

**SECTION 1: IDENTIFICATION****1.1. PRODUCT IDENTIFIER**

Product name : ZP-9F  
Product code : Not available

**1.2. RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST**

Use of the substance/mixture : Non-Destructive Testing.

**1.3. DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET****Manufacturer**

Magnaflux  
155 Harlem Ave.  
Glenview, IL 60025 - USA  
T: 847-657-5300

**Distributor****1.4. EMERGENCY TELEPHONE NUMBER**

Emergency number : CHEMTREC 800-424-9300

**SECTION 2: HAZARDS IDENTIFICATION****2.1. CLASSIFICATION OF THE SUBSTANCE OR MIXTURE****GHS classification**

Flam. Liq. 2  
Eye Irrit. 2A  
STOT SE 3

**2.2. LABEL ELEMENTS****GHS labelling**

Hazard pictograms (GHS) :



GHS02

GHS07

Signal word (GHS) :

Danger

Hazard statements (GHS) :

Highly flammable liquid and vapour. Causes serious eye irritation. May cause respiratory irritation. May cause drowsiness or dizziness.

Precautionary statements (GHS) :

Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/Bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wear protective gloves/eye protection/face protection. Wash hands thoroughly after handling. Avoid breathing dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell. Store in a well-ventilated place. Keep cool. Store locked up. Dispose of contents/container in accordance with local/regional/national/international regulations.

**2.3. OTHER HAZARDS**

No additional information available

**2.4. UNKNOWN ACUTE TOXICITY (GHS)**

Not applicable

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS****3.1. SUBSTANCES**

Not applicable

**3.2. MIXTURES**

Name	Product identifier	%
Acetone	(CAS No) 67-64-1	45 - 70
Isopropyl alcohol	(CAS No) 67-63-0	10 - 30
Pentaerythritol	(CAS No) 115-77-5	7 - 13

\*Chemical name, CAS number and/or exact concentration have been withheld as a trade secret

**SECTION 4: FIRST AID MEASURES**
**4.1. DESCRIPTION OF FIRST AID MEASURES**

- First-aid measures after inhalation : If inhaled, remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
- First-aid measures after skin contact : In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Call a physician if irritation develops and persists.
- First-aid measures after eye contact : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lenses, if worn. If irritation persists, get medical attention.
- First-aid measures after ingestion : If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.

**4.2. MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED**

- Symptoms/injuries after inhalation : May cause respiratory tract irritation. May cause drowsiness or dizziness.
- Symptoms/injuries after skin contact : May cause skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin.
- Symptoms/injuries after eye contact : Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.
- Symptoms/injuries after ingestion : May be harmful if swallowed. May cause stomach distress, nausea or vomiting.

**4.3. INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED**

Symptoms may not appear immediately. In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

**SECTION 5: FIREFIGHTING MEASURES**
**5.1. EXTINGUISHING MEDIA**

- Suitable extinguishing media : Water spray, water fog, dry chemical, carbon dioxide, foam.
- Unsuitable extinguishing media : Do not use water jet.

**5.2. SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE**

- Fire hazard : Highly flammable liquid and vapour. Products of combustion may include, and are not limited to: oxides of carbon. Vapors may be heavier than air and may travel along the ground to a distant ignition source and flash back.
- Explosion hazard : May form flammable/explosive vapour-air mixture. Dried product is a combustible solid and may form combustible dust.

**5.3. ADVICE FOR FIREFIGHTERS**

- Protection during firefighting : Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA). Use water spray to keep fire-exposed containers cool.

**SECTION 6: ACCIDENTAL RELEASE MEASURES**
**6.1. PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES**

- General measures : Eliminate sources of ignition. Use special care to avoid static electric charges. Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

**6.2. METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP**

- For containment : Stop leak without risks if possible. Move containers from spill area. Use only non-sparking tools. Use explosion-proof equipment. Avoid dust formation. Contain and/or absorb spill with inert material (e.g. sand, vermiculite), then place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).
- Methods for cleaning up : Scoop up material and place in a disposal container. Provide ventilation.

**6.3. REFERENCE TO OTHER SECTIONS**

See section 8 for further information on protective clothing and equipment and section 13 for advice on waste disposal.

## SECTION 7: HANDLING AND STORAGE

### 7.1. PRECAUTIONS FOR SAFE HANDLING

Additional hazards when processed	: Handle empty containers with care because residual vapours are flammable.
Precautions for safe handling	: Keep away from sources of ignition - No smoking. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapors/spray. Do not swallow. Handle and open container with care. When using do not eat, drink or smoke. Take precautionary measures against static discharge. Use only non-sparking tools. Use explosion-proof equipment. Do not allow solid residues to accumulate. Use only outdoors or in a well-ventilated area. Benzene may be present in trace amounts. Benzene is subject to the standard 29 CFR 1910.1028 which may contain specific requirements for handling including protective equipment, regulated areas, monitoring and medical surveillance. The employer should review the standard and assure compliance with applicable requirements.
Hygiene measures	: Launder contaminated clothing before reuse. Wash hands before eating, drinking, or smoking.

