



MATERIAL SAFETY DATA SHEET FOR SEMICONDUCTING COMPOUND

| Section I – Product and Company Identification | |
|---|---|
| Manufacturer's Name: M/s. Shakun Polymers Limited | Emergency Tel. No.: 91-265-2335537 |
| Address: 501, Ivory Terrace, R.C. Dutt Road, Baroda – 390 007 | |
| Product Name : BLACK SEMICONDUCTING THERMOPLASTIC POLYETHYLENE | Reference : -- SPL-PESC |

| Section II – Composition / Information on ingredients | |
|---|------------------------------------|
| Chemical Family: POLYMERS | Formula: $-(CH_2 - CH_2)_n$ |
| Ethylene based co-polymer | |

| Section III – Hazardous Identification | | | | | |
|--|------|-------------|--|-----|-------------|
| Paints Preservative & Solvents | % | TLV (Units) | Alloys & Metallic Coatings | % | TLV (Units) |
| Pigments | NIL | NA | Base metal | NIL | NA |
| Catalyst | NIL | NA | Alloys | NIL | NA |
| Volatile | NIL | NA | Metallic coatings | NIL | NA |
| Solvents | NIL | NA | Filter Metal plus coating or core flux | NIL | NA |
| Additives (Carbon Black) | < 30 | NA | Others | NIL | NA |
| Others | NIL | NA | | | |
| Hazardous Mixtures of Other Liquids, Solids or Gases | | | | % | TLV (Units) |
| SHAKUN POLYOLEFIN RESINS ARE NOT CONSIDERED TO BE | | | | NIL | NA |
| HAZARDOUS UNDER NORMAL PROCESSING CONDITIONS | | | | | |

| Section IV – First Aid Measures |
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| <p>IN CASE OF CONTACT , flush the area with plenty of water . Remove material from clothing , wash clothing before use.</p> <p>IF SWALLOWED , induce vomiting as directed by medical personnel . Get medical attention . NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.</p> <p>IF INHALED remove to fresh air.</p> |

| Section V – Fire Fighting Measures | | | | | | | |
|------------------------------------|---|------------------|----|-----|----|-----|----|
| Flash Point (Method used) | NA | Flammable limits | NA | LEL | NA | UEL | NA |
| Extinguishing Media | WATER, DRY CHEMICAL, CO ₂ FOAM | | | | | | |
| Special Fire Fighting Procedures | SHAKUN RESINS ARE COMBUSTIBLE MATERIALS – MOLTEN POLYETHYLENE TENDS TO FLOW OR DRIP AND WILL PROPAGATE FIRE | | | | | | |

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| Unusual Fire and Explosion Hazards | FAILURE OR MALFUNCTION OF TEMPERATURE CONTROL SYSTEM ON PROCESSING EQUIPMENT SUCH AS EXTRUDERS MAY CREATE EXPLOSION HAZARD |
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| Section VI – Accidental Release Measure | |
| Steps to be taken in case material is released or spilled during shipping or storage | |
| PELLETS MAY CREATE A SLIPPING HAZARD AND SHOULD BE REMOVED FROM WALKWAYS BY SWEEPING PROPERLY. | |
| Waste disposal method | |
| LANDFILL OR INCINERATION AS PER LOCAL LAWS | |

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| Section VII – Handling & Storage | |
| Handling : Keep the Boxes closed in a cool , dry and well ventilated place. Provide appropriate exhaust ventilation at machinery or where dust is formed . | |
| Storage : Store under dry conditions . Observe Norms standards of industrial hygiene when handling. | |

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| Section VIII – Exposure Controls / Personal Protection | | | |
| Respiratory Protection (specify type) | NONE | | |
| Ventilation | Local Exhaust | RECOMMENDED FOR HIGH TEMPERATURE PROCESSING * | Special -- |
| | Mechanical (General) | -- | Other -- |
| Protective Gloves | USE GLOVES WHEN HANDLING HOT MELT | Eye Protection | USE GOGGLES WHEN HANDLING HOT MELT |
| Other Protective Equipment | LONG SLEEVE SHIRTS & LONG COTTON PANTS TO PROTECT SKIN CONTACT WITH HOT MELT. | | |

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| Section IX – Physical & Chemical Properties | | | |
| Boiling Point (°C) | NA | Specific Gravity (H ₂ O=1) | < 1.10 |
| Vapour Pressure (mm Hg) | NA | Percent Volatile | < 0.5 |
| Vapour Density (Atr=1) | NA | Evaporation Rate | NA |
| Solubility in Water | INSOLUBLE | | |
| Appearance and odour | BLACK PELLETS, HAVING MILD HYDROCARBONS ODOUR | | |

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| Section X – Stability & Reactivity | | | |
| Stability | Unstable | - | Condition to avoid |
| | Stable | ✓ | HEATING ABOVE 250°c |
| Incompatibility (materials to avoid) | STRONG OXIDANTS AT HIGH TEMPERATURE | | |
| Hazardous decomposition products | CO, CO ₂ , HYDROCARBONS, SMOKE, ACROLEIN | | |
| Hazardous Polymerization | May Occur | -- | Conditions to avoid |
| | Will not occur | ✓ | NA |

| Section XI – Toxicological information | |
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| Toxicity Ingested, Inhaled or on Skin | SHAKUN POLYMER IS NOT TOXIC |
| Irritation to Eyes | NOT APPLICABLE |
| Irritation on Skin | NOT APPLICABLE |
| Emergency and First Aid Procedure | NOT CONSIDERED A HAZARD |

| Section XII – Ecological information | |
|---|-------------------|
| Ecotoxicological information | No data available |
| Chemical Fate Information | No data available |

| Section XIII – Disposal Consideration | |
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| Recover, reclaim or recycle when practical. Disposed of in an approved landfill if allowed locally. Comply with federal, state and local regulations. Dispose of in a permitted waste management facility if landfill is not practical. | |

| Section XIV – Transport Information | |
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| No special precautions required | |

| Section XV – Regulatory Information | |
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| Not classified | |

| Section XVI – Other Information | |
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| NONE | |

- Polymer degradation products generated during processing may include CO₂, CO₁, Hydrocarbons.