

Section 1. Chemical Product and Company Identification			
Product name	Polyethylene	<u>In Case of</u> Emergency	Chemtrec: (800) 424-9300 Total Petrochemicals & Refining USA, Inc.: (800) 322-3462
Supplier	Total Petrochemicals & Refining USA, Inc. P O Box 674411 Houston,TX 77267-4411	<u>Technical</u> Information	For non-emergency product information: email product.stewardship@total.com
Chemical Family	Polymer	MSDS#	PE0016 (EN)
CAS Registry Number	9002-88-4 or 25213-02-9 or	Validation Date	4/12/2013
	25087-34-7	Print Date	4/12/2013
C	Delvethulene		

Synonym Polyethylene

This MSDS applies to all grades of polyethylene, including but not limited to:

MS201 BN-NA, HL 323, HL 428, HL 535, HP401 N, B5845, B5800, L425, L627, L727, CD-471, CD-481, BM 359 SG, BM961, BM962, HDPE ####, HDPE ####, HDPE ####LD, HDPE###BZ, MDPE ####, mPE 3300, M3302, M3410 EP, M2710 EP, M3410X, D3720, D4720, CD 4300, 5###, 5335P, 5502BN, 5502BZ, 5502LD, 6280, 6280UV, 6405, 6407.#, 6410, 6420, 6480, 37120, 46060UV, 50100.#, 54050, 1225, 1285, 1290, 2285, 2287, 3045, 3045LD, 3050, 3050BZ, 7194, 7194.#, 7195, 7208, 8183, 8208, 9260, 9458, 9658, SB1359NA, XT-10N, XT-10N.1, XT-25N, HDPE Purge ## where # can be any digit (0-9).

It also includes any of the above named grades with the "-NA" suffix.

This MSDS also covers experimental materials, BDM1 ##-##, BDM2 ##-##, and specially compounded samples labeled Polyethylene N##### and N#####-#, where # can be any digit (0-9).

Section 2. Hazards Identification			
Emergency Overview	Irritating vapors to respiratory system and eyes may form when polymer is processed at high temperatures.		
	Molten or heated material in skin contact can cause severe burns.		
Routes of Entry	FOR HOT MATERIAL: Skin contact. Eye contact. Inhalation.		
Potential Acute Health Eff	ects		
Eyes	Dust may cause mechanical irritation to eye. Heated Polymer: Eye contact can cause serious thermal burns. Vapors formed when polymer is heated may be irritating to the eye.		
Skin	No known acute effects of this product resulting from skin contact at room temperature. Heated Polymer: skin contact can cause serious thermal burns.		
Inhalation	Negligible at room temperature. Nuisance dusts can be irritating to the upper respiratory tract. Irritating vapors may form when the polymer is processed at high temperatures.		
Ingestion	No effects are expected for ingestion of small amounts. May be a choking hazard.		
Potential Chronic Health Effects	CARCINOGENIC EFFECTS : Polyethylene is not a known carcinogen. Not listed as a carcinogen by OSHA, NTP or IARC.		
Medical Conditions Aggravated by Overexposure	There is no known effect from chronic exposure to this product. Repeated or prolonged exposure is not known to aggravate medical condition.		
Overexposure /Signs/ Symptoms	No adverse health effects anticipated from the solid pellet.		
See Toxicological Information (Section 11)			

Total Petrochemicals & Refining USA, Inc.

Section 3. Composition and Information on Ingredients

Occupational exposure limits, if available, are listed in Section 8.

Substance Name	CAS #	% by Weight
Polyethylene Homopolymer	9002-88-4	~ 100
Ethylene-1-hexene Copolymer	25213-02-9	
Ethylene-1-butene Copolymer	25087-34-7	

Section 4. First Aid Measures

Eye Contact	Rinse with water for a few minutes. Seek medical attention if necessary.
Skin Contact	Polymer: NO known EFFECT on skin contact, rinse with water for few minutes. Heated Polymer: For serious burns from heated polymer, get medical attention. In case of skin contact, immediately immerse in or flush with clean, cold water.
Inhalation	Allow the victim to rest in a well ventilated area.
Ingestion	No First Aid procedures are needed.

