20 °C and 101.3 kPa: liquid Colour: green
Odour:	odourless
Odour threshold:	No data available
pH:	No data available
Melting point/freezing point:	No data available
Initial boiling point and boiling range:	No data available
Flash point/flash point range:	> 100 °C
Evaporation rate:	No data available
Flammability:	No data available
Explosion limits:	No data available
Vapour pressure:	No data available
Vapour density:	No data available
Density:	No data available
Water solubility:	<= 1 g/L
Partition coefficient: n-octanol/water:	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	450 °C
Viscosity, kinematic:	308 cSt



Explosive properties: No data available  
Oxidizing characteristics: No data available

## 9.2 Other information

Additional information: No data available

# SECTION 10: Stability and reactivity

## 10.1 Reactivity

Refer to subsection "Possibility of hazardous reactions".

## 10.2 Chemical stability

Stable under recommended storage conditions.

## 10.3 Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

## 10.4 Conditions to avoid

No data available

## 10.5 Incompatible materials

No data available

## 10.6 Hazardous decomposition products

Thermal decomposition: No decomposition when used properly.  
450 °C



## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Toxicological effects: The statements are derived from the properties of the single components. No toxicological data is available for the product as such.

Acute toxicity (oral): Based on available data, the classification criteria are not met.

Acute toxicity (dermal): Based on available data, the classification criteria are not met.

Acute toxicity (inhalative): Based on available data, the classification criteria are not met.

Skin corrosion/irritation: Skin Irrit. 2; H315 = Causes skin irritation.

Serious eye damage/irritation: Eye Irrit. 2; H319 = Causes serious eye irritation.

Sensitisation to the respiratory tract: Based on available data, the classification criteria are not met.

Skin sensitisation: Skin Sens. 1; H317 = May cause an allergic skin reaction.

Germ cell mutagenicity/Genotoxicity: Based on available data, the classification criteria are not met.

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

Reproductive toxicity: Repr. 2; H361d = Suspected of damaging the unborn child.

Effects on or via lactation: Based on available data, the classification criteria are not met.

Specific target organ toxicity (single exposure): Based on available data, the classification criteria are not met.

Specific target organ toxicity (repeated exposure): Based on available data, the classification criteria are not met.

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

### Symptoms

Inhalation of high concentration may cause irritations of nose, throat, and respiratory systems.

After contact with skin: Reddening

## SECTION 12: Ecological information

### 12.1 Toxicity

Aquatic toxicity: Toxic to aquatic life with long lasting effects.

### 12.2 Persistence and degradability

Further details: No data available

### 12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water:  
No data available

### 12.4 Mobility in soil

No data available

### 12.5 Results of PBT and vPvB assessment

No data available



## 12.6 Other adverse effects

General information: Do not allow to penetrate into soil, waterbodies or drains.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Product

Waste key number: 08 03 12\* = waste ink containing hazardous substances  
\* = Evidence for disposal must be provided.

Recommendation: Dispose of waste according to applicable legislation.  
Do not dispose of with household waste.  
Do not allow to enter into ground-water, surface water or drains.

#### Package

Recommendation: Dispose of waste according to applicable legislation.

## SECTION 14: Transport information

### 14.1 UN number

ADR/RID, IMDG, IATA-DGR:  
UN 3082

### 14.2 UN proper shipping name

ADR/RID, IMDG, IATA-DGR:  
UN 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(2-Phenoxyethyl acrylate)

### 14.3 Transport hazard class(es)

ADR/RID: Class 9, Code: M6  
IMDG: Class 9, Subrisk -  
IATA-DGR: Class 9



### 14.4 Packing group

ADR/RID, IMDG, IATA-DGR:  
III



### 14.5 Environmental hazards

Marine pollutant: yes





## 14.6 Special precautions for user

### Land transport (ADR/RID)

Warning board:	ADR/RID: Kemmler-number 90, UN number UN 3082
Hazard label:	9
Special provisions:	274 335 375 601
Limited quantities:	5 L
EQ:	E1
Package - Instructions:	P001 IBC03 LP01 R001
Package - Special provisions:	PP1
Special provisions for packing together:	MP19
Portable tanks - Instructions:	T4
Portable tanks - Special provisions:	TP1 TP29
Tank coding:	LGBV
Tunnel restriction code:	-

