
Section 1: IDENTIFICATION

1.1 PRODUCT IDENTIFIER

Product Name: ZP-14A
Product Code: Not available.

1.2 RECOMMENDED USE OF CHEMICAL AND RESTRICTIONS ON USE

Use: Non-Destructive Testing.

1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

Name/Address: Magnaflux
155 Harlem Avenue,
Glenview, Illinois
60025

Telephone Number: 847-657-5300

1.4 EMERGENCY TELEPHONE NUMBER

Emergency Telephone Number: CHEMTREC 800-424-9300
Date of Preparation: September 16, 2014 **Version #:**1.0

Section 2: HAZARD(S) IDENTIFICATION

2.1 CLASSIFICATION OF THE CHEMICAL ACCORDING TO OSHA HAZCOM 2012**Hazard class**

Eye irritation 2A

2.2 LABEL ELEMENTS ACCORDING TO OSHA HAZCOM 2012**Hazard Pictogram:**

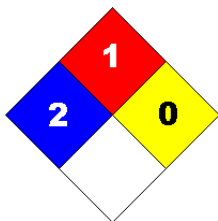
Signal Word: Warning
Hazard Statement: Causes serious eye irritation.
Prevention: Wash hands thoroughly after handling. Wear eye protection/face protection.
Response: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Storage: Not applicable.
Disposal: Not applicable.

2.3 ADDITIONAL INFORMATION

Hazards not otherwise classified: Not applicable.
4 % of the mixture consists of ingredient(s) of unknown acute toxicity.

This product is a hazardous chemical as defined by NOM-018-STPS-2000.

Mexico Classification:



Blue = Health Red = Flammability Yellow = Reactivity White = Special

Hazard Rating: 0 = minimal, 1 = slight, 2 = moderate, 3 = severe, 4 = extreme

WHMIS Classification(s):

Class D2B - Skin/Eye Irritant

WHMIS Hazard Symbols:



WHMIS Signal Word: WARNING

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 MIXTURES

| Ingredient | UN # | H / F / R / * | CAS No | Wt. % |
|---|----------------|----------------|------------|-----------|
| Pentaerythritol | Not available. | 1/2/0 | 115-77-5 | 7 - 13 |
| Alcohols, C6-10, ethoxylated propoxylated | Not available. | Not available. | 68987-81-5 | 1 - 5 |
| Trisodium hydrogencarbonate | Not available. | Not available. | 533-96-0 | 1 - 5 |
| Trisodium phosphate | Not available. | Not available. | 7601-54-9 | 0.5 - 1.5 |
| Didecyldimethylammonium chloride | Not available. | Not available. | 7173-51-5 | 0.1 - 1 |
| Ethylene oxide | UN1040 | 3/4/3 | 75-21-8 | < 0.1 |

The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

* Per NOM-018-STPS-2000

Section 4: FIRST- AID MEASURES

4.1 DESCRIPTION OF THE FIRST AID MEASURE

- Eye:** 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.
- Skin:** 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.
- Inhalation:** If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.

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

Eye: Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.

Skin: May cause skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin.

Inhalation: Dust may cause respiratory tract irritation.

Ingestion: May be harmful if swallowed. May cause stomach distress, nausea or vomiting.

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENTS NEEDED

Note to Physicians: Symptoms may not appear immediately.

Specific Treatments: In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

Section 5: FIRE-FIGHTING MEASURES

5.1 FLAMMABILITY

Flammability: Not flammable by WHMIS/OSHA/NOM-018-STPS-2000 criteria.

5.2 EXTINGUISHING MEDIA

Suitable Extinguishing Media: Powder, water spray, foam, carbon dioxide.

Unsuitable Extinguishing Media: Do not use a heavy water stream.

5.3 SPECIAL HAZARDS ARISING FROM THE CHEMICAL

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

Explosion Data:

Sensitivity to Mechanical Impact: Not available.

Sensitivity to Static Discharge: Not available.

5.4 SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE FIGHTERS

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

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

6.2 METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING - UP

Methods 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.

Section 7: HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING

Handling: Avoid contact with skin and eyes. Do not swallow. Avoid generating and breathing dust. Good housekeeping is important to prevent accumulation of dust. Handle and open container with care. Handle in well-ventilated areas. When using do not eat, drink or smoke. (See section 8)

General Hygiene Advice: Launder contaminated clothing before reuse. Wash hands before eating, drinking, or smoking.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Storage: Keep out of the reach of children. Keep container tightly closed and dry. (See section 10)

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 CONTROL PARAMETERS

Exposure Guidelines

| Occupational Exposure Limits | | |
|---|--|--|
| Ingredient | OSHA-PEL | ACGIH-TLV |
| Pentaerythritol | 15 mg/m ³ (total) 5 mg/m ³ (resp) | 10 mg/m ³ (total) 5 mg/m ³ (resp) |
| Alcohols, C6-10, ethoxylated propoxylated | Not available. | Not available. |
| Trisodium hydrogendecarbonate | Not available. | Not available. |
| Trisodium phosphate | Not available. | Not available. |
| Didecyldimethylammonium chloride | Not available. | Not available. |
| Ethylene oxide | 1 ppm | 1 ppm |

8.2 EXPOSURE CONTROLS

Engineering Controls: Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.

