

## Material Safety Data Sheet

### Section 1 - Chemical Product and Company Identification

**MSDS Name:** dicyclohexyl(2'-methyl[1,1'-biphenyl]-2-yl)-Phosphine  
**Synonyms:**  
**Company Identification:** PI Chemicals Ltd.  
5rd Floor, 88 Cailun Road  
Zhangjiang Hi-Tech Park  
Pudong New Area, Shanghai China, 201203  
**Telephone Number:** 86-21-58953700  
**Fax Number:** 86-21-58953701

### Section 2 - Product Information

**Catalog Number:** PI-35037  
**CAS Number:** 251320-86-2  
**MDL Number:** MFCD03094577  
**EC Number:** Not available  
**Purity:** 97%

### Section 3 - Physical and Chemical Properties

**Physical state:** Crystals or crystalline powder  
**Color:** White  
**Odor:** Not available  
**Molecular Formula:** C<sub>25</sub>H<sub>33</sub>P  
**Molecular Weight:** 364.5  
**Freezing/Melting Point:** 105-109 °C  
**Boiling Point:** Not available  
**Flash Point:** Not available  
**Autoignition Temperature:** Not available  
**Refractive Index (n<sub>D</sub>20):** Not available  
**Density:** Not available  
**Decomposition Temperature:** Not available  
**Solubility:** Not available

### Section 4 - Hazards Identification

**Eye:** Causes eye irritation.

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

### ***Section 5 - First Aid Measures***

|                    |  |
|--------------------|--|
| <b>Eye:</b>        | Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.  |
| <b>Skin:</b>       | 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. |
| <b>Ingestion:</b>  | Get medical aid immediately. Wash mouth out with water.  |
| <b>Inhalation:</b> | 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***

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| <b>Chemical Stability:</b>               | Stable under normal temperatures and pressures.      |
| <b>Materials to avoid:</b>               | Strong oxidizing agents.                             |
| <b>Conditions to Avoid:</b>              | Incompatible materials.                              |
| <b>Hazardous Decomposition Products:</b> | Carbon monoxide, Carbon dioxide, Phosphorous oxides. |
| <b>Hazardous Polymerization:</b>         | Has not been reported.                               |

### ***Section 7 - Handling and Storage***

|                  |  |
|------------------|--|
| <b>Handling:</b> | Avoid breathing dust, vapor, mist, or gas. Keep container tightly closed. Avoid contact with skin and eyes. Wash thoroughly after handling. Mechanical exhaust required. |
| <b>Storage:</b>  | Store in a cool, dry place. Store in a tightly closed container.   |

### ***Section 8 - Personal Protection***

|                     |  |
|---------------------|--|
| <b>Eyes:</b>        | Wear appropriate protective eyeglasses.  |
| <b>Skin:</b>        | Wear appropriate protective gloves to prevent skin exposure.   |
| <b>Clothing:</b>    | Wear appropriate protective clothing to prevent skin exposure.   |
| <b>Respirators:</b> | Use an approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. |

### ***Section 9 - Fire and Explosion Hazard Data***

|                             |   |
|-----------------------------|---|
| <b>General Information:</b> | 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. |
| <b>Extinguishing Media:</b> | Use water spray, dry chemical, carbon dioxide, or appropriate foam.   |

## **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#251320-86-2: Not available

**LD50/LC50:** RTECS: Not available.

**Carcinogenicity:** dicyclohexyl(2'-methyl[1,1'-biphenyl]-2-yl)-Phosphine- 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:** This substance is considered to be non-hazardous for transport.

**IMO:** This substance is considered to be non-hazardous for transport.

**RID/ADR:** This substance is considered to be non-hazardous for transport.

## **Section 15 - Regulatory Information**

### **European/International Regulations**

European Labeling in Accordance with EC Directives

Hazard Symbols: Xi

Indication of Danger: Irritant

Risk Phrases:

R 36/37/38: Irritating to eyes, respiratory system and skin.

Safety Phrases:

S 37/39: Wear suitable gloves and eye/face protection.

S 26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

WGK (Water Danger/Protection)

CAS# 251320-86-2: Not available

Canada

CAS# 251320-86-2: Not available

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**US Federal****TSCA**

CAS# 251320-86-2 is not listed on the TSCA Inventory. It is for research and development use only.

**Section 16 - Additional Information**

**MSDS Creation Date:** May 15, 2008

**Update:** May 15, 2008

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