

Section 1 – Company Identification and Chemical Product

Product Name: Print2Cast 3D Printing Filament

Chemical Family: Wax

General Use: 3D printing, prototyping, machining, numerous special uses

Manufacturer/Supplier:

MachinableWax.com, Inc.

1302 S. West Silver Lake Road, Traverse City, Michigan 49685 USA

Phone (231)668-7544 or (231)275-7000, Fax (313)731-0154,

Website: MachinableWax.com, Hours 9-5(est)

Section 2 – Composition / Information on Ingredients

Proprietary Mixture: Chemical name: Machinable Wax

Section 3 – Physical and Chemical Properties

Physical State: Solid

Appearance and Odor: Solid material, may vary in color. Faint odor.

Vapor Density(Air=1): N/A

Specific Gravity(H₂O=1 at 4C): .92

Flash Point: Open Cup (COC) >450 F

Operating Temp: <180°C

Water Solubility: Insoluble in cold water

Boiling Point: >450 F

% Volatile: Negligible

Vapor Pressure(mmHg): N/A

Melting Point: Ring and Ball Apparatus
ASTM E28-58T: 243°F

Section 4 – Hazardous Information

OSHA/HRS : While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS should be retained and available for employees and other users of this product.

Potential Acute Health Effects

Routes of Entry: Dermal Contact. Eye Contact. Inhalation.

Eyes: Contact with hot product can cause burns.

Ingestion: Not a normal exposure route. Adverse reaction is not expected.

Inhalation: Exposure to airborne concentrations above statutory or recommended exposure limits, when this product is thermally degraded, may cause irritation of the nose, throat, and lungs.

Skin: Contact with hot product may result in severe burns.

Carcinogenicity: IRAC, NTP, and OSHA do not list any component as carcinogenic.

Emergency Overview: Within the present knowledge of the supplier, this product does not contain any hazardous ingredients in quantities requiring reporting, in accordance with local regulations.

Section 5 – First Aid Measures

Eyes: Immediately flush eyes with plenty of water. Hold eye lids apart, if contact lens wearer, remove contacts if possible, flush eyes with plenty of low pressure water for at least 15 minutes. If irritation persists seek medical attention. **HOT MOLTEN** products: Cool with plenty of low pressure water. Seek medical attention immediately.

Ingestion: Wash out mouth with water. Drink 1-2 glasses of water (8-16oz). Do not induce vomiting unless instructed to do so by medical personnel. Never give anything by mouth to an unconscious person. Seek medical attention immediately. Not an ingestion hazard under normal conditions of use.

Inhalation: Move exposed person to fresh air. If not breathing or respiratory arrest occurs, provide artificial respiration (CPR) by trained personnel. If breathing is irregular, loosen tight clothing such as collar, tie, belt, or waistband, provide oxygen by trained personnel. Seek medical attention immediately.

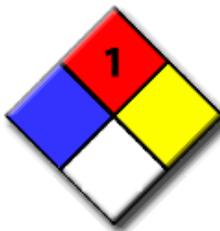
Skin: HOT MOLTEN product: Immediately flush area with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. **DO NOT** try to remove solidified material from skin. Severe tissue damage may result. Seek medical attention immediately.

*See note to physician.

***Note to physician:** For **HOT MOLTEN** or **LIQUID** product: Material should not be forcibly pulled from the skin. **MINERAL OIL** may be used to loosen and soften the material.

Section 6 - Fire-Fighting Measures

NPFA



Flashpoint: 575 F (302 C)

Flashpoint Method: COC

LEL: N/A

UEL: N/A

Auto ignition temperature: N/A

Fire/explosion Hazards: None

Extinguishing Media: CO₂, foam, water fog, and dry chemical.

Hazardous Combustion Products: CO, CO₂, Smoke fumes.

Fire-Fighting Instructions: Wear protective clothing to prevent contact with skin and eyes. **DO NOT** release runoff from fire control methods to sewer or waterways.

Fire-Fighting Equipment: Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full face piece operated in pressure-demand or positive pressure-mode.

Section 7 – Stability and Reactivity

Stability: Material is stable under normal conditions.

Conditions to Avoid: Excessive heat, and open flame.

Polymerization: Will not occur under normal conditions.

Hazardous Decomposition Products: Thermal oxidative decomposition can produce CO and CO₂.

Section 8 – Spill, Leak, and Disposal Procedures

Spill/Leak: No special procedures necessary. If product is not contaminated, scoop into clean container for use. If product is contaminated, scoop into container and dispose appropriately. If molten, allow to cool and scrap up. Refer to section 9, Personal Protective Equipment and general hygiene practices.

Disposal: Sweep or shovel up. Place in container for salvage or disposal. Follow applicable Federal, State, and Local regulations. Product is non-hazardous in delivered form.

Section 9 – Exposure Controls/Personal Protection

Exposure Controls

Engineering Measures: Provide adequate ventilation when above normal operating temperature. If user operations generate dust, fumes, gas, vapor, or mist, use process enclosures, local exhaust ventilation, or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. An eye wash station and safety shower should be located near the work-station.

Respiratory Protection: Under normal conditions, no special handling equipment is required. If elevated airborne concentrations above applicable work place exposure levels are anticipated, a NIOSH-approved organic vapor respirator equipped with a dust/mist pre-filter should be used.

Protective Clothing/Equipment

Hand Protection: When handling product at elevated temperatures, use heat resistant gloves and long sleeves. With product at ambient temperatures, use disposable nitrile, neoprene, or butyl rubber gloves.

Body Protection: Prevent skin contact when handling heated material. Use insulated, heat-resistant clothing or apron.

Eye Protection: Use a full-face shield and safety glasses if handling heated material. With product at ambient temperatures, use safety glasses equipped with side shields.

General Hygienic Practices: Avoid contamination of food, beverages, or smoking materials. Wash thoroughly after handling and before eating, drinking, or smoking. Remove contaminated clothing promptly and clean thoroughly before reuse.

Section 10 – Special Precautions and Comments

Handling Precautions: Use normal precautions when handling hot molten liquid solutions. Do not breathe fumes or vapors from overheated material. Do not allow hot material to contact skin. With the product at ambient temperatures avoid creating and breathing dust. Wash thoroughly after handling.

Storage Requirements: Store at ambient temperatures in closed containers. This material can catch fire overheated. Do not heat this material above the flash point. Keep away from flame and open electrical coils.

Label requirements: Within the present knowledge of the supplier, this product does not contain any hazardous ingredients in quantities requiring reporting.

DOT Classification: Not regulated

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