



MATERIAL SAFETY DATA SHEET

(Approved by U.S. Department of Labor as "Essentially Similar" to Form OSHA-20)

MSDS PL 004B
DATE 2/22/87

PAGE 1 of 2

E. J. Shanks

I. PRODUCT IDENTIFICATION

CHEMICAL NAME AND SYNONYMS Polypropylene propylene-ethylene copolymer	REGULAR TELEPHONE NO. 302-575-5000 EMERGENCY TELEPHONE NO. 302-995-3000
CHEMICAL FAMILY Olefins	CAS NO.
FORMULA $(-CH_2-CH-CH_2)_n$ plus $(CH_2)_n$	MOLECULAR WEIGHT Greater than 200,000
TRADE NAME AND SYNONYMS PRO-FAX [®] copolymer pellets	

II. HAZARDOUS INGREDIENTS

MATERIAL	%	TLV-TWA VALUES ADOPTED BY ACGIH 1980
As we interpret the U. S. Occupational Safety and Health Act of 1970, this product should not be considered hazardous.		NONHAZARDOUS NONTOXIC

III. PHYSICAL DATA

BOILING POINT, 760 mm Hg	NA	Melting Point	Greater than 160°C (320°F)
VAPOR PRESSURE @	NA	SPECIFIC GRAVITY (H ₂ O=1)	0.88 - 0.92
VAPOR DENSITY (AIR=1)	NA	PERCENT VOLATILE BY VOLUME (%)	Less than 0.4
SOLUBILITY IN WATER, % BY WEIGHT @	Negligible	EVAPORATION RATE (BUTYL ACETATE=1)	NA
APPEARANCE AND ODOR:	Solid pellets, various colors.		

IV. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (TEST METHOD)	Greater than 329°C (625°F) (Setchkin)	AUTOIGNITION TEMPERATURE	Greater than 357°C (675°F) (Setchkin)
FLAMMABLE LIMITS IN AIR PERCENT BY VOLUME	LOWER NA	UPPER NA	
EXTINGUISHING MEDIA:	Water, foam, carbon dioxide, or dry chemical.		
SPECIAL FIRE-FIGHTING PROCEDURES:	Standard procedures for Class A		
UNUSUAL FIRE AND EXPLOSION HAZARDS:	None		
NOTES: NA = NOT APPLICABLE			

This MSDS is for all types, grades and colors of copolymer pellets.

We cannot anticipate all conditions under which this information and our products, or the products of other manufacturers in combination with our products, may be used. We accept no responsibility for results obtained by the application of this information or the safety and suitability of our products, either alone or in combination with other products. Users are advised to make their own tests to determine the safety and suitability of each such product or product combination for their own purposes. Unless otherwise agreed in writing, we sell the products without warranty, and buyers and users assume all responsibility and liability for loss or damage arising from the handling and use of our products, whether used alone or in combination with other products.

HERCULES INCORPORATED · WILMINGTON, DELAWARE 19899

ATTN: LARRY BABULA
2 PAGES

E.G. Brooks
0274835-004
update
10-19-94



HIMONT

MATERIAL SAFETY DATA SHEET

HIMONT Incorporated
Three Little Falls Centre
2801 Centerville Road
P. O. Box 15439
Wilmington, DE 19850-5439

PRO-FAX Copolymers
Copolymer Pellets

MSDS No.: PR-004-4
Date: 05/20/94
Page: 1 of 2

Phone numbers: (302) 996-6000 (normal business hours)
(800) 424-9300 (CHEMTREC-Emergency-24 hours)

I. PRODUCT IDENTIFICATION

As HIMONT interprets the U.S. Occupational Safety and Health Act and Regulations, including the Hazard Communication Standard 29 CFR 1910.1200 dated November 25, 1983, these products should NOT be considered hazardous materials.

PRO-FAX Polymers
Propylene - ethylene copolymer pellets

HMIS* Rating

(This MSDS is for all types, grades, and colors of copolymer pellets.)

Health hazard: 0 Minimal
Flammability hazard: 1 Slight
Reactivity hazard: 0 Minimal

TSCA Registry: CAS#: 9010-79-1

Appearance and odor: Solid pellets, various colors; odorless

II. HAZARDOUS INGREDIENTS & EXPOSURE LIMITS

As Himont interprets the U.S. Occupational Safety and Health Act and Regulations, including the Hazard Communication Standard 29 CFR 1910.1200 dated November 25, 1983, these products should not be considered hazardous materials.

