

**Date of issue :** 01.02.2016  
**Version:** AK15-00  
**Product Name:** High Strength PC  
EU Directive 1907/2006



## 1. Identification of the substance/preparation and of the company/undertaking

1.1 Trade name: High Strength PC HSO  
1.2 Use of the product: 3D Printing Filament  
1.3 Supplier: OOKUMA Additive Manufacturing Technologies and Materials, Inc.  
Atatürk Oto San. Sit. 2. Kısım 5. Sok. No:113  
Maslak İST.  
Phone: 0090 850 811 6781  
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Emergency phone number: 0090 850 811 6781

## 2. Hazards identification

2.1 Classification: Not a hazardous substance or preparation according to EC-directives 67/548/EEC or 99/45/EC unless indicated.

## 3. Composition / information on ingredients

3.1 Chemical characteristics: Polyester carbonate (>%99)  
3.2 CAS no: 135429-20-8  
3.3 Additional information: no harmful ingredients

## 4. First-aid measures

4.1 On skin contact: In case of contact with molten polymer rinse immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.  
4.2 After inhalation: After inhalation of decomposition gases or dust Move to fresh air. Call a physician immediately.  
4.3 On ingestion: If swallowed, seek medical attention. May cause gastrointestinal blockage. Do not give laxatives. Do not induce vomiting unless directed to do so by medical personnel.  
4.4 On eyes contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician immediately.

## 5. Fire-fighting measures

5.1 Suitable fire extinguishing media: Use dry chemical, CO<sub>2</sub>, water spray or "alcohol" foam. Water is the best extinguishing medium. Carbon dioxide and dry chemical are not generally recommended because their lack of cooling capacity may permit re-ignition on larger resin fires (blobs, drools, etc.)  
5.2 Special exposure hazards: Take precautionary measures against static discharges. During processing, dust may form explosive mixture in air. Thermal decomposition can lead to release of irritating gases and vapors.  
5.3 Special protective equipment: As in any fire, wear self-contained breathing apparatus pressure-demand and full protective gear.  
5.4 Remark: Fine dust dispersed in air may ignite. Risks of ignition followed by flame propagation or secondary explosions shall be prevented by avoiding accumulation of dust, e.g. on floors and ledges.

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## 6. Accidental release measures

- 6.1 Personal precautions: Use suitable protective clothing. Avoid eye contact and inhalation of dusts. Keep ignition sources away.
- 6.2 Methods for cleaning up: Shovel into suitable container for disposal. Do not create a powder cloud by using a brush or compressed air.

## 7. Handling and storage

- 7.1 Handling: Avoid contact with molten polymer with skin and eyes. Avoid dust formation. Low hazard for usual industrial or commercial handling. Use personal protective equipment
- 7.2 Storage: Store in cool place. Keep at temperatures below 50 °C. No special restrictions on storage with other products. Protect against moisture.

## 8. Exposure controls/ personal protection

- 8.1 Technical safety measures: With suitable ventilation the threshold limits assumably will not be reached. Avoid electrostatic charge by use of grounding cables.
- 8.2 Personal safety equipment: Use adequate safety equipment as protective clothing, eye protection glasses with side-shields, heat protection gloves.  
In case of dust formation wear mask with particle filter.
- 8.3 Work hygiene: No eating or drinking during working.  
Avoid contact of hot material with the skin.  
Avoid breathing dust and vapours.

## 9. Physical and chemical properties

- 9.1 Form: Filaments
- 9.2 Color: Pigmented
- 9.3 Odor: Odorless
- 9.4 Melting range: Not Determined
- 9.5 Autoignition temperature: 630 °C estimated
- 9.6 Explosions limits: not applicable
- 9.7 Density: 1.02 g/cm<sup>3</sup>
- 9.8 Solubility in water: Insoluble

## 10. Stability and reactivity

- 10.1 Stability: Stable under recommended storage conditions
- 10.2 Conditions to be avoided: Avoid exposure to extreme heat and all sources of ignition. Thermal decomposition > 320°C.
- 10.3 Hazardous decomposition products: Traces of phenol, alkylphenols, diarylcarbonates, hydrocarbons

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## 11. Toxicological information

- 11.1 Local irritation: May cause eye/skin irritation. Product dust may be irritating to eyes, skin and respiratory system. Caused mild to moderate conjunctival irritation in eye irritation studies using rabbits. Caused very mild redness in dermal irritation studies using rabbits (slightly irritating). Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
- 11.2 Other remarks: Based on our state of knowledge and experience no injurious health effects are expected if product is properly handled for the designated use.

## 12. Ecological information

- 12.1 Ecotoxicological effects: Not expected to be acutely toxic, but material in pellet or bead form may mechanically cause adverse effects if ingested by waterfowl or aquatic life.
- 12.2 Biological degradation: This water-insoluble polymeric solid is expected to be inert in the environment. Surface photodegradation is expected with exposure to sunlight. No appreciable biodegradation is expected.
- 12.3 Bioaccumulation: Does not bioaccumulate.

## 13. Disposal considerations

- 13.1 Waste from residues / unused products : In accordance with local and national regulations. Do not contaminate ponds, waterways or ditches with chemical or used container. Contact manufacturer.
- 13.2 Uncleaned packaging: Packaging material has to be emptied completely and disposed in accordance with the regulations.

## 14. Transport information

- 14.1 Transport regulations: Not classified as hazardous under transport regulations ADR, ADNR, RID, ICAO/IATA, IMDG/GGVSee, ICAO/IATA

## 15. Regulatory information

- 15.1 EU regulations: This product does not require a hazard warning label in accordance with EC Directives.

## 16. Other information

Oo-kuma urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific (M)SDSs, we are not and cannot be responsible for (M)SDSs obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version.

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