

**G XENOY 5220U-YW6146** Print Date: 09-17-2007 Page 1 of 8

**GE** Plastics

Revision Date: 09/17/07

# **Material Safety Data Sheet**

# SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

General Electric Co. One Plastics Ave. Pittsfield, MA 01201 GE Plastics Canada, Ltd. 2300 Meadowvale Blvd. Mississauga, ONT L5N 5P2

# PHONE NUMBERS

Emergency Medical (24 HOUR) Emergency Transportation/CHEMTREC (24 HOUR) Other Emergency Information (24 HOUR)

Non-Emergency Information :

For Resin Products For Structured Products

### **PRODUCT IDENTIFICATION**

<b>PRODUCT IDENTIFIER:</b>	XENOY	
	5220U-YW6146	
	Poly (butylene terephthalate) [CASRN 30965-26-5, alternatives: 24968-12-5 or	
	26062-94-2]/Poly (bisphenol-A-carbonate) [CASRN 111211-39-3] blend	
<b>PRODUCT DESCRIPTION:</b>	Synthetic thermoplastic polymer.	
PRODUCT USE:	May be used to produce molded or extruded articles or as a component of other	
	industrial products.	

# SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Components listed below 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.

Component Name	<u>%</u>	CAS Number	OSHA PEL	ACGIH TWA	GE Recommended <u>Exp. Limits</u>
TITANIUM OXIDE (TI O2)	0.1 - 1	13463-67-7	15 mg/m3 TWA (total dust)	10 mg/m3 TWA	Not established









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TETRAHYDROFURAN	0.1 - 1	109-99-9	200 ppm TWA; 590	50 ppm TWA	50 ppm TWA
			mg/m3 TWA		

# SECTION 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 Ratings: Health = 0; Flammability = 1; Reactivity = 0; PPE = B

#### POTENTIAL HEALTH EFFECTS

FOILMIAL HEALTH	
INGESTION:	No hazard in normal industrial use.
SKIN ABSORPTION:	No absorption hazard in normal industrial use.
	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:	Can cause mechanical irritation if dusts are generated.
SKIN CONTACT:	Unlikely to cause irritation even on repeated contact.

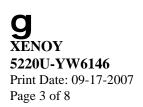
#### CHRONIC / CARCINOGENICITY

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.
OSHA:	Not Regulated.
IARC:	Not Listed.









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NOTE: OSHA, IARC and/or NTP have listed carbon, titanium dioxide, crystalline silica (quartz) 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.

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.

MEDICAL RESTRICTIONS: There are no known human 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.

## SECTION 4: FIRST AID MEASURES

EYES:	Immediately flush eyes with plenty of water. Get medical attention if irritation develops or
	persists. After initial flushing, remove any contact lenses.
SKIN:	Wash with soap and water. Get medical attention if irritation develops or persists. For hot
	product, immediately immerse in or flush affected area with large amounts of cold water to
	dissipate heat. Cover with clean cotton sheeting or gauze and get prompt medical attention.
INGESTION:	No hazard in normal industrial use. Do not induce vomiting. Seek medical attention if
	symptoms develop.
INHALATION:	No specific treatment is necessary since this material is not likely to be hazardous by
	inhalation.
PROCESSING	Processing fumes inhalation may be irritating to the respiratory tract. If symptoms are
FUMES:	experienced remove victim from the source of contamination or move victim to fresh air and
	obtain medical advice.

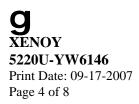
### SECTION 5: FIRE FIGHTING MEASURES

FIRE FIGHTING:	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.
EXTINGUISHING MEDIA:	Water spray and foam. Carbon dioxide and dry chemical are not recommended because their lack of cooling capacity may permit re-ignition.
CONDITIONS OF FLAMMABILITY:	Dust accumulation from this product may present an explosion hazard in the presence of an ignition source.
AUTOIGNITION TEMPERATURE:	630 C (1166 F), estimated 360C (680F), estimated
EXPLOSION DATA:	Material not sensitive to mechanical impact but is sensitive to static discharge under dust cloud conditions.









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## HAZARDOUS COMBUSTION PRODUCTS:

Intense heat, smoke, carbon dioxide, carbon monoxide, hydrocarbon fragments

### SECTION 6: ACCIDENTAL RELEASE MEASURES

GENERAL:	Gather and store in a closed container pending a waste disposal evaluation.
	Allow molten material to solidify before disposal.

### SECTION 7: HANDLING AND STORAGE

HANDLING:	Follow recommendations on label and in processing guide. Prevent contact
In a delato.	with skin and eyes. Use good industrial hygiene practices. Provide adequate
	ventilation. Secondary operations such as grinding, sanding, or sawing may
	produce a dust explosion hazard. Use aggressive housekeeping activities to
	prevent dust accumulation: employ bonding, grounding, venting, and
	explosion relief provisions in accordance with accepted engineering practices.
STORAGE:	Store in a cool dry place. Avoid excessive heat and ignition sources.

#### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS:	A continuous supply of fresh air to the workplace together with removal of
	processing fumes through exhaust systems is recommended. Processing fume
	condensate may be a fire hazard and toxic; remove periodically from exhaust
	hoods, ductwork, and other surfaces using appropriate personal protection.
	Local ventilation requirements must be determined to limit exposure to
	processing fumes in the workplace.