Section 5. Fire Fighting Measures			
Flammability of the Product	May be combustible at high temperature.		
Auto-ignition Temperature	349°C (660.2°F)		
Flash Points	CLOSED CUP: 341°C (645.8°F).		
Flammable Limits	Not available.		
Products of Combustion	Carbon oxides (CO, CO2) and soot.		
Fire Hazards in Presence of Various Substances	No specific information is available in our database regarding the flammability of this product in presence of various materials.		
Explosion Hazards in Presence of Various	Risks of explosion of the product in presence of mechanical impact: Not expected. Risks of explosion of the product in presence of static discharge: Possible.		
Substances	Risk of explosion from dust accumulation of this product is possible. See MSDS section 7 Handling for more information.		
Fire Fighting Media and Instructions	SMALL FIRE: Dry chemical extinguisher (ABC or AB). Use water spray or fog. LARGE FIRE: Use water spray or fog. Do not use water jet.		
	May re-ignite itself after fire is extinguished.		
Protective Clothing (Fire)	Wear MSHA/NIOSH approved self-contained breathing apparatus or equivalent and full protective gear.		
Special Remarks on Fire	Fire may produce irritating gases and dense smoke.		
	Flowing material may produce static discharge, igniting dust accumulations.		
Special Remarks on Explosion Hazards	Processing or material handling equipment may generate dust of sufficiently small particle size , that when suspended in air may be explosive.		

Section 6. Accidental Release Measures

Small Spill and Leak	Pellets on the floor could present a serious slipping problem. Good housekeeping must be maintained at all times to avoid this hazard. Sweep, shovel, or vacuum material into clean containers.
Large Spill and Leak	Use a shovel to put the material into a convenient waste disposal container. Do not allow any potentially contaminated water with pellets to enter any waterway, sewer or drain.

Total Petrochemicals & Refining USA, Inc.

Melting/Freezing Point

Specific Gravity

Solubility in Water

Volatility

Section 7. Handling and Storage				
Handling	Handling of plastic may form nuisance dust. Protect personnel.			
	Pneumatic material handling and processing equipment may generate dust of sufficiently small particle size that, when suspended in air, may be explosive. Dust accumulations should be controlled through a comprehensive dust control program that includes, but is not limited to, source capture, inspection and repair of leaking equipment, routine housekeeping and employee training in hazards. See NFPA 654.			
	When handled in bulk quantities, this product and its associated packaging may present a crushing hazard due to the large masses involved, possibly resulting in severe injury or death.			
Storage	Keep container dry. Keep in a cool place. Ground all equipment containing material. Keep container tightly closed. Keep in a cool, well-ventilated place. Combustible materials should be stored away from extreme heat and away from strong oxidizing agents.			
Section 8. Exposu	re Controls/Personal Protection			
Engineering Controls	Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.			
Personal Protection				
Eyes	s Safety glasses with side shields.			
Body	y Coveralls.			
Respiratory	ventilation is normally required when handling this product at high temperatures. Wear appropriate respirator when ventilation is inadequate.			
Hands	Thermally insulated gloves required when handling hot material.			
Fee	f Shoes.			
Protective Clothing (Pictograms)				
Personal Protection in Case of a Large Spill	Gloves. Coveralls.			
Product Name	Exposure Limits			
Polyethylene Homopolymer or Ethylene-1-hexene Copolym	Not established.			
or Ethylene-1-butene Copolyme				
Consult local authorities f	for acceptable exposure limits.			
Section 9. Physica	I and Chemical Properties			
Physical State and Appear	rance Solid. (Solid)			
Color	Translucent white pellets.			
Odor	Odorless.			
Molecular Weight	Not applicable.			
Molecular Formula	(-CH2-CH2-)x			

126 to 136°C (258.8 to 276.8°F)

0.91 to 0.97 (Water = 1)

Negligible.

Insoluble in water.

Section 10. Stabilit	y and Reactivity	
Stability and Reactivity	The product is stable. Avoid temperatures above 300 degree C (570 F).	
Conditions of Instability	No additional remark.	
Incompatibility with Various Substances	May react or be incompatible with oxidizing materials.	
Hazardous Decomposition Products	Hazardous decomposition products are carbon monoxide, carbon dioxide, dense smoke, and various hydrocarbons.	
Hazardous Polymerization	Under normal conditions of storage and use, hazardous polymerization will not occur.	
Section 11. Toxicological Information		

Toxicity to Animals	Very low toxicity to humans or animals.
Chronic Effects on Humans	CARCINOGENIC EFFECTS: Not listed as a carcinogen by OSHA, NTP or IARC.
Other Toxic Effects on Humans	Not considered to be dangerous to humans.

Section 12. Ecological Information		
Ecotoxicity	Avoid release to the environment. This product is not expected to bioaccumulate through food chains in the environment.	
Biodegradable/OECD	Not readily biodegradable. Persistent in the environment.	
Mobility	Because of its physico-chemical properties, the product has a low soil mobility. This material floats on water.	

Section 13. Disposal Considerations

Waste Information	Transfer to an approved disposal area in accordance with federal, state, and local regulations.

Consult your local or regional authorities.

Section 14. Transport Information (for domestic bulk shipments, non-bulk shipments may differ)

DOT Classification for Bulk Shipments (non bulk shipments may differ)	Not a DOT controlled material (United States).	\bigotimes
Proper Shipping Name/ Description	Not applicable.	
UN Number	Not applicable.	
Packing Group	Not applicable.	
Marine Pollutant	Not listed in Appendix B to 49CFR172.101	() La cata regione
Hazardous Substances Reportable Quantity	Not applicable	
Special Provisions for Transport	Not applicable.	
TDG Classification	Not controlled under TDG (Canada).	
IMO/IMDG Classification	Not controlled under IMDG.	
ICAO/IATA Classification	Not controlled under IATA.	
USCG Proper Shipping Name	Not Available	

Section 15. Regulatory Information				
HCS Classification	This product is not a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.			
U.S. Federal Regulations	TSCA inventory: All the ingredients are on the TSCA list.			
	SARA 301/302/303			
	No chemicals in this product are listed as extremely hazardous substances in 40 CFR 355, Emergency Planning And Notification (Appendix A to Part 355).			
	SARA 304			
	No chemicals in this product require reporting under the requirement of 40 CFR 355, Emergency Planning And Notification (SARA extremely hazardous substances listed in Appendix A to Part 355 or CERCLA hazardous substances listed in Table 302.4 of 40 CFR Part 302).			
SARA 313				
	This product contains no chemicals in excess of the applicable de minimis concentration that are subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372 (Table 372.65).			
 SARA 311/312				
	This product is not a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200, and as such does not require reporting under the requirements of 40 CFR 370, Hazardous Chemical Reporting: Community Right-To-Know.			
International Regulations				
WHMIS (Canada)	Not controlled under WHMIS (Canada).			
DSCL (EEC)	This product is not classified according to EU legislation.			
CEPA DSL/NDSL	This material is listed or exempted.			
State Regulations	To the best of our knowledge, this product does not contain reportable levels of substances currently listed in regulations of any particular state in the United States.			
	at levels that would require a warning under the California Safe Drinking Water and Toxic Enforcement Act.			
Section 16. Other Information				
Label requirements	Irritating vapors to respiratory system and eyes may form when polymer is processed at high temperatures.			

Molten or heated material in skin contact can cause severe burns.

Hazardous Material Information System (U.S.A.)

 Health
 0

 Fire Hazard
 1

 Reactivity
 0

 Personal Protection
 1

National Fire Protection Association (U.S.A.) Personal Protection Fire Hazard Health O Reactivity Specific Hazard

References

Chemtox Database Hazardous Substance Database

Other Special Considerations Acceptable business/technical terms necessary for medical device applications must be developed by contacting your Total Petrochemicals & Refining USA, Inc. sales representative. Without such documented business terms, Total Petrochemicals & Refining USA, Inc. makes no representations and disclaims all warranties, express or implied, concerning biocompatibility and/or suitability of this product for medical device applications.

Total Petrochemicals & Refining USA, Inc.

Chemtrec: (800) 424-9300 Total Petrochemicals & Refining USA, Inc.: (800) 322-3462

Notice to Reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

MSDS Name	Polyethylene Pellets Parent	MSDS Code	PE_PELLETS
~~			

23

To obtain an electronic copy of this MSDS, please email: product.stewardship@total.com.