SDS Ref. No.: EP380T

Version: 12

Effective Date: June 22, 2018



SAFETY DATA SHEET

1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name: Substance name: Substance No.: *Moplen* EP380T Propylene Ethylene Copolymer 9010-79-1

1.2 Relevant identified uses of the substance or mixture and uses advised against Use of the Substance/Mixture: Manufacture of plastic articles by injection moulding

Manufacture of plastic articles by injection moulding, extrusion or other conversion process.

1.3 Details of the supplier of the safety data sheet

HMC Polymers Company Limited Sathorn City Tower, 20th Floor 175 South Sathorn Road Thungmahamek, Sathorn Bangkok 10120, Thailand Tel: 66-2-614 3700

HMC Polymers Company Limited Maptaphut Industrial Estate 6 Moo 8, I-1 Road Muang, Rayong 21150, Thailand Tel: 66-38-683861 **1.4 Emergency telephone** 66-38-683385

2. Hazards identification

Not a hazardous or mixture according to Global Harmonized System (GHS) Classification

2.1 Classification of the substance or mixture

Classification (Notification of Ministry of Industry, Subject: Chemical Hazard Classification and Chemical Hazard Communication, B.E.2555)

Not a hazardous substance or mixture according to Notification of Ministry of Industry, Subject: Chemical Hazard Classification and Chemical Hazard Communication, B.E.2555.

2.2 Label elements

Labeling (Notification of Ministry of Industry, Subject: Chemical Hazard Classification and Chemical Hazard Communication, B.E.2555)

Not a hazardous substance or mixture according to Notification of Ministry of Industry, Subject: Chemical Hazard Classification and Chemical Hazard Communication, B.E.2555.

3. Composition/information on ingredients

| Chemical name | CAS-No. | Weight % |
|------------------------------|-----------|----------|
| Propylene Ethylene Copolymer | 9010-79-1 | > 95 |

Contains: Stabilizers

| 4. First aid measures General advice: | Take proper precautions to ensure your own health and safety before attempting rescue and providing first aid. |
|---|--|
| If inhaled: | Remove person to fresh air. If signs/symptoms continue, get medical attention. Keep person warm, if necessary give Cardio-Pulmonary Resuscitation (CPR) |
| In case of skin contact: | If molten material contacts the skin, immediately flush with large amounts of water to cool the affected tissue and polymer. Do not attempt to peel polymer from skin as this will remove the skin. Obtain immediate emergency medical attention if burn is deep or extensive. |
| In case of eye contact: | Flush eyes thoroughly with water for several minutes and seek medical attention if discomfort persists. In case of eye contact with molten polymer: Continuously flush eye(s) with cool running water for at least 15 minutes. |
| If swallowed: | Adverse health effects due to ingestion are not anticipated. |
| Notes to physician Symptoms: | Inhalation of process fumes and vapors may cause soreness in the nose and throat and coughing. |
| Hazards: | Dust contact with the eyes can lead to mechanical irritation. Molten polymer may cause thermal burns. |
| 5. Fire-fighting measures Suitable extinguishing media: | SMALL FIRE, Use dry chemical, CO2, or water spray. LARG FIRES, Use water spray hose nozzles from a safe location. |
| Unsuitable extinguishing media: | None known. |
| Special hazards during fire fighting: | During a fire, may contain smoke and gas which may be toxic and/or irritating. |
| Special protective equipment for fire-fighters: | Wear approved positive pressure self-contained breathing apparatus and firefighter protective clothing. |
| 6. Accidental release measures Personal precautions: | Use appropriate safety equipment. Creates dangerous slipping hazard on any hard smooth surface. Avoid generating dust. Equip emergency responders with proper personal protective equipment (PPE). Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Potential combustible dust hazard. |
| Environmental precautions: | Do not flush into surface water or sanitary sewer system. |
| Methods for cleaning up: | On land, sweep/shovel into suitable disposal containers or |

On water, material is insoluble; collect and contain as any solid.