III. TYPICAL PHYSICAL & CHEMICAL CHARACTERISTICS

Boiling point: N/A	Solubility in water: Negligible
Vapor pressure @ 20°C: N/A	Specific gravity: 0.88-0.92
Vapor density: N/A	pH: N/A
% volatile (vol.): <0.4	Evaporation rate: N/A
Freezing/Melting point: >120°C (248°F)	

IV. FIRE, EXPLOSION & REACTIVITY HAZARD DATA

Flash point: >329°C (625°F) (Setchkin) Flammable limits: N/A

Autoignition temperature: >337°C (675°F) (Setchkin)

Extinguishing media: Water spray, dry chemical, foam, or carbon dioxide

Special fire-fighting procedures: Standard procedures for Class A fires. Use self-contained breathing apparatus (SCBA) and protective clothing for structural fire-fighting.

Unusual fire & explosion hazards: None

Stability considerations: Stable

Incompatibility with: Avoid contact with strong oxidizing agents.

Hazardous decomposition products: None

Hazardous products of combustion: Carbon dioxide, Carbon monoxide, other unidentifiable organic compounds.

Hazardous polymerization: Will not occur.

*HMIS (Hazardous Materials Identification System) Rating for the product as it is supplied.
N/A - not applicable

MSDS No. PR-004-4

Date: 05/20/94

Page 2 of 2

V. HEALTH HAZARD DATA

No known health hazards.

EMERGENCY AND FIRST AID PROCEDURES:

Molten Resins: If molten material comes in contact with the skin, immerse under a running stream of water until cooled. **DO NOT** attempt to remove the resin from the skin. Removal can result in tissue damage. Get immediate medical attention.

VI. SPILL & LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Sweep up spilled material for use or disposal.

CAUTION: Keep walking surfaces free of spilled material to avoid a slipping hazard.

Waste Disposal Method: Incineration of waste material in a permitted facility in accordance to local, state, and federal regulations is the recommended disposal method. Landfilling in a licensed facility in accordance to local, state, and federal regulations is a suitable alternative.

This product is not listed in federal hazardous waste regulations 40 CFR 261.33 paragraphs (e) or (f), i.e. chemical products that are considered hazardous if they become wastes. It does not exhibit any of the hazardous characteristics listed in 40 CFR 261 Subpart C. State or local hazardous waste regulations may apply if different from the federal.

VII. APPLICABLE CONTROL MEASURES

Personal protective equipment: Safety glasses

Work practices: Eyewash fountains and safety showers should be easily accessible.

Handling and storage precautions: Keep away from sparks and open flame.
This product may react with strong oxidizing agents and should not be stored near such materials.
Store in sprinklered warehouse.
Keep temperature below 60°C (140°F) for quality control.

Engineering controls: Provide adequate ventilation.
Extruder should be properly vented.

Protective measures during repair & maintenance: Eliminate ignition sources.

PR-004-4

Users acknowledge agreed in writing. Users assume any responsibility with respect to the information herein, its product or the safety or reliability thereof, or results obtained, whether expressed or implied, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose and/or any other warranty. Users and Users must determine the fitness for the application to the information and the safety and reliability of the products for their own operation. Users and Users assume all risk, responsibility, and liability whatsoever for any and all injuries, including death, illness, or damage to persons or property arising from the application of the information or use of products, whether or not caused by user's negligence or based on some product safety or product of liability or negligence. Users release and agree not to sue or sue for any liability in connection with the use of the information or products. Users are not to be held liable for special, consequential, or incidental damages.

MATERIAL SAFETY DATA SHEET

PMS NUMBER: 512393JPMB

***** SECTION IV * SPECIAL PRECAUTIONS *****

IN DUSTY CONDITIONS, USE OF A DUST RESPIRATOR CERTIFIED BY NIOSH IS RECOMMENDED. WASH HANDS AND FACE THOROUGHLY AFTER HANDLING AND BEFORE EATING, DRINKING OR USING TOBACCO PRODUCTS.
 VENTILATION: LOCAL EXHAUST IS RECOMMENDED TO CONTROL EXPOSURE TO WITHIN OSHA LIMITATIONS.

***** SECTION V * FIRE AND EXPLOSION DATA *****

FLASH POINT: NA AUTO IGNITION: NA LEL: NA UEL: NA

NFPA HAZARD CLASSIFICATION

FLAMMABLE: 1 HEALTH: 0 REACTIVITY: 0

EXTINGUISHING MEDIA : CO2 OR DRY CHEMICAL

SPECIAL FIRE FIGHTING PROCEDURES: WEAR SELF CONTAINED BREATHING APPARATUS.