8.3 INDIVIDUAL PROTECTIVE MEASURES

Personal Protective Equipment:

Eye/Face Protection: Wear eye protection.

Skin Protection:

Hand Protection: Wear chemical resistant gloves.

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.

General Health and Safety Measures: Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---|-------------------|
| Appearance: | Powder. |
| Color: | White. |
| Odor: | Odorless. |
| Odor Threshold: | Not available. |
| Physical State: | Solid. |
| pH: | 10 (10% in water) |
| Melting Point/Freezing Point: | Not available. |
| Initial Boiling Point and Boiling Range: | Not available. |
| Flash Point: | Not available. |
| Evaporation Rate: | Not available. |
| Flammability: | Not flammable. |
| Lower Flammability/Explosive Limit: | Not available. |
| Upper Flammability/Explosive Limit: | Not available. |
| Vapor Pressure: | Not available. |
| Vapor Density: | Not available. |
| Relative Density/Specific Gravity: | 0.6 (bulk) |
| Solubility: | Complete. |
| Partition coefficient: n-octanol/water: | Not available. |
| Auto-ignition Temperature: | Not available. |
| Decomposition Temperature: | Not available. |
| Viscosity: | Not available. |
| Oxidizing Properties: | Not available. |
| Explosive Properties: | Not 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.

10.3 POSSIBILITY OF HAZARDOUS REACTIONS

No dangerous reaction known under conditions of normal use.

10.4 CONDITIONS TO AVOID

Heat. Incompatible materials. Moisture. Static discharge. Avoid dust formation.

10.5 INCOMPATIBLE MATERIALS

Acids. Oxidizers. Iron salts.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS

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

Section 11: TOXICOLOGICAL INFORMATION
11.1 INFORMATION ON TOXICOLOGICAL EFFECTS

Likely Routes of Exposure: Skin contact, eye contact, inhalation, and ingestion.

Symptoms related to physical/chemical/toxicological characteristics:

Eye: Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.

Skin: May cause skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin.

Ingestion: May be harmful if swallowed. May cause stomach distress, nausea or vomiting.

Inhalation: Dust may cause respiratory tract irritation.

Acute Toxicity:

| Ingredient | IDLH | LC50 | LD50 |
|---|----------------|----------------------------------|--|
| Pentaerythritol | Not available. | Not available. | Oral 10000 mg/kg, rat |
| Alcohols, C6-10, ethoxylated propoxylated | Not available. | Not available. | Not available. |
| Trisodium hydrogencarbonate | Not available. | Not available. | Not available. |
| Trisodium phosphate | Not available. | Inhalation >2.16 mg/L 1h, rat | Oral >2000 mg/kg, rat Dermal >2 mg/kg, rabbit |
| Didecyldimethylammonium chloride | Not available. | Not available. | Oral 84 mg/kg, rat |
| Ethylene oxide | Ca [800 ppm] | Inhalation 800 ppm 4h, rat | Oral 72 mg/kg, rat |

Calculated overall Chemical Acute Toxicity Values

| LC50 (inhalation) | LD50 (oral) | LD50 (dermal) |
|-------------------|-------------------|----------------|
| Not available. | > 2000 mg/kg, rat | Not available. |

| Ingredient | Chemical Listed as Carcinogen or Potential Carcinogen (NTP, IARC, OSHA, ACGIH, CP65)* |
|---|---|
| Pentaerythritol | Not listed. |
| Alcohols, C6-10, ethoxylated propoxylated | Not listed. |
| Trisodium hydrogencarbonate | Not listed. |
| Trisodium phosphate | Not listed. |
| Didecyldimethylammonium chloride | Not listed. |
| Ethylene oxide | O, G-A2, I-1, N-1, CP65 |

* See Section 15 for more information.

11.2 DELAYED, IMMEDIATE, AND CHRONIC EFFECTS OF SHORT- AND LONG-TERM EXPOSURE

| | |
|---|---|
| Skin Corrosion/Irritation: | May cause skin irritation. |
| Serious Eye Damage/Irritation: | Causes serious eye irritation. |
| Respiratory Sensitization: | Based on available data, the classification criteria are not met. |
| Skin Sensitization: | Based on available data, the classification criteria are not met. |
| STOT-Single Exposure: | Based on available data, the classification criteria are not met. |
| Chronic Health Effects: | |
| Carcinogenicity: | Based on available data, the classification criteria are not met. |
| Germ Cell Mutagenicity: | Based on available data, the classification criteria are not met. |
| Reproductive Toxicity: | |
| Developmental: | Based on available data, the classification criteria are not met. |
| Teratogenicity: | Based on available data, the classification criteria are not met. |
| Embryotoxicity: | Based on available data, the classification criteria are not met. |
| Fertility: | Based on available data, the classification criteria are not met. |
| STOT-Repeated Exