

MATERIAL SAFETY DATA SHEET

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Chemical Name And Synonyms	:	High Density Polyethylene
Chemical Family	:	Polyolefin
Trade Name & Synonyms	:	Relene
C.A.S. No.	:	9002-88-4
Formula	:	$(-CH_2-CH_2)_n$
Manufacturer's Name	:	Reliance Industries Limited
Address	:	Product Application & Research Centre V N Purav Marg, Chembur, Mumbai - 400071, India
Emergency Telephone No	:	91-22-30515000

SECTION 2 - COMPOSITION / INFORMATION ON INGREDIENTS

Paints Preservatives & Solvents	%	TLV (units)	Alloys & Metallic Coatings	%	TLV (units)
Pigments	NIL	NA	Base metal	NIL	NA
Catalyst	< 0.01	NA	Alloys	NIL	NA
Vehicle	NIL	NA	Metallic coatings	NIL	NA
Solvents	NIL	NA	Filler Metal plus coating or core flux	NIL	NA
Additives	<1	NA	Others	NIL	NA
Hazardous Mixtures of Other Liquids, Solids or Gases				NIL	NA

RELENE Polyethylene resins are not considered to be hazardous under normal processing conditions

SECTION 3 - HAZARDS IDENTIFICATION

POTENTIAL HEALTH EFFECTS

- **EYE CONTACT**

Particulate may scratch eye surfaces / cause mechanical irritation

- **SKIN CONTACT**

Negligible hazard at ambient temperatures (-18 to + 50 ° C; 0 to 100 ° F). Exposure to hot material may cause thermal burns

- **INHALATION**

Negligible hazard at ambient temperatures (-18 to + 50 ° C; 0 to 100 ° F). Vapors that may be formed at elevated temperatures may be irritating to eyes and respiratory tract

- **INGESTION**

Not toxic

MATERIAL SAFETY DATA SHEET

SECTION 4 - FIRST AID MEASURES

- **EYE CONTACT**

This product is an inert solid. If in eye, remove as one would any foreign object

- **SKIN CONTACT**

In case of adverse exposure to hot material, immediately immerse in or flush the affected area with large amounts of cold water to dissipate heat. Cover with clean cotton sheeting and get prompt medical attention. No attempt should be made to remove material from skin or to remove contaminated clothing, as the damaged flesh can be easily torn.

- **INHALATION**

In case of adverse exposure to vapors formed at elevated temperatures, immediately remove the affected victim from exposure. Administer artificial respiration if breathing is stopped. Keep at rest. Call for prompt medical attention.

- **INGESTION**

First aid is normally not required

SECTION 5 - FIRE FIGHTING MEASURES

Flash Ignition Temperature - 335 ° C	LEL	N/A
Auto Ignition Temperature - 350 °C	UEL	N/A
Flammable limits	N/A	

Extinguishing Media Water, Dry Chemical, CO₂, Foam

Special Fire Fighting Procedures: Relene resins are combustible materials - molten Polyethylene tends to flow or drip and will propagate fire. Respiratory and eye protection required for fire fighting personnel

Unusual Fire and Explosion Hazards : Failure or malfunction of temperature control systems on processing equipment such as extruders may create explosion hazard

SECTION 6 - ACCIDENTAL RELEASE MEASURES

LAND SPILL

Recover spilled material and place in suitable containers for recycle or disposal. Pellets released or spilled during shipping or storage may create a slipping hazard and should be removed from walkways. Consult an expert on disposal of recovered material and ensure conformity to local regulations.

SECTION 7 - STORAGE AND HANDLING

Storage Temperature, °C : Ambient
Loading / Un-Loading Temperature, °C : Ambient
Storage / Transport Pressure, mm Hg : Atmospheric
Loading / Un-Loading Viscosity, cSt : Solid
Storage and Handling : Store in a cool, well ventilated place away from incompatible materials. DO NOT handle or store near an open flame, heat or other sources of ignition. Protect material from direct sunlight. Material will accumulate static charges that may cause an electrical spark (ignition source). Use proper grounding procedures.

MATERIAL SAFETY DATA SHEET

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Respiratory Protection (Specify type) : NONE			
Ventilation	Local Exhaust	Special	--
	recommended for high temperature processing		
	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 9 - PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point (°C)	N/A	Specific Gravity (H₂O=1)	0.940-0.960
Vapour Pressure (mm Hg.)	N/A	Percent Volatile by volume (%)	<0.1
Vapour Density, at 1 atm (Air=1)	N/A	Evaporation Rate	N/A
Solubility in water	Insoluble		
Appearance and odour: White Pellets, No Specific Odour			

SECTION 10 - STABILITY AND REACTIVITY

Stability	Unstable	-	Conditions to avoid
	Stable	✓	Heating above 350°C, direct flame
Incompatibility (materials to avoid): Strong oxidants at high temperature			
Hazardous decomposition products CO, CO ₂ , HYDROCARBONS, SMOKE, ACROLEIN *			
Hazardous Polymerisation	May occur	-	Conditions to avoid
	Will not occur	✓	NA

* Decomposition products may vary in nature depending upon actual conditions; e.g. availability of oxygen; temperature and presence of other materials

SECTION 11 - TOXICOLOGICAL INFORMATION

Please refer to Section 3 for available information on potential health effects

SECTION 12 - ECOLOGICAL INFORMATION

No specific ecological data are available for this product. Please refer to Section 6 for information regarding accidental releases and Section 15 for regulatory reporting information.

MATERIAL SAFETY DATA SHEET

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste disposal method: Landfill Or Incineration. Please refer to Sections 5,6 and 15 for disposal and regulatory information.

SECTION 14 - TRANSPORT INFORMATION

Not applicable, This product is not transport regulated

SECTION 15 - REGULATORY INFORMATION

Product meets the requirements stipulated in IS 10146 – 1982 on “Specification for Polyethylene and its copolymers for safe use in contact with foodstuffs, pharmaceuticals and drinking water”. Additives incorporated in this grade conform to the positive list of constituents as prescribed in IS 10141 – 1982.

The product and the additives incorporated in it also comply with the FDA: CFR Title 21, 177.1520 olefin polymers.

SECTION 16 - OTHER INFORMATION

Ecotoxicity	:	Not toxic under normal conditions
Persistence	:	Non-biodegradable

MANUFACTURER'S DATA:

REGD. OFFICE :
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MAKER IV, NARIMAN POINT,
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TEL : 022-30324000
FAX : 022-30327399

MANUFACTURING PLANT :
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HAZIRA MANUFACTURING DIVISION,
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REVISION SUMMARY:

Since April 2005 this MSDS has been revised

Disclaimer:

This information relates to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Information contained in this **Material Safety Data Sheet** is to the best of our knowledge and believed to be reliable but no representation, guarantee or warranties of any kind are made as to its accuracy, suitability for a particular application etc. It is upto the user / distributor to ensure that the information contained in the material safety data sheet is relevant to the product manufactured or sold as the case may be. **Reliance Industries Limited and Reliance Group of Companies** makes no warranties, expressed or implied, in respect of the adequacy of this document for any particular purpose.