SAFETY DATA SHEET

According to 1907/2006/EC (Article 31) and its amendment (EC) No. 453/2010, 2015/830

Revision: Dec. 08, 2017

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

1.1 Product identifier

Substance name: Polypropylene Homopolymer Pellets

1.2 Relevant identified uses of the substance or mixture and uses advised against

Raw materials for plastics industry

1.3 Details of the supplier of the safety data sheet

LCY Chemical Corp.
Taipei Office: 4F, 83, Sec. 4, Bade Road, Taipei 105, Taiwan
Plant Site: No. 2, Jingjian Road, Dashe District, Kaohsiung City 81567, Taiwan
Phone number: +886 2-2528 8895

1.4 Emergency telephone number

24 Hr. Emergency: +886 7-351 3211

2. Hazards identification

2.1 Classification of the substance or mixture

The products are not classified as hazardous in accordance with 5th Rev. UN GHS, 29 CFR 1910.1200 & HCS 2012, 1272/2008/EC (CLP), 1907/2006/EC (REACH) and following amendments.

2.2 Label elements

Not a hazardous substance or mixture, and Labeling not required according to above classification.

2.3 Other hazards

The molten product adheres to the skin and causes burns.
Spilled material may present a slipping hazard.
Possible production of electrostatic charge when used.
The steam produced from heating can irritate the eyes as well as the respiratory tract.

3. Composition/information on ingredients

3.1 Substances

<table>
<thead>
<tr>
<th>Composition</th>
<th>Concentration (wt %)</th>
<th>CAS No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polypropylene</td>
<td>99 - 100</td>
<td>9003-07-0</td>
</tr>
</tbody>
</table>

Taipei Office
4F, 83, Sec. 4, Bade Road, Taipei 105, Taiwan, ROC
Tel. 886-2-25288895  Fax. 886-2-25288823

Plant site
No. 2, Jingjian Road, Dashe District, Kaohsiung City 81567, Taiwan, ROC
Tel. 886-7-3513211  Fax. 886-7-3515424
4. First aid measures

4.1 Description of first aid measures
Under normal conditions the products are not expected to be an acute hazard.

4.2 Most important symptoms and effects, both acute and delayed

<table>
<thead>
<tr>
<th>Contact Type</th>
<th>Symptoms and Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye Contact</td>
<td>Flush eyes with water for 15 minutes. Get medical attention.</td>
</tr>
<tr>
<td>Skin Contact (Molten Resin)</td>
<td>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 tissue damage. Get medical attention.</td>
</tr>
<tr>
<td>Inhalation</td>
<td>Remove affected person to fresh air. If irritation persists then seek medical attention.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>Adverse health effects due to ingestion are not anticipated.</td>
</tr>
</tbody>
</table>

4.3 Indication of any immediate medical attention and special treatment needed
No immediate medical attention and special treatment needed.

5. Fire-fighting measures

5.1 Extinguishing media
Use foam, carbon dioxide, or water spray when fighting fires involving this material.

5.2 Special hazards arising from the substance or mixture
In case of fire, hazardous decomposition products may be produced such as Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke). The formation of hydrocarbons and aldehydes are possible in the initial stages of a fire (especially in between 400°C and 700°C)

5.3 Advice for firefighters
Use suitable personal protective equipment (full protective clothing, self-contained breathing apparatus, helmet, goggles, fire resistant gloves, boots etc.).

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Spilled material can cause a slipping hazard. Clean up immediately and dispose of properly. Wear appropriate respiratory protective equipment when responding to large clean-ups.

6.2 Environmental precautions
No specific measures. Material should be recovered and placed in suitable container for recycle or disposal under local regulatory requirements. Avoid generating dust.

6.3 Methods and material for containment and cleaning up
Material can be swept, shoveled or vacuumed using suitable equipment.

7. Handling and storage

7.1 Precautions for safe handling
Avoid contact with any potential sources of ignition. During processing material should be handled in well-ventilated areas and care should be taken to avoid formation and accumulation of dust. Elevated processing temperatures may result in
some degree of thermal degradation.

7.2 Conditions for safe storage, including any incompatibilities

The product is a poor conductor and can accumulate electrostatic charges. Precautions normally used for preventing the accumulation of electrostatic charges, such as proper grounding of processing equipment, should be used during processing. Static charge building up during the handling or within process equipment could lead to the ignition flammable vapors (if present) or increase the potential for dust explosions.

Store the product in a dry and well-ventilated covered place in sealed packaging, away from direct sunlight and heat sources as well as strong oxidizing agents to avoid product degradation. Store at ambient temperatures.

7.3 Specific end use(s):

See section 1.2

8. Exposure controls/personal protection

8.1 Control parameters

There are no occupational exposure standards for this product. The following particulate limits are stated as a guideline as fine particles can be an inherent part of the physical form of certain products.

<table>
<thead>
<tr>
<th>Particulate</th>
<th>OSHA PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Dust (8 hr)</td>
<td>15 mg/m³</td>
</tr>
<tr>
<td>Respirable Fraction (8 hr)</td>
<td>5 mg/m³</td>
</tr>
</tbody>
</table>

8.2 Exposure controls

Product should be handled only in areas with suitable exhaust ventilation. When concentrations in air exceed OSHA particulate limits, an approved dust mask or respirator should be used. In processes where heated vapors may be produced a NIOSH approved respirator or engineering controls may be needed to avoid vapor exposure by inhalation.

Respiratory protection: Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Use appropriate respiratory protection where atmosphere exceeds recommended limits.

