SAFETY DATA SHEET

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

1.1 Product identifier

Trade name:	*Moplen* HP500L
Substance name:	Polypropylene Homopolymer
Substance No.:	9003-07-0

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, 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.

Emergency Overview

If small particles are generated during further processing, handling or by other means, may form combustible dust concentrations in air.

At process temperatures irritation fumes may be produced.

Molten polymer may cause thermal burns.

Slipping hazard if spilled on hard smooth walking surface.
The material can accumulate static charges which could be a source of ignition.

Physical-chemical, Health, Environmental Hazard Description

Health hazards

Eyes:	Mechanical irritation is possible.
Ingestion:	Ingestion not a likely route of exposure
Inhalation:	Inhalation of process fumes and vapors may cause soreness in the nose and throat and coughing. “Nuisance dust” such as polymer dust typically exhibit no significant health effect when they are reasonably controlled. Exposure to high concentrations of dust may cause slight irritation by mechanical action.
Skin:	Molten polymer may cause thermal burns.

Other hazards

No additional information available.

3. Composition/information on ingredients

Chemical name	CAS-No.	Weight %
Polypropylene Homopolymer	9003-07-0	> 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 vacuum using equipment which avoids ignition risk. 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 areas and containers:

Store in a dry location.

Use good housekeeping practices during storage, transferring 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.
Autoignition temperature:	> 300 °C
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.

Aspiration hazard:	Not applicable

12. Ecological information

Bioaccumulation:	This material is not expected to bioaccumulate.
Additional advice Environmental fate and Pathways:	This material is not volatile and insoluble in water.
Biodegradability:	Not expected to be biodegradable

Further information on ecology

Acute aquatic toxicity:	Not classified
Chronic aquatic toxicity:	Not classified
Results of PBT:	Not applicable

13. Disposal considerations

Product :	All recovered material should be packaged, labeled, transported and disposed of or reclaimed in conformance with applicable laws and regulations and in conformance with good engineering practices. Reclaim where possible. Recycle if possible.

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 safety data sheet format
2. Revised disclaimer
3. Updated address
4. Changed format
5. Updated disclaimer
6. Updated section 2 and 9

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.

HMC POLYMERS MAKES NO WARRANTIES, EXPRESS OR IMPLIED, WITH RESPECT TO THE PRODUCT, INCLUDING (WITHOUT LIMITATION) WARRANTIES OF MERCHANABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THE CUSTOMER OR OTHER USER OF THE PRODUCT ASSUMES ALL RISK AND LIABILITY ARISING OUT OF THE USE OF THE PRODUCT, WHETHER USED ALONE OR IN COMBINATION WITH OTHER MATERIALS. HMC POLYMERS' LIABILITY, IF ANY, FOR BREACH OF CONTRACT, BREACH OF WARRANTY, NEGLIGENCE (INCLUDING THAT OF HMC POLYMERS) OR OTHER TROT, STRICT LIABILITY, OR ANY OTHER CLAIM SHALL NOT EXCEED IN AMOUNT THE PURCHASE PRICE OF HMC POLYMERS PRODUCTS WITH RESPECT TO WHICH SUCH CAUSE AROSE. IN NO EVENT SHALL HMC POLYMERS BE LIABLE FOR CONSEQUENTIAL, SPECIAL, OR INCIDENT DAMAGE.

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.