

## SECTION 1: IDENTIFICATION

### 1.1. IDENTIFICATION

Product form : Mixtures  
 Product name : ZP-14A  
 Product code : Not available

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

Recommended use : Non-Destructive Testing.

### 1.3. DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

<b>Manufacturer</b>	<b>Distributor</b>
Magnaflux	
155 Harlem Ave.	
Glenview, IL 60025 - USA	
T 847-657-5300	

### 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

Eye Irrit. 2A  
 Comb. Dust\*

\*This classification is based on the product as sold (in powder form). This classification is not applicable after the product is mixed with a liquid.

### 2.2. LABEL ELEMENTS

#### GHS labelling

Hazard pictograms (GHS) :



GHS07

Signal word (GHS) : Warning  
 Hazard statements (GHS) : Causes serious eye irritation. May form combustible dust concentrations in air  
 Precautionary statements (GHS) : Wash hands, forearms and face thoroughly after handling. Wear eye protection, face protection. 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.

### 2.3. OTHER HAZARDS

No additional information available

### 2.4. UNKNOWN ACUTE TOXICITY

Not applicable

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1. SUBSTANCE

Not applicable

### 3.2. MIXTURES

Name	Product identifier	%
Sodium benzoate	(CAS No) 532-32-1	73.87
Pentaerythritol	(CAS No) 115-77-5	11.89
Carbonic acid, sodium salt (2:3)	(CAS No) 533-96-0	1.74
Alcohols, C6-10, ethoxylated propoxylated or Alcohols, C6-12, ethoxylated propoxylated	(CAS No) 68987-81-5 or (CAS No) 68937-66-6	1.67
Tribasic sodium phosphate dodecahydrate	(CAS No) 10101-89-0	1.22

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

Name	Product identifier	%
Poly(oxy-1,2-ethanediyl), .alpha.-methyl-.omega.-[3-[1,3,3,3-tetramethyl-1-[(trimethylsilyl)oxy]disiloxanyl]propoxy]-	(CAS No) 27306-78-1	0.69
Sodium metasilicate	(CAS No) 6834-92-0	0.30
Didecyldimethylammonium chloride	(CAS No) 7173-51-5	0.20

## SECTION 4: FIRST AID MEASURES

### 4.1. DESCRIPTION OF FIRST AID MEASURES

- First-aid measures after inhalation : If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.
- First-aid measures after skin contact : If irritation occurs, flush skin with plenty of water. Get medical attention if irritation 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.
- 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. Dry chemical. Foam.
- Unsuitable extinguishing media : Do not use a water jet since it may cause the fire to spread.

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

- Fire hazard : Combustible dust. Products of combustion may include, and are not limited to: oxides of carbon.
- Explosion hazard : Avoid generating dust. Airborne dust in sufficient concentrations when confined and exposed to a sufficient ignition source can explode.
- Reactivity : No dangerous reaction known under conditions of normal use.

### 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 or fog for cooling exposed containers.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### 6.1. PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

- General measures : Remove all sources of ignition. Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Avoid dispersal of dust in the air (ie, clearing dust surfaces with compressed air). Use only non-sparking tools.

#### 6.1.1. FOR NON-EMERGENCY PERSONNEL

No additional information available

#### 6.1.2. FOR EMERGENCY RESPONDERS

No additional information available

### 6.2. ENVIRONMENTAL PRECAUTIONS

No additional information available

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

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

- For containment : Contain spill, then place in a suitable container. Minimize dust generation. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).
- Methods for cleaning up : Vacuum or sweep material and place in a disposal container. Provide ventilation.

**6.4. 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**

- Precautions for safe handling : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid contact with skin and eyes. Do not swallow. Handle and open container with care. When using do not eat, drink or smoke. Avoid generating and breathing dust. Good housekeeping is important to prevent accumulation of dust. The use of compressed air for cleaning clothing, equipment, etc, is not recommended. Use only in well-ventilated areas. Handling this product may result in electrostatic accumulation. Use proper grounding procedures. After product is mixed with a liquid, combustible dust hazard no longer applies.
- Hygiene measures : Launder contaminated clothing before reuse. Wash hands before eating, drinking, or smoking.

