SABIC Innovative Plastics™

MATERIAL SAFETY DATA SHEET

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1. IDENTIFICATION OF THE SUBSTANCE AND COMPANY

Trade Name: XENOY*
Product ID: 5220U 1102 1731 5220U 5720U 6370 6620 6620U X2203 X4820 X4830 X4850 X5230 X5300WX X5630Q CL100 1760T

Product Description: Poly (butylene terephthalate) [CASRN 30965-26-5]/Poly (bisphenol-A-carbonate) [CASRN 111211-39-3] blend
Product Type: Commercial Product

Recommended use: May be used to produce molded or extruded articles or as a component of other industrial products.

Company:
SABIC Innovative Plastics
One Plastics Avenue
Pittsfield, MA 01201 USA
(413) 448-5800
www.sabic-ip.com

Emergency Telephone Number: 800/447-4545
Emergency Transportation/CHEMTREC (24 HOUR): 800/424-9300

2. COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS COMPONENTS:

Chemical Name	CAS Number	Weight %
Tetrahydrofuran	109-99-9	0.1 - 1.0

If present, components listed above are physical or health hazards as defined in the Hazard Communication Standard. The quantities represent typical or average values for the materials shown. Additional compositional data are provided in Section 15, REGULATORY INFORMATION, subject to supplier notification requirements.

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

- Pellets with slight or no odor.
- Spilled material may create slipping hazard.
- 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. Severe over-exposure may result in nausea, headache, chills, and fever.
- Secondary operations, such as grinding, sanding, or sawing can produce dust which may present an explosion or respiratory hazard.

HMIS Rating **Health:** 0 **Flammability:** 1 **Reactivity:** 0

Skin Contact:	Pellets not likely to cause skin irritation.
Eye Contact:	Resin particles, like other inert materials, are mechanically irritating to eyes.
Inhalation:	Pellet inhalation unlikely due to physical form. Processing fumes evolved at recommended processing conditions may contain trace amounts of tetrahydrofuran (typically less than 1 ppm). NTP has listed tetrahydrofuran as a carcinogen. Extreme processing conditions or temperatures may result in higher levels. See section 8 for appropriate exposure controls and personal protection.
Ingestion:	Pellet ingestion unlikely due to physical form.
Sensitization:	No information available
Other Information:	OSHA, IARC and/or NTP have listed carbon, titanium dioxide, crystalline silica (quartz), respirable glass and certain heavy metals, present in some colorants and fillers, as carcinogens. If these materials are present in this product at significant quantities, they are shown in Section 2. These materials are essentially bound to the plastic matrix and are unlikely to contribute to workplace exposure under recommended processing conditions.

Chronic/Carcinogenic Information

Chronic Toxicity:	No information available
Resin Issues:	Processing fumes may cause irritation to the eyes, skin, and respiratory tract. In cases of severe exposure, nausea and headache can also occur. Grease-like processing fume condensates on ventilation ductwork, molds, and other surfaces can cause irritation and injury to skin.
Aggravated Medical Conditions:	MEDICAL RESTRICTIONS: There are no known health effects aggravated by exposure to this product. However, certain sensitive individuals and individuals with respiratory impairments may be affected by exposure to components in the processing vapors.

4. FIRST AID MEASURES

Inhalation:	Move to fresh air in case of accidental inhalation of fumes from overheating or combustion. If symptoms persist, call a physician.
Skin Contact:	Cool skin rapidly with cold water after contact with hot polymer. Wash off immediately with soap and plenty of water. Consult 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. If eye irritation persists, consult a specialist.
Ingestion:	No hazards which require special first aid measures.
Precautions:	Processing fumes inhalation may be irritating to the respiratory tract. If symptoms are experienced remove victim from the source of contamination or move victim to fresh air and obtain medical advice.

5. FIRE-FIGHTING MEASURES

Autoignition Temperature:	360°C (680°F), estimated
Explosive Limits	
upper:	Not determined
lower:	Not determined
Suitable Extinguishing Media:	Water spray mist or foam.
Extinguishing Media not be used for Safety Reasons:	Carbon dioxide and dry chemical are not recommended because their lack of cooling capacity may permit re-ignition
Hazards from Combustion Products:	Fire will produce dense black smoke containing hazardous combustion products, carbon oxides, hydrocarbon fragments.
Special Protective Equipment for Firefighters:	Do not enter fire area without proper protection including self-contained breathing apparatus and full protective equipment. Fight fire from a safe distance and a protected location due to the potential of hazardous vapors and decomposition products.
Specific 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.

