



Section 1. Chemical Product and Company Identification			
Trade name	Polypropylene Copolymer	Code	PP_COPOLYMER
Supplier	TOTAL PETROCHEMICALS USA, INC. P O Box 674411 Houston,Tx. 77267-4411	MSDS#	P90
		Validation Date	10/29/2004
Synonym	Ethylene-Propylene Copolymer This MSDS cover prime grades of ethylene-propylene copolymer including but not limited to the follow grades: 1251, 1471, 1571, 1751 3727W and 3727WZ 4###ABC 5###ABC 6###ABC 7###ABC 8###ABC 9###ABC Z9###ABC M6###ABC where # can be any number and ABC may be any combination of letters (the letters may or may not be present). This MSDS also covers experimental grades which are copolymers, EOD xx-xx, where x may be any number and specially compounded samples labeled TOTAL PETROCHEMICALS Copolymer Polypropylene Nxxxxx and Nxxxxx-x, where x can be any number.	Print Date	10/29/2004
		MSDS Name	Polypropylene Copolymer
Chemical Family	Polymer	In Case of Emergency Chemtrec: (800) 424-9300 TOTAL PETROCHEMICALS USA, INC: (800) 322-3462 Technical Information Deer Park: (281) 476-3700	
CAS Registry Number	9010-79-1		
Threshold Limit Value	Not available.		
Manufacturer	TOTAL PETROCHEMICALS USA, INC. P.O. Box 888 Deer Park, TX 77536		

Section 2. Composition and Information on Ingredients			
Name	CAS #	% by Weight	Exposure Limits
Polypropylene Copolymer	9010-79-1	100%	Not available.

Section 3. Hazards Identification	
Physical State and Appearance	Solid. (Solid)
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 Effects	

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Eyes	This product is not known to cause eye irritation. However, as with any chemical, some sensitive individuals may experience eye irritation upon contact. 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. However, in light of good industrial hygiene, exposure to any chemical should be kept to a minimum. 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.
Potential Chronic Health Effects	CARCINOGENIC EFFECTS: Polypropylene is not a known carcinogen. Classified NONE by NTP, NONE by OSHA. 3 (Not classifiable for human.) by IARC. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available.
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 information available.
See Toxicological Information (Section 11)	

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.
Inhalation	Allow the victim to rest in a well-ventilated area.
Ingestion	No First Aid procedures are needed.
Notes to Physician	Not available.

Section 5. Fire Fighting Measures

Flammability of the Product	May be combustible at high temperature. May be combustible at high temperature.
Auto-ignition Temperature	Not available.
Flash Points	Not available.
Flammable Limits	Not available.
Products of Combustion	Carbon oxides (CO and 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 Substances	Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Possible. No specific information is available in our database regarding the product's risks of explosion in the presence of various materials.
Fire Fighting Media and Instructions	SMALL FIRE: Use DRY chemicals, CO2, water spray, halon, or foam. LARGE FIRE: Use water spray, fog or foam. DO NOT use water jet.
Protective Clothing (Fire)	Wear MSHA/NIOSH approved self-contained breathing apparatus or equivalent and full protective gear.

Special Remarks on Fire Hazards Fire may produce irritating gases and dense smoke.

Special Remarks on Explosion Hazards No additional remark.

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 Our database contains no additional information in case of a spill and/or a leak of the product. Use a shovel to put the material into a convenient waste disposal container.

Section 7. Handling and Storage

Handling Handling of plastic may form nuisance dust. Protect personnel.

Storage Keep container dry. Keep in a cool place. Ground all equipment containing material. Combustible materials should be stored away from extreme heat and away from strong oxidizing agents.

Section 8. Exposure Controls/Personal Protection

Engineering Controls Heated polymer requires local exhaust ventilation or other engineering control to reduce exposure to vapors below recommended levels. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal Protection

Eyes Safety glasses.

Body No special protective clothing is required.

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.

Feet Safety slip proof shoes in areas where spills or leaks can occur.

Protective Clothing (Pictograms)



Personal Protection in Case of a Large Spill Safety glasses. Gloves.

Product Name Exposure Limits

Polypropylene Copolymer Not available.

Consult local authorities for acceptable exposure limits.

Section 9. Physical and Chemical Properties

Physical State and Appearance	Solid. (Solid)	Odor	Odorless.
Molecular Weight	Not applicable.	Taste	Not available.
Molecular Formula	(C ₃ H ₆) _x -(C ₂ H ₄) _y	Color	Translucent white pellets.
pH (1% Soln/Water)	Not applicable.		
Boiling/Condensation Point	Not available.		
Melting/Freezing Point	120 to 170°C (248 to 338°F)		
Critical Temperature	Not available.		

