



HMC  
POLYMERS  
COMPANY LIMITED

MSDS Ref. No.: EP545L

Date-Revised: Aug 31, 2006

Revision No.:3

## MATERIAL SAFETY DATA SHEET

### 1. PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME** : *Moplen EP545L*

**PRODUCT DESCRIPTION** : *Propylene/ Ethylene Copolymer Pellets*

**MANUFACTURER**

HMC Polymers Company Limited  
Sathorn City Tower, 20<sup>th</sup> Floor  
175 South Sathon  
Bangkok 10120, Thailand  
Tel: 66-2-6796310

**24 HR. EMERGENCY TELEPHONE NUMBER**

Emergency Phone: 66-38-683861 ext. 257

HMC Polymers Company Limited  
Petrochemical Complex, P.O. Box 2  
Maptaphut Industrial Estate  
Muang, Rayong 21150, Thailand  
Tel: 66-38-683861

### 2. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Chemical Name</u>	<u>Wt.%</u>	<u>CAS #</u>
Propylene Ethylene Copolymer	>95	9010-79-1
Stabilizers (trade secret)	<5	

**COMMENTS** : This product is not considered a hazardous material at temperatures below the melting point as determined by HMC according to the U.S. Occupational Safety and Health Act definitions and regulation, including the Hazard Communication Standard 29 CFR 1910.1200. This product is not considered a controlled substance by HMC according to Canada's WHMIS regulations. Threshold Limit Values (TLV) or Permissible Exposure Limit (PEL) values are not established. This material is not expected to cause physiologic impairment at low concentration. Until a specific TLV is adopted by ACGIH (American Conference of Governmental Hygienists), or an OSHA (Occupational Safety and Health Administration) PEL standard is issued, HMC suggests that this material be treated as a nuisance dust or particulate in accordance with the recommendations of ACGIH.

### 3. HAZARDS IDENTIFICATION

#### EMERGENCY OVERVIEW

**PHYSICAL APPEARANCE** : Translucent to white solid pellets

**IMMEDIATE CONCERNS** : Spilled material may present a slipping hazard. This product as shipped is not classified as a combustible dust; however, a combustible concentration of dust may occur if fines are suspended in air. Avoid contact with strong oxidizing agents. When working with the material at temperatures above the melting point, the material will begin to decompose producing fumes that can contain carbon dioxide, carbon monoxide, ketones, acrolein, aldehydes and other unidentified organic compounds that come from the breakdown of the material. Adequate room and extruder ventilation should be provided to minimize exposures.

#### POTENTIAL HEALTH EFFECTS

**EYES**: Process vapors may irritate eyes.

**SKIN**: Exposure to molten resin may cause thermal burns.

**INGESTION**: Not Applicable.

**INHALATION**: Process vapors may cause respiratory tract irritation.

**SIGNS AND SYMPTOMS OF OVEREXPOSURE**

**EYES:** Irritation or redness.

**SKIN:** Not Applicable.

**INGESTION:** Not Applicable.

**INHALATION:** Irritation of the nose, throat and respiratory tract.

**ACUTE TOXICITY :** Process vapors may cause eye and respiratory tract irritation.

**CHRONIC :** None Known.

**CARCINOGENICITY :** None Known.

**MUTAGENICITY :** None Known

**REPRODUCTIVE TOXICITY**

**REPRODUCTIVE EFFECTS:** None Known.

**TERATOGENIC EFFECTS:** None Known.

**MEDICAL CONDITIONS AGGRAVATED:** None Known.

**ROUTES OF ENTRY:** Eye, Inhalation

**TARGET ORGAN STATEMENT:** None Known.

**CANCER STATEMENT:** This product is not considered to be a carcinogen by OSHA, IRAC or NTP.

**IRRITANCY:** Exposure to process vapors may cause eye and respiratory tract irritation.

**SENSITIZATION:** None Known.

**WARNING CAUTION LABELS:** Burn Risk – Avoid contact with molten resin. Explosion Risk – Prevent accumulation of dust particles. Slipping Risk – Keep walking surfaces free of spilled material. Vapor Risk – Provide ventilation to avoid exposure to process vapors.

