

SAFETY DATA SHEET

TSCA Exempt - Polymer Exemption



Date Prepared : 08/31/2015

MSDS No : ESPRIX POLYKETONE-KETOPRIX™ EKT33G3C3L

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1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: ESPRIX POLYKETONE-KETOPRIX™ EKT33G3C3L**GENERIC NAME:** ALIPHATIC POLYKETONE**MANUFACTURER**

Esprix Technologies

Regulatory Affairs

7680 Matoaka Road

Sarasota, FL 34243

Phone: (941) 355-5100**Customer Care:** (941) 315-6317**E-Mail:** MSDS@esprixtech.com**24 HR. EMERGENCY TELEPHONE NUMBERS****CANUTEC (Canadian Transportation) :** (613) 996 - 6666**CHEMTREC (US Transportation) :** (800) 424 - 9300**Emergency Phone :** (843) 554 - 1229

2. HAZARDS IDENTIFICATION

GHS LABEL

The substance is not classified according to the Globally Harmonized System (GHS).

EMERGENCY OVERVIEW**IMMEDIATE CONCERNS:** Molten product adheres to the skin and causes burns.**POTENTIAL HEALTH EFFECTS****EYES:** The polymer (CAS#: 88995-51-1) is of low acute oral toxicity (LD50>1000mg/kg) in rats and is a slight eye irritant in rabbits.**SKIN:** The polymer (CAS#: 88995-51-1) is of low acute dermal toxicity (LD50>2000 mg/kg) in rats. It is not a skin sensitizer in guinea pigs.**INHALATION:** No studies available. The polymer (CAS#: 88995-51-1) is a solid so fumes during processing would be the only area of concern. No issues have been reported to date.

3. COMPOSITION / INFORMATION ON INGREDIENTS

| CHEMICAL NAME | Wt. % | CAS |
|---|-------|------------|
| CARBON MONOXIDE-ETHYLENE-PROPYLENE TERPOLYMER | > 50 | 88995-51-1 |
| CHOPPED GLASS REINFORCEMENT | < 35 | CBI |
| THERMAL CONDUCTIVE ADDITIVES | CBI | CBI |
| 2-[4,6-BIS(2,4-DIMETHYLPHENYL)-1,3,5-TRIAZIN-2-YL]-5-(OCTYLOXY)PHENOL | CBI | 2725-22-6 |
| CALCIUM HYDROXIDE PHOSPHATE | CBI | 12167-74-7 |
| LUBRICANT | CBI | CBI |
| HINDERED PHENOLIC THERMAL STABLIZER | CBI | CBI |

ESPRIX POLYKETONE-KETOPRIX™ EKT33G3C3L**4. FIRST AID MEASURES**

EYES: Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. **GET MEDICAL ATTENTION** if irritation develops or persists.

SKIN: Wash skin thoroughly with soap and water.

INGESTION: In the event of accidental ingestion of the polymer pellets, a mild laxative should be taken to encourage movement of the granule/pellet through the system. Vomiting should be avoided since the granule/pellet may cause internal abrasion.

INHALATION: If inhaled, move person into fresh air. If not breathing, give artificial respiration.

NOTES TO PHYSICIAN: Treat symptomatically, Polyketone is a benign polymer similar in structure to polyethylene or polypropylene which have been commercialized for over 30 years. Hazardous decomposition products may form above 300°C. Carbon monoxide, acrolein, various hydrocarbons, aldehydes, organic acids and esters may be formed. Strong oxidizing agents, strong acids and strong bases will degrade the polymer. It is a polymer with excellent chemical resistance and barrier properties and is therefore difficult to dissolve.

5. FIRE FIGHTING MEASURES

GENERAL HAZARD: Not classified as flammable but will burn.

EXTINGUISHING MEDIA: Water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

HAZARDOUS COMBUSTION PRODUCTS: Carbon monoxide and unidentified organic compounds.

FIRE FIGHTING EQUIPMENT: Wear self contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES**ENVIRONMENTAL PRECAUTIONS**

WATER SPILL: Do not let product enter drains.

GENERAL PROCEDURES: Eliminate all ignition sources. Collect waste and place in waste disposal container.

SPECIAL PROTECTIVE EQUIPMENT: Wear appropriate protective PPE for the situation. See Personal Protection information in Section 8.

COMMENTS: Avoid generation of dust.

7. HANDLING AND STORAGE

GENERAL PROCEDURES: Wear appropriate PPE when handling this material (see Section 8).

HANDLING: Remove all sources of ignition. Provide appropriate exhaust ventilation at places where dust is formed. Do not eat, drink or smoke when using this product.

STORAGE: Undercover storage is recommended as the polymer will pick up moisture. Keep the container (bag or box) tightly closed and dry. Product may require drying before use. Store at ambient temperature. Take precautionary measures against static discharge in pellet transfer lines. Earth all equipment. No special storage or transport requirements are necessary.

