

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: July 16, 2009

2. **HAZARDOUS INGREDIENTS**

<u>Ingredient</u>	<u>Wt./Wt. %</u>	<u>CAS #</u>	<u>TLV</u>	<u>PEL</u>	<u>LD₅₀</u>	<u>LC₅₀</u>
White mineral oil (petroleum)	30-60	8042-47-5	5 mg/m ³	5 mg/m ³	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 ³	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/m³ 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**

As a non-hazardous oily waste, incinerate or send to waste handler who can blend it into secondary fuels.
RCRA: Not a hazardous waste
U.S. EPA Waste Number: None

14. **TRANSPORTATION**

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

	<u>Non-Bulk and Non-Vessel</u>	<u>Bulk or Vessel</u>
<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 7, 2006
Prepared by: Tamie Simmons, Research Manager