



## Material Safety Data Sheet

### 1. PRODUCT AND COMPANY IDENTIFICATION

#### TRANSPARENT PROTECTION SYSTEMS, INC.

6643 42<sup>nd</sup> Terrace, North  
West Palm Beach, FL 33407

#### PHONE NUMBERS:

PRODUCT INFORMATION: Tel: 561-840-9499 Fax: 561-840-9312

TRANSPORT EMERGENCY: 800-424-9300 (CHEMTREC) 24 HOUR

PRODUCT NAME: POLYTUFF GP Polycarbonate Sheet  
PRODUCT CODE: NON-CODED  
CHEMICAL FAMILY: SYNTHETIC THERMOPLASTIC POLYMER  
CHEMICAL NAME: POLYCARBONATE  
PRODUCT USE: May be used to produce fabricated or molded products or as component parts used in architectural or industrial products.

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT NAME	CAS Number	Concentration (%)	Exposure Limits
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This product does not contain any reportable hazardous materials as defined using the criteria of the Federal OSHA Hazard Communications Standard 29 CFR 1910.1200.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

POTENTIAL HEALTH EFFECTS:

ROUTE(S) OF ENTRY: Inhalation; Skin Contact; Eye Contact

HUMAN EFFECTS AND SYMPTOMS OF OVEREXPOSURE:

ACUTE EFFECTS OF EXPOSURE: Material is a non-reactive solid. Mechanical irritation (i.e. abrasion) to the eyes may occur due to exposure to dust; eyes may become red and scratchy and may tear.

NOTE: Fumes generated during the processing or decomposition of this material may irritate the eyes, skin or respiratory tract. At recommended processing conditions, the primary fumes generated are water, carbon dioxide (CO<sub>2</sub>), diphenyl carbonate, and monochlorobenzene.

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Approval date: 11/09/2008

### 3. COMPOSITION/INFORMATION ON INGREDIENTS (CONTINUED)

CHRONIC EFFECTS OF EXPOSURE: None known

#### CARCINOGENICITY

NTP: Not listed as a carcinogen

IARC: Not listed as a carcinogen

OSHA: Not listed as a carcinogen

#### MEDICAL CONDITIONS

AGGRAVATED BY EXPOSURE : None known

EXPOSURE LIMITS : For product dust, the OSHA-PEL for nuisance dust of 15 mg/m<sup>3</sup> total dust, 5 mg/m<sup>3</sup> respirable dust is recommended. In addition, the ACGIH-TLV for Particulates Not Otherwise Classified (PNOC) of 10 mg/m<sup>3</sup> is recommended. Observe a more stringent limit for product fines if applicable. Refer to section 2 for any other applicable exposure limits.

At temperatures above decomposition (716 F (380 C)), phenol and other chemicals listed in the hazardous decomposition products can be generated. (See section 10) Care should be taken to observe the exposure limits and minimize exposure to these components if the product is heated to the decomposition temperature. The ACGIH-TLV and OSHA-PEL for phenol is 5 ppm-TWA

### 4. FIRST AID MEASURES

INGESTION: If material is ingested, do not induce vomiting. Seek medical attention if symptoms develop.

EYES: Contact with powder or dust may cause mechanical irritation. Immediately flush eyes with water, seek medical attention if irritation persists.

SKIN: Wash with soap and water.

INHALATION: Sheet material is not considered a hazard.

### 5. FIRE FIGHTING MEASURES

FIRE FIGHTING PROCEDURES: Full emergency equipment with self-contained breathing apparatus must be worn by firefighters.

AUTO-IGNITION TEMPERATURE: Above 842 F (450 C) ASTM D-1929B

EXTINGUISHING MEDIA : Water; Carbon Dioxide; Dry Chemical; Foam

EXPLOSION HAZARDS: Fines/dust from secondary operations (sawing, routing, grinding, etc.) may form an explosive mixture in air.

### 6. ACCIDENTAL RELEASE MEASURES

SPILL OR LEAK PROCEDURES: Sheet goods are not considered to be prone to spills or leaks. Clean up dust or fines generated by secondary operations (sawing, routing, grinding, etc.) by vacuuming or sweeping to prevent falls.

