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| <i>Razin™</i> Engineering Plastics | | Quality Management System |  |
| Form Code:TE-F21.00 | No.:P111 | MSDS (Material Safety Data Sheet) | |

SECTION 1. PRODUCT IDENTIFICATION

- 1) Product name Razalen P111
- 2) Chemical family THERMOPLASTIC POLYMER
- 3) Shipping name Plastic material
- 4) Chemical name POLYPROPYLENE COPOLYMER

SECTION 2. COMPOSITION AND INGREDIENT INFORMARION

| | <u>CAS No.</u> | <u>Wt %</u> |
|----------------------------|----------------|-------------|
| 1) Polypropylene Copolymer | 9010-79-1 | 99±1 |
| 2) Others: | | 1 |

SECTION 3. PHYSICAL AND CHEMICAL PROPERTIES

- 1) Melting point: 160±5 °C
- 2) Specific gravity: 0.92(H₂O=1)
- 3) Color: Natural
- 4) Percent Volatile: < 0.5%
- 5) State and appearance: Solid and pellet
- 6) Solubility in water (% by): WT< 0.001
- 7) Odor: Odorless

SECTION 4. HAZARD IDENTIFICATION

- 1) EMERGENCY OVERVIEW
- 2) POTENTIAL HEALTH EFFECTS
 - 1. Primary routes of Entry: Inhalation, skin and eye contact
 - 2. Acute effects of exposure
 - a. Ingestion: No toxic symptoms reported.
 - b. Inhalation: No toxic symptoms reported. Pellets are not considered an inhalation hazard.
 - c. Skin (contact): No toxic symptoms reported. Molten material has the potential to cause thermal burns.
 - d. Eye (contact): No toxic symptoms reported. Polymer particle may act as foreign body

SECTION 5. FIRST AID MEASURES

- 1) Ingestion: If significant quantity has been swallowed, give glass of water and induce vomiting. Seek medical attention.
- 2) Inhalation: Remove to fresh air. Seek medical attention if symptoms persist.
- 3) Skin (contact): If molten polymer contacts skin. Cool rapidly with cold water. Seek medical attention.
- 4) Eye (contact): Flush with plenty of water. Seek medical attention if symptoms persist.

SECTION 6. FIRE FIGHTING MEASURES

- 1) Flash point (method used): No data available
- 2) Flammable limits in air % by volume: No data available
- 3) Extinguishing media: Dry chemical, CO₂, foam or water spray
- 4) Special fire-fighting procedures: Water and/ or dry chemical should not be used on Machinery. Self-contained breathing apparatus and personal protective equipment may be needed for large fires.
- 5) Unusual fire and explosion hazards: None known

SECTION 7. ACCIDENTAL RELEASE MEASURES

- 1) Land Spill: Pellets are slippery. Scoop up material and put into suitable container for disposal as a non hazardous waste.
- 2) Water Spill: This material will sink and is non-hazardous in water.
- 3) Accidental or Unplanned Releases: Clean area with vacuum or put into suitable container for disposal as a non hazardous waste.

SECTION 8. HANDLING AND STORAGE

- 1) Handling: Wear long sleeves and gloves. Keep bags always closed and avoid pellets/bags from getting wet.
- 2) Storage: Keep bags in a well-ventilated place. Keep bags always closed and avoid pellets/bags from getting wet.

SECTION 9. EXPOSURE CONTROLS AND PERSONAL PROTECTION

1) EXPOSURE CONTROLS

2) PERSONAL PROTECTION

- a. Ventilation Local exhaust mechanical: Recommended when appropriate to control employee exposure may not be adequate as the sole means to control employee exposure.
- b. Respiratory protection: Approved respirators recommended when handling hot material.
- c. Protective gloves: Recommend during melt processing.
- d. Eye protection: Safety glasses recommended.

SECTION 10. STABILITY AND REACTIVITY

- 1) Stability : Chemically stable
- 2) Incompatibility(material to avoid) : Oxidizing materials can cause a reaction
- 3) Hazardous polymerization : Will not occur
- 4) Hazardous decomposition products: carbon monoxide (CO); carbon dioxide (CO₂) and organic vapors

SECTION 11. TOXICOLOGICAL INFORMATION

no information available

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SECTION 12. ECCOLOGICAL INFORMATION

This product is not classified as a hazardous.

SECTION 13. WASTE DISPOSAL CONSIDERATION

Transfer to an approved disposal area in accordance with regulations on industrial wasted disposal.

SECTION 14. TRANSPORTATION INFORMATION

This product is not regulated as dangerous under transport regulations.

SECTION 15. REGULATORY INFORMATION

Precautions to be taken in handling and storing storage in a cool dry place toxic substances controls act (TSCA) all the components of this product are listed on the TSCA inventory.

SECTION 16. OTHER INFORMATION

The information provided herein is based on our current knowledge and experience. All materials may present unknown health hazards and should be used with caution. Final responsibility lies in user's determination although the MSDS is described herein. We cannot guarantee that these are the only hazards which exist.