MATERIAL SAFETY DATA SHEET
ZYGLO® DRY POWDER DEVELOPER ZP-4B

1. IDENTIFICATION
Company: MAGNAFLUX
Address: 3624 West Lake Avenue, Glenview, Illinois 60026
Telephone No.: 847-657-5300 (Off-Hour Emergency Number - CHEMTREC - 1-800-424-9300).
Product Use: Developer for fluorescent penetrants.
Packages: 1 pint can, 10 and 25 lb. boxes.
NFPA Rating: Health 1, Flammability 1, Reactivity 0.
PIN (Canada): None
Revision Date: September 6, 2007

2. INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Wt./Wt. %</th>
<th>CAS #</th>
<th>TLV</th>
<th>PEL</th>
<th>LD_{50}</th>
<th>LC_{50}</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pentaerythritol</td>
<td>40-70</td>
<td>115-77-5</td>
<td>10 mg/m³</td>
<td>5 mg/m³</td>
<td>10 g/kg</td>
<td>not avail.</td>
</tr>
<tr>
<td>Hexamethyldisilazane, silica reaction product</td>
<td>3-7</td>
<td>68909-20-6</td>
<td>10 mg/m³</td>
<td>5 mg/m³</td>
<td>2 g/kg</td>
<td>not avail.</td>
</tr>
<tr>
<td>Aluminum oxide</td>
<td>3-7</td>
<td>1344-28-1</td>
<td>10 mg/m³</td>
<td>5 mg/m³</td>
<td>not avail.</td>
<td>not avail.</td>
</tr>
</tbody>
</table>

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW
Nuisance dust.

POTENTIAL HEALTH EFFECTS
Skin Contact: None
Eyes: Gritty material may scratch eyeball
Inhalation: May plug breathing passages
Ingestion: Not significant
Medical conditions known to be aggravated by exposure to product: None

4. FIRST AID
Skin Contact: None
Eyes: Rinse carefully under upper and lower eyelids using plenty of water.
Inhalation: Remove to fresh air.
Ingestion: None.
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: None
Flash point: None
Flammable limits in air: None
Extinguishing media: None
Special fire fighting procedures: None
Hazardous combustion products: None
Unusual fire hazards: Floating ZP-4B dust can be ignited by high energy arc (350 joules or watt-seconds) or temperatures higher than 383°F (195°C).

6. ACCIDENTAL RELEASE MEASURES
Sweep up. (For disposal, see Section 13).

7. HANDLING AND STORAGE
Avoid breathing dust.
Keep dry.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION
Controls: None.
Personal protection: Respirator with filter if used in enclosed, unventilated space.
9. **PHYSICAL PROPERTIES**

- Initial boiling point (bulk): None
- Percent volatile: None
- Density/sp. gravity: 0.2
- Water solubility: 4%
- pH: Neutral
- Vapor pressure: None
- Vapor density: None
- Evaporation rate: None
- Appearance: Fluffy white dusty powder
- Odor: None

10. **STABILITY AND REACTIVITY**

- Stability: Stable
- Incompatibility: Acids
- Hazardous decomposition products: If heated to combustion temperature, soot, smoke, and oxides of carbon.
- 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 respirable dust.
- 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**

No data is available on ZP-4B.

13. **DISPOSAL**

Dispose of as ordinary waste.

- RCRA: Not a hazardous waste
- U.S. EPA Waste Number: None

14. **TRANSPORTATION**


- Proper shipping name: None, not restricted
- Hazard class or division: None
- Identification No.: None
- Packing Group: None

15. **REGULATORY INFORMATION**

- TSCA: All ingredients are listed in TSCA inventory.
- CERCLA: Not reportable
- SARA TITLE III, Section 313: Aluminum oxide
- California Proposition 65: Contains nothing on this list
- WHMIS Class (Canada): Not a controlled product.

**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: October 26, 2004
- Prepared by: Tamie Simmons, R&D Manager