



The Polyolefin Company (Singapore) Pte Ltd

Printed date & time:

30/03/2012 08:54

Revision date:

29/02/2012

MSDS Reference No.:

TPC142

## Material Safety Data Sheet

### 1 Chemical product & company identification:

|                                |  |
|--------------------------------|--|
| Product name:                  | COSMOTHENE ® LDPE  |
| Chemical name:                 | Low Density Polyethylene   |
| Chemical formula:              | -----[--CH2 - CH2--]-----  |
| Grade name:                    | G810S  |
| CAS No.:                       | 9002-88-4  |
| Manufacturer's name & address: | THE POLYOLEFIN COMPANY (S) PTE LTD<br>Office: 150, Beach Road, #10-00<br>Gateway West.<br>Singapore 189720<br>Plant: 400/401 Pulau Ayer Merbau<br>Singapore 628285 |
| Telephone number:              | (65)-6292-9622 (Office)  |
| Fax number:                    | (65)-6293-8890, (65)-6292-6595.  |

### 2 Composition/information on ingredients:

|                              |              |
|------------------------------|--------------|
| Major component name:        | Polyethylene |
| Percent by volume or weight: | > 99%        |
| Component name:              | Additives    |
| Percent by volume or weight: | <1%          |

### 3 Hazards identification:

|                   |                             |
|-------------------|-----------------------------|
| Types of hazards: |                             |
| Corrosive:        | No                          |
| Flammable:        | It burns easily under fire. |
| Oxidising:        | No                          |
| Toxic:            | No                          |
| Explosive:        | No                          |

### 4 First-aid measures:

|             |   |
|-------------|---|
| Inhalation: | If exposed to the thermal decomposition gas, remove the person from exposure to fresh air environment. If difficulty in breathing occurs, administer artificial respiration, followed by oxygen and seek medical attention immediately.   |
| Contact:    |   |
| Eye:        | If irritation develop, seek medical attention immediately.  |
| Skin:       | Pellet is inert and harmless. If irritation develop, seek medical attention immediately. If in contact with hot molten resin, do not peel off the hot molten resin from skin, but flush with plenty of water (min 15 minutes) to cool down the thermal burned skin quickly and then seek medical attention immediately. |
| Ingestion:  | If illness or adverse symptoms develop, seek medical attention immediately.   |



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### 5 Fire fighting measures:

|  |   |
|--|---|
| Types of fire fighting agents:             | Water spray, foam, carbon dioxide, dry chemicals.   |
| Precautions to be observed:                | Dense smoke and hazardous gases (Carbon monoxide and Carbon dioxide) will be emitted when it is burned without sufficient oxygen. Resin when melted will spread on the floor which it will catch fire easily. |
| Protective clothing & breathing apparatus: | Wear appropriate safety equipment for fire conditions (including positive pressure self contained apparatus (SCBA) and protective fire-fighting garments).  |

### 6 Accidental release measures:

|  |  |
|--|--|
| Personal protective equipment including breathing apparatus: | When handling molten resin, use thermal resistant gloves.  |
| Steps to be taken:   | Spilled pellet is a slipping hazard. Sweep up and discard. Keep out of water sources and sewers. In case of molten resin spillage, cool it down with water and then dispose accordingly. |

### 7 Handling & storage:

|                        |  |
|------------------------|--|
| Handling:              | Wear appropriate personal protection equipment. Material is in solid form and is non-hazardous. No risk to the health of operators when handling at room temperature. During processing, avoid inhalation of the fumes and vapors. |
| Ventilation:           | Workplace must be equipped with a good ventilation system and fume collector (if necessary).   |
| Storage container:     | Store away from heat or flames. Have good housekeeping to prevent dust accumulation. Avoid contact with hot aromatic, chlorinated solvents and other hot strong oxidants.  |
| Conditions of storage: | Not relevant.  |

### 8 Exposure controls/personal protection:

|                                |  |
|--------------------------------|--|
| Engineering controls:          | Not relevant   |
| Personal protective equipment: |  |
| Eye protection:                | Use safety glasses.  |
| Respiratory protection:        | Use dusk mask.   |
| Skin protection:               | Normal clothing. When handling hot molten resin, wear thermal resistant hand gloves. |



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### 9 Physical & chemical properties:

|                                |   |
|--------------------------------|---|
| Appearance:                    | Solid, opaque / translucent pellet              |
| Odour:                         | Odourless                                       |
| Boiling points:                | Not applicable                                  |
| Melting points: (°C)           | 102 ~ 106                                       |
| Vapour pressure:               | Not applicable                                  |
| Specific gravity:              | 0.91 - 0.93                                     |
| Solubility in water:           | Not soluble                                     |
| Other properties:              | Soluble in hot aromatic or chlorinated solvents |
| Autoignition temperature: (°C) | Not applicable                                  |

### 10 Stability & reactivity:

|  |  |
|--|--|
| Stability:                                   | Stable   |
| Thermal decomposition temperature: (°C)      | > 300  |
| Decomposition products:                      | Carbon monoxide and carbon dioxide may be generated.       |
| Polymerization:                              | Will not occur   |
| Incompatible materials:                      | Hot aromatic, chlorinated solvents and hot strong oxidants |
| SADT for organic peroxides where applicable: | Not applicable   |

### 11 Toxicological information:

|  |  |
|--|--|
| Routes of entry:                             | Inhalation: Vapors produced are unlikely at room temperature (with reference to the physical properties). Dust may produce irritation to the mucous membrane of the nose, throat and upper respiratory tract.<br>Skin contact: Essentially non-irritating but in contact with hot molten resin can cause severe burned.<br>Ingestion: May cause choking if swallowed. Resin itself is inert and harmless. Ingestion must be avoided. |
| Acute effects:                               | No known applicable information  |
| Chronic effects:                             | No known applicable information  |
| Hazard ratings & permissible exposure level: | No known applicable information  |

### 12 Ecological information:

|  |                                 |
|--|---------------------------------|
| Mobility:  | No known applicable information |
| Persistence & biodegradability:                  | No known applicable information |
| Bio-accumulative potential:                      | No known applicable information |
| Aquatic toxicity & data relating to ecotoxicity: | No known applicable information |



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### 13 Disposal considerations:

|                                    |   |
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| Disposal methods:                  | Recover for reuse if possible. It may be buried on an authorized landfill site or be incinerated, however these disposal methods shall comply with the local authorities legislation. |
| Disposal containers:               | Not relevant  |
| Precautions during waste handling: | Not applicable  |

### 14 Transport information:

|                                 |  |
|---------------------------------|--|
| Type of packaging:              | Standard 25 kg resin bag, 650 kg fle-con bag or sea bulk containers. |
| Labelling:                      | Not applicable   |
| Placarding:                     | Not applicable   |
| Special transport requirements: | Not applicable   |

### 15 Regulatory information:

|                            |   |
|----------------------------|---|
| Local regulations:         | Reference to Singapore Standard SS 586, part 1, 2 & 3   |
| International regulations: | OSHA HAZARD COMMUNICATION STANDARD. This product is NOT a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard 29 CFR 1910.1200. |

### 16 Other information:

|   |   |
|---|---|
| Training advice:                                      | Not required  |
| Recommended uses & restrictions:<br>(FDA information) | Not applicable  |
| RoHS Compliance:                                      | The substance regulated by the EU Directive 2002/95/EC on RoHS in electrical and electronic equipment are not used in the manufacture of this product and are therefore not expected to be present. |
| EINECS number:  | None  |
| Written references and/or technical contact points:   | Not applicable  |
| Sources of key data used to compile the data sheet:   | Not applicable  |