

SAFETY DATA SHEET

11-09-2015

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name : CAST

Other means of identification

Synonyms : CAST

Recommended use of the chemical and restrictions on use

Recommended Use General Purpose UV Cure Resin for 3d printer

Uses advised against No information available

Details of the supplier of the safety data sheet

Manufacturer Address

ŞENERTEK ENERJİ OTOM. LTD.ŞTİ

Mithat paşa cad. n:161 sener business center

Karataş-izmir /TURKEY

www.senertek.com/3d

Email: senerlabs@yahoo.com

Emergency telephone number

Company Phone Number (+90) 232 489 34 65 [9-5PM CST, M-F]

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 1
Skin sensitization	Category 1

Emergency Overview

Danger

Hazard statements

Causes skin irritation

Causes serious eye damage

May cause an allergic skin reaction



Appearance viscous

Physical state liquid

Odor Ester

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection
Avoid breathing dust/fume/gas/mist/vapors/spray
Contaminated work clothing should not be allowed out of the workplace

Precautionary Statements - Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a POISON CENTER or doctor/physician
IF ON SKIN: Wash with plenty of soap and water
Take off contaminated clothing and wash before reuse
If skin irritation or rash occurs: Get medical advice/attention

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Not Applicable

Other Information

Unknown Acute Toxicity 0% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Weight-%	Trade Secret
acrylate ester proprietary		>50	*
photoinitiator proprietary		<3	*

* If CAS number is "proprietary", the specific chemical identity has been withheld as a trade secret. The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

First aid measures

General advice If symptoms persist, call a physician.

Eye contact Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.

Skin Contact Avoid UV-radiation/sunlight. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician.

Wash contaminated clothing before reuse.

Inhalation If fumes from reactions are inhaled, move to fresh air immediately. If symptoms persist, call a physician.

Ingestion Rinse mouth. Drink plenty of water. Do NOT induce vomiting. Call a physician immediately.

Self-protection of the first aider Use personal protective equipment as required

Most important symptoms and effects, both acute and delayed

Symptoms May cause allergic skin reaction.

Indication of any immediate medical attention and special treatment needed

Note to physicians May cause sensitization of susceptible persons. Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Dry chemical, CO₂, alcohol-resistant foam or water spray.

Unsuitable extinguishing media: Do not use a solid water stream as it may scatter and spread fire.

Specific hazards arising from the chemical

In the event of fire and/or explosion do not breathe fumes. May cause sensitization by inhalation and skin contact. Thermal decomposition can lead to release of irritating and toxic gases and vapors.

Hazardous combustion products: Formaldehyde.

Explosion data

Sensitivity to Mechanical Impact: None.

Sensitivity to Static Discharge: None.

Protective equipment and precautions for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation, especially in confined areas. Use personal protective equipment as required. Avoid contact with eyes and skin. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

Environmental precautions

Environmental precautions Do not flush into surface water or sanitary sewer system. See Section 12 for additional ecological information.

Methods and material for containment and cleanup

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

After cleaning, flush away traces with water.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Use only in well-ventilated areas. Avoid breathing fumes from hot material. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep out of the reach of children. Keep containers tightly closed in a cool, well-ventilated place. Keep in properly labeled containers. Protect from direct sunlight and ultraviolet (UV).

Keep away from heat.

Incompatible materials Strong oxidizing agents. Strong acids. Strong bases.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Appropriate engineering controls

Engineering Controls Ensure adequate ventilation, especially in confined areas.

Individual protection measures, such as personal protective equipment

Eye/face protection Tight sealing safety goggles.

Skin and body protection Wear protective nitrile rubber gloves.

Respiratory protection In case of insufficient ventilation, wear suitable respiratory equipment.

General Hygiene Considerations When using do not eat, drink or smoke. Wash face, hands and any exposed skin thoroughly after handling. Wash contaminated clothing before reuse. Regular cleaning of equipment, work area and clothing is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state liquid

Appearance viscous Odor Ester

Color red, yellow, green, blue, black, white Odor threshold No information available

Property Values Remarks • Method

pH No information available

Melting point/freezing point No information available

Boiling point / boiling range No information available

Flash point > 100 °C (> 212 °F)

Evaporation rate No information available

Flammability (solid, gas) No information available

Flammability Limit in Air

Upper flammability limit: No information available

Lower flammability limit: No information available

Vapor pressure No information available

Vapor density No information available

Specific Gravity Approx. 1

Water solubility Low solubility

Solubility in other solvents No information available

Partition coefficient No information available

Autoignition temperature No information available

Decomposition temperature No information available

Kinematic viscosity No information available

Dynamic viscosity 90 cP @ 20 °C

Explosive properties No information available

Oxidizing properties No information available

Other Information Softening point No information available

Molecular weight No information available

VOC Content (%) No information available

Density No information available

Bulk density No information available

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

Heat, flames and sparks. Extremes of temperature and direct sunlight. To avoid thermal decomposition, do not overheat. UV radiation/sunlight.

