

**Safety Data Sheet - Ipethene® 4140**

According to Regulation (EC) No 1907/2006 (REACH) as amended by Commission Regulation (EU) 2020/878

Date of issue: 01/01/2024

**1. Identification of the substance / mixture and of the company/ undertaking****1.1 Product identifier**

**Trade name** Ipethene® 4140  
**Chemical Name** Low density polyethylene  
**Chemical Formula** (C<sub>2</sub>H<sub>4</sub>)<sub>n</sub>  
**CAS No. Designation** 9002-88-4

**1.2 Relevant identified uses of the substance/ mixture**

**Recommended use** Raw material for industrial use into plastic articles  
Not recommended for medical or pharmaceutical applications

**1.3 Details of the supplier of the safety data sheet**

**Manufacturer** Carmel Olefins Ltd.  
P.O.B. 1468 HAIFA 31014, Israel  
**Contact** R&D and Customer Service Department  
**Telephone** +972-4-8466813  
**E-mail** techserv@caol.co.il  
**Website** <http://www.carmel-olefins.co.il>

**1.4 Emergency telephone number**

**Emergency Number** +972-4-8466025

**2. Hazards Identification**

**2.1 Classification** This product is not classified as hazardous according to EC regulation no. 1272/2008 (CLP) and subsequent amendments up to and including regulation no. 2023/1434.

**2.2 Labelling** This product does not require labelling according to EC regulation no. 1272/2008 (CLP) and subsequent amendments up to and including regulation no. 2023/1434.

**2.3 Other hazards** Spilled granulated material may present a slipping hazard.  
Molten product may adhere to the skin and cause thermal burns.  
Fumes produced during melt processing may cause eye, skin, and respiratory tract irritation.  
Dust formation may present a potential dust explosion hazard.  
Static electricity may build up during conveying and handling

**3. Composition/Information on Ingredients****3.1 Substances**

| Chemical name            | CAS No.   | Concentration (%) |
|--------------------------|-----------|-------------------|
| Low density polyethylene | 9002-88-4 | >99.5%            |

**4. First Aid Measures****4.1 Description of first aid measures**

**General information** The measures listed below apply to critical situations such as fire, incorrect process conditions, etc.  
At room temperature the product is neither irritating nor emitting hazardous vapors.

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| <b>Inhalation</b>   | In case of excessive inhalation of fumes that may be generated during heating of this material, move the person to fresh air and get medical attention. Keep person warm, if necessary give artificial respiration or oxygen.   |
| <b>Skin contact</b>   | In case of contact with molten product cool rapidly with cold water. Do not try to remove solidified product from the skin as this will damage the skin.<br>Seek medical attention.   |
| <b>Eye contact</b>  | Rinse opened eye for 15 minutes under running water. Get medical attention. Do not attempt to remove any material adherent to the eye.  |
| <b>Ingestion</b>  | Adverse health effects due to ingestion are not anticipated. Seek medical advice if necessary.  |
| <b>4.2 Most important symptoms and effects, both acute and delayed</b>                |   |
| <b>Symptoms</b>   | Dust, if generated, can cause mechanical irritation to the eyes. Inhalation of process fumes may affect respiratory system.   |
| <b>4.3 Indication of any immediate medical attention and special treatment needed</b> |   |
| <b>Treatment</b>  | Control the symptoms and if necessary seek medical attention.   |
| <b>5. Fire-fighting measures</b>  |   |
| <b>5.1 Extinguishing media</b>  |   |
| <b>Suitable extinguishing agents</b>  | Water spray<br>Foam<br>Carbon dioxide (CO <sub>2</sub> )<br>Chemical powder   |
| <b>Unsuitable extinguishing agents</b>  | Water stream (as it may scatter and spread fire)  |
| <b>5.2 Special hazards arising from the substance or mixture</b>                      |   |
| <b>Special hazards caused products of combustion or resulting gases</b>               | Keep away from heat and sources of ignition. Products of combustion: carbon monoxide (CO), carbon dioxide (CO <sub>2</sub> ) and unburned hydrocarbons (smoke).<br>The formation of hydrocarbons and aldehydes is possible in the initial stages of fire (especially in between 400°C and 700°C). |
| <b>5.3 Advice for firefighters</b>  |   |
| <b>Protective equipment</b>   | Breathing apparatus and firefighting full-protective clothing.  |
| <b>Additional information</b>   | Heat value: 8000 - 11000 kcal/kg.   |
| <b>6. Accidental Release Measures</b>   |   |
| <b>6.1 Personal precautions, protective equipment and emergency procedures</b>        |   |
| <b>Personal safety precautions</b>  | Wear proper personal protective equipment during handling with the material.<br>Avoid contact with eyes and skin.<br>Avoid inhalation.<br>Avoid dust formation.<br>Collect spilled polymer to avoid slipping hazard   |
| <b>6.2 Environmental precautions</b>  |   |
| <b>Measures for environmental protection</b>  | Do not flush into surface and ground water or sanitary sewer system.  |