Hand protection: Wear gloves that provide thermal protection where there is a potential for contact with heated material.

Eye protection: Safety glasses with side shields. In processes where the product is in contact with hot materials a face shield should be worn.

Skin & body protection: Cloth or leather work gloves. In processes where the product is in contact with hot materials thermal protection gloves, apron and arm protection should be worn.

Hygiene measures: Use good personal hygiene practices. Wash hands before eating, drinking, smoking, or using toilet facilities. Take off contaminated clothing and wash before reuse.

Environmental exposure controls: General advice may refer to section 6.
9. Physical and chemical properties

9.1. Information on basic physical and chemical properties:

<table>
<thead>
<tr>
<th>(a) Appearance</th>
<th>Pellet, transparent to white</th>
</tr>
</thead>
<tbody>
<tr>
<td>(b) Odor</td>
<td>Odorless</td>
</tr>
<tr>
<td>(c) Odor threshold</td>
<td>Not applicable</td>
</tr>
<tr>
<td>(d) pH</td>
<td>Not applicable</td>
</tr>
<tr>
<td>(e) Melting point</td>
<td>&gt;150°C (302°F)</td>
</tr>
<tr>
<td>(f) Boiling point / boiling range</td>
<td>Not applicable</td>
</tr>
<tr>
<td>(g) Flash point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>(h) Evaporation rate</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>(i) Flammability (solid, gas)</td>
<td>Not available</td>
</tr>
<tr>
<td>(j) Explosive limit</td>
<td>Not applicable</td>
</tr>
<tr>
<td>(k) Vapor pressure</td>
<td>Not applicable</td>
</tr>
<tr>
<td>(l) Vapor density</td>
<td>Not applicable</td>
</tr>
<tr>
<td>(m) Relative density</td>
<td>0.88 ~ 0.92</td>
</tr>
<tr>
<td>(n) Solubility(ies)</td>
<td>Insoluble in water</td>
</tr>
<tr>
<td>(o) Partition coefficient (n-octanol/water):</td>
<td>Not applicable</td>
</tr>
<tr>
<td>(p) Ignition temperature</td>
<td>&gt;400°C (752°F)</td>
</tr>
<tr>
<td>(q) Decomposition temperature</td>
<td>&gt;300°C (572°F)</td>
</tr>
<tr>
<td>(r) Viscosity</td>
<td>Not available</td>
</tr>
<tr>
<td>(s) Explosive properties</td>
<td>Not applicable</td>
</tr>
<tr>
<td>(t) Oxidizing properties</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10. Stability and reactivity

10.1 Reactivity

The product is stable and inert in the recommended storage and handling conditions (see section 7).

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Exposure to direct sunlight, ultraviolet light or elevated temperatures over prolonged periods of time may cause degradation and discoloring. Accumulation of product in equipment, processes or areas exposed to elevated temperatures over extended periods of time and in the presence of air may lead to combustion of the product.

10.4 Conditions to avoid

Strong oxidizing substances, open flames or heat sources.

10.5 Incompatible materials:

Material may be softened by some hydrocarbons.

10.6 Hazardous decomposition products:

Under normal conditions processing of product will not be expected to produce hazardous decomposition products. Thermal decomposition: Although dependent on temperature and environmental conditions, if the product is exposed to an unusual heat or ignition source then thermal decomposition may occur leading to potential formation of hazards (Refer to Special Exposure Hazards in Section 5).

11. Toxicological information

11.1 Information on toxicological effects

General comments: Refer to Section 2 for potential hazards to health. Toxicological information for this product has not been determined.
12. Ecological information

12.1 Toxicity
   The product being a high molecular weight polymer is non-toxic and biologically inactive.

12.2 Persistence and degradability
   Not expected to be biodegradable.

12.3 Bioaccumulative potential
   Not expected to bioaccumulate.

12.4 Mobility in soil
   The product will float on water and will remain on the surface of soil.

12.5 Results of PBT and vPvB assessment
   This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB).

12.6 Other adverse effects
   No data available on this product.

13. Disposal considerations

13.1 Waste treatment methods
   ● These products may be used or recycled according to the regulation of Guideline EC 94/62.
   ● Incineration including energy recovery of waste material in a permitted facility in accordance with local, state or provincial, and federal regulations.
   ● Landfilling in a licensed facility in accordance with local, state or provincial and federal regulations.

14. Transport information

The product is not classified as dangerous material for transport in accordance with ADR/RID, IMO, IATA, U.S. Department of Transportation.

14.1 UN number : Not applicable
14.2 UN proper shipping name : Not applicable
14.3 Transport hazard class(es) : Not applicable
14.4 Packing group : Not applicable
14.5 Environmental hazards : Not applicable
14.6 Special precautions for user : Not applicable
14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code : Not applicable

15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
The product is not subject to below requirements:

- Montreal Protocol: on Ozone Depleting Substances (ODS)
- Stockholm Convention: on Persistent Organic Pollutants (POPs)
- Rotterdam Convention: on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade
- Basel Convention: on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal

Environmental, Health and Safety (EHS):

Regulatory compliance relevant to the products is specified in the **Regulatory Affairs Product Stewardship Information Data Sheet** (RAPIDS) which may be reached through sales channel.

15.2 Chemical safety assessment

Not required in accordance with article 14 to REACH (1907/2006/EC)

16. Other information

**Manufacturer disclaimer:**

The information contained in this SDS has been compiled from sources, which LCY considers reliable and accurate to the best of LCY’s 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. LCY neither assumes, nor authorizes anyone to assume on LCY’s 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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