MATERIAL SAFETY DATA SHEET

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product/Chemical Name: (9,10-Dihydro-9-oxa-10-phosphaphenanthrene 10-oxide)
Brand name: XZ-EFDOPO
Chemical Formula: C\textsubscript{12}H\textsubscript{9}O\textsubscript{2}P
Structure Formula:

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CAS Number: 35948-25-5
General Use: XZ-EFDOPO contains a rigid phosphorus group and thus provide better thermal and flame-retardant properties than the conventional epoxy resins prepared from tetrabromobisphenol A. The advanced epoxy resins are suitable for making a fiber-reinforced epoxy resin composite which is useful in the fabrication of printed circuit boards. The cured epoxy resins can be used in semiconductor encapsulation applications.
For emergency, call: 0086-536-5268256

SECTION 2 - COMPOSITION, INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>CAS #</th>
<th>Chemical Name</th>
<th>DMC content%</th>
<th>EINECS #</th>
</tr>
</thead>
<tbody>
<tr>
<td>35948-25-5</td>
<td>(9,10-Dihydro-9-oxa-10-phosphaphenanthrene 10-oxide)</td>
<td>99</td>
<td>252-813-7</td>
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</tbody>
</table>

SECTION 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Physical and Chemical Hazards: not applicable
Adverse human health Effects: no information
Environment Effects: no information

SECTION 4 - FIRST AID MEASURES

Eyes: Gently rinse the affected eyes, including under the eye-lids, with clean water for at least 15 minutes.
Remove contact lenses if easily possible.
Remove all chemicals from contact with the victim’s eyes as quickly as possible, refer for medical
Skin: Remove all contaminated clothing shoes and socks from the affected areas as quickly as possible. Wash the affected areas under tepid running water using a mild soap. If irritation persists, refer to a physician.

Inhalation: Remove the victim from the contamination immediately to fresh air. If breathing is weak, irregular or has stumped, open his airway. Loosen his collar and belt and administer artificial respiration, and refer for medical attention.

Ingestion: Induce vomiting immediately by giving one or two glasses of water or milk. Never give anything by mouth if victim is unconscious or convulsing.

SECTION 5 - FIRE FIGHTING MEASURES
Extinguishing media: Dry chemical powder, foam, carbon dioxide or water spray
Specific Hazards with regards to Fire-fighting measures
Toxic gases (carbon monoxide) will form upon combustion.

SECTION 6 - ACCIDENTAL RELEASE MEASURES
After Spillage/leakage:
Make properly clothed person carefully sweep up, gather in bags or other receptacles
And recover if possible or discard. Prevent spills from entering sewers or watercourse.

SECTION 7 - HANDLING AND STORAGE
Handling: Local exhaust ventilation is desirable when open handling.
Keep away from open fire and moisture. Make available in the work area emergency shower and eyes wash. Avoid contact with skin and eyes. Do not breathe dust.

Storage:
Keep dry and not heat, protect against physical damage.
Avoid rough handling or dropping.
Keep containers tightly closed when not use.

SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION
Control parameters: not regulated
Engineering measures: Local exhaust ventilation desirable
Personal protective equipment:
Respiratory protection: wear dust-proof mask
Eye protection: wear dust-proof goggles
Hand, skin and body protection: To prevent any contact, wear rubber (or similar) gloves, boots and whole body suits
Exposure guidelines: not remarkable

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES
Physical state form:
Appearance: white crystalline powder
Physical data:
Density: 1.373
Boiling point:
Bulk density: 0.60-0.70
Melting point: 118°C
Vapour pressure: No information
Solubility in water: Slightly (under 1g/L)
Solubility in usual organic solvents generally soluble

SECTION 10 - STABILITY AND REACTIVITY
Flash point: 222°C
Autoignition temperature: no information
Explosion limit: Upper No information
                        Lower 980g/m2
Spotanious combustibility: not spontaneous combustibility
Reactivity with water: does not produce hazardous reaction products in contact with water
Oxidizability: no information
Self-reactivity: None
Stability and reactivity: stable

SECTION 11 - TOXICOLOGICAL INFORMATION
Corrosive and irritant propaties: slightly
Allergenic and sensitizing effects: no information
Acute Toxicity: LD50 2400-3100mg/kg (rats)
                         LD50 6000mg/Kg (mouth)
Sub-chronic Toxicity: 0.419-1.052g/day/Kg (rats)
Chronic Toxicity: highest non-effects level 0.44g/Kg (rats)
Careinogenic effects: No information.
Mutagenic effects: negative in the Ames test
Effects on the reproductive system: no information
Teratogenic effects: no information

SECTION 12 - ECOLOGICAL INFORMATION
Biodegradability: not readily biodegradable
Bioaccumlation: no information
Fish Toxicity: LC0 2mg/L, LC1005-10mg/L
Further information: no information

SECTION 13 - DISPOSAL CONSIDERATIONS
Burn in a chemical incinerator equipped with an afterburner and Scrubber.
Do not finish into sower. consult an expert on the disposal of recovered watering used bags or receptacles.

SECTION 14 - TRANSPORT INFORMATION
Examine by your responsibility regulatory information with regard to this substance in your country or region.

SECTION 15- ADDITIONAL INFORMATION
All information given by or on behalf of Shandong Brother Sci.&Tech. Co.,Ltd as to properties, specifications, use, etc. of the products is based on research, including literature and is believed reliable.
All information is based on our present state of knowledge and is intended to provide general notes on our products and their uses.

All information is supplied upon the condition that the persons receiving same will make their own determination as to its safety and suitability for their purposes prior to use.