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

- Storage conditions : Keep out of the reach of children. Keep container tightly closed. Store in dust-tight, dry, labelled containers. Avoid any dust buildup by frequent cleaning and suitable construction of the storage area. Keep away from sources of ignition. Store in well ventilated area.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

**8.1. CONTROL PARAMETERS**

<b>Sodium benzoate (532-32-1)</b>		
Not applicable		
<b>Pentaerythritol (115-77-5)</b>		
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)
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)
<b>Carbonic acid, sodium salt (2:3) (533-96-0)</b>		
Not applicable		
<b>Alcohols, C6-10, ethoxylated propoxylated (68987-81-5)</b>		
Not applicable		
<b>Alcohols, C6-12, ethoxylated propoxylated (68937-66-6)</b>		
Not applicable		
<b>Tribasic sodium phosphate dodecahydrate (10101-89-0)</b>		
Not applicable		
<b>Poly(oxy-1,2-ethanediyl), .alpha.-methyl-.omega.-[3-[1,3,3,3-tetramethyl-1-[(trimethylsilyl)oxy]disiloxanyl]propoxy]- (27306-78-1)</b>		
Not applicable		
<b>Sodium metasilicate (6834-92-0)</b>		
Not applicable		
<b>Didecyldimethylammonium chloride (7173-51-5)</b>		
Not applicable		
<b>Particulates not otherwise regulated (PNOR) and Particulates not otherwise classified (PNOC)</b>		
ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (inhalable particles) 3 mg/m <sup>3</sup> (respirable particles)
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)

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

## 8.2. EXPOSURE CONTROLS

Appropriate engineering controls	: Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits. It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen-deficient environment. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e. there is not leakage from the equipment). Use only appropriately classified electrical equipment and powered industrial trucks.
Hand protection	: Wear suitable gloves.
Eye protection	: Wear eye/face protection.
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	: Solid
Appearance	: Powder
Colour	: White
Odour	: Odourless
Odour threshold	: No data available
pH	: 10 (10% in water)
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Flammability (solid, gas)	: Combustible Dust
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: 0.6 (Bulk density)
Solubility	: No data available
Partition coefficient n-octanol/water	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive limits	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available

### 9.2. OTHER INFORMATION

No additional information available

## 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 combustible dust concentrations in air.

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

### 10.3. POSSIBILITY OF HAZARDOUS REACTIONS

No dangerous reaction known under conditions of normal use.

### 10.4. CONDITIONS TO AVOID

Heat. Incompatible materials. Sources of ignition. Moisture. Avoid dust formation.

### 10.5. INCOMPATIBLE MATERIALS

Strong acids. Strong oxidizers. Iron salts.

### 10.6. HAZARDOUS DECOMPOSITION PRODUCTS

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

## 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.

ZP-14A	
LD50 oral rat	> 2000 mg/kg (Calculated acute toxicity estimate)
LD50 dermal rabbit	No data available
LC50 inhalation rat	No data available

Sodium benzoate (532-32-1)	
LD50 oral rat	4070 mg/kg

Pentaerythritol (115-77-5)	
LD50 oral rat	19500 mg/kg

Tribasic sodium phosphate dodecahydrate (10101-89-0)	
LD50 oral rat	7400 mg/kg

Poly(oxy-1,2-ethanediyl), .alpha.-methyl-.omega.-[3-[1,3,3,3-tetramethyl-1-[(trimethylsilyl)oxy]disiloxanyl]propoxy]- (27306-78-1)	
LD50 oral rat	4920 µl/kg
LC50 inhalation rat	2 g/m <sup>3</sup> /4h

Sodium metasilicate (6834-92-0)	
LD50 oral rat	1153 mg/kg

Didecyldimethylammonium chloride (7173-51-5)	
LD50 oral rat	84 mg/kg

Skin corrosion/irritation	: Not classified. pH: 10
Serious eye damage/irritation	: Causes serious eye irritation. pH: 10
Respiratory or skin sensitization	: Not classified.
Germ cell mutagenicity	: Not classified.
Carcinogenicity	: Not classified.
Reproductive toxicity	: Not classified.
STOT-single exposure	: Not classified.
STOT-repeated exposure	: Not classified.
Aspiration hazard	: Not classified.
Symptoms/injuries after inhalation	: May cause respiratory tract irritation.
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.

