

COMPANY INFORMATION

COMPANY NAME: ORTHO SPECIALTIES
COMPANY ADDRESS: 3820 OHIO AVE - SUITE 15
 ST. CHARLES, IL 60174
COMPANY PHONE: 630-443-0225
COMPANY FAX: 630-443-0224
COMPANY WEB ADDRESS: www.orthospecialties.com

1 – PRODUCT IDENTIFICATION

Product Name: K-Modules
Chemical Family: Elastomer
Chemical Name: Polyurethane Elastomer
Synonyms: Cast Elastomer
CAS Number: Not available
TSCA Status: Not applicable
Chemical Formula: Not applicable
Structure: This product is not hazardous under the criteria of 29 CFR 1910.1200.

2–HAZARDOUS INGREDIENTS

Not applicable — Polyurethane elastomers are fully reacted polymers forming articles which are not considered hazardous under OSHA's criteria in 29 CFR 1910.1200.

3–PHYSICAL DATA

Appearance: Solid
Color: Varies with pigment
Odor: None
Odor Threshold: None
Molecular Weight: Not available
Melt Point: Will not melt; will degrade at temperature above 250°C (480°F)
Boiling Point: Not applicable
Vapor Pressure: Not applicable
Vapor Density (AIR = 1): Not applicable
pH: Not applicable
Specific Gravity: Not applicable
Bulk Density (lb/ft3): Varies with formulation
Solubility in Water: Insoluble
% Volatile by Volume: None

4–FIRE AND EXPLOSION DATA

Flash Point °F (°C): Not applicable

Flammable Limits:

LEL Not applicable
 UEL Not applicable

Extinguishing Media: Water, Foam, Dry Chemical

Special Fire Fighting Procedures/

Unusual Fire or Explosion Hazards:

Evacuate non-emergency personnel to a safe area. Firefighters should use self-contained breathing apparatus. Avoid breathing smoke, fumes, and decomposition products. Use water spray to drench smoldering elastomer. Product may melt, after ignition, to form flammable liquids. Burning produces intense heat, dense smoke, and toxic gases, such as carbon monoxide, oxides of nitrogen and traces of hydrogen cyanide.

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5–HEALTH EFFECTS DATA

Primary Route of Exposure:
 Inhalation of dust during machining and inhalation of vapors during hot wire cutting.

Human Effects of Overexposure:
Acute Effects: None known from solid articles. Fumes from hot-wire cutting can be irritating and lead to coughing. These fumes could contain traces of isocyanates (MDI or TDI) depending upon which isocyanate is used in the elastomer formulation.

Chronic Effects:
 Animal studies indicate that chronic inhalation of overexposure of dusts may cause inflammation of the lungs, fibrosis, and airway obstruction.

Medical Conditions Aggravated by Exposure: None known

Exposure Limits:
 OSHA PEL Not available for elastomer
 ACGIH TLV Not available for elastomer

6–EMERGENCY & FIRST AID PROCEDURES

Eye Contact: During machining, dust in your eyes should be removed by flushing with water.
Skin Contact: None
Inhalation: Contact a physician if coughing, discomfort, or air passage obstruction occurs due to inhalation of dust. Additionally, remove to fresh air if fumes from hot-wire cutting are inhaled. Call a physician.
Ingestion: None

7–EMPLOYEE PROTECTION RECOMMENDATIONS

Eye Protection: None required during handling. During machining, wear safety glasses.
Skin Protection: None required.
Respiratory Protection: None required during handling. During hot-wire cutting, wear air-purifying respirator equipped with organic cartridge if ventilation is inadequate.
Ventilation: None required during handling. However, cutting elastomer by hot wire can form decomposition products. Local exhaust ventilation should be used to remove any fumes. If isocyanates are emitted, ventilation should be sufficient to insure levels below the TLV or TDI (0.005 ppm TWA/0.02 ppm STEL) or MDI (0.02 ppm Ceiling).

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8-REACTIVITY DATA

Stability Stable
 Polymerization Will not occur
 Incompatibility (Materials to Avoid) Strong acids or bases

Hazardous Decomposition Products

Decomposition through burning produces fumes consisting of organic particulates, gaseous hydrocarbons, carbon dioxide (TLV = 500 ppm), carbon monoxide (TLV = 50 ppm), and may contain traces of toluene diisocyanate (TLV = 0.005 ppm), (or Diphenylmethane Diisocyanate (TLV = 0.02 ppm), depending upon formulation). Nitrogen dioxide (TLV = 3 ppm), hydrogen cyanide (TLV = 10 ppm), and acrolein (TLV = 0.1 ppm).

9-SPILL OR LEAK PROCEDURES

Steps to be Taken in Case Material is Released or Spilled

Pick up and handle as any other inert solid material.

Waste Disposal Method

All material should be packaged, labeled, transported, and disposed or reclaimed in conformance with all applicable local, state, and federal regulations.

10-SPECIAL PRECAUTIONS & STORAGE DATA

Storage Temperature (Min./Max.)

No special temperatures

Average Shelf Life

Indefinite

Special Sensitivity

(Heat, Light, Moisture) Store away from sparks, flames or other ignition sources.

11-SHIPPING DATA

Technical Shipping Name	Polyurethane Elastomers
DOT Hazard Classification	Non-regulated
UN/NA No	None
Reportable Quantity	None
DOT Labels Required	None
DOT Placards	None
Frt. Class Pkg	Plastic or rubber articles, expanded, density_____lbs/ft3
Product Label	None

12-OTHER INFORMATION

This MSDS was prepared to provide data and guidance on the potential hazards associated with polyurethane elastomers. MSDSs for specific formulation should be supplemented by additional information, if available.

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