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| <b>6.3 Methods and material for containment and cleaning up</b>         |   |
| <b>Measures for cleaning/collecting</b>                                 | Sweep into suitable containers for disposal according to local regulations. To avoid dusting do not use aggressive brush or compressed air.<br>Use non-sparking tools and equipment.  |
| <b>Additional information</b>   | See sections 8 and 13 for more information-   |
| <b>7. Handling and Storage</b>  |   |
| <b>7.1 Precautions for safe handling</b>                                |   |
| <b>Information for safe handling</b>                                    | Handle in accordance with safety practices. No special requirements necessary if handled at room temperature.<br>Material is in a pellet form, avoid spilling, as it might cause falls.<br>Provide appropriate ventilation and dust collection systems, Small particles formed during storage, handling, processing, or by other means may form combustible dust concentrations in air. Avoid dust accumulation in enclosed space, since in the presence of an ignition source or static discharge (spark) it presents potential dust explosion hazard. If dust is created, safety measures against explosion have to be taken.<br>Electrostatic charge may build during conveying or handling, so all pneumatic transport equipment must be electrically grounded.<br>Do not eat, drink and smoke in work areas and wash hands after use |
| <b>7.2 Conditions for safe storage, including any incompatibilities</b> |   |
| <b>Requirements to be met by storerooms and containers</b>              | Store at ambient temperature and atmospheric pressure in original packaging or in a grounded metal container.<br>Polymer burns when ignited, but does not easily ignite.<br>Protect from heat, direct sunlight and strong oxidizing agents.<br>Store under dry conditions.  |
| <b>7.3 Specific end use(s)</b>  |   |
| <b>Specific applications</b>  | See section 1.2<br>Consult the technical data sheet for the use of this substance.  |
| <b>8. Exposure Controls/ Personal Protection</b>                        |   |
| <b>8.1 Control parameters</b>   |   |
| <b>occupational exposure limit values</b>                               | Not established.  |
| <b>8.2 Exposure controls</b>  |   |
| <b>Appropriate engineering controls</b>                                 | Keep appropriate ventilation in the working area. If this cannot be achieved, enclosed systems, and other engineering controls such as local exhaust ventilation should be used. Wear self-contained breathing apparatus if necessary. Ensure that dust-handling systems are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment).  |
| <b>Personal protective equipment</b>                                    |   |
| <b>General protective and hygienic measures</b>                         | Do not eat, drink or smoke while working.<br>Wash hands and skin after using the product.   |

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| <b>Respiratory protection</b>          | Provide system for collecting the dust and vapors which may be formed during the working process. If appropriate ventilation is not available, use suitable respiratory equipment during handling or processing.                         |
| <b>Hand protection</b>                 | Wear gloves that provide thermal protection where there is a potential for contact with heated material.   |
| <b>Eye and face protection</b>         | Safety goggles/ face shield should be worn to prevent mechanical injury or other irritation to eyes due to airborne particles or melt which may result from handling or processing this product.   |
| <b>Skin and body protection</b>        | Wear appropriate protective clothing.<br>Safety and non-slipping professional boots or shoes.  |
| <b>Environmental exposure controls</b> | Handle the substance according to good industrial hygiene practice<br>Emissions from working with the material should comply with the requirements of local environmental protection legislation.<br>See section 6 for more information. |

## 9. Physical and Chemical Properties

### 9.1 Information on basic physical and chemical properties

|                                      |  |
|--------------------------------------|--|
| <b>Physical state and appearance</b> | Solid plastic pellets (granules)   |
| <b>Color</b>                         | Translucent to white   |
| <b>Odor</b>                          | Slight / characteristic  |
| <b>Melting Point / range</b>         | 110-115°C (at atmospheric pressure)  |
| <b>Boiling Point / range</b>         | Not applicable   |
| <b>Flash Point</b>                   | Not applicable   |
| <b>Flammability</b>                  | Polymer will burn (if ignited).  |
| <b>Autoignition temperature</b>      | > 300°C  |
| <b>Decomposition temperature</b>     | > 300°C  |
| <b>Danger of explosion</b>           | Polymer pellets are not explosive.<br>Note: The minimum explosive concentration for polymer dust varies according to particle size distribution. |
| <b>Density at 20°C</b>               | 0.91-0.93 g/cm <sup>3</sup>  |
| <b>Solubility in water</b>           | Insoluble  |
| <b>Bulk Density at 20°C</b>          | 400-600 kg/m <sup>3</sup>  |
| <b>9.2 Other information</b>         | No additional information available  |

## 10. Stability and Reactivity

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| <b>10.1 Reactivity</b>                         | No known reactivity hazards.   |
| <b>10.2 Chemical stability</b>                 | The product is stable and is not expected to decompose under normal handling and storage conditions.                       |
| <b>10.3 Possibility of hazardous reactions</b> | Reactions with which release excessive pressure or heat, or creating other hazardous conditions are not expected to occur. |