### Sea transport (IMDG)

EmS:	F-A, S-F
Special provisions:	274, 335, 969
Limited quantities:	5 L
Excepted quantities:	E1
Package - Instructions:	P001, LP01
Package - Provisions:	PP1
IBC - Instructions:	IBC03
IBC - Provisions:	-
Tank instructions - IMO:	-
Tank instructions - UN:	T4
Tank instructions - Provisions:	TP2, TP29
Stowage and handling:	Category A.
Properties and observations:	-
Segregation group:	none

### Air transport (IATA)

Hazard label:	Miscellaneous & Environmentally hazardous
Excepted Quantity Code:	E1
Passenger and Cargo Aircraft: Ltd.Qty.:	Pack.Instr. Y964 - Max. Net Qty/Pkg. 30 kg G
Passenger and Cargo Aircraft:	Pack.Instr. 964 - Max. Net Qty/Pkg. 450 L
Cargo Aircraft only:	Pack.Instr. 964 - Max. Net Qty/Pkg. 450 L
Special provisions:	A97 A158 A197 A215
Emergency Response Guide-Code (ERG):	9L

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

No data available

## SECTION 15: Regulatory information

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

#### National regulations - Great Britain

Hazchem-Code:	•3Z
	No data available



## National regulations - EC member states

### Labelling of packaging with <= 125mL content



Signal word:

#### **Warning**

Hazard statements:

H317

May cause an allergic skin reaction.

H361d

Suspected of damaging the unborn child.

Precautionary statements:

P101

If medical advice is needed, have product container or label at hand.

P102

Keep out of reach of children.

P261

Avoid breathing mist/vapours/spray.

P280

Wear protective gloves/protective clothing/eye protection.

P405

Store locked up.

P501

Dispose of contents/container to hazardous or special waste collection point.

Further regulations, limitations and legal requirements:

Use restriction according to REACH annex XVII, no.: 3

## 15.2 Chemical Safety Assessment

For this mixture a chemical safety assessment is not required.

## SECTION 16: Other information

### Further information

Wording of the H-phrases under paragraph 2 and 3:

H315 = Causes skin irritation.

H317 = May cause an allergic skin reaction.

H319 = Causes serious eye irritation.

H335 = May cause respiratory irritation.

H361d = Suspected of damaging the unborn child.

H411 = Toxic to aquatic life with long lasting effects.

H412 = Harmful to aquatic life with long lasting effects.



Abbreviations and acronyms:

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways  
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road  
AS/NZS: Australian Standards/New Zealand Standards  
CAS: Chemical Abstracts Service  
CFR: Code of Federal Regulations  
CLP: Classification, Labelling and Packaging  
DMEL: Derived minimal effect level  
DNEL: Derived no-effect level  
EC: European Community  
EN: European Standard  
EU: European Union  
IATA: International Air Transport Association  
IBC Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk  
IMDG Code: International Maritime Dangerous Goods Code  
MARPOL: Maritime Pollution: The International Convention for the Prevention of Pollution from Ships  
OSHA: Occupational Safety and Health Administration  
PBT: Persistent, bioaccumulative and toxic  
PNEC: Predicted no-effect concentration  
REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals  
RID: Regulations Concerning the International Carriage of Dangerous Goods by Rail  
STOT SE: Specific target organ toxicity - single exposure  
UN: United Nations  
vPvB: Very persistent and very bioaccumulative

Reason of change: Changes in section 14: IATA-DGR 2021  
Changes in section 1: Details of the supplier of the safety data sheet  
Date of first version: 26/9/2019

### Department issuing data sheet

Contact person: see section 1: Department responsible for information

The information in this data sheet has been established to our best knowledge and was up-to-date at time of revision. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.