

SAFETY DATA SHEET Asia Pacific GHS Format

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Trademark: Product Code:	LEXAN™ 945 - NC
Product Description: Product Type: Recommended use:	Poly (bisphenol-A-carbonate) [CASRN 111211-39-3] Commercial Product May be used to produce molded or extruded articles or as a component of other industrial products.
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2. HAZARDS IDENTIFICATION

The additives in this product (if any) 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.

Globally Harmonized System, UN(GHS) - Classification

GHS Category

Not hazardous Not classified

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:	Resin particles, like other inert materials, are mechanically irritating to eyes. 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

For the full text of the H-statements, 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.
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.
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: 630°C (1166°F) estimated **Explosive Limits** upper: Not determined lower: Not determined Use dry chemical, CO2, water spray or "alcohol" foam. Water is the best extinguishing Suitable Extinguishing Media: 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.). Water spray mist or foam. Unsuitable Extinguishing Media Do not use a solid water stream as it may scatter and spread fire, dry chemical, high for Safety Reasons: volume water jet, Carbon dioxide (CO2). Hazards from Combustion Fire will produce dense black smoke containing hazardous combustion products, carbon **Products:** oxides, hydrocarbon fragments. 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. Do not enter fire area without proper protection including self-contained breathing **Special Protective Equipment** for Firefighters: 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. Do not release chemically contaminated water into drains, soil or surface water. Sufficient **Exposure hazards:** measures must be taken to retain the water used for extinguishing. Dispose of contaminated water and soil according to local regulations.

6. ACCIDENTAL RELEASE MEASURES	
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.
Clean up:	Sweep up and shovel into suitable containers for disposal. Do not create a powder cloud by using a brush or compressed air.

7 HANDLING AND STORAGE

7. HANDEING 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 Handle in accordance with good industrial hygiene and safety practice for diagnostics	
Storage:	Store in closed container in a dry and cool area. Keep away from heat sources and sources of ignition. Keep away from food, drink and animal feeding stuffs. Keep container tightly closed in a dry and well-ventilated place. Keep in a dry place. Keep containers dry and tightly closed to avoid moisture absorption and contamination. Keep away from food and drink.	
Incompatible Products:	Strong acids, strong oxidizing agents.	



8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limits: No components with information, unless noted below

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

Engineering Measures to Reduce Exposure:	Handle in accordance with good industrial hygiene and safety practices. 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. Provide for appropriate exhaust ventilation at machinery. In the case of hazardous fumes, wear self-contained breathing apparatus. Wear face-shield and protective suit for abnormal processing problems. Wash thoroughly with soap and water after handling condensate or wipes and after cleaning the exhaust ventilation system. Handle in accordance with good industrial hygiene and safety practice for diagnostics.
Hand Protection:	Protective gloves should be worn, Use gloves in accordance with EN 374 so that they protect against dust. Use for instance gloves from PVC , PVA or an other plastic. The breakthrough time for those materials for this product is not applicable, Wear suitable gloves and eye/face protection
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. Safety glasses with side-shields. (EU: NEN-EN 165-166).
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. 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) (not required under normal use)
Hygiene Measures:	When using, do not eat, drink or smoke.



9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Appearance: Color: Odor:	Solid Pellets Granular Same as color code Varies None or slight None		
Melting point/range: Autoignition Temperature: Vapor Pressure: Water Solubility: Evaporation Rate:	This product does not exhibit a sharp melting point but softens gradually over a wide range of temperatures. Various 630°C (1166°F) estimated Negligible Insoluble Negligible		
Explosive Limits upper: lower:	Not determined Not determined		
Specific gravity: VOC content (%):	>1; (water = 1) 1.047 at 4°C Negligible		
Remarks:	Melting point/range		
	10. STABILITY AND REACTIVITY		
Reactivity:	Not reactive under recommended conditions of handling, storage, processing and use. No information available.		
Stability:	Stable under ambient conditions. Hazardous polymerization does not occur. Stable under recommended storage conditions.		
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. 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.		
Materials to Avoid:	May react with strong oxidizing agents, strong acids or other highly reactive chemicals		
Hazardous Decomposition Products:	Process vapors under recommended processing conditions may include trace levels of hydrocarbons, phenols, alkylphenols, diarylcarbonates, Traces of, carbon oxides, Heat, hydrocarbons, .?.		



11. TOXICOLOGICAL INFORMATION

<u>Acute Toxicity</u> Product Information: LD50/oral/rat: LD50/dermal/rabbit:	>5000 mg/kg (estimated >2000 mg/kg)
Component Information: Component Information Text:	No data available	
Other information on acute toxi	city:	Information given is based on data on the components and the toxicology of similar products
<u>Sensitization</u> Respiratory Sensitization:	Not classified	
<u>Irritation:</u> Eye Irritation: Primary Irritation:	no data available Substance does not ger	erally irritate and is only mildly irritating to the skin
<u>Subchronic Toxicity (28 days)</u> Repeated Oral Toxicity(28d): Repeated Dermal Toxicity(28d): Subchronic Toxicity:	No information available No Information available No information available	
<u>Chronic Toxicity</u> Carcinogenicity:	There are no known car levels, except as specifi	cinogenic chemicals in this product above de minimus reporting cally mentioned below.
Mutagenic Effects: Reproductive Toxicity: Developmental Toxicity:	No data is available on t No information available No information available	
Neurological effects:	No information available	
<u>Specific Target Organ</u> <u>Toxicity(STOT)</u> Target Organ Effects:	Not established.	
Aspiration Hazard Aspiration Hazard Statement:	No data available	
Other relevant toxicity information IARC: OSHA: NTP:	Not listed Not regulated Not tested	
Remarks:	The toxicological data ha	as been taken from products of similar composition.
Special Studies:	No Information	

12. ECOLOGICAL INFORMATION

Ecotoxicity

Component Information:

Product Information: Other information:

Ecological damages are not known or expected under normal use.



Persistence and Degradability Biodegradation: Partition coefficient (n-octanol/water)	Not inherently biodegradable Not established.	
Bioaccumulative Potential: Bioaccumulation:	Not established.	
<u>Mobility</u> Mobility:	May be separated mechanically in waste water plants.	
Other Adverse Effects Ecotoxicity Effects:	Do not flush into surface water or sanitary sewer system.	
13. DISPOSAL CONSIDERATIONS		

Waste from residues / unused products:	Where possible recycling is preferred to disposal or incineration. Descartar em conformidade con as legislação locals.
Contaminated Packaging:	Empty containers should be transported/delivered using a registered waste carrier for local recycling or waste disposal.
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.	
IMO / IMDG	Not regulated	
ICAO	Not regulated	
IATA-DGR	Not regulated	
DOT	Not regulated	
ADR/RID	Not regulated	
	·	
<u>ADR</u>	Not regulated	
<u>ADN</u>	Not regulated	

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15. REGULATORY INFORMATION

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

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.

SARA (313) 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 Title 40 of the Code of Federal Regulations, Part 372.

SARA (311, 312) hazard class:

Acute Health Hazard	Ν
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 SDS contains all the information required by the CPR. Unless noted below, this product is non-controlled. Some classifications may not apply to the entire product.

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 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.

Remarks:

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.

HMIS Rating Health: 0 Flammability: 1 Reactivity: 1



16. OTHER INFORMATION

SABIC and brands marked with [™] are trademarks of SABIC or its subsidiaries or affiliates.

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SDS Scope:

Singapore: Conforms to Singapore workplace Safety and Health (WSH) Act, WSH Regulations, and GHS Standard 586 China: Conforms to Chinese Regulation on the Control over Safety of Hazardous Chemicals (Decree No 591) and GHS standards GB15258,GB13698,GB/T16483 etc.

Japan: Conforms to Industrial Safety and Health Law (2006) and GHS related Standards JIS Z7253:2012

Korea: Conforms to Industrial Safety & Health Act, Ministry of Labor, Korea

Taiwan: Conforms to Taiwan Rules on Hazard Communication and Labeling of Hazardous Substances, (Council of Labor Affairs, Taiwan) and GHS standards Z1051

Thailand: Conforms to Notification of the Ministry of Industry on the System of Classification and Hazard Communication of Hazardous Substances B.E. 2555 (2012)

Australia: National Code of Practice for the Preparation of Material Safety Data Sheets 2nd Edition [NOHSC:2011 (2003)] This document is also applicable in other countries and regions.

Prepared by: Product Stewardship & Toxicology

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End of Safety Data Sheet