



Chemical Name: ZP-9F Developer

Manufacturer: Magnaflux

Container size: 256g

Location: VLA

Disposal: Place empty container in trash.

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>LD₅₀</i>	<i>LC₅₀</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	<u>5 Gal or less (> 5 gal cannot go air)</u>	<u>Aerosol</u>
<i>Proper Shipping Name:</i>	FLAMMABLE LIQUID, N.O.S. (Isopropanol, Acetone)	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	<u>Bulk</u>	<u>Aerosol</u>
<i>Proper shipping name:</i>	FLAMMABLE LIQUID, N.O.S. (Isopropyl Alcohol, Acetone)	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