6. ACCIDENTAL RELEASE MEASURES

Clean up:	Sweep up and shovel into suitable containers for disposal. Do not create a powder cloud by using a brush or compressed air.
Personal Precautions:	See section 8.
Environmental Precautions:	Do not flush into surface water or sanitary sewer system. Should not be released into the environment.

7. HANDLING AND STORAGE

Handling: Handle in accordance with good industrial hygiene and safety practice. Provide for appropriate exhaust ventilation and dust collection at machinery. Avoid dust formation. All metal parts of the mixing and processing equipment must be earthed.

Storage: Keep tightly closed in a dry and cool place. Keep away from heat and sources of ignition.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limits: No components with information, unless noted below

Chemical Name	OSHA PEL Hr TWA	ACGIH	Canada - AlbertaLimits (8 Hr)	Mexico OEL Data	SABIC-IP Recommended Exposure Limit (8 Hr)*
Tetrahydrofuran 109-99-9	590 mg/m^3 200 ppm	TWA: 50 ppm Skin	590 mg/m^3 200 ppm	590 mg/m^3 200 ppm	50 ppm TWA

**SABIC Innovative Plastics Recommended Exposure Limits have been established for certain chemicals.*

Engineering Measures to Reduce Exposure: Handle in accordance with good industrial hygiene and safety practice. Provide for appropriate exhaust ventilation at machinery. Processing fume condensate may be a fire hazard and toxic; remove periodically from exhaust hoods, ductwork, and other surfaces using appropriate personal protection. Polybutyleneterephthalate fumes and condensates may contain trace quantities of tetrahydrofuran (typically less than 1 ppm, see section 2, 3 and 11).

Hand Protection: Protective gloves

Eye Protection: Safety glasses with side-shields or chemical goggles. In addition, use full-face shield when cleaning processing fume condensates from hood, ducts, and other surfaces.

Respiratory Protection: When using this product at elevated temperatures, implement engineering systems, administrative controls or a respiratory protection program (including a respirator approved for protection from organic vapors, acid gases and particulate matter) if processing fumes are not adequately controlled or operators experience symptoms of overexposure. If dust of powder are produced from secondary operations such as sawing or grinding, use a respirator approved for protection from dust.

Skin and Body Protection: Long sleeved clothing

Hygiene Measures: When using, do not eat, drink or smoke.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Solid
Appearance:	Pellets
Color:	Various
Odor:	None or slight
Melting point/range:	This product does not exhibit a sharp melting point but softens gradually over a wide range of temperatures.
Autoignition Temperature:	360°C (680°F) estimated
Vapor Pressure:	Negligible
Water Solubility:	Insoluble
Evaporation Rate:	Negligible
Specific gravity:	>1; (water=1)
VOC content (%):	Negligible
Explosive Limits	
upper:	Not determined
lower:	Not determined

10. STABILITY AND REACTIVITY

Stability:	Stable at normal conditions. Hazardous polymerization does not occur.
Conditions to Avoid:	Avoid temperatures above 360°C. To avoid thermal decomposition, do not overheat. Heating can release hazardous gases. Do not exceed melt temperature recommendations in product literature. In order to avoid autoignition/hazardous decomposition of hot thick masses of plastic, purgings should be collected in small, flat, shapes or thin strands to allow for rapid cooling. Quench in water. Do not allow product to remain in barrel at elevated temperatures for extended periods of time: purge with a general purpose resin.
Hazardous Decomposition Products:	Processing fumes evolved at recommended processing conditions may include trace levels of hydrocarbon fragments, tetrahydrofuran (THF), aliphatic aldehydes.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