**COMMENTS HEALTH:** None.

**HEALTH HAZARDS:** Process vapors may cause eye and respiratory tract irritation.

**PHYSICAL HAZARDS:** Spilled material may present a slipping hazard. Exposure to molten resin may cause thermal burns.

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**4. FIRST AID MEASURES**

**EYES:** Flush eyes with water for 15 minutes. Get medical attention.

**SKIN:** Molten resin – If molten material comes in contact with the skin, cool under ice water or a running stream of water. DO NOT attempt to remove the material from the skin. Removal could result in severe damage. Get medical attention.

**INGESTION:** Not Applicable.

**INHALATION:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

**ANTIDOTES:** Not Applicable.

**NOTES TO PHYSICIAN:** None.

**ADDITIONAL INFORMATION:** None.

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**5. FIRE FIGHTING MEASURES**

**AUTOIGNITION TEMPERATURE:** Not Determined.

**EXTINGUISHING MEDIA:** Use foam, carbon dioxide, or water spray when fighting fires involving this material.

**HAZARDOUS COMBUSTION PRODUCTS:** Carbon dioxide, carbon monoxide, ketones, acrolein, aldehydes, unidentified organic compounds.

**EXPLOSION HAZARDS:** Product as shipped is not a combustible dust. However, a combustible concentration of dust may occur when fines are suspended in air.

**FIRE FIGHTING PROCEDURES:** Standard procedure for Class A fires.

**FIRE FIGHTING EQUIPMENT:** As in any fire, water self-contained pressure demand breathing apparatus, (MSHA/NIOSH approved or equivalent) and full protective gear.

**SENSITIVE TO STATIC DISCHARGE:** Static discharge could be an ignition source for a combustible concentration of dust.

**SENSITIVITY TO IMPACT:** Not Applicable.

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## 6. ACCIDENTAL RELEASE MEASURES

**SMALL SPILL:** Sweep up material and place in a disposal container.

**LARGE SPILL:** Vacuum or sweep up material and place in a disposal container.

### ENVIRONMENTAL PRECAUTIONS

**WATER SPILL:** Keep pellets out from waterways.

**LAND SPILL:** Not Yet Determined.

**GENERAL PROCEDURES:** Vacuum or sweep up material and place in a disposal container.

**SPECIAL PROTECTIVE EQUIPMENT:** None.

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## 7. HANDLING AND STORAGE

**GENERAL PROCEDURES:** Keep away from heat, sparks and flame.

**HANDLING:** Ground and bond containers when transferring material.

**STORAGE:** This product may react with strong oxidizing agents and should not be stored near such materials. Store boxed and bags of material in areas protected with automatic sprinklers.

### COMMENTS : Precautions on Stacking Palletised Bags

- Only double-stack materials when the pallet is clearly stable, squared, and safe to be stacked.
- If the HMC delivery paperwork indicates that material may only be single stacked, or if the delivered pallets of material carry a pictogram indicating single stacking, then on no account should these materials be double stacked.
- Ensure that staff is skilled, and fully trained in safe handling of HMC's products.
- Only double-stack material in a cool, dry, warehouse environment.
- Keep walkways clear, and never stack product adjacent to walkways, including the front of a stack,
- Make regular visual inspections of the warehouse. Damaged or leaning stacks should immediately be de-stacked. Damaged bags should immediately be removed from the pallet.
- Product may be stacked in proprietary racking systems, which the racking vendor has confirmed as fit for purpose, incorporating proper support for the pallet, and designed for at least 1.5 tonnes gross pallet weight. Pallets stored in racking systems should be evenly distributed.
- The external overwrap film is part of the overall pallet integrity and once removed special care must be taken and pallets must only be single stacked.
- Never attempt to stack pallets stored outside.
- Never attempt to stack pallets on a sloping floor.
- Stacks can fall over within a few minutes when bottom bag(s) is(are) leaking. Before repairing the leaking bag(s), the top bag/pallet (if any) must be removed.
- It is not recommended to palletise or double-stack Jumbo-Bags.
- If in any doubt- Do not stack.
- Jumbo bags are designed for single trip use only, and should not be re-used.

**STORAGE TEMPERATURE:** 60°C (140°F) maximum.

**STORAGE TEMPERATURE NOTES:** Stored in a cool place below 60°C, 140°F.

**ELECTROSTATIC ACCUMULATION HAZARD:** Material may accumulate static charges during transfers. Ground and bond containers when transferring material.

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## 8. EXPLOSURE CONTROLS / PERSONAL PROTECTION

**ENGINEERING CONTROLS :** Provide adequate room ventilation. Provide adequate ventilation at the extruder to minimize exposure to process vapors. Eliminate ignition sources during repair and maintenance operations.

