

GI 095

**Material Safety Data Sheet**  
**HDPE**

**EDITION 0604**  
**PAGE 1/5**

**MATERIAL SAFETY DATA SHEET ( MSDS)**

**1. CHEMICAL IDENTITY HDPE**

Chemical Name	High Density Poly Ethylene
Trade Name	HDPE
Synonyms	Poly ethylene
Chemical Classification	Synthetic polymer
Formula	$(C_2H_4)_n$
CAS Number	25087-34-7
UN Number / UN Hazard class	Not regulated as hazardous or dangerous goods
Hazchem code ( EAC)	Not regulated as hazardous or dangerous goods
<b>REGULATED IDENTIFICATION</b>	
Hazardous ingredients	CAS No. 25087-34-7
ICAO / IATA code	Not regulated as hazardous or dangerous goods
IMO / IMDG code	Not regulated as hazardous or dangerous goods
RID / ADR code	Not regulated as hazardous or dangerous goods
Hazardous waste Id No.	Not pertinent

**2. PHYSICAL AND CHEMICAL DATA**

Boiling point/ Range °C	Not applicable	
Physical state	Solid	
Appearance	Spheres, pellets	
Melting/ Freezing Point	100-135 °C / 212-275°F	
Vapour Pressure( at 20 °C ) mm Hg	Not applicable	
Odour	Odourless	
Vapour Density ( Air =1)	Not pertinent	
Solubility in water ( at 30 °C)	Insoluble	
Specific gravity ( at 20 °C ) (water =1)	0.94-0.958	
pH	Not pertinent	

**GI 095**

**Material Safety Data Sheet**  
**HDPE**

**EDITION 0604**  
**PAGE 2/5**

**3. FIRE AND EXPLOSION HAZARD DATA**

Flash point (CC) (OC)	240° C / 644°F
Flammability LFL % v UFL % v	10 g/m <sup>3</sup> Not appli.
TDG Flammability	DNA
Explosion sensitivity to impact	No
Explosion sensitivity to static electricity	No
Autoignition Temperature	380°C / 716°F
Heat Volume	12,2 Kwh/Kg
Combustible Material	No
Explosive Material	No
Hazardous Polymerization	will not occur
Flammable Material	No
Oxidiser	No
Corrosive Material	No
Pyrophoric Material	No
Organic Peroxide	No

**4. REACTIVITY DATA**

Chemical stability	Stable
Incompatibility with other Materials	React violently with F2
Hazardous Reaction Products	Acrid smoke and fumes. Very low levels of other dec. products as acrolein may develop.

GI 095

**Material Safety Data Sheet**  
**HDPE**

**EDITION 0604**  
**PAGE 3/5**

**5. HEALTH HAZARD DATA**

Route of entry	Inhalation, skin contact, ingestion			
Effect of exposure/ Symptoms	<p>Inhalation : there is no evidence for inhalation. Dust may cause irritation</p> <p>Skin contact : generally direct contact doesn't lead to skin irritation.</p> <p>Ingestion : the resin itself is inert and harmless, but certain additives could be harmful.</p> <p>Ingestion must be avoided</p>			
Emergency treatment	<p>Inhalation : in case of excessive inhalation of fumes, remove the affected person to the fresh air as soon as possible.</p> <p>Skin : wash skin with soap and water</p> <p>Eyes : Flush out with a copious volume of water any material entering the eyes.</p> <p>Medical assistance is required</p>			
Permissible Exposure Limit				
TLV-TWA ( ACGIH)	DNA			
STEL(ACGIH)	DNA			
TDLo imp-rat:				
IDLH	DNA			
Odour threshold	Not pertinent			
NFPA / HMIS Hazard signals	Health 1	Flammability 1	Reactivity 0	Special -

GI 095

**Material Safety Data Sheet**  
**HDPE**

**EDITION 0604**  
**PAGE 4/5**

**6. PREVENTIVE MEASURES HDPE**

PERSONAL PROTECTIVE MATERIAL	Dust mask, gloves, safety goggles or glasses, no slip shoes.
HANDLING AND STORAGE PRECAUTIONS	Keep away from sources of ignition or heat, in dry , well ventilated area. In storage and working rooms avoid spheres spilling as a possible cause of slipping.

**7. EMERGENCY AND FIRST AID MEASURES**

FIRE ( Class of fire : A)	
Fire extinguish media	Water spray, foam, dry chemical, carbon dioxide
Special Procedures	cool exposed containers with water
Unusual Hazards	By direct ignition the product burns with flames developing H <sub>2</sub> O, CO <sub>2</sub> and in case of oxygen defeciency, also CO
First Aid Measures	Inhalation: in case of excessive inhalation of fumes, remove the affected person to the fresh air as soon as possible. Skin: wash skin with soap and water Eyes : Flush out with a copious volume of water any material entering the eyes. Medical assistance is required
Steps to be taken	Collect for reuse or disposal
Waste Disposal Method	By disposal at approved landfill tips or incinerator oven. The product is assimilated to urban waste.

**8. ECOLOGICAL INFORMATION**

Ecotoxicity	DNA
Persistence	DNA

**GI 095**

**Material Safety Data Sheet**  
**HDPE**

**EDITION 0604**  
**PAGE 5/5**

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**9. MANUFACTURER/SUPPLIER'S DATA**

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