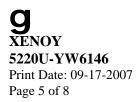
#### PERSONAL PROTECTION

EYE/FACE:	Wear safety glasses with side shields or chemical goggles. In addition, use full-
	face shield when cleaning processing fume condensates from hoods, ducts, and
	other surfaces.
SKIN:	When handling pellets or powder, avoid prolonged or repeated contact with
	skin. Wear long pants, long sleeves, well insulated gloves, and a face shield
	during melt processing. Appropriate clothing - including chemical resistant
	gloves - should be worn to prevent contact with processing fumes condensate.
RESPIRATORY:	Processing fumes and condensates may contain trace quantities of
	tetrahydrofuran (typically less than 1 ppm, see section 2, 3 and 11). 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 or powder are
	produced from secondary operations such as sawing, sanding or grinding, use a
	respirator approved for protection from dust.









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## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE:	Solid
COLOR:	Plastic pellet with slight odor.
ODOR:	Mild
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
WATER SOLUBILITY:	Insoluble
% VOLATILES:	Negligible
EVAPORATION RATE:	Negligible.
OCTANOL/WATER PARTITION	Not established
COEFFCIENT:	

## SECTION 10: STABILITY AND REACTIVITY

STABILITY:	Stable
REACTIVITY:	Not reactive under recommended conditions of handling, storage, processing, and use.
CONDITIONS TO AVOID:	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. (See Section 8 for respiratory protection advice.)
HAZARDOUS DECOMPOSITION PRODUCTS	Processing fumes evolved at recommended processing conditions may include trace levels of the following materials: tetrahydrofuran (THF) and aliphatic aldehydes

# SECTION 11: TOXICOLOGICAL INFORMATION

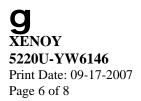
ACUTE HEALTH HAZARDS	
ACUTE ORAL:	Rat >5 g/kg Oral toxicity is estimated from tests on similar materials.
EYE CONTACT:	Product not considered primary eye irritant. When similar products, in finely divided form, were placed into the eyes of rabbits, slight transient redness or discharge occurred. This is consistent with the expected slightly abrasive nature of the resin particles.
SKIN CONTACT:	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 HEALTH HAZARDS









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#### SUBCHRONIC HEALTH HAZARDS SUBCHRONIC TOXICITY: No data available. CHRONIC HEALTH HAZARDS CARCINOGENIC PROPERTIES 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. Not Regulated. OSHA: IARC: Not Listed. 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. Titanium Dioxide: The International Agency for Research on Cancer (IARC) has determined titanium dioxide to be a possible human carcinogen (class 2B) based on

### SECTION 12: ECOLOGICAL INFORMATION

incidence of lung tumors.

GENERAL:

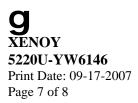
This material is not expected to be harmful to the ecology.

evidence in experimental animals. Rats exposed to high doses of titanium dioxide by inhalation or intratracheal installation showed an increased









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# SECTION 13: DISPOSAL INFORMATION

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.
POSSIBLE EPA WASTE CODES:	No data.

#### SECTION 14: TRANSPORTATION INFORMATION

Ī	REGULATORY STATUS:	Not Regulated.
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## SECTION 15: REGULATORY INFORMATION

TOXIC SUBSTANCES CONTROL ACT (TSCA):	This product is in compliance with all rules and orders of	
	TSCA.	
WHMIS PRODUCT CLASSIFICATION:	Not a controlled product.	

If any components in this product are SARA 313 listed as reportable, they are shown below. The quantities listed for elements represent typical or average values for compounds containing the element.

Component	CAS Number	%
No SARA 313-listed		
chemicals in this product.		

If any components in this product are known to the State of California to cause cancer and/or are reproductive hazards, they are listed below:

Component	Reason Listed	CAS Number	%
Carbon black	carcinogen, initial date 2/21/03 (airborne, unbound particles of respirable size)	1333-86-4	0.001- 0.01
4-Vinylcyclohexene	carcinogen, initial date 5/1/96	100-40-3	0.001- 0.01

### **SECTION 16: OTHER INFORMATION**

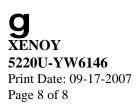
Prepared by: Product Stewardship

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ABBREVIATIONS:	ACGIH: American Conference of Governmental Industrial Hygienists
	CAS: Chemical Abstracts Service
	CFR: Code of Federal Regulations
	CPR: Cardiopulmonary Resuscitation
	EPA: Environmental Protection Agency
	HMIS: Hazardous Material Identification System (National Paint and Coatings Association)
	IARC: International Agency for Research on Cancer
	OSHA: Occupational Health and Safety Administration (U.S.)
	NTP: National Toxicology Program
	PEL: Permissible Exposure Limit
	PPE: Personal Protective Equipment
	SARA 313: Superfund Amendments and Reauthorization Act, Section 313
	TLV: Threshold Limit Value
	TSCA: Toxic Substance Control Act
	WHMIS: Workplace Hazardous Materials Information System (Canada)



