

## Material Safety Data Sheet

### 1. Composition/information on ingredients

**Product Name:** Diphenyl chlorophosphate  
**Synonyms:**  
**Company Identification:** Shanghai IS Chemicals Technology LTD.  
Address: 2nd floor, Chemical Building, No.1000 Xuefu Road, Jinshan District, Shanghai China, Zip, 201512  
**Telephone Number:** 86-21-52685808  
**Fax Number:** 86-21-52685809

### 2. Identification of the substance

**Catalog Number:** I01-0663  
**CAS #:** 2524-64-3  
**Purity:** 98%  
**EINECS#**

### 3. Hazards identification

*EMERGENCY OVERVIEW Irritating to eyes, respiratory system and skin.*

*Potential Health Effects Eye:*

*Causes eye irritation. May cause chemical conjunctivitis.*

*Skin:*

*Causes skin irritation.*

*Ingestion:*

*May cause gastrointestinal irritation with nausea, vomiting and diarrhea. The toxicological properties of this substance have not been fully investigated.*

*Inhalation:*

*Causes respiratory tract irritation. The toxicological properties of this substance have not been fully investigated. Can produce delayed pulmonary edema.*

*Chronic:*

*Effects may be delayed.*

### 4. First aid measures

*Eyes:*

*Immediately 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 for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.*

*Ingestion:*

*Never give anything by mouth to an unconscious person. Get medical aid. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water. 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. Do NOT use mouth-to-mouth resuscitation.*

*Notes to Physician:*

*Treat symptomatically and supportively.*

## **5. Fire fighting measures**

*General Information:*

*As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.*

*Extinguishing Media:*

*Use water spray, dry chemical, carbon dioxide, or chemical foam.*

## **6. 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. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Provide ventilation.*

## **7. Handling and storage**

*Handling:*

*Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Use with adequate ventilation. Wash clothing before reuse. Avoid breathing dust.*

*Storage:*

*Store in a cool, dry place. Store in a tightly closed container.*

## **8. Exposure Controls / PPE**

*Engineering Controls:*

*Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.*

*Exposure Limits CAS# 2524-64-3:*

*Personal Protective Equipment 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.

## 9. Physical and chemical properties

*Physical State: Clear liquid.*

*Color: Colorless to light yellow.*

*Odor: Not available.*

*pH: Not available.*

*Vapor Pressure: 10 mm Hg @ 190 deg C.*

*Viscosity: 14 cP 25 deg C.*

*Boiling Point: 314 - 316 deg C @ 272.00mm Hg.*

*Freezing/Melting Point: Not available*

*Autoignition Temperature: Not available.*

*Flash Point: > 112 deg C (> 233.60 deg F).*

*Explosion Limits, lower: Not available.*

*Explosion Limits, upper: Not available.*

*Decomposition Temperature: Not available.*

*Specific Gravity/Density: 1.290g/cm<sup>3</sup>*

*Molecular Formula: C<sub>12</sub>H<sub>10</sub>ClO<sub>3</sub>P*

*Molecular Weight: 268.63*

## 10. Stability and reactivity

*Chemical Stability:*

*Stable under normal temperatures and pressures.*

*Conditions to Avoid:*

*Dust generation.*

*Incompatibilities with Other Materials:*

*Acids, bases, reducing agents, strong oxidizing agents.*

*Hazardous Decomposition Products:*

*Carbon monoxide, carbon dioxide, hydrogen bromide.*

*Hazardous Polymerization: Has not been reported.*

## 11. Toxicological information

*RTECS#:*

*CAS#: 2524-64-3 unlisted.*

*LD50/LC50:*

*Not available.*

*Carcinogenicity:*

*Diphenyl chlorophosphate*

*Not listed by ACGIH, IARC, or NTP.*

## 12. Ecological information

*Not available.*

### **13. Disposal consideration**

*Dispose of in a manner consistent with federal, state, and local regulations.*

### **14. Transportation information**

*IATA*

*Shipping Name: Not available.*

*Hazard Class: 8.*

*UN Number: 3265.*

*Packing Group: II.*

*IMO*

*Shipping Name: Not available.*

*Hazard Class: Not available.*

*UN Number: Not available.*

*Packing Group: Not available.*

*RID/ADR*

*Shipping Name: Not available.*

*Hazard Class: 8.*

*UN Number: 3265.*

*Packing group: II.*

### **15. Regulatory information**

*European/International Regulations European Labeling in Accordance with EC Directives Hazard Symbols: XI Risk Phrases:*

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

*Safety Phrases:*

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

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

*WGK (Water Danger/Protection) CAS# 2524-64-3 : No information available.*

*Canada*

*None of the chemicals in this product are listed on the DSL/NDSL list.*

*CAS# 2524-64-3 is not listed on Canada's Ingredient Disclosure List.*

*US FEDERAL TSCA CAS# 2524-64-3 is not listed on the TSCA inventory.*

*It is for research and development use only.*

### **16. Other information**

*The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary*