

**MATERIAL SAFETY DATA SHEET FOR
ZERO HALOGEN FLAME RETARDANT COMPOUNDS**

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 : ZERO HALOGEN FLAME RETARDANT POLYMER	Reference : -- SPL-ZHFR

Section II – Composition / Information on ingredients	
Chemical Family: ETHYLENE CO-POLYMERS	Formula: $\text{-(CH}_2\text{-CH}_2\text{)}_n$
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
Solvents	NIL	NA	Metallic coatings	NIL	NA
Additives (ATH)	60	NA	Filter Metal plus coating or core flux	NIL	NA
Others	NIL	NA	Others	NIL	NA
Hazardous Mixtures of Other Liquids, Solids or Gases				NIL	NA
SHAKUN POLYOLEFIN RESINS ARE NOT CONSIDERED TO BE HAZARDOUS UNDER NORMAL PROCESSING CONDITIONS				NIL	NA

Section IV – First Aid Measures
<p>INCASE 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	MOLTEN POLYMER WILL NOT PROPAGATE FIRE						
Unusual Fire and Explosion Hazards	FAILURE OR MALFUNCTION OF TEMPERATURE CONTROL SYSTEM ON PROCESSING EQUIPMENT SUCH AS EXTRUDERS MAY CREATE EXPLOSION HAZARD						

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	

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.	

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.		

Section IX – Physical & Chemical Properties			
Boiling Point (°C)	NA	Specific Gravity (H ₂ O=1)	1.45
Vapour Pressure (mm Hg)	NA	Percent Volatile	<0.1
Vapour Density (Atr=1)	NA	Evaporation Rate	NA
Solubility in Water	INSOLUBLE		
Appearance and odour	WHITE PELLETS, HAVING MILD HYDROCARBONS ODOUR		

Section X – Stability & Reactivity			
Stability	Unstable	-	Condition to avoid
	Stable	✓	HEATING ABOVE 200°C
Incompatibility (materials to avoid)	STRONG OXIDANTS AT HIGH TEMPERATURE		
Hazardous decomposition products	CO, CO ₂ , HYDROCARBONS, SMOKE		
Hazardous Polymerisation	May Occur	--	Conditions to avoid
	Will not occur	✓	NA

Section XI – Toxicological information	
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
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
No special precautions required

Section XV – Regulatory Information
Not classified

Section XVI – Other Information
NONE

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