LD50/oral/rat:	>5000 mg/kg
LD50/dermal/rabbit:	>2000 mg/kg
Inhalation:	Pellet inhalation unlikely due to physical form. Processing fumes evolved at recommended processing conditions may contain trace amounts of tetrahydrofuran (typically less than 1 ppm). NTP has listed tetrahydrofuran as a carcinogen. Extreme processing conditions or temperatures may result in higher levels. See section 8 for appropriate exposure controls and personal protection.
Eye Contact:	Resin particles, like other inert materials, are mechanically irritating to eyes.
Skin Contact:	Pellets not likely to cause skin irritation.
Ingestion:	Pellet ingestion unlikely due to physical form.
Chronic Toxicity:	No information available
Subchronic Toxicity:	No data available
Primary Irritation:	Substance does not generally irritate and is only mildly irritating to the skin.
IARC:	Not listed
OSHA:	Not regulated
NTP:	Tetrahydrofuran: In 2-year carcinogenicity bioassays conducted by the National Toxicology Program (NTP), mice and rats (50/sex/group) were exposed to concentrations of 0, 200, 600, or 1,800 ppm via inhalation 6 hours/day, 5 days/week for 104 weeks. Under the conditions of these 2-year inhalation studies, there was some evidence of carcinogenic activity of tetrahydrofuran in male F344/N rats based on increased incidences of renal tubule adenoma or carcinoma (combined) at 600 and 1,800 ppm. There was no evidence of carcinogenic activity of tetrahydrofuran in female F344/N rats exposed to 200, 600, or 1,800 ppm or male B6C3F1 mice exposed to 200, 600, or 1,800 ppm. There was clear evidence of carcinogenic activity of tetrahydrofuran in female B6C3F1 mice based on increased incidences of hepatocellular neoplasms observed at 1,800 ppm.
Remarks:	The toxicological data has been taken from products of similar composition.

Special Studies:	PROCESSING FUMES: Processing fumes evolved at recommended processing conditions may contain trace amounts of tetrahydrofuran (typically less than 1 ppm). Extreme processing conditions or temperatures may result in higher levels. See section 8 for appropriate exposure controls and personal protection. In 2-year carcinogenicity bioassays conducted by the National Toxicology Program (NTP), mice and rats (50/sex/group) were exposed to tetrahydrofuran at concentrations of 0, 200, 600, or 1,800 ppm via inhalation 6 hours/day, 5 days/week for 104 weeks. Under the conditions of these 2-year inhalation studies, there was some evidence of carcinogenic activity of tetrahydrofuran in male F344/N rats based on increased incidences of renal tubule adenoma or carcinoma (combined) at 600 and 1,800 ppm. There was no evidence of carcinogenic activity of tetrahydrofuran in female F344/N rats exposed to 200, 600, or 1,800 ppm or male B6C3F1 mice exposed to 200, 600, or 1,800 ppm. There was clear evidence of carcinogenic activity of tetrahydrofuran in female B6C3F1 mice based on increased incidences of hepatocellular neoplasms observed at 1,800 ppm.

12. ECOLOGICAL INFORMATION

Ecotoxicity Effects:	Do not flush into surface water or sanitary sewer system.
Other information:	Ecological damages are not known or expected under normal use.

13. DISPOSAL CONSIDERATIONS

Waste Disposal:	Recycling is encouraged. Landfill or incinerate in accordance with federal, state and local requirements. Collected processing fume condensates and incinerator ash should be tested to determine waste classification.
US EPA Waste number:	None

14. TRANSPORT INFORMATION

Transport Classification:	Not regulated as hazardous for shipment, unless noted below, under current transportation guidelines.

DOT

ADR/RID/ADNR

IMDG

ICAO

IATA-DGR

MEXICO

15. REGULATORY INFORMATION

International Inventories:

TSCA (USA):	Listed
DSL/NDSL (Canada):	Listed
EINECS/ELINCS (Europe):	Listed
ENCS (Japan):	Listed
IECSC (China):	Listed
KECL (Korea):	Listed
PICCS (Philippines):	Listed
AICS (Australia):	Listed

Other Inventory Information:

A "Listed" entry above means all chemical components are on the respective inventory list and/or a qualifying exemption exists for one or more components. A "Not listed" entry above indicates one or more components is restricted from import or manufacture into that country/region.

SARA 313:

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and and Title 40 of the Code of Federal Regulations, Part 372.

SARA (311, 312) hazard class:

Acute Health Hazard	N
Chronic Health Hazard	N
Fire Hazard	N
Sudden Release of Pressure Hazard	N
Reactive Hazard	N

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:

Non-controlled

California Proposition 65:

Components in this product known to the State of California to cause cancer and/or reproductive effects, are listed below:

Chemical Name	Weight %	California Proposition 65:
4-Vinylcyclohexene 100-40-3	<100 ppm	Listed: May 1, 1996 Carcinogenic.

RoHS EU Directive 2002/95/EC:

This product complies with RoHS - it does not intentionally contain banned chemicals.

16. OTHER INFORMATION

XENOY* is a registered trademark of SABIC Innovative Plastics

Prepared by: Product Stewardship & Toxicology.

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End of Material Safety Data Sheet