

# MATERIAL SAFETY DATA SHEET

ZYGLO® DEVELOPER ZP-9F

1. **IDENTIFICATION**

*Company:* MAGNAFLUX  
*Address:* 3624 West Lake Avenue, Glenview, Illinois 60025  
*Telephone No.:* CHEMTREC 800-424-9300  
*Product Use:* Penetrant inspection developer  
*Packages:* 5 gallon pail, aerosols  
*NFPA Rating:* Health 1 (aerosol 2), Flammability 3 (aerosol 4), Reactivity 0 (aerosol 1)  
*PIN (Canada)(Bulk):* UN 1993  
*Revision Date:* April 16, 2010

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>
2-propanone	40-70	67-64-1	750 ppm	750 ppm	6 g/kg (oral/rat)	not avail.
2-propanol	10-30	67-63-0	400 ppm	400 ppm	3.6 g/kg (oral/mouse)	not avail.
2,2'-Bis(Hydroxymethyl)-1,3-propanediol	10-30	115-77-5	10 mg/m ;	5 mg/m ;	23.5 g/kg (oral/mouse)	not avail.
**Carbon dioxide (Propellent)	7	124-38-9	5000 ppm	5000 ppm	not avail.	not avail.

\*\*AEROSOL PACAKAGE ONLY

3. **HAZARDS IDENTIFICATION**

**EMERGENCY OVERVIEW**  
 Extremely flammable white liquid and aerosol. Fast evaporating vapors can reach hazardous levels quickly in unventilated spaces.

POTENTIAL HEALTH EFFECTS

*Skin Contact:* Can irritate by removing natural skin oils on long or repeated exposures.  
*Eyes:* Irritating, but does not damage eye tissue.  
*Inhalation:* Causes 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 single 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:* Bulk and aerosol: Ignition will occur if used near flames, arcs or other ignition sources.  
*Flash point:* 2°F (-16°C) (Pensky-Martens closed cup).  
*Flammable limits in air:* 2% to 15%.  
*Extinguishing media:* Carbon dioxide, foam, water.  
*Special fire fighting procedures:* Keep containers cool with water spray.  
*Hazardous combustion products:* Soot, oxides of carbon.  
*Unusual fire hazards:* Aerosol cans may burst over 130°F (54°C) and add to existing fire.

6. **ACCIDENTAL RELEASE MEASURES**

Turn off or remove sources of ignition. Mop up or sweep up with absorbent. (For disposal, see Section 13.)

7. **HANDLING AND STORAGE**

Avoid breathing vapors. Storage Level 2 Aerosols per NFPA 30B  
 Avoid eye contact.  
 Avoid repeated or prolonged skin contact.  
 Store away from heat sources.  
 Do not spray around arcs or flame.

8. **EXPOSURE CONTROLS/PERSONAL PROTECTION**

*Controls:* Use where ventilation will carry vapors away from unoccupied 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> 135E F (57EC) (ASTM D-86)		<i>Vapor pressure:</i>	Bulk:
	380mm @ 100EF (38EC).		
<i>Percent volatile:</i>	85%		
<i>Aerosol:</i> 105 psi @ 75EF (24EC)			
<i>Density/sp. gravity:</i>	0.86	<i>Vapor density:</i>	3
<i>Water solubility:</i>	100	<i>Evaporation rate:</i>	0.4 of ether
<i>pH:</i>	Neutral	<i>Appearance:</i>	White liquid
<i>Odor:</i>	Alcohol odor		

10. **STABILITY AND REACTIVITY**

*Stability:* Stable  
*Incompatibility:* None  
*Hazardous decomposition products:* When burning, soot, 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 (Bulk):* 400 ppm  
*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-9F. 2,2'-Bis(hydroxypropyl)-1,3-propanediol dissolves in water and is biodegradable.

13. **DISPOSAL**

Send to a licensed waste facility for proper disposal.

*RCRA:* Hazardous waste.  
*U.S. EPA Waste Number:* D001

14. **TRANSPORTATION**

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

<i>Proper shipping name:</i>	<u>Bulk</u> FLAMMABLE LIQUID, N.O.S. (Isopropanol, Acetone)	<u>Aerosol</u> Consumer commodity
<i>Hazard class or division:</i>	3	ORM-D
<i>Identification No.:</i>	UN1993	None
<i>Packing Group:</i>	II	None

**IATA: List of Dangerous Goods**

<i>Proper Shipping Name:</i>	<u>5 Gal or less (&gt; 5 gal cannot go air)</u> FLAMMABLE LIQUID, N.O.S. (Isopropanol, Acetone)	<u>Aerosol</u> Aerosols, flammable
<i>Hazard class or division:</i>	3	2.1
<i>Identification No.:</i>	UN1993	UN1950
<i>Packing Group:</i>	II	-

**IMDG: General Index**

<i>Proper shipping name:</i>	<u>Bulk</u> FLAMMABLE LIQUID, N.O.S. (Isopropyl Alcohol, Acetone)	<u>Aerosol</u> AEROSOLS
<i>Hazard class or division:</i>	3.2	2.1
<i>Identification No.:</i>	UN1993	UN1950
<i>Packing Group:</i>	II	-

15. **REGULATORY INFORMATION**

*TSCA:* All ingredients are listed in TSCA inventory.  
*CERCLA:* Reportable quantity (RQ) for Acetone = 5000 lbs.  
*SARA TITLE III, Section 313:* Acetone.  
*California Proposition 65:* Contains nothing on this list  
*WHMIS Class (Canada):* Bulk: B-2, D-2B - Aerosol: A, B-5, 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:* Section 7  
*Supersedes:* May 27, 2008  
*Prepared by:* Tamie Simmons, Research Manager