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Specific Gravity	0.91 to 0.97 (Water = 1)
Vapor Pressure	Not available.
Vapor Density	Not available.
Volatility	Negligible
Odor Threshold	Not available.
Evaporation Rate	Not available.
VOC	Negligible
Viscosity	Not available.
LogK _{ow}	Not available.
Ionicity (in Water)	Not available.
Dispersion Properties	Not available.
Solubility in Water	Insoluble in water.
Physical Chemical Comments	No additional remark.

Section 10. Stability 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	Incompatible or reactive with fluorine gas, oxidizing agents (nitric acid and perchloric acid), free halogens, benzene, petroleum ether, gasoline and lubricating oils, and aromatic and chlorinated hydrocarbons.
Hazardous Decomposition Products	Hazardous decomposition products are carbon monoxide & carbon dioxide.
Hazardous Polymerization	No.

Section 11. Toxicological Information

Toxicity to Animals	LD50: Not available. LC50: Not available.
Chronic Effects on Humans	CARCINOGENIC EFFECTS: Classified NONE by NTP, NONE by OSHA. 3 (Not classifiable for human.) by IARC.
Other Toxic Effects on Humans	Not considered to be dangerous for humans according to our database.
Special Remarks on Toxicity to Animals	No additional remark.
Special Remarks on Chronic Effects on Humans	No additional remark.
Special Remarks on Other Toxic Effects on Humans	No additional remark.

Section 12. Ecological Information

Ecotoxicity Not available.

BOD5 and COD Not available.

Biodegradable/OECD Not available.

Mobility Not available.

Not available.

Toxicity of the Products of Biodegradation Not available.

Special Remarks on the Products of Biodegradation No additional remark.

Section 13. Disposal Considerations

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

Waste Stream Not available.

Consult your local or regional authorities.

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

DOT Classification for Bulk Shipments (non bulk shipments may differ) Not a DOT controlled material (United States).



DOT Proper Shipping Name Not applicable.

UN Number Not established.

Packing Group Not applicable.

USCG Proper Shipping Name Not determined.

Marine Pollutant Not available.

Hazardous Substances Reportable Quantity Not available.

Special Provisions for Transport Not applicable.

TDG Classification Not controlled under TDG (Canada).

ADR/RID Classification Not controlled under ADR (Europe).

IMO/IMDG Classification Not controlled under IMDG.

ICAO/IATA Classification Not controlled under IATA.

Section 15. Regulatory Information

HCS Classification Not an HCS controlled material in USA.

U.S. Federal Regulations TSCA inventory: **Polypropylene Homopolymer**
 SARA 302/304/311/312 extremely hazardous substances: No products were found.
 SARA 302/304 emergency planning and notification: No products were found.
 SARA 302/304/311/312 hazardous chemicals: No products were found.
 SARA 311/312 MSDS distribution - chemical inventory - hazard identification: No products were found.

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Clean water act (CWA) 307: No products were found.
 Clean water act (CWA) 311: No products were found.
 Clean air act (CAA) 112 accidental release prevention: No products were found.
 Clean air act (CAA) 112 regulated flammable substances: No products were found.
 Clean air act (CAA) 112 regulated toxic substances: No products were found.

International Regulations

WHMIS (Canada) Not controlled under WHMIS (Canada).

CEPA DSL: Polypropylene Copolymer

EINECS Not available.

DSCL (EEC) Not controlled under DSCL (Europe).

International Lists No products were found.

State Regulations

No products were found.

California prop. 65: There are no Proposition 65 chemicals present in our polypropylene resins 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	

National Fire Protection Association (U.S.A.)



References

Chemtox Database
 Hazardous Substance Databank

Other Special Considerations

Acceptable business/technical terms necessary for medical device applications must be developed by contacting your TOTAL PETROCHEMICALS USA, INC. sales representative. Without such documented business terms, TOTAL PETROCHEMICALS USA, INC. makes no representations, and disclaims all warranties, express or implied, concerning biocompatibility and/or suitability of this product for medical device applications.

Validated by Paul Bradley on 10/29/2004.

Verified by Paul Bradley.

Printed 10/29/2004.

Chemtrec:
 (800) 424-9300
 TOTAL PETROCHEMICALS USA, INC:
 (800) 322-3462

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