

## MATERIAL SAFETY DATA SHEET

ZYGLO® PENETRANT ZL-2C

### 1. IDENTIFICATION

*Company:* MAGNAFLUX  
*Address:* 3624 West Lake Avenue, Glenview, Illinois 60025  
*Telephone No.:* 847-657-5300 (Off-Hour Emergency Number - CHEMTREC - 1-800-424-9300).  
*Product Use:* Fluorescent inspection penetrant  
*Packages:* 1 gallon and 5 gallon pails, 20 gallon and 55 gallon drums  
*NFPA Rating:* Health 1, Flammability 1, Reactivity 0  
*PIN:* None  
*Revision Date:* January 25, 2012

### 2. HAZARDOUS INGREDIENTS

<i>Ingredient</i>	<i>Wt./Wt. %</i>	<i>CAS #</i>	<i>TLV</i>	<i>PEL</i>	<i>LD<sub>50</sub></i>	<i>LC<sub>50</sub></i>
White mineral oil (petroleum)	30-60	8042-47-5	5 mg/m <sup>3</sup>	5 mg/m <sup>3</sup>	not avail.	not avail.
Isodecyl diphenyl phosphate	15-40	29761-21-5	not avail.	not avail.	15.8 g/kg (oral/rat)	2.2 mg/l [6 hr/(rat(2/6))]
Triphenyl phosphate	1-2	115-86-6	3 mg/m <sup>3</sup>	not avail.	not avail.	not avail.

### 3. HAZARDS IDENTIFICATION

**EMERGENCY OVERVIEW**  
**Bland, oily liquid which may irritate the skin and eyes. Difficult to ignite, but will burn vigorously, if engulfed in fire.**

#### POTENTIAL HEALTH EFFECTS

*Skin Contact:* Can irritate by removing natural skin oils on long or repeated exposures.  
*Eyes:* May cause irritation.  
*Inhalation:* Not significant at room temperatures. When heated or sprayed, ZL-2C vapors may cause dizziness and nausea.  
*Ingestion:* Not significant in small (mouthful) amounts.  
*Medical conditions known to be aggravated by exposure to product:* None

### 4. FIRST AID

*Skin Contact:* Wash off with soap and water. Use soothing lotion.  
*Eyes:* Rinse carefully under upper and lower eyelids using plenty of water.  
*Inhalation:* Remove to fresh air if dizzy or nauseated.  
*Ingestion:* Do not induce vomiting. Accidental ingestion of a small mouthful is not expected to cause significant harm.  
**NOTE:** In all severe cases, contact physician immediately. Local telephone operators can furnish number of regional poison control center.

### 5. FIRE HAZARD

*Conditions of flammability:* Heating above 200°F (93°C) in presence of ignition sources.  
*Flash point:* Min. 200°F (93°C) (Pensky-Martens closed cup)  
*Flammable limits in air:* 1% to 6%  
*Extinguishing media:* Carbon dioxide, foam  
*Special fire fighting procedures:* Keep containers cool with water spray. Do not spray water directly on burning ZL-2C, it may float and spread the fire.  
*Hazardous combustion products:* Smoke, soot, oxides of carbon and nitrogen.  
*Unusual fire hazards:* None

### 6. ACCIDENTAL RELEASE MEASURES

Mop up or sweep up with absorbent. (For disposal, see Section 13.)

### 7. HANDLING AND STORAGE

Avoid breathing spray mist.  
 Avoid eye contact.  
 Avoid repeated or prolonged skin contact.

8. **EXPOSURE CONTROLS/PERSONAL PROTECTION**

*Controls:* None, unless applied as spray. Use where ventilation will carry spray mist away from occupied areas.  
*Personal protection:* Wear safety glasses to protect eyes. Wear nitrile rubber gloves if hand exposure is unavoidable. Respirator with filter if sprayed in enclosed, unventilated space.

9. **PHYSICAL PROPERTIES**

<i>Initial boiling point (bulk):</i>	Min.455°F (235°C) (ASTM D-86)	<i>Vapor pressure:</i>	< 0.10 mm @ 70° F (21°C)
<i>Percent volatile:</i>	None	<i>Vapor density:</i>	Heavier than air
<i>Density/sp. gravity:</i>	0.87	<i>Evaporation rate:</i>	Negligible
<i>Water solubility:</i>	0%	<i>Appearance:</i>	Green oily liquid
<i>pH:</i>	Neutral	<i>Odor:</i>	Mild odor

10. **STABILITY AND REACTIVITY**

*Stability:* Stable  
*Incompatibility:* None  
*Hazardous decomposition products:* Soot, oxides of carbon if heated to combustion temperatures.  
*Reactivity:* None

11. **TOXICOLOGICAL INFORMATION**

*Carcinogenicity:* Contains no known or suspected carcinogens listed with OSHA, IARC, NTP, or ACGIH.  
*Threshold limit value:* 5 mg/m<sup>3</sup> for oily mist  
*WHMIS information (Canada):* According to available information, the ingredients have not been found to show reproductive toxicity, teratogenicity, mutagenicity, skin sensitization, or synergistic toxic effects with other materials.

12. **ECOLOGICAL INFORMATION**

Because it contains 10% or more of a marine pollutant (Isodecyl Diphenyl phosphate) and 1% or more of a severe marine pollutant (Triphenyl Phosphate), ZL-2C is itself considered a marine pollutant. It floats on water and can be skimmed off. Its low vapor pressure may exempt it from VOC restrictions.

13. **DISPOSAL**

All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator.

14. **TRANSPORTATION**

**U.S. DOT: 49 CFR 172.101 Hazardous Materials Table**

	<b><u>Non-Bulk and Non-Vessel</u></b>	<b><u>Bulk or Vessel</u></b>
<i>Proper shipping name:</i>	None, not restricted	Environmentally hazardous substance Liquid, n.o.s. (isodecyl diphenyl phosphate, triphenyl phosphate)
<i>Technical Name of Hazardous Component(s):</i>	None	Isodecyl Diphenyl phosphate, Triphenyl Phosphate
<i>Hazard class or division:</i>	None	9
<i>Identification No.:</i>	None	UN 3082
<i>Packing Group:</i>	None	III
<i>Other Information:</i>	None	This product contains 10% or more of a DOT Marine Pollutant (Isodecyl Diphenyl phosphate) and 1% or more of a DOT Severe Marine Pollutant (Triphenyl Phosphate).

15. **REGULATORY INFORMATION**

*TSCA:* All ingredients are listed in TSCA inventory.  
*CERCLA:* Not reportable  
*SARA TITLE III, Section 313:* No reportable ingredients  
*California Proposition 65:* Contains nothing on this list  
*WHMIS Class (Canada):* D-2B  
**Note:** This MSDS has been prepared to meet WHMIS (Canada) requirements with the exception of using 16 headings.

16. **OTHER INFORMATION**

*Revision Statement:* Review  
*Supersedes:* July 16, 2009