Incompatible materials

Strong oxidizing agents. Strong acids. Strong bases.

Hazardous Decomposition Products

Formaldehyde.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation No data available.

Eye contact Risk of serious damage to eyes.

Skin Contact May cause sensitization by skin contact.

Ingestion

Component Information

No data available.

Chemical Name	Oral LD50	Derma Ld50	Inhalation LC50
acrylate ester =	4600 mg/kg (Rat)	> 2 g/kg (Rabbit) -	

Information on toxicological effects

Symptoms May cause an allergic skin reaction.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Corrosivity Risk of serious damage to eyes.

Sensitization May cause sensitization by skin contact.

Germ cell mutagenicity No information available.

Carcinogenicity May release formaldehyde when heated to high temperatures [$> 150\text{ }^{\circ}\text{C}$ ($> 212\text{ }^{\circ}\text{F}$)] in the presence of air. Formaldehyde is a known skin and lung sensitizer and is regulated as a carcinogen.

Reproductive toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Aspiration hazard No information available.

Numerical measures of toxicity - Product Information

Unknown Acute Toxicity 0% of the mixture consists of ingredient(s) of unknown toxicity

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

This product does not contain any substances regulated by state right-to-know regulations

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR WHMIS Hazard Class

D2B - Toxic materials



12. ECOLOGICAL INFORMATION

Potential environmental impact :

Harmful to water organisms at high concentrations

React with hydroxyl radicals slowly while it is released into the atmosphere.

Biodegradable while it is released into the water or soil.

13. Discarding Disposal

Wastes shall be stored in the safety containers, and waste disposal must be in accordance with appropriate local regulations.

A large number of wastes and absorbed pollutants can be burned by incinerator

14. Transport Information

Transport in room temperature, isolation and crushproof packing.

DOT Road Shipment information (49CFR 172.101) : N/A

DOT. Air Shipment (IATA) : N/A

Ocean Shipment (IMDG) : N/A

UN Number : N/A

UN Proper Shipping Name : N/A

Specific transport method and notice : N/A

15- Laws and Regulations Information

United States Regulations:

U.S. TSCA Inventory Status : Ingredients of this product are listed on the TSCA inventory or are exempted from listing. Other U.S. Federal Regulations : None.

California Safe Drinking Water and Toxic Enforcement Act (Prop 65) : Ingredients within this product are not on the Proposition 65 Lists.

RCRA 40 CFR : None.

Canadian Regulations:

Canadian DSL/NDSL Inventory Status : Ingredients of this product are on the DSL Inventory, or are exempted from listing.

Other Canadian Regulations : N/A

WHMIS : This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

WHMIS Classification and Symbols : Class D Division 2 Materials causing other toxic effects.

European Economic Community Information:

EU Labeling and Classification : This product meets the definition of the hazard class as defined by the European Economic Community Guidelines.

EU Classification :

[Xi] Irritant

[N] Dangerous to the Environment

EU Risk Phrases :

R36/37/38: Irritating to eyes, skin and respiratory system .

R43: May cause sensitization by skin contact.

R53: May cause long term adverse effects in the aquatic environment.

EU Safety Phrases :

S24/25: Avoid contact with skin and eyes.

S26: In case of contact with eye, rinse immediately with plenty of water and seek medical advice.

S46: If swallowed, seek medical advice immediately and show this container or label.

S51: Use only in a well-ventilated area.

S61: Avoid release to the environment.

S62: If swallowed, do not induce vomiting: seek immediate medical advice.

Australian Information :Ingredients of this product are listed on the International Chemical Inventory list.

Japanese information :Ingredients of this product are on the ENCS Inventory list.

Taiwan information : Ingredients of this product are on the inventory list.

China information : Ingredients of this product are on the inventory list.

16. OTHER INFORMATION

NFPA Health hazards 2 Flammability 0 Instability 0 Physical and Chemical

Properties -

HMIS Health hazards 2 Flammability 0 Physical hazards 0 Personal protection X

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Disclaimer

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. If this product is used as a ingredient in another product, this MSDS information may not be applicable. This MSDS has been prepared in accordance with the requirements of the OSHA Hazard Communication Standard (29 CFR 1910.1200).