## 7. HANDLING AND STORAGE

STORAGE: Store in a cool, dry place. Avoid excessive heat and humidity.  
SHELF LIFE: Not established  
SPECIAL SENSITIVITY: Moisture

## 8. PERSONAL PROTECTION

EYE PROTECTION REQUIREMENTS: Safety glasses are recommended as a good industrial hygiene and safety practice.

SKIN PROTECTION REQUIREMENTS: None required.

RESPIRATOR REQUIREMENTS: NIOSH/MSHA-approved dust respirator recommended if the airborne dust concentration is near or exceeds the nuisance dust exposure limits (15 mg/m<sup>3</sup>).

## 9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Solid  
COLOR: Tint  
ODOR: Slight  
pH: Not applicable  
BOILING POINT: Not applicable  
MELTING/FREEZING POINT: 428-446 F (220-230 C)  
SOFTENING POINT: 302-320 F (150-160 C)  
SOLUBILITY IN WATER: Insoluble  
SPECIFIC GRAVITY: Approx. 1.2  
% VOLATILE BY VOLUME: Negligible  
EVAPORATION RATE: Not applicable  
VAPOR PRESSURE: Not applicable  
VAPOR DENSITY: Not applicable

## 10. STABILITY AND REACTIVITY

STABILITY: Stable  
HAZARDOUS POLYMERIZATION: Will not occur.  
INCOMPATIBILITIES: None known  
INSTABILITY CONDITIONS: None known  
DECOMPOSITION TEMPERATURE: Begins at 716 F (380 C)  
DECOMPOSITION PRODUCTS: By fire or thermal decomposition: Carbon monoxide (CO), carbon dioxide (CO<sub>2</sub>), Bisphenol A, diphenyl carbonate, phenol and phenol derivatives. Traces of aliphatic and aromatic hydrocarbons, aldehydes and acids may also be formed.

## 11. TOXICOLOGICAL INFORMATION

TOXICITY DATA FOR: Polycarbonate

ACUTE TOXICITY

OTHER ACUTE EFFECTS: Gases and fumes evolved during thermal decomposition of similar products have caused respiratory irritation in mice.\*

\* Toxicologic evaluation of thermoplastic resins at and above processing temperature, G.K. Sangha, M. Matijak and Y. Alarie, Department of Industrial Environmental Health Sciences, Graduate School of Public Health, University of Pittsburgh, Pittsburgh, PA, 15216, AIHA Journal (42), July 1981.

## 12. ECOLOGICAL INFORMATION

NO ECOLOGICAL INFORMATION AVAILABLE

## 13. DISPOSAL INFORMATION

WASTE DISPOSAL METHOD: Material may be incinerated or landfilled in compliance with federal, state and local environmental control regulations. Recycling of off-cuts, scrap and waste is encouraged.

## 14. TRANSPORTATION INFORMATION

TECHNICAL SHIPPING NAME: Polycarbonate Sheet

FREIGHT CLASS BULK: Plastic Sheets

REGULATORY STATUS: Not Regulated

## 15. REGULATORY INFORMATION

**TOXIC SUBSTANCES CONTROL ACT (TSCA):** This product is in compliance with TSCA inventory requirements for commercial purposes.

### **SECTION 313 SUPPLIER NOTIFICATION (SARA TITLE III-TOXIC CHEMICALS LIST):**

This product contains no known toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Right-To-Know Act of 1986 and 40 CFR372.

## 16. OTHER INFORMATION

PREPARED BY: J. GUITERREZ

APPROVED BY: C. M. HAMPTON

APPROVAL DATE: 11/09/08

SUPERCEDES: None

MSDS NUMBER: 011908

Product: PolyTuff GP  
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**16. OTHER INFORMATION (CONTINUED)**

The information set forth herein has been gathered from standard reference materials and/or plastic resin supplier published data and is to the best knowledge and belief of TRANSPARENT PROTECTION SYSTEMS, INC. accurate and reliable. Such information is offered solely for your consideration, investigation and verification, and it is not suggested or guaranteed that the hazard precautions or procedures mentioned herein are the only such that exist. TRANSPARENT PROTECTION SYSTEMS, INC. makes no warranties express or implied with respect to the use of such information or the use of the specific material identified herein in combination with any other material or process and assumes no responsibility therefore.