



# PRODUCT DATA SHEET

## ZE-4B Zyglo Penetrant Emulsifier

Effective March 6, 1997

Supercedes January 4, 1995

### General Description

ZE-4B is a biodegradable, reddish, slightly viscous liquid used for the emulsification of Zyglo PE penetrants. ZE-4B is a general purpose emulsifier with a moderate rate of action. ZE-4B can be used in open tanks due to its low volatility and high flash point.

### Composition

ZE-4B is composed of petroleum oils and emulsifying agents.

### Safety

1. ZE-4B is intended for industrial use by qualified personnel only.
2. Do not smoke or eat while using NDT materials. Wash hands thoroughly after use. Protective hand wear is recommended to prevent drying of skin.
3. Department of Labor Material Safety data sheets available.

### Typical Properties (Not a Specification)

Color:	Pinkish Red
Viscosity @ 100°F:	25 Centistokes
Flash Point:	Greater than 250°F (120°C) P.M.C.C.
Density:	7.7 lbs./gallon (922 gms/L)
Water Tolerance:	15%
Penetrant Tolerance:	15%
Corrosion:	Non-corrosive per MIL-I-25135
Sulfur :	Less than 1000 ppm
Chlorine:	Less than 1000 ppm

Like all MAGNAFLUX materials, ZE-4B is closely controlled to provide unique batch to batch consistency and uniformity to assure optimum process control and inspection reliability. Batch certification available upon request.

## **Application and Emulsification**

ZE-4B is applied by dipping, pouring or spraying, with dipping being the recommended method. The penetrant covered part is completely covered with emulsifier and allowed to drain for a predetermined length of time, then washed with water to remove the penetrant/emulsifier mixture. The dwell time will vary depending upon the penetrant used, the part surface texture, specification requirements and the desired results.

## **General Emulsification Times**

<b><u>Penetrant</u></b>	<b><u>Seconds</u></b>
ZL-2C	45 - 90
ZL-27A	90 - 240
ZL-37	90 - 180

## **MIL-I-25135 Classification**

"E" Revision - Method B Emulsifier

## **Specification Compliance**

MIL-I-25135	Garrett EMS 52039
MIL-STD-271	Boeing BAC 5423 PSD 6-46 or 8-4
MIL-STD-2132	ASTM E 165
ASME B & PV code, Sec. V	ASTM E 1417
McDonnell Douglas P.S. 21202	AECL

## **Packaging**

5 gallon pail  
20 gallon drum  
55 gallon drum