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| <b>10.4 Conditions to avoid</b>                                 | Avoid contact with strong oxidizing agents.<br>Avoid using excessive heat, sparks or flames.<br>Avoid dust formation.   |
| <b>10.5 Incompatible materials</b>                              | Material may be softened by some hydrocarbons   |
| <b>10.6 Hazardous decomposition products</b>                    | Hazardous decomposition products are not expected under normal conditions.<br>No dangerous reactions known.<br>Thermal decomposition products may be: carbon monoxide, olefinic and paraffinic compounds, trace amounts of organic acids, ketones, aldehydes and alcohols may be formed as a result of thermal decomposition. |
| <b>11. Toxicological Information</b>                            |   |
| <b>11.1 Information on toxicological effects</b>                |   |
| <b>Acute toxicity</b>   | Not classified  |
| <b>Skin corrosion/ irritation</b>                               | Not a skin irritant   |
| <b>Serious eye damage/irritation</b>                            | Dust may cause irritation to the eyes.  |
| <b>Respiratory or skin sensitization;</b>                       | Dust may cause irritation to the skin and respiratory tract<br>Decomposition products may cause headache and/ or irritation to the respiratory tract.   |
| <b>Chronic toxicity</b>   | Not classified  |
| <b>Germ cell mutagenicity</b>                                   | Not classified  |
| <b>Carcinogenicity</b>  | Not classified  |
| <b>Reproductive toxicity</b>                                    | Not classified  |
| <b>Specific Target Organ Toxicity (STOT)-single exposure</b>    | The substance or mixture is not classified as specific target organ toxicant, single exposure.  |
| <b>Specific Target Organ Toxicity (STOT) -repeated exposure</b> | The substance or mixture is not classified as specific target organ toxicant, repeated exposure.  |
| <b>Aspiration hazard</b>  | Not applicable.   |
| <b>11.2 Information on other hazards</b>                        |   |
| <b>Additional toxicological information</b>                     | When used and handled according to specifications previously mentioned, the product does not have any harmful effects according to our experience and the information provided to us.   |
| <b>12. Ecological Information</b>                               |   |
| <b>12.1 Ecotoxicity effects</b>                                 | This product has no known eco-toxicological effects.  |
| <b>12.2 Persistence and degradability</b>                       | This product is not expected to be biodegradable.   |

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| <b>12.3 Bioaccumulative potential</b>  | This product is not expected to be bioaccumulative.  |
| <b>12.4 Mobility in soil</b>   | No data available  |
| <b>12.5 Results of PBT and vPvB assessment</b>   | This product is not classified as either persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB).   |
| <b>12.6 Endocrine disrupting properties</b>  | This product does not have endocrine disrupting properties.  |
| <b>12.7 Other adverse effects</b>  | The product is insoluble in water.   |
| <b>13. Disposal Considerations</b>   |  |
| <b>13.1 Waste treatment methods</b>  | <p>Recovered material should be packaged, labeled, transported and disposed of or reclaimed in conformance with any relevant national or regional laws and regulations.</p> <p>Avoid spillage of pellets</p> <p>Do not flush into surface and ground water or sanitary sewer system.</p> <p>This product is recyclable.</p>                                  |
| <b>14. Transport Information</b>   |  |
| <b>Transport/Additional information</b>  | <p>According to national and international guidelines, which regulate the road-, rail-, air- and sea-transport, this product is classified as not hazardous.</p> <p>It is the responsibility of the transporting organization to follow all applicable laws and regulations relating to the transportation of this material.</p>                             |
| <b>15. Regulatory Information</b>  |  |
| <b>15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture</b> |  |
| <b>EC regulations</b>  | <p>The material is not subject to classification according to EC lists and other open information known to us.</p> <p>Additional regulatory information can be found on Carmel Olefins website in the following link:<br/> <a href="https://www.carmel-olefins.co.il/Regulatory-Data-Sheets">https://www.carmel-olefins.co.il/Regulatory-Data-Sheets</a></p> |
| <b>15.2 Chemical safety assessment</b>   | No information available.  |
| <b>16. Other Information</b>   |  |
| <b>Further information</b>   | <p>This safety data sheet is issued in accordance with Regulation (EC) No 1907/2006, and following amendments.</p> <p>Please contact your local sales agent for additional technical information.</p>  |

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**Disclaimer**

Information supplied in this safety data sheet is based upon our best knowledge, and intended to provide general guidelines and recommendations for safe handling, processing, usage, storage, transport, and disposal of the product. This information is accurate and reliable as of the date of publication. It should not be interpreted as a warranty for specific product characteristics.

Regulatory requirements are subject to change and may vary for different states. It is the user's responsibility to ensure that beyond providing-conditions for proper and safe use of this product, his activities comply with all federal, state, provincial or local laws.

Carmel Olefins Ltd. takes no responsibility for inappropriate use, processing or handling by purchasers and users of the product

Customer Notice:

Carmel Olefins recommends its customers to review both their manufacturing processes and their applications of Carmel Olefins products to ensure that Carmel Olefins products are not used in ways for which they are not intended or tested. Carmel Olefins technical service department is available to answer your questions at [techserv@caol.co.il](mailto:techserv@caol.co.il)

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**End of Material Safety Data Sheet**