SAFETY DATA SHEET

According to Regulation (EC) No 1907/2006 and 453/2010 (REACH)

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1. IDENTIFICATION OF THE SUBSTANCE AND COMPANY

Trademark:	XENOY™
Product Code:	CL101 - 78211
Product Description:	Blend Polycarbonate [CASRN 25971-63-5] / Polybutyleneterephthalate [CASRN 30965-26-5]
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 B.V. Plasticslaan 1 P.O. Box 117 4600 AC Bergen op Zoom The Netherlands
Manufacturer:	SABIC Innovative Plastics B.V. Plasticslaan 1 P.O. Box 117 4600 AC Bergen Op Zoom The Netherlands
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E-mail:	webinquiries@sabic-ip.com
Website Address:	**www.sabic-ip.com**

2. HAZARDS IDENTIFICATION

The additives in this product are bound in a thermoplastic resin matrix. In accordance with GHS for the classification of the product, the hazard potential may be assessed with respect to the physico-chemical form and/or bioavailability of the individual components in the thermoplastic resin.

Where GHS classifications are shown below, these are based on the individual components in the thermoplastic resin matrix. Under the typical use conditions for the resin, these hazardous components are unlikely to contribute to workplace exposure. Please read the entire safety data sheet and/or consult an EHS professional for a complete understanding.

Classification of the substance or mixture

REGULATION (EC) No 1272/2008

Not hazardous Not classified

Classification according to EU Directives 67/548/EEC or 1999/45/EC

In 1995, the International Agency for Research on Cancer (IARC) concluded that there is "sufficient evidence in experimental animals for the carcinogenicity of carbon black." IARC's overall evaluation was that "Carbon black is possibly carcinogenic to humans (2B)." In 2006, IARC re-affirmed this classification. There has been no causal link between carbon black exposure and cancer risk in humans. Applying the rules of the Globally Harmonized System of Classification and Labelling (GHS, e.g. UN `Purple Book´, EU CLP Regulation) the results of repeated dose toxicity and carcinogenicity studies in animals do not lead to classification of Carbon Black for Specific Target Organ Toxicity (Repeated exposure) and carcinogenicity. UN GHS says, that even if adverse effects are seen in animal studies or in-vitro tests, no classification is needed if the mechanism or mode of action is not relevant to humans. The European CLP Regulation also mentions, that no classification is indicated if the mechanism is not relevant to humans. Furthermore, the CLP guidance on classification and labelling states, that “lung overload“ in animals is listed under mechanism not relevant to humans.

CLP/GHS-Labeling

GHS Labeling not required

Precautionary Statements

No GHS specific Precautionary Statements required - observe all other warnings and handling instructions in this SDS.

Other hazards which do not result in classification:

SABIC 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. See below for additional effects.
• Secondary operations, such as grinding, sanding, or sawing can produce dust which may present an explosion or respiratory hazard.

Other Information:	Cool skin rapidly with cold water after contact with molten material. Heating can release hazardous gases. Hazardous fumes can also occur in post-processing operations.
Processing Issues:	Processing vapors may cause irritation to the eyes, skin, and respiratory tract. In cases of severe exposure, nausea and headache can also occur. Grease-like processing vapor 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.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Product Type Mixture

HAZARDOUS COMPONENTS:

Chemical Name	CAS Number	Weight %	Classification (67/548/EEC):	GHS Classification (EC) No. 1272/2008 [CLP]:
Carbon black	1333-86-4	0.3-1.0		
Tetrahydrofuran	109-99-9	0.1-0.3	Classification: F; R11, R19 Xi; R36/37, R40	Flam. Liq. 2 (H225) Eye Irrit. 2 (H319) STOT SE 3 (H335) Carc. 2 (H351)

For the full text of the H-phrases, if mentioned in this section, see Section 16.

The non-hazardous components and exact percentage (concentration) of the composition have been withheld as a trade secret.

This product consists primarily of high molecular weight polymers which are not expected to be hazardous. The ingredients in this product are present within the polymer matrix and are not expected to be hazardous.

4. FIRST AID MEASURES

If Inhalation: Move to fresh air in case of accidental inhalation of fumes from overheating or combustion If symptoms persist, call a physician

On skin contact: Immediately cool the skin by rinsing with cold water after contact with hot material Wash off immediately with soap and plenty of water Consult a physician

On contact with eyes: 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

On ingestion: No hazards which require special first aid measures

Precautions: Cool molten product on skin with plenty of water. Do not remove solidified product Do not peel polymer from the skin

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 Use dry chemical, CO2, water spray or "alcohol" foam. Water is the best extinguishing medium. Carbon dioxide and dry chemical are not generally recommended because their lack of cooling capacity may permit re-ignition on larger resin fires (blobs, drools, etc.)
Unsuitable Extinguishing Media for Safety Reasons:	Carbon dioxide and dry chemical are not recommended because their lack of cooling capacity may permit re-ignition Do not use a solid water stream as it may scatter and spread fire
Hazardous Decomposition Products:	Fire will produce dense black smoke containing hazardous combustion products carbon oxides hydrocarbons fragments
Hazards from Combustion Products:	Fire will produce dense black smoke containing hazardous combustion products, carbon oxides, hydrocarbon fragments.
Special Protective Equipment for Firefighters:	In the event of fire, wear self-contained breathing apparatus (EU: NEN-EN137)
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. Material should not be released into the environment.

7. HANDLING AND STORAGE

Handling:	Handle in accordance with good industrial hygiene and safety practices. 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:	Store in closed container in a dry and cool area. Keep away from heat sources and sources of ignition.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limits:	No components with information, unless noted below
Chemical Name	**Carbon black**
	1333-86-4
France INRS (VME)	3.5 MGM3
Netherlands OEL - MAC	3.5 mg/m³
UK EH40 MEL (TWA)	WEL_TWA: 3.5 mg/m³ ; WEL_STEL: 7 mg/m³
Spain - Valores Limite Ambientales - VLE	VLA-ED: 3.5 mg/m³
Denmark TWA Data - Threshold Limit Values (TLV):	ANM: p_K ; GR: 3.5 mg/m³
Sweden Threshold Limit Values Data -	NGV: 3 MGM3 totaldamm
Portugal - TWAs	VLE-MP: 3.5 mg/m³ ; NOT: A_4; FUND: Pulmão
Norway Exposure Limit Values Data - Threshold Limit Value:	KONS: 3.5 mg/m³
Ireland Exposure Limit Values Data - Time Weighted Average (TWA):	TWA 3.5 mg/m³ ; STEL 7 mg/m³
Greece - OEL	DT_1 3.5 mg/m³ ; DT_2 7 mg/m³
Finland Exposure Limit Values Data - Time Weighted Average (TWA):	HTP_8: 3.5 mg/m³ ; HTP_15: 7 mg/m³
Italy - OEL	3.5 mg/m³
Chemical Name	**Tetrahydrofuran**
	109-99-9
SABIC Recommend (8 Hr)*	50 ppm TWA
EU STEL	300 MGM3 100 ppm
Germany (DFG) - MAK	ARBEIT: 150 mg/m³ , 50 ml/m³ (ppm) ; SPITZ: 2(I) ; BEM: DFG , p_H , p_Y
Netherlands OEL - MAC	WNG_8: 300 mg/m³ ; WNB_15: 600 mg/m³ ; Notatie: Skin
UK EH40 MEL (TWA)	WEL_TWA: 150 mg/m³ , 50 ppm ; WEL_STEL: 300 mg/m³ , 100 ppm ; p_R: R11 , R36/37 , R19 ; COMMENTS: SKIN
Spain - Valores Limite Ambientales - VLE	VLA-ED: 50 ppm , 150 mg/m³ ; VLA-EC: 100 ppm , 300 mg/m³ ; NOTAS: dermica , VLB , VLI ; p_FR: R11 , R19 , R36/37
Denmark TWA Data - Threshold Limit Values (TLV):	ANM: p_E , p_H ; GR: 148 mg/m³ , 50 ppm GRL: 50 ppm ; ANM: p_H
Switzerland SUVA Limit Values at the Workplace Data - Time Weighted Average (TWA):	MAK_Wert: 50 ppm , 150 mg/m³ ; Kurz_Wert: 100 ppm , 300 mg/m³ ; HSB: p_H , p_B ; Kol_SS: Grp_C ; Zeitl.: 4x15 min
Sweden Threshold Limit Values Data -	KTV: 250 MGM3 , 80 PPM ; NGV: 150 MGM3 , 50 PPM
Portugal - TWAs	VLE-CD: 250 ppm ; VLE-MP: 200 ppm ; NOT: IBE; FUND: Irritação, Narcose
Norway Exposure Limit Values Data - Threshold Limit Value:	KONS: 50 ppm , 150 mg/m³ ; Anm: H (SKIN)
Ireland Exposure Limit Values Data - Time Weighted Average (TWA):	TWA 40 ppm , 118 mg/m³ ; STEL 100 ppm , 295 mg/m³ ; NOT IOELV, Skin
Greece - OEL	DT_1 200 ppm , 590 mg/m³ ; DT_2 250 ppm , 735 mg/m³
Finland Exposure Limit Values Data - Time Weighted Average (TWA):	HTP_8: 50 ppm , 150 mg/m³ ; HTP_15: 100 ppm , 300 mg/m³ ; HOU: iho (SKIN) ; R-lauseet: R11 , R19 , R36/37
Luxembourg	Valeurs limites - 8 heures 150 mg/m³ , 50 ppm ; Valeurs limites - Court terme 300 mg/m³ , 100 ppm ; Note: Peau
Italy - OEL	VL-8: 50 PPM , 150 MGM3 ; VL-15: 100 PPM , 300 MGM3 ; NOT: Pelle (SKIN)