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

Other information : Likely routes of exposure: ingestion, inhalation, skin and eye.

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1. TOXICITY

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

Sodium benzoate (532-32-1)	
LC50 fish 1	420 - 558 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 Daphnia 1	< 650 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 fish 2	> 100 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])

Pentaerythritol (115-77-5)	
EC50 Daphnia 1	30477 - 37043 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])

Sodium metasilicate (6834-92-0)	
LC50 fish 1	210 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [semi-static])
LC50 fish 2	210 mg/l (Exposure time: 96 h - Species: Brachydanio rerio)

### 12.2. PERSISTENCE AND DEGRADABILITY

ZP-14A	
Persistence and degradability	Not established.

### 12.3. BIOACCUMULATIVE POTENTIAL

ZP-14A	
Bioaccumulative potential	Not established.

Sodium benzoate (532-32-1)	
BCF fish 1	(no bioaccumulation)
Partition coefficient n-octanol/water	-2.13

Pentaerythritol (115-77-5)	
BCF fish 1	0.3 - 0.6

Carbonic acid, sodium salt (2:3) (533-96-0)	
BCF fish 1	(no bioaccumulation)

### 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

Product/Packaging 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.

## SECTION 14: TRANSPORT INFORMATION

In accordance with DOT/TDG/IATA/IMDG

DOT (bulk) : Not regulated for transport  
 DOT (non-bulk) : Not regulated for transport  
 TDG : Not regulated for transport  
 IATA : Not regulated for transport  
 IMDG : Not regulated for transport

## 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.

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

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 except for:

Sodium molybdate dihydrate	CAS No 10102-40-6
Tribasic sodium phosphate dodecahydrate	CAS No 10101-89-0

**Alcohols, C6-10, ethoxylated propoxylated (68987-81-5)**

EPA TSCA Regulatory Flag	XU - XU - indicates a substance exempt from reporting under the Inventory Update Reporting Rule, i.e, Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(C)).
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**Alcohols, C6-12, ethoxylated propoxylated (68937-66-6)**

EPA TSCA Regulatory Flag	XU - XU - indicates a substance exempt from reporting under the Inventory Update Reporting Rule, i.e, Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(C)).
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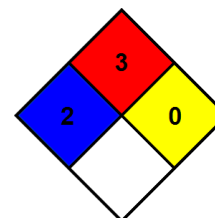
**Tribasic sodium phosphate dodecahydrate (10101-89-0)**

CERCLA RQ	5000 lb listed under Sodium phosphate, tribasic
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**Poly(oxy-1,2-ethanediyl), .alpha.-methyl-.omega.-[3-[1,3,3,3-tetramethyl-1-[(trimethylsilyl)oxy]disiloxanyl]propoxy]- (27306-78-1)**

EPA TSCA Regulatory Flag	XU - XU - indicates a substance exempt from reporting under the Inventory Update Reporting Rule, i.e, Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(C)).
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NFPA health hazard : 2  
 NFPA fire hazard : 3  
 NFPA reactivity : 0



**15.2. INTERNATIONAL REGULATIONS**

No additional information available.

**15.3. US STATE REGULATIONS**

California Proposition 65 - This product contains, or may contain, trace quantities of a substance(s) known to the state of California to cause cancer, developmental and/or reproductive harm

**Pentaerythritol (115-77-5)**

U.S. - New Jersey - Right to Know Hazardous Substance List  
 U.S. - Pennsylvania - RTK (Right to Know) List

**Tribasic sodium phosphate dodecahydrate (10101-89-0)**

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List  
 U.S. - Pennsylvania - RTK (Right to Know) List

**SECTION 16: OTHER INFORMATION**

Revision date : 11/16/2016  
 Other information : Refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids, for safe handling.  
 Prepared by : Nexreg Compliance Inc.  
 www.Nexreg.com



SDS HazCom 2012 - WHMIS 2015 Nexreg Magnaflux

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