

I – Identification of the Substance and of the Company

SUPPLIER: RMO, Inc. 650 W. Colfax Ave. Denver, CO 80204 303-592-8200	Trade Name and Synonyms – Miura Description: Brackets; Hooks; Buttons; Tubes
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Emergency Information Chemtrec: 800-424-9300

Chemtrec International: 202-483-7616

Product Grade / Name:**LEXAN 144-111****II – Composition / Information on Ingredients**

<u>MATERIAL</u>	<u>CASRN Number</u>
Poly (bisphenol-A-carbonate)	111211-39-3
Product Description: Synthetic Thermoplastic Polymer.	

III – Hazards Identification

This product does not contain any reportable hazardous materials.

EMERGENCY OVERVIEW:

- 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 irritations. 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.

Chronic / Carcinogenicity

NTP: Not tested

OSHA: Not regulated

ARC: Not listed

Potential Health Effects

Ingestion: No hazard in normal use.

Skin Absorption: No absorption hazard in normal use.

Eye contact: Can cause mechanical irritation if dusts are generated.

Skin Contact: Unlikely to cause irritation even on repeated contact.

Note: OSHA, IARC and / or NTP have listed carbon black and heavy metals, present in some colorants, as carcinogens. If these colorants are present in this product, they are shown in section II. These colorants 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.

IV – First Aid Measures

ROUTES OF ENTRY

FIRST AID MEASURES:

Eyes	Can cause mechanical irritation if dusts are generated. Immediately flush eyes with plenty of water. Get medical attention if irritation develops or persists. After initial flushing, remove any contact lenses.
Skin	No absorption hazard in normal industrial use. Unlikely to cause irritation even on repeated contact. Wash with soap and water. Get medical attention if irritation develops or persists. For hot product, immediately immerse in or flush 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 Fumes	Processing fumes 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.

V – Fire Fighting Measures

Autoignition Temperature:	630°C (1166°F) estimated.
Explosion Data:	Material not sensitive to mechanical impact but is sensitive to static discharge under dust cloud conditions.
Hazardous Combustion Products:	Intense heat, smoke, carbon dioxide, carbon monoxide, hydrocarbon fragments.
Conditions of Flammability:	Requires a continuous flame source to ignite.
Extinguishing Media:	Water spray and foam. Carbon dioxide and dry chemical are not recommended because their lack of cooling capacity may permit re-ignition.
Fire Fighting:	Do not enter fire area without proper protections 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.

VI – Accidental Release Measures

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

VII – Handling and Storage

Prevent contact 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. Store in a cool dry place. Avoid excessive heat and ignition sources.

VIII – Exposure Controls / Personal Protection

Ventilation Requirements:

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 Protective Equipment:

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 fumes are not adequately controlled or operators experience symptoms of overexposure. If dust or powders are produced from secondary operations such as sawing or grinding, use a respirator approved for protection from dust.

Eye / Face Protection:

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 Protection:

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.

IX – Physical and Chemical Properties

Physical State: Solid

Color: Clear Plastic

Odor: Slight Odor

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

X – Stability and Reactivity

Stability:

Unstable () Stable (X)

Conditions to Avoid: Do not exceed melt temperature recommendations. 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 VIII for respiratory protection advice).

Incompatibility:

Not reactive under recommended conditions of handling, storage, processing and use.

Hazardous Decomposition Products:

Processing fumes evolved at recommended processing conditions may include trace levels of the following materials: phenols, alkylphenols, diarylcarbonate.

HMIS Ratings: Health: 0 / Flammability: 1 / Reactivity: 0 / PPE: B

XI – Toxicological Information

This product is in compliance with all rules and orders of TSCA. There are no SARA 313-listed chemicals in this product. There are no components in this product known to cause cancer and / or reproductive hazards.

ACUTE HEALTH HAZARDS

- Acute Oral: Oral LD50 Rat > = 500 mg/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.

SUBCHRONIC HEALTH HAZARDS

Sub-chronic Toxicity: No data available.

CHRONIC HEALTH HAZARDS / CARCINOGENIC PROPERTIES

- NTP: Not tested
- OSHA: Not regulated
- IARC: Not listed

XII – Ecological Information

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

XIII – Disposal Considerations

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.

XIV – Transportation Information

Technical Shipping Name: Not regulated
Freight Class Bulk: N/A
Freight Class Package: N/A
Product Label: N/A
Hazard Class or Division: Non-Hazardous
Hazard Class Division Number: Not Hazardous by D.O.T. Regulations

XV – Regulatory Information

Toxic Substance Control Act (TSCA): this product is in compliance with all rules and orders of the TSCA.
WHMIS Product Classification: Not a controlled product.
There are no SARA 313 listed chemicals in this product.
There are no components in this product known to the state of California to cause cancer and or reproductive hazards.
These products are manufactured using Good Manufacturing Practices and are regulated as Class I Medical Devices by the U.S. Food and Drug Administration, Class II by the Canada CMDR, and Class IIa by the Medical Device Directive 93/42 EEC for the European Community.

XVI – Other Information

Note: While the information and recommendations set forth on this data sheet are believed to be accurate as received from our suppliers, RMO, Inc. makes no warranty with respect thereto and disclaims all liability from reliance thereon.