

Diisodecyl Phenyl Phosphite MSDS

1. Product Name and Identification

Product Name: [Diisodecyl Phenyl Phosphite](#)

Synonyms: DIDP Phosphite, Phosphorous Acid Triisodecyl Phenyl Ester

Chemical Formula: C₃₀H₅₁O₃P

CAS Number: 25550-98-5

Recommended Use: Antioxidant in polymers, industrial stabilizer

Manufacturer/Supplier Contact Information:

- Address: [Insert specific address]
 - Emergency Phone Number: [Insert appropriate phone number]
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2. Composition/Ingredients

Chemical Composition:

- **Substance Name:** Diisodecyl Phenyl Phosphite
 - **Concentration:** ≥95%
 - **CAS Number:** 25550-98-5
 - **Impurities:** No known hazardous impurities present.
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3. Hazards Identification

Hazard Classification:

- Skin irritation (Category 2)
- Eye irritation (Category 2A)
- Specific target organ toxicity – single exposure (Category 3, respiratory irritation)

GHS Label Elements:

- **Pictograms:**
![Exclamation Mark]
- **Signal Word:** Warning
- **Hazard Statements:**
 - H315 Causes skin irritation.
 - H319 Causes serious eye irritation.
 - H335 May cause respiratory irritation.

- **Precautionary Statements:**
 - Avoid breathing vapors or mist.
 - Wash exposed skin thoroughly after handling.
 - Wear protective gloves, clothing, and eye protection.
 - If inhaled, move to fresh air and seek medical attention if irritation persists.
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4. First Aid Measures

General Advice: Seek immediate medical attention in case of exposure. Show this SDS to medical professionals.

Eye Contact: Rinse cautiously with water for at least 15 minutes. Remove contact lenses if present and easy to do. Get medical advice if discomfort persists.

Skin Contact: Wash affected areas with soap and water. Remove contaminated clothing. If irritation develops, consult a doctor.

Inhalation: Move to fresh air immediately. If breathing is difficult, administer oxygen if trained or seek emergency medical help.

Ingestion: Rinse the mouth thoroughly with water. Do not induce vomiting. Immediately contact a physician.

5. Handling and Storage

Handling:

- Use appropriate ventilation to minimize exposure to vapor or mist.
- Avoid direct skin and eye contact.
- Do not eat, drink, or smoke while working with this substance.

Storage:

- Keep in tightly sealed containers in a cool, dry, and well-ventilated area.
 - Store away from incompatible materials such as strong oxidizing agents.
 - Prevent exposure to heat and direct sunlight.
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6. Exposure Controls/Personal Protection

Exposure Limits:

- No specific occupational exposure limits established.

Engineering Controls:

- Provide efficient local exhaust and general ventilation to maintain exposures below permissible levels.

Personal Protective Equipment (PPE):

- **Eye Protection:** Safety goggles or face shield.
 - **Skin Protection:** Chemical-resistant gloves (e.g., nitrile or neoprene) and long-sleeved work attire.
 - **Respiratory Protection:** Use a NIOSH-approved respirator for organic vapors if there is insufficient ventilation.
 - **Hygiene Measures:** Wash hands and exposed areas thoroughly after handling.
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7. Physical and Chemical Properties

- **Appearance:** Colorless to pale yellow liquid
 - **Odor:** Mild characteristic odor
 - **Odor Threshold:** Not determined
 - **pH:** Not applicable
 - **Melting Point:** Not determined
 - **Boiling Point:** >200°C
 - **Flash Point:** >110°C (Closed cup)
 - **Flammability:** Not classified as flammable
 - **Vapor Pressure:** Negligible at 20°C
 - **Vapor Density:** Not applicable
 - **Relative Density:** 0.97 g/cm³ at 25°C
 - **Solubility in Water:** Insoluble
 - **Partition Coefficient (n-octanol/water):** Not determined
 - **Auto-Ignition Temperature:** Not determined
 - **Decomposition Temperature:** >200°C
 - **Viscosity:** 45-55 mPa·s at 25°C
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8. Stability and Reactivity

Stability: Stable under recommended handling and storage conditions.

Hazardous Reactions: Reacts with strong oxidizing agents.

Conditions to Avoid: High heat, open flames, strong oxidizing materials.

Materials to Avoid: Strong acids, bases, and oxidizing agents.

Hazardous Decomposition Products: Thermal decomposition may release toxic fumes of phosphorus oxides and carbon monoxide.

9. Toxicological Information

Acute Toxicity:

- **Oral LD50 (Rat):** >2,000 mg/kg
- **Dermal LD50 (Rabbit):** >2,000 mg/kg

Skin Corrosion/Irritation: Causes mild to moderate irritation with prolonged exposure.

Eye Damage/Irritation: Causes serious eye irritation.

Respiratory Sensitization: May irritate the respiratory system if inhaled.

Carcinogenicity: Not classified as a carcinogen under IARC, NTP, or OSHA guidelines.

Other Information: Prolonged inhalation of airborne material or extended skin contact may aggravate pre-existing conditions.

10. Disposal Considerations

Waste Management: Dispose of product residues and contaminated materials through a licensed waste disposal service.

Recommendation: Do not dispose of in drains, sewers, or water bodies.

Packaging Disposal: Empty containers should not be reused. Dispose of them according to local regulations.
