

Material Safety Data Sheet

Section 1 - Chemical Product and Company Identification

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| <i>MSDS Name:</i> | SMCC |
| <i>Synonyms:</i> | Succinimidyl-4-(N-maleimidomethyl)cyclohexane-1-carboxylate |
| <i>Company Identification:</i> | PI Chemicals Ltd. Building B, 633 E Shan Road, Pudong New Area Shanghai 200127, China |
| <i>Telephone Number:</i> | 86-21-58953700 |
| <i>Fax Number:</i> | 86-21-58953701 |

Section 2 - Product Information

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|------------------------|--------------|
| <i>Catalog Number:</i> | PI-35897 |
| <i>CAS Number:</i> | 64987-85-5 |
| <i>MDL Number:</i> | MFCD00009634 |
| <i>EC Number:</i> | Undetermined |
| <i>Purity:</i> | 98.0% |

Section 3 - Physical and Chemical Properties

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| <i>Physical state:</i> | Crystalline powder |
| <i>Color:</i> | White |
| <i>Molecular Formula:</i> | C ₁₆ H ₁₈ N ₂ O ₆ |
| <i>Molecular Weight:</i> | 334.32 |
| <i>Freezing/Melting Point:</i> | 165.0-179.0 °C |
| <i>Boiling Point:</i> | Undetermined |
| <i>Flash Point:</i> | Undetermined |
| <i>Autoignition Temperature:</i> | Undetermined |
| <i>Refractive Index (n_D20):</i> | Undetermined |
| <i>Density:</i> | Undetermined |
| <i>Decomposition Temperature:</i> | Undetermined |
| <i>Solubility:</i> | Undetermined |

Section 4 - Hazards Identification

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| <i>Eye:</i> | Causes eye irritation. |
| <i>Skin:</i> | Causes skin irritation. Harmful if absorbed through the skin. |
| <i>Ingestion:</i> | May cause irritation of the digestive tract. Toxic if swallowed. |
| <i>Inhalation:</i> | May be harmful if inhaled. Cause respiratory tract irritation. |

Section 5 - First Aid Measures

- Eye:* Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.
- Skin:* Get medical aid. Flush skin with plenty of water and soap for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops and persists.
- Ingestion:* Get medical aid immediately. Wash mouth out with water.
- Inhalation:* Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Section 6 - Stability and Reactivity

- Chemical Stability:* Stable under normal temperatures and pressures.
- Materials to avoid:* Strong oxidizing agents.
- Conditions to Avoid:* Has not been reported.
- Hazardous Decomposition Products:* Carbon oxides, nitrogen oxides (NO_x)
- Hazardous Polymerization:* Has not been reported.

Section 7 - Handling and Storage

- Handling:* Avoid breathing dust, vapor, mist, or gas. Keep container tightly closed. Avoid contact with skin and eyes. Wash thoroughly after handling. Mechanical exhaust required. Keep away from sources of ignition - No smoking.
- Storage:* Store in a cool, dry place. Store in a tightly closed container. Light sensitive. Moisture sensitive. Recommended storage temperature: -20 °C.

Section 8 - Personal Protection

- Eyes:* Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.
- Skin:* Wear appropriate protective gloves to prevent skin exposure.
- Clothing:* Wear appropriate protective clothing to prevent skin exposure.
- Respirators:* Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Fire and Explosion Hazard Data

- General Information:* As in any fire, wear a self-contained breathing apparatus, MSHA/NIOSH (approved or equivalent) and protective clothing to prevent contact with skin and eyes.
- Extinguishing Media:* Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Section 10 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container.

Section 11 - Toxicological Information

RTECS#: CAS# 64987-85-5: Not available.

LD50/LC50: Not available.

Carcinogenicity: SMCC - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

Section 12 - Environmental information

Not available

Section 13 - Disposal Consideration

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state and local environmental regulations.

Section 14 - Transport Information

IATA: Not dangerous goods.

IMO: Not dangerous goods.

RID/ADR: Not dangerous goods.

Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Signal word: Warning

Hazard statement(s)

H315: Causes skin irritation.

H319: Causes serious eye irritation.

H335: May cause respiratory irritation.

Risk Phrases:

R36/37/38: Irritating to eyes, respiratory system and skin.

Safety Phrases:

S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S27: Take off immediately all contaminated clothing.

S28: After contact with skin, wash immediately with plenty of ... (to be specified by the

manufacturer).

S29: Do not empty into drains.

S30: Never add water to this product.

S33: Take precautionary measures against static discharges.

S35: This material and its container must be disposed of in a safe way.

S36: Wear suitable protective clothing.

WGK (Water Danger/Protection)

CAS#64987-85-5: 3

Canada

CAS# 64987-85-5: Not available

US Federal

TSCA

CAS# 64987-85-5 is not listed on the TSCA Inventory. It is for research and development use only.

Section 16 - Additional Information

MSDS Creation Date: Sep 15, 2006

Update: Aug 1, 2012

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