UNUSUAL FIRE & EXPLOSION HAZARDS: NONE

***** SECTION VI * REACTIVITY DATA *****

POLYMERIZATION CONDITIONS TO AVOID : NONE

STABILITY : STABLE

CONDITIONS TO AVOID : TEMPERATURES ABOVE 700 DEG. C.

INCOMPATIBLE MATERIALS TO AVOID : NONE

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS : NONE

***** SECTION VII * PHYSICAL DATA *****

APPEARANCE AND ODOR: ODORLESS

BOILING RANGE : N/A VAPOR PRES (MM HG) : N/A
 FREEZING POINT : N/A SOLUBILITY / WATER : NEGLIGIBLE
 SPECIFIC GRAVITY : NA % VOLATILE : N/A

***** SECTION VIII * HANDLING AND DISPOSAL INFORMATION *****
 CONTINUED ON NEXT PAGE

EPA WASTE NO: NA

DOT CLASSIFICATION: NOT CLASSIFIED

HANDLING & SPILL PROCEDURES

IN ACCORDANCE WITH GOOD INDUSTRIAL PRACTICE, HANDLE WITH CARE AND AVOID PERSONAL CONTACT. AVOID BREATHING DUST, MISTS OR VAPORS. CONTAIN SPILLAGE AND SCOOP OR VACUUM. PLACE IN CLOSED CONTAINER FOR DISPOSAL. WEAR SPECIFIED PROTECTIVE EQUIPMENT IF DUST IS PRESENT OR PRODUCT IS IN LIQUID FORM.

WASTE DISPOSAL: DISPOSE IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS.

SECTION IX * INGREDIENT INFORMATION

THE FOLLOWING INGREDIENTS ARE LISTED IN OSHA'S Z TABLES. FOR OTHER REGULATORY INFORMATION SEE SECTION XI.

---INGREDIENT---	EPA LIST	PEL MG/M3 OSHA	TLV MG/M3 ACGIH
LIMESTONE	NO	15.00	10.00

INGREDIENTS NOT LISTED IN THIS PRODUCT ARE AT DE MINIMIS LEVELS OR CONSIDERED NON-HAZARDOUS.

SECTION X * INGREDIENT HEALTH HAZARD DATA

CARCINOGENICITY

NTP: NO

IARC: NO

OSHA: NO

CHRONIC HEALTH HAZARDS: REFER TO ROUTES OF ENTRY AND EFFECTS OF OVEREXPOSURE.

ROUTES OF ENTRY

INHALATION: YES

SKIN: YES

INGESTION: YES

EYES: YES

EFFECTS OF OVEREXPOSURE

INHALATION : MAY CAUSE IRRITATION TO UPPER RESPIRATORY TRACT.

SKIN : MAY CAUSE IRRITATION AND ALLERGIC REACTION.

CONTINUED ON NEXT PAGE

MATERIAL SAFETY DATA SHEET

PMS NUMBER: 512393JPMB

INGESTION : MAY CAUSE IRRITATION TO THE GASTROINTESTINAL TRACT.

EYES : MAY CAUSE IRRITATION.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: NONE

***** SECTION XI * OTHER REGULATORY INFORMATION *****

TSCA INVENTORY STATUS: UNLESS SPECIFIED, ALL CHEMICAL COMPONENTS ARE LISTED IN THE TSCA INVENTORY.

CONTAINS CHEMICALS ON CALIFORNIA'S PROPOSITION 65 LIST: NO

SARA TITLE III, SECTION 313 AND 40 CFR 372 NOTIFICATION

CHEMICAL NAME	CHEMICAL CAS NO.	HIGHEST % BY.WT.	ENVIRONMENTAL POLLUTANT
COPPER COMPOUND	147-14-8	1	NO

ALL OTHER CHEMICALS CONTAINED IN THIS PRODUCT ARE NOT SUBJECT TO SARA 313 REGULATIONS

STATE AND COMMUNITY RIGHT-TO-KNOW: SEE ABOVE.

THE INFORMATION AND RECOMMENDATIONS CONTAINED HEREIN ARE BASED UPON DATA SUPPLIED TO US BY OUR SUPPLIERS AND IS BELIEVED TO BE CORRECT. NO GUARANTEE OR WARRANTY OF ANY KIND EXPRESSED OR IMPLIED IS MADE WITH RESPECT TO ANY OTHER INFORMATION CONTAINED HEREIN.

FOR FURTHER INFORMATION, PLEASE CONTACT: JOHN HARTMANN