### PERSONAL PROTECTIVE EQUIPMENT

**EYES AND FACE:** Wear safety glasses with side shields (or goggles).

**SKIN:** When handling or processing resins at elevated temperatures or in a molten state, wear protective clothing over the skin to prevent contact.

**RESPIRATORY:** A respiratory protection program that meets OSHA 1910.134, ANSI Z88.2 and/or CSA Z94.4-93 requirements must be followed whenever workplace conditions warrant use of a respirator.

**PROTECTIVE CLOTHING:** When handling or processing resins at elevated temperatures or in a molten state, wear protective clothing over the skin to prevent contact.

**OTHER USE PRECAUTIONS:** Eyewash fountains and safety showers should be easily accessible.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

**PHYSICAL STATE :** Solid

**ODOR :** Slightly waxy odor

**APPEARANCE:** Pellet

**COLOR:** Translucent to white

**MELTING POINT:** >120<sup>0</sup>C (248<sup>0</sup>F)

**SPECIFIC GRAVITY:** 0.88 TO 0.92

**COMMENTS:**

**PERCENT VOLATILE:** <0.4%

**WATER SOLUBILITY:** Negligible

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## 10. STABILITY AND REACTIVITY

**STABLE:** Yes

**HAZARDOUS POLYMERIZATION:** No

**CONDITIONS TO AVOID:** Keep away from heat, sparks and flame.

**POLYMERIZATION:** Product will not undergo polymerization.

**HAZADOUS DECOMPOSITION PRODUCTS:** At elevated temperature the material will begin to decompose, producing fumes that can contain carbon dioxide, carbon monoxide, ketones, acrolein, aldehydes, unidentified organic compounds.

**INCOMPATIBLE MATERIALS:** Oxidizing materials.

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## 11. TOXICOLOGICAL INFORMATION

**GENERAL COMMENTS:** None Known

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## 12. ECOLOGICAL INFORMATION

**ENVIRONMENTAL DATA:** Not Available

**ECOTOXICOLOGICAL INFORMATION:** Not Available

**DISTRIBUTION:** Not Available

**CHEMICAL FATE INFORMATION:** Not readily biodegradable.

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## 13. DISPOSAL CONSIDERATIONS

**DISPOSAL METHOD:** (1) Recycle (reprocess). (2) Incineration including energy recovery of waste material in a permitted facility in accordance with local, state or provincial and federal regulations. (3) Landfilling in a licensed facility in accordance with local, state or provincial and federal regulations.

**RCRA HAZARD CLASS:** This product is not judged to be a hazardous waste by any local, state or federal regulations; however, it may be listed as industrial waste in some states or provinces. This product is not listed in the U.S. federal hazardous waste regulations, 40 CFR 261.33 paragraphs (e) or (f), i.e., chemical products that are considered hazardous if they become waste. 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.

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**14. TRANSPORT INFORMATION**

**SPECIAL SHIPPING NOTES:** This product is not regulated by DOT, IMO, IATA, Canadian TDG and associated regulations, ADR or RID.

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**15. REGULATORY INFORMATION****UNITED STATES****SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)**

**TITLE III NOTES:** This product is not subject to SARA Title III requirements.

**TSCA (TOXIC SUBSTANCE CONTROL ACT)**

**TSCA STATUS:** All ingredients in this product are in compliance with TSCA.

**OSHA HAZARD COMM. RULE:** This product is not considered a hazardous material at the temperatures below the melting point as determined by HMC Polymers according to OSHA definitions.

**CLEAN WATER ACT:** This product is not regulated under EPA's Clean Water Act/NPDES rules as "floating material". In addition, this product is considered "significant material" under the EPA's storm water permit rules.

**CANADA**

**WHMIS (WORKER HAZARDOUS MATERIALS INFORMATION SYSTEM):** This product is not considered a controlled substance under WHMIS. This MSDS meets WHMIS format requirements.

**CANADIAN ENVIRONMENTAL PROTECTION ACT:** All ingredients in this product are listed under CEPA on the DSL.

**EUROPEAN COMMUNITY**

**EUROPEAN COMMUNITY REGULATORY:** All ingredients are in compliance with EINECS/ELINCS.

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**16. OTHER INFORMATION**

**APPROVED BY :** Chinnarat Boonchu

**Title :** Innovation and Product Stewardship Manager

**MANUFACTURER DISCLAIMER:**

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