All recovered material should be packaged, labeled, transported and disposed.

7. Handling and storage

Handling Advice on safe handling: Material is in a pellet form. If converted to small particles during further processing, handling, or by other means, may form combustible dust concentrations in air. Avoid dust accumulation in enclosed space. Avoid generating dust; fine dust suspended in air and in the presence of an ignition source is a potential dust explosion hazard. Static discharge (spark), or other ignition sources, in high dust environments may ignite the dust and result in a dust explosion. Electrostatic charge may build during conveying or handling. Equipment handling polymer should be conductive and grounded (earthed) and bonded. Metal containers involved in the transfer of this material should be grounded and bonded. All electrical equipment should conform to applicable electric codes and regulatory requirements for areas handling combustible dusts. After handling, always wash hands thoroughly with soap and water. When bringing the material to processing temperatures vapors may develop may condense in the exhaust ventilation. See section 10. Storage Requirements for storage Store in a dry location. Use good housekeeping practices during storage, transferring areas and containers: and handling. Process enclosures and adequate ventilation should be used to avoid excessive dust accumulation. Store away from excessive heat and away from strong oxidizing agents. Keep container closed to prevent contamination. Take measures to prevent the buildup of electrostatic charge.

8. Exposure controls/personal protection

| Engineering control: | Provide adequate room ventilation. Provide adequate ventilation at the extruder to minimize exposure to process vapors. Eliminate ignition sources during repair and maintenance operations. |
|-------------------------|--|
| Respiratory protection: | When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Use appropriate respiratory protection where atmosphere exceeds recommended limits. Where workers could be exposed to dust concentrations above the exposure limit they must use appropriate certified respirators. |

| Hand protection: | Wear gloves that provide thermal protection where there is a potential for contact with heated material. |
|---------------------------|--|
| Eye protection: | Dust service goggles should be worn to prevent mechanical injury or other irritation to eyes due to airborne particles which may result from handling this product. |
| Skin and body protection: | Wear suitable protective clothing. |
| Hygiene measures: | Selection of appropriate personal protective equipment should be based on an evaluation of the performance characteristics of the protective equipment relative to the task(s) to be performed, conditions present, duration of use, and the hazards and/or potential hazards that may be encountered during use. Use good personal hygiene practices. Wash hands before eating, drinking, smoking, or using toilet facilities. Take off contaminated clothing and wash before reuse. |

9. Physical and chemical properties

| Appearance Physical state: | Pellets |
|---|--|
| Color: | Translucent to white |
| Odor: | Slightly waxy odor |
| Safety data Melting point: | >120°C (248°F) |
| Lower explosion limit: | The minimum explosive concentration (MEC) for polymer dust varies according to particle size distribution. |
| Upper explosion limit: | Not applicable. |
| Flammability (solid, gas): | Polymer will burn but does not easily ignite. |
| Oxidizing properties: | Not considered an oxidizing agent. |
| pH: | Not applicable. |
| Water solubility: | Insoluble. |
| Specific gravity: | 0.88 To 0.92 |
| 10. Stability and reactivity Conditions to avoid: | Avoid contact with strong oxidizers, excessive heat, sparks or open flame. |
| Materials to avoid: | Material may be softened by some hydrocarbons. |
| Hazardous decomposition products: | Not expected to decompose under normal conditions. |
| Thermal decomposition: | Carbon monoxide, olefinic and paraffinic compounds, trace amounts of organic acids, ketones, aldehydes and alcohols may be formed. |
| Hazardous reactions: | Will not occur. |

11. Toxicological information

| Acute toxicity Acute oral toxicity: | Not classified |
|--|--|
| Acute inhalation toxicity: | Not classified |
| Acute dermal toxicity: | Not classified |
| Skin corrosion/irritation: | Not a skin irritant |
| Serious eye damage/eye irritation: | Not an eye irritant. Mechanical irritation is possible |
| Respiratory or skin sensitization: | Not classified |
| Chronic toxicity Carcinogenicity: | Not classified |
| Germ cell mutagenicity: | Not classified |
| Teratogenicity: | Not classified |
| Toxicity for reproduction: | Not classified |
| Target Organ Systemic Toxicant - Single exposure: | The substance or mixture is not classified as specific target organ toxicant, single exposure. |
| Target Organ Systemic Toxicant - Repeated exposure: | The substance or mixture is not classified as specific target organ toxicant, repeated exposure. |
| Toxicalit - hepeated exposure. | larger organ lonicant, repeated exposure. |
| Aspiration hazard: | Not applicable |
| | |
| Aspiration hazard: 12. Ecological information | Not applicable |
| Aspiration hazard: 12. Ecological information Bioaccumulation: Additional advice Environmental fate and | Not applicable This material is not expected to bioaccumulate. |
| Aspiration hazard: 12. Ecological information Bioaccumulation: Additional advice Environmental fate and Pathways: | Not applicable This material is not expected to bioaccumulate. This material is not volatile and insoluble in water. |
| Aspiration hazard: 12. Ecological information Bioaccumulation: Additional advice Environmental fate and Pathways: Biodegradability: Further information on ecology | Not applicable This material is not expected to bioaccumulate. This material is not volatile and insoluble in water. Not expected to be biodegradable |
| Aspiration hazard: 12. Ecological information Bioaccumulation: Additional advice Environmental fate and Pathways: Biodegradability: Further information on ecology Acute aquatic toxicity: | Not applicable This material is not expected to bioaccumulate. This material is not volatile and insoluble in water. Not expected to be biodegradable Not classified |

14. Transport information Not regulated for transport

15. Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Thailand: Hazardous Substance Act, B.E. 2535

This product does not contain substances listed #4 (Prohibitive Substances) in Thai Hazardous Substances Act.

16. Other information

Revision

- 0. Created safety data sheet
- 1. Revised BKK office and emergency telephone no.
- 2-7. Revised revision
- 8. Revised safety data sheet format
- 9. Revised disclaimer
- 10. Updated address
- 11. Changed format
- 12. Updated disclaimer

MANUFACTURER DISCLAIMER:

The information contained in this Safety Data Sheet has been compiled from sources, which HMC Polymers considers reliable and accurate to the best of HMC Polymers' knowledge. The information relates only to the specific product described above, and not to use of the product in combination with another material. Customers and other users should read this SDS and the product label carefully before using the product. HMC Polymers neither assumes, nor authorizes anyone to assume on HMC Polymers' behalf, any liability in connection with the use of the information in this SDS.

Customers and other users should do their own testing before making commercial use of the product to ensure that the product is fit for the intended application and that the product can be used, and any waste material disposed of, safely, properly, and legally based on the customer's or other user's circumstances.

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This product(s) may not be used in the manufacture of any of the following, without prior written approval by Seller for each specific product and application:

(i) U.S. FDA Class I or II Medical Devices; Health Canada Class I, II or III Medical Devices; European Union Class I or II Medical Devices;

(ii) film, overwrap and/or product packaging that is considered a part or component of one of the aforementioned medical devices;

(iii) packaging in direct contact with a pharmaceutical active ingredient and/or dosage form that is intended

for inhalation, injection, intravenous, nasal, ophthalmic (eye), digestive, or topical (skin) administration;

(iv) tobacco related products and applications, electronic cigarettes and similar devices.

(v) safety components in automotive applications, for example: air bags, air bag unit housings and covers, seat belt mechanisms, brake systems, pedals and pedal supports, steering systems.

The product(s) may not be used in:

(i) U.S. FDA Class III Medical Devices; Health Canada Class IV Medical Devices; European Class III Medical Devices;

(ii) applications involving permanent implantation into the body;

(iii) life-sustaining medical applications.

All references to U.S. FDA, Health Canada, and European Union regulations include another country's equivalent regulatory classification.