COMMENTS: Store away from incompatible substances. See Section 10.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: Use local exhaust ventilation.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Wear safety glasses with side shields or goggles when handling this material.

SKIN: Protective gloves

RESPIRATORY: Wear dust mask.

PROTECTIVE CLOTHING: Standard issue work clothes. Safety shoes or boots

WORK HYGIENIC PRACTICES: Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

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OTHER USE PRECAUTIONS: Showers and eye wash stations are good practice but not essential when processing polyketone.

COMMENTS: The following exposure limits may be applicable if the product is processed in a way which generates dust or airborne particulates:

Dust, respirable dust TLV (EH40/97)
 Total inhalable dust TWA (8h) 10mg/m³
 Respirable dust TWA (8h) =4mg/m³

9. PHYSICAL AND CHEMICAL PROPERTIES

ODOR: ODORLESS

APPEARANCE: Gray-black colored pellet

pH: 6.5 to 7.5

Notes: @ 20°C

FLASHPOINT AND METHOD: No flash occurred under 93°C (Rapid equilibrium method)

FLAMMABLE LIMITS: Burning rate: <0.7 mm/s

AUTOIGNITION TEMPERATURE: No spontaneous combustion under 250°C

MELTING POINT: ca 220°C

SOLUBILITY IN WATER: INSOLUBLE

DENSITY: ca 1.46 kg/m³ at 23 (ISO 1183)

COMMENTS: Softening Point: ca 205°C (ASTMD-1525)
 Flame resistance: HB(UL94)

10. STABILITY AND REACTIVITY

REACTIVITY: Stable under normal use conditions. May self-ignite under severe processing conditions.

CONDITIONS TO AVOID: Temperature above 300°C foaming of melt. Excessive machine residence times during processing. Strong sunlight for prolonged periods.

HAZARDOUS DECOMPOSITION PRODUCTS: Hazardous decomposition products may form above 300°C carbon monoxide acrolein, various hydrocarbons, Aldehydes, organic acids and esters may be formed.

INCOMPATIBLE MATERIALS: Strong oxidizing agents, strong acids, strong bases.

COMMENTS: Avoid dust formation.

11. TOXICOLOGICAL INFORMATION**ACUTE**

DERMAL LD₅₀: > 2000 mg/kg (rats)

ORAL LD₅₀: > 1000 mg/kg (rats)

INHALATION LC₅₀: No studies available. The polymer is a solid so fumes during processing would be the only area of concern. No issues have been reported to date.

EYE EFFECTS: slight eye irritant in rabbits

CHRONIC: There have been no reports of health effects in workers arising from long term exposure to this polymer and no comprehensive human studies have been conducted.

SENSITIZATION: Non-sensitizing (Guinea pig)

GENERAL COMMENTS: The Toxicological information above is based on CAS#: 88995-51-1

COMMENTS: To the best of our knowledge the chemical, physical, and toxicological properties of this product have not been fully tested. Good laboratory practice should be exercised when handling.

12. ECOLOGICAL INFORMATION

COMMENTS: This product has not been tested for ecological effects.

ESPRIX POLYKETONE-KETOPRIX™ EKT33G3C3L**13. DISPOSAL CONSIDERATIONS**

DISPOSAL METHOD: Comply with all Local, State, Regional, Federal, National, and International regulations for the disposal of this material.

PRODUCT DISPOSAL: Do not dump into any sewers, on the ground or into any body of water.

14. TRANSPORT INFORMATION**DOT (DEPARTMENT OF TRANSPORTATION)**

PROPER SHIPPING NAME: Non-regulated chemical, N.O.S.

AIR (ICAO/IATA)

SHIPPING NAME: Non-regulated chemical, N.O.S.

VESSEL (IMO/IMDG)

SHIPPING NAME: Non-regulated chemical, N.O.S.

15. REGULATORY INFORMATION**UNITED STATES****TSCA (TOXIC SUBSTANCE CONTROL ACT)**

TSCA REGULATORY: All component(s) comprising this product are either exempt or listed on the TSCA inventory.

16. OTHER INFORMATION

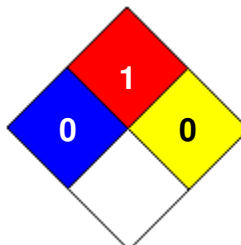
APPROVED BY: Judy Cummings **TITLE:** Product Stewardship Manager

Date Prepared: 08/31/2015

INFORMATION CONTACT: Product Stewardship Analyst

HMIS RATING

| | | |
|----------------------------|--------------------------|----------|
| HEALTH | <input type="checkbox"/> | 0 |
| FLAMMABILITY | <input type="checkbox"/> | 1 |
| PHYSICAL HAZARD | <input type="checkbox"/> | 0 |
| PERSONAL PROTECTION | <input type="checkbox"/> | E |

NFPA CODES

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