



MATERIAL SAFETY DATA SHEET – PC

I. Product and Company Identification

Phone Number

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	Revision 1.0

Product Identification

PRODUCT IDENTIFIER: STRATASYS PC
Polycarbonate (CAS # 111211-39-3)
PRODUCT DESCRIPTION: Synthetic thermoplastic polymer filament
PRODUCT USE: To produce articles using FDM™ machinery

II. Composition/Information on Ingredients

This product does not contain reportable hazardous ingredients as defined by the OSHA Hazard Communications Standard (29 CFR 1910.1200).

III. Hazards Identification

Emergency Overview: Filament with slight or no odor. Can burn in a fire creating dense toxic smoke. Molten plastic can cause severe thermal burns. Fumes produced during melt processing may cause eye, skin, and respiratory tract irritation. Secondary operations, such as grinding, sanding, or sawing, can produce dust that may present an explosion or respiratory hazard.

Potential Health Effects

EYE: Dust may be irritating or cause mechanical injury.
SKIN: Unlikely to cause irritation even on repeated contact.
INGESTION: No hazard in normal industrial use.
INHALATION: Unlikely due to physical form.

Chronic/Carcinogenicity

NTP: Not Tested **OSHA:** Not Regulated **IARC:** Not Listed

IV. First Aid Measures

EYE CONTACT: In cases of contact, hold eyelids apart and immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

SKIN CONTACT: Remove contaminated clothing. Wash thoroughly with soap and water immediately. Get medical attention if irritation or burns develop.

INGESTION: If swallowed, call a physician. Give copious amounts of water to drink. Never give anything by mouth to an unconscious person.

IV. First Aid Measures

INHALATION: No specific treatment is necessary since this material is not likely to be hazardous by inhalation.

V. Fire Fighting Measures

FIRE FIGHTING: Approved pressure demand breathing apparatus and protective clothing should be used for all fires. Water spray is the preferred extinguishing medium.

EXTINGUISHING MEDIA: Water spray and foam. Water is the best extinguishing medium.

HAZARDOUS COMBUSTION PRODUCTS: Hazardous combustion products may include intense heat, dense smoke, carbon monoxide, carbon dioxide and hydrocarbon fragments.

FLASH POINT: Not Applicable

LOWER FLAMMABLE LIMIT: Not Established

UPPER FLAMMABLE LIMIT: Not Established

AUTOIGNITION: 630 C (1166 F) , estimated

CONDITIONS OF FLAMMABILITY: Requires a continuous flame source to ignite.

EXPLOSION DATA

IMPACT SENSITIVITY: Not sensitive to mechanical impact.

STATIC DISCHARGE: Not sensitive to static discharge.

VI. Accidental Release Measures

GENERAL: Gather material and place in proper container for disposal.

VII. Handling and Storage

HANDLING: Follow instructions as indicated in training materials.

STORAGE: Keep dry and avoid temperatures over 60°C.

VIII. Exposure Controls/Personal Protection

ENGINEERING CONTROLS: Use with adequate ventilation to provide a continuous supply of fresh air.

PERSONAL PROTECTION

EYE/FACE: Safety glasses are recommended.

RESPIRATORY: Not needed. If dust is produced in a secondary operation, use a respirator approved for protection from dust.

SKIN: Wear well insulated gloves when handling melt.

IX. Physical and Chemical Properties

PHYSICAL STATE: Solid

ODOR AND APPEARANCE: Plastic filament with slight or no odor.

MELTING POINT: This product does not exhibit a sharp melting point but softens gradually over a wide range of temperatures.

VAPOR PRESSURE (mmHg): Negligible

SPECIFIC GRAVITY (WATER=1): 1.2

WATER SOLUBILITY: Insoluble

% VOLATILES: Negligible

EVAPORATION RATE: Negligible

IX. Physical and Chemical Properties (continued)

OCTANOL/WATER PARTITION COEFFICIENT: Not established

X. Stability and Reactivity

STABILITY: Stable

REACTIVITY: Not reactive under recommended conditions of handling, storage, processing, and use.

CONDITIONS TO AVOID: Do not exceed liquifier temperatures of 400 C

HAZARDOUS DECOMPOSITION: Processing fumes may include trace levels of phenol, alkylphenols, and diarylcarbonates.

XI. Toxicological Information

EYE: Product not considered primary eye irritant. When similar products, in finely divided form, were placed into the eyes of rabbits, slight transient redness or discharge occurred – consistent with the expected slightly abrasive nature of the resin particles.

SKIN: Product not considered primary skin irritant. Draize Skin Primary Irritation Score (rabbit) for similar products, in finely divided form, for a 24-hour exposure is 0. Not expected to be a skin sensitizer based on results of Modified Buehler Guinea Pig Sensitization Test from similar products. Dermal LD50 (rabbit) > 2g/kg, estimated.

ACUTE ORAL: Oral LD50 (Rat) >5 g/kg, estimated.

ACUTE INHALATION: Processing fumes from similar products are not considered toxic. In acute inhalation tests, laboratory rats were exposed to processing fumes at concentrations exaggerating those that would likely occur in workplace situations. No deaths or signs of toxicity, except transient irritancy in some cases, were noted during the 6 hour fume exposure tests. There were no distinct or consistent treatment related tissue or organ changes noted in gross necropsies.

SUBCHRONIC: In subchronic testing, the base resin was considered physiologically inert when fed to rats for 8 weeks at a dietary level of 6%.

XII. Ecological Information

GENERAL: Not expected to present any significant ecological problems.

XIII. Disposal Information

RCRA HAZARDOUS WASTE: Product is not a RCRA hazardous waste.

WASTE DISPOSAL: Landfill or incinerate in accordance with federal, state, and local regulations.

XIV. Transportation Information

DOT Hazard Class: Not Regulated

Proper Shipping Name: Not Regulated

Identification Number: Not Listed

TDGA: Not Listed

XV. Regulatory Information

This product does not contain reportable quantities of substances subject to supplier notification.

XV. Regulatory Information (continued)

TSCA STATUS: This product complies with the Chemical Substance Inventory requirements of the US EPA Toxic Substances Control Act (TSCA).

WHMIS CLASSIFICATION: Not a controlled product.

XVI. Other

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