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

Engineering Measures toExposure:	In the case of hazardous fumes, wear self-contained breathing apparatus. Wear face-shield and protective suit for abnormal processing problems. Handle in accordance with good industrial hygiene and safety practice. Provide for appropriate exhaust ventilation at machinery. 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 should be worn. (EU: NEN-EN 374).

Eye Protection:	Safety glasses with side-shields. (EU: NEN-EN 165-166).
Respiratory Protection:	In the case of hazardous fumes, wear self contained breathing apparatus. In case of insufficient ventilation wear suitable respiratory equipment. (EU: NEN-EN149).
Body Protection:	Long sleeved clothing. (EU: NEN-EN 340-369-465).
Hygiene Measures:	When using, do not eat, drink or smoke.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Solid
Appearance:	Pellets
Color:	Varies Same as color code
Odor:	None
Melting point/range:	Various
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 under ambient conditions. Hazardous polymerization does not occur.
Conditions to Avoid:	Avoid temperatures above 630°C. To avoid thermal decomposition, avoid elevated temperatures. Heating can result in the formation of gaseous decomposition products, some of which may be hazardous.
Hazardous Decomposition Products:	Traces of phenol, alkylphenols, diarylcarbonates, tetrahydrofuran (THF).
Incompatible Products:	Strong acids, strong oxidizing agents.

