# MATERIAL SAFETY DATA SHEET

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## 1. IDENTIFICATION OF THE SUBSTANCE AND COMPANY

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| **Trademark:** | LEXAN* |
| **Product Name:** | HP1 -111 |
| **Product Description:** | Poly (bisphenol-A-carbonate) [CASRN 111211-39-3] |
| **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<br>One Plastics Avenue<br>Pittsfield, MA 01201 USA<br>(413) 448-5800<br>www.sabic-ip.com |
| **Manufacturer:** | SABIC Innovative Plastics<br>1 Noryl Avenue<br>Selkirk, New York 12158<br>United States |
| **Emergency Telephone Number:** | 800/447-4545 |
| **Emergency Transportation/CHEMTREC (24 HOUR):** | 800/424-9300 |
| **E-mail:** | productinquiries@sabic-ip.com |

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

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.

## 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. See below for additional effects.
- 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

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| **Skin Contact:** | Not a hazard with pellets during normal industrial use. |
| **Eye Contact:** | Resin particles, like other inert materials, are mechanically irritating to eyes. |
| **Inhalation:** | Pellet inhalation unlikely due to physical form. |
| **Ingestion:** | Pellet ingestion unlikely due to physical form. |
| **Sensitization:** | No information available on this product |
| **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 2/3. These materials are essentially bound to the plastic matrix and are unlikely to contribute to workplace exposure under recommended processing conditions |

**Chronic/Carcinogenic Information**

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| **Chronic Toxicity:** | No information available |
| **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. |

## 4. FIRST AID MEASURES

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| **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:** | Processing vapors 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

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| **Autoignition Temperature:** | 630°C (1166°F), estimated |
| **Explosive Limits** | |
| **upper:** | Not determined |
| **lower:** | Not determined |
| **Suitable Extinguishing Media:** | 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/pigs etc.). |
| **Unsuitable Extinguishing Media for Safety Reasons:** | Do not use a solid water stream as it may scatter and spread fire. |
| **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

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| **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

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| **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

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| **Exposure limits:** | No components with information, unless noted below |
| **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. |
| **Hand Protection:** | Protective gloves should be worn |
| **Eye Protection:** | Safety glasses with side-shields or chemical goggles. In addition, use full-face shield when cleaning processing vapor 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 vapors are not adequately controlled or operators experience symptoms of overexposure. If dust or powder are produced from secondary operations such as sawing or grinding, use a respirator approved for protection from dust. |
| **Body Protection:** | Long sleeved clothing |
| **Hygiene Measures:** | When using, do not eat, drink or smoke. |

## 9. PHYSICAL AND CHEMICAL PROPERTIES

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| **Physical State:** | Solid |
| **Appearance:** | Pellets |
| **Color:** | Varies |
| **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:** | 630°C (1166°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

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| **Stability:** | Stable under ambient conditions. Hazardous polymerization does not occur. |
| **Conditions to Avoid:** | Avoid temperatures above 320°C. To avoid thermal decomposition, avoid elevated temperatures. Heating can result in the formation of gaseous decomposition products, some of which may be hazardous. Do not exceed melt temperature recommendations in product literature. Purgings of hot material should be collected in small, flat, thin shapes and quenched with water to allow for rapid cooling. Do not allow product to remain in barrel at elevated temperatures for extended periods of time. |
| **Hazardous Decomposition Products:** | Process vapors under recommended processing conditions may include trace levels of hydrocarbons, phenols, alkylphenols, diarylcarbonates. |

## 11. TOXICOLOGICAL INFORMATION

**Acute Toxicity**

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| **LD50/oral/rat:** | >5000 mg/kg |
| **LD50/dermal/rabbit:** | >2000 mg/kg |
| **Inhalation:** | Pellet inhalation unlikely due to physical form. |
| **Eye Contact:** | Resin particles, like other inert materials, are mechanically irritating to eyes. |
| **Skin Contact:** | Not a hazard with pellets during normal industrial use. |
| **Ingestion:** | Pellet ingestion unlikely due to physical form. |
| **Chronic Toxicity:** | No information available |
| **Subchronic Toxicity:** | No information available |
| **Primary Irritation:** | Substance does not generally irritate and is only mildly irritating to the skin. |
| **IARC:**<br>**OSHA:**<br>**NTP:** | Not listed<br>Not regulated<br>Not tested |
| **Remarks:** | The toxicological data has been taken from products of similar composition. |
| **Special Studies:** | No Information |

## 12. ECOLOGICAL INFORMATION

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| **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

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| **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. |

## 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**

**MEXICO**

## 15. REGULATORY INFORMATION

**International Inventories:**

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| **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 |

**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.

**SARA (313) Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA)**
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:**

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| **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:**
This product does not contain components known to the State of California to cause cancer and/or reproductive effects.

**RoHS EU Directive 2002/95/EC:**
The subjected product is in compliance with EU RoHS Directive 2002/95/EC. 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

LEXAN* is a trademark of SABIC Innovative Plastics IP BV

**Prepared by:** Product Stewardship & Toxicology.

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**End of Material Safety Data Sheet**