STRATASYS®	PC
Material Safety Data Sheet	4/14/04

1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION

Product Name	Polycarbonate
Common Name	PC
General Use	Filament for Stratasys® Inc. FDM™ modeler
Manufacturer and Address	Stratasys Inc. 14950 Martin Drive Minneapolis, MN 55344-2020 USA
Emergency Telephone Number	+1 952-937-3000

2. COMPOSITION, INGREDIENT INFORMATION

COMPONENT	CAS #	%	OSHA/PEL	ACGIH/TLV
Synthetic thermoplastic polymer filament	11121-39-3		N/E	N/E

N/E=Not established
This product is not considered hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR § 1910.1200.

3. 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 and explosion or respiratory hazard.
HMIS Ratings	Health: 0 Flammability: 1 Reactivity: 0
Inhalation	Unlikely due to physical form
Eye Contact	Fumes that contact the eye may be irritating or cause mechanical injury
Skin Contact	Unlikely to cause irritation even on repeated contact. Molten plastic, however, can cause severe thermal burns
Ingestion	No hazard in normal industrial use
Chronic	NTP: not tested, OSHA: not regulated, IARC: not listed
Carcinogenicity	NTP: not tested, OSHA: not regulated, IARC: not listed

4. EMERGENCY AND FIRST AID MEASURES

Inhalation	No specific treatment is necessary since this material is not likely to be hazardous by inhalation
Skin Contact	Remove contaminated clothing. Wash thoroughly with soap and water immediately. Get medical attention if irritation or burns develop.
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.
Ingestion	If swallowed, call a physician. Give large amounts of water to drink. Never give anything by mouth to an unconscious person.

5. FIRE-FIGHTING MEASURES & EXPLOSION HAZARD DATA

Flash Point	Not applicable
Autoignition Temperature	630° C (1166° F), estimated
Extinguishing Media	Water spray and foam. Water is the best extinguishing media.
Special Fire-Fighting Procedures	Approved pressure demand breathing apparatus and protective clothing should be used for all fires. Water spray is the preferred extinguishing medium.
Unusual Fire and Explosion Hazards	Impact Sensitivity: Not sensitive to mechanical impact Static Discharge: Not sensitive to static discharge
Hazardous Decomposition Products	Hazardous combustion products may include intense heat, dense smoke, carbon monoxide, carbon dioxide, and hydrocarbon fragments
Lower Flammable Limit	Not established
Upper Flammable Limit	Not established
Conditions of Flammability	Requires a continuous flame source to ignite
Impact Sensitivity	Not sensitive to mechanical impact
Static Discharge	Not sensitive to static discharge

6. ACCIDENTAL RELEASE MEASURES

General	Notify the appropriate authorities immediately. Take all additional action necessary to prevent and remedy adverse effects of the spill.
Specific	Contain spill. Sweep up material for recycling or disposal. Do not wash residues into drains or other waterways.

7. HANDLING & STORAGE

Handling	Keep materials dry and avoid temperatures over 60° C (140° F)
Storage	Store in a cool, well-ventilated area. Keep container tightly closed.

8. EXPOSURE CONTROLS & PERSONAL PROTECTION

Ventilation	Use with adequate ventilation to provide a continuous supply of fresh air
Respiratory	Not needed. If dust is produced in a secondary operation, use a respirator approved for protection from dust.
Eye Protection	Safety glasses with side shields are recommended for any type of handling. Dust-tight goggles are recommended for dusty operations of areas where vapors accumulate.
Skin	Wear well-insulated gloves when handling melt

9. PHYSICAL & CHEMICAL PROPERTIES

Appearance	Solid
Odor	Plastic filament with slight or no odor.
Vapor Pressure (mmHg)	Negligible
Vapor Density	Not applicable
Melting Point	This product does not exhibit a sharp melting point but softens gradually over a wide range of temperature
Boiling Point	Not applicable
Specific Gravity (Water =1)	1.2
Volatile By Volume (Water)	Negligible
Solubility In Water	Insoluble
pH	Not applicable
Octanol/Water Partition Coefficient	Not determined

10. STABILITY & REACTIVITY

Stability	Stable
Reactivity	Not reactive under conditions of handling, storage, processing, and use
Conditions to Avoid	Do not exceed liquifier temperatures of 400° C (752° F)
Hazardous Polymerization	Will not occur
Incompatibility	Acids and strong oxidizing agents
Hazardous Thermal Decomposition Products	Processing fumes may include trace levels of phenol, alkylphenols, and diarylcarbonates

11. TOXICOLOGICAL DATA

Eye Irritation	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 Irritation	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 Dermal	No data available
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 six-hour fume exposure tests. There was no distinct or consistent treatment of related tissue or organ changes noted in gross necropsies.
Genotoxicity	No data available
Subchronic	In subchronic testing, the base resin was considered physiologically inert when fed to rats for eight weeks at a dietary level of six percent.

12. ECOLOGICAL INFORMATION

General	Not expected to present any significant ecological problems
Fish Toxicity	No data available
Daphnia Toxicity	No data available
Bioaccumulation	No data available

13. DISPOSAL CONSIDERATIONS

Product is not a RCRA hazardous waste. Disposal of wastes and used containers must be in accordance with applicable federal, state and local regulations.

14. TRANSPORT INFORMATION (NOT MEANT TO BE ALL-INCLUSIVE)

U.S. Department of Transportation (D.O.T.)	This product is not regulated by D.O.T. when shipped domestically by land
Canadian TDG Information	This product is not regulated by TDG when shipped domestically by land

15. REGULATORY INFORMATION (NOT MEANT TO BE ALL-INCLUSIVE)

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

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

16. OTHER INFORMATION

THE INFORMATION contained in the PROCEEDING report is based upon current knowledge, our experience with the product, and is not exhaustive. While not guaranteed, the information presented herein was prepared by a competent, technical professional and is true and accurate to the best of our knowledge. The information applies to product as defined by the specifications. If the product is mixed with other substances, the customer must confirm that no new hazards exist. In all cases, the user is not exempt from following all legal, administrative and regulatory procedures relating to the product, personal hygiene, and the integrity of the work environment. Stratasys® shall not be held liable for any damage resulting from handling or from contact and use with the above product.

Revision History

Revision	Revision Date
1.0	6/01
1.1	4/14/04