### 7.2. CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Technical measures	: Proper grounding procedures to avoid static electricity should be followed.
Storage conditions	: Keep locked up and out of reach of children. Keep container tightly closed. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatibles.

### 7.3. SPECIFIC END USE(S)

Not available.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. CONTROL PARAMETERS

Acetone (67-64-1)		
ACGIH	ACGIH TWA (ppm)	250 ppm
ACGIH	ACGIH STEL (ppm)	500 ppm
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	2400 mg/m <sup>3</sup>
OSHA	OSHA PEL (TWA) (ppm)	1000 ppm
USA - IDLH	US IDLH (ppm)	2500 ppm (10% LEL)
USA - NIOSH	NIOSH REL (TWA) (mg/m <sup>3</sup> )	590 mg/m <sup>3</sup>
USA - NIOSH	NIOSH REL (TWA) (ppm)	250 ppm

Isopropyl alcohol (67-63-0)		
ACGIH	ACGIH TWA (ppm)	200 ppm
ACGIH	ACGIH STEL (ppm)	400 ppm
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	980 mg/m <sup>3</sup>
OSHA	OSHA PEL (TWA) (ppm)	400 ppm
USA - IDLH	US IDLH (ppm)	2000 ppm (10% LEL)
USA - NIOSH	NIOSH REL (TWA) (mg/m <sup>3</sup> )	980 mg/m <sup>3</sup>
USA - NIOSH	NIOSH REL (TWA) (ppm)	400 ppm
USA - NIOSH	NIOSH REL (STEL) (mg/m <sup>3</sup> )	1225 mg/m <sup>3</sup>
USA - NIOSH	NIOSH REL (STEL) (ppm)	500 ppm

Pentaerythritol (115-77-5)		
ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	15 mg/m <sup>3</sup> (total dust)
		5 mg/m <sup>3</sup> (respirable fraction)
USA - NIOSH	NIOSH REL (TWA) (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (total dust)
		5 mg/m <sup>3</sup> (respirable dust)

**8.2. EXPOSURE CONTROLS**

Appropriate engineering controls	: Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.
Hand protection	: Wear chemically resistant protective gloves.
Eye protection	: Safety glasses with side-shields.
Skin and body protection	: Wear suitable protective clothing.
Respiratory protection	: In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
Environmental exposure controls	: Maintain levels below Community environmental protection thresholds.
Other information	: Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking. Handle according to established industrial hygiene and safety practices.

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES****9.1. INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES**

Physical state	: Liquid
Appearance	: White opaque liquid
Colour	: White
Odour	: Characteristic
Odour threshold	: No data available
pH	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: 56°C (133°F) at 100 kPa
Flash point	: 20°C (68°F)
Relative evaporation rate (butylacetate=1)	: No data available
Flammability (solid, gas)	: Flammable
Explosive limits	: Lower limit: 2% (IPA) Upper limit: 12.8% (Acetone)
Explosive properties	: No data available
Oxidising properties	: No data available
Vapour pressure	: No data available
Relative density	: 0.78
Relative vapour density at 20 °C	: No data available
Solubility	: No data available
Partition coefficient n-octanol/water	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available

**9.2. OTHER INFORMATION**

VOC content	: 702.36 g/l
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**SECTION 10: STABILITY AND REACTIVITY****10.1. REACTIVITY**

No dangerous reaction known under conditions of normal use.

**10.2. CHEMICAL STABILITY**

Stable under normal storage conditions. May form flammable/explosive vapor-air mixture.

**10.3. POSSIBILITY OF HAZARDOUS REACTIONS**

No dangerous reaction known under conditions of normal use.

**10.4. CONDITIONS TO AVOID**

Heat. Incompatible materials. Ignition sources. Avoid dust formation.

**10.5. INCOMPATIBLE MATERIALS**

Acids, aldehydes, alkalis, amines, ammonia, oxidizing agents, reducing agents, caustics, chlorinated hydrocarbons.

**10.6. HAZARDOUS DECOMPOSITION PRODUCTS**

May include, and are not limited to: oxides of carbon. May release flammable gases.

**SECTION 11: TOXICOLOGICAL INFORMATION**
**11.1. INFORMATION ON TOXICOLOGICAL EFFECTS**

Acute toxicity (oral) : Not classified.  
 Acute toxicity (dermal) : Not classified.  
 Acute toxicity (inhalation) : Not classified.