11. TOXICOLOGICAL INFORMATION

LD50/oral/rat:	>5000 mg/kg
LD50/dermal/rabbit:	>2000 mg/kg
Subchronic Toxicity:	No information available
Primary Irritation:	Substance does not generally irritate and is only mildly irritating to the skin
IARC:	Not listed
OSHA:	Not regulated
NTP:	Not tested 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. Carbon Black: The International Agency for Research on Cancer (IARC) has determined that carbon black is a class 2B known animal and possible human carcinogen by the route of inhalation. Rats exposed to high doses of carbon black by inhalation developed statistically significant increases in lung fibrosis and lung tumors. Carbon Black: The scientific discussions about the carcinogenic potential of inorganic low solubility particles (fine dust) including carbon black has not been concluded. Many inhalation toxicologists believe the lung fibrosis and tumors that developed in rats following exposure to carbon black result form massive accumulation of small dust particles that overwhelm the clearance mechanism and produce what is termed "lung overload," an effect considered to be rat specific and not relevant to humans. In addition, based on epidemiological studies, no causal link between carbon black exposure and cancer risk in humans has been demonstrated.

12. ECOLOGICAL INFORMATION

Ecotoxicity Effects: Do not flush into surface water or sanitary sewer system.

Ecotoxicity - Invertebrate Data: Ecological damages are not known or expected under normal use.

Germany VCI (WGK): 0

13. DISPOSAL CONSIDERATIONS

Waste from residues / unused products: Where possible recycling is preferred to disposal or incineration. Dispose of in accordance with local regulations.

Contaminated Packaging: Empty containers should be transported/delivered using a registered waste carrier for local recycling or waste disposal.

EWC waste disposal no: 702 - waste from the manufacture, formulation, supply and use of plastics, synthetic rubber and man-made fibres.

14. TRANSPORT INFORMATION

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

DOT

ADR/RID/ADN

IMDG

ICAO

IATA-DGR

15. REGULATORY INFORMATION

This substance is classified and labelled according to Annex I of Directive 67/548/EEC, as amended.

International Inventories:

TSCA (USA):	Listed
DSL (Canada):	Listed
EINECS/ELINCS (Europe):	Listed
ENCS (Japan):	Listed
IECSC (China):	Listed
KECL (Korea):	Listed
PICCS (Philippines):	Listed
AICS (Australia):	Listed
NZIoC (New Zealand):	Listed
REACH Information:	For this product's REACH related information, please contact webinquiries@sabic-ip.com

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. Articles are exempt from registration and are therefore not listed on the national chemical inventories.

SVHC (REACH Regulation (EC) No 1907/2006 and 453/2010, as amended):
This product does not intentionally contain SVHC chemicals except as noted below. Incidental amounts of impurities, if present, would be below the threshold limit of 0.1% by weight.

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:
Carbon black 1333-86-4	0.3-1.0	Listed: February 21, 2003 Carcinogenic. (airborne, unbound particles of respirable size)
4-Vinylcyclohexene 100-40-3	<100 ppm	Listed: May 1, 1996 Carcinogenic.
Butadiene 106-99-0	<100 ppm	Type of Toxicity: cancer ; Type of Reproductive Toxicity: developmental, female, male

RoHS EU Directive 2011/65/EU:
The subject product is in compliance with EU RoHS Directive 2011/65/EU. All below chemicals are not employed in the manufacture of the product: a.Cadmium and its compounds, b.Lead and its compounds, c.Mercury and its compounds, d.Hexavalent chromium compounds, e.Polybrominated biphenyls (PBBs), f.Polybrominated diphenyl ethers (PBDEs including Deca-BDE). The trace levels of heavy metals may be present as impurities within threshold limits (<0.1% for Pb, Hg, Cr VI, and <0.01% for Cd). We are disclosing this information, to the best of our knowledge, based upon data from our raw material manufacturers.

16. OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3
H225 - Highly flammable liquid and vapor
H319 - Causes serious eye irritation
H335 - May cause respiratory irritation
H351 - Suspected of causing cancer in contact with skin

Visit our public website to search, view and print Safety Data Sheets for commercial products:
http://eur.sabic-ip.com/ordeur/pages/msds/MSDSSearch.jsp?app=sabic-ip

SDS Scope:
Europe: Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 453/2010. This document is also applicable in other countries and regions.

Prepared by: Product Stewardship & Toxicology

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End of Safety Data Sheet