Acetone (67-64-1)	
LD50 oral rat	5800 mg/kg
LD50 dermal rabbit	> 15700 mg/kg
LC50 inhalation rat	50100 mg/m <sup>3</sup> (8 h)

Isopropyl alcohol (67-63-0)	
LD50 oral rat	5045 mg/kg
LD50 dermal rabbit	4059 mg/kg
LC50 inhalation rat	72600 mg/m <sup>3</sup> (4 h)

Pentaerythritol (115-77-5)	
LD50 oral rat	19500 mg/kg
LC50 inhalation rat	> 11 g/m <sup>3</sup> (6 h)

Skin corrosion/irritation : Based on available data, the classification criteria are not met.  
 Serious eye damage/irritation : Causes serious eye irritation.  
 Respiratory or skin sensitisation : Based on available data, the classification criteria are not met.  
 Germ cell mutagenicity : Based on available data, the classification criteria are not met.  
 Carcinogenicity : Based on available data, the classification criteria are not met.

Isopropyl alcohol (67-63-0)	
IARC group	3 - Not classifiable

Reproductive toxicity : Based on available data, the classification criteria are not met.  
 Specific target organ toxicity (single exposure) : May cause drowsiness or dizziness. May cause respiratory irritation.  
 Specific target organ toxicity (repeated exposure) : Based on available data, the classification criteria are not met.  
 Aspiration hazard : Based on available data, the classification criteria are not met.  
 Symptoms/injuries after inhalation : May cause respiratory tract irritation. May cause drowsiness or dizziness.  
 Symptoms/injuries after skin contact : May cause skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin.  
 Symptoms/injuries after eye contact : Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.  
 Symptoms/injuries after ingestion : May be harmful if swallowed. May cause stomach distress, nausea or vomiting.

**SECTION 12: ECOLOGICAL INFORMATION**
**12.1. TOXICITY**

Ecology - general : May cause long-term adverse effects in the aquatic environment.

**12.2. PERSISTENCE AND DEGRADABILITY**

ZP-9F	
Persistence and degradability	Not established.

Prepared according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012 and the Hazardous Products Regulations (HPR) WHMIS 2015

**12.3. BIOACCUMULATIVE POTENTIAL**

ZP-9F	
Bioaccumulative potential	Not established.

**12.4. MOBILITY IN SOIL**

No additional information available

**12.5. OTHER ADVERSE EFFECTS**

Effect on the global warming : No known effects from this product.

**SECTION 13: DISPOSAL CONSIDERATIONS**
**13.1. WASTE TREATMENT METHODS**

Waste disposal recommendations : This material must be disposed of in accordance with all local, state, provincial, and federal regulations. The generation of waste should be avoided or minimized wherever possible.

Additional information : Handle empty containers with care because residual vapours are flammable.

**SECTION 14: TRANSPORT INFORMATION**

In accordance with DOT/TDG/IATA/IMDG

DOT (bulk)	UN 1993, Flammable Liquid n.o.s. (Isopropanol, Acetone), 3, II
DOT (non-bulk)	UN 1993, Flammable Liquid n.o.s. (Isopropanol, Acetone), 3, II
TDG	: UN 1993, Flammable Liquid n.o.s. (Isopropanol, Acetone), 3, II
IATA	: Prohibited
IMDG	: UN 1993, Flammable Liquid n.o.s. (Isopropanol, Acetone), 3, II

**ADDITIONAL INFORMATION**

Other information : No supplementary information available.

Special transport precautions : Do not handle until all safety precautions have been read and understood.

**SECTION 15: REGULATORY INFORMATION**
**15.1. FEDERAL REGULATIONS**

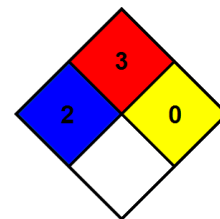
All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

All components of this product are listed, or excluded from listing, on the Canadian DSL (Domestic Substances List) and NDSL (Non-Domestic Substances List) inventories.

Acetone (67-64-1)	
CERCLA RQ	5000 lb

Isopropyl alcohol (67-63-0)	
Subject to reporting requirements of United States SARA Section 313	
SARA Section 313 - Emission Reporting	1 % (only if manufactured by the strong acid process, no supplier notification)

NFPA health hazard	: 2
NFPA fire hazard	: 3
NFPA reactivity	: 0


**15.2. US STATE REGULATIONS**

ZP-9F	
State or local regulations	This product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm

Prepared according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012 and the Hazardous Products Regulations (HPR) WHMIS 2015

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**SECTION 16: OTHER INFORMATION**

Date of issue : 10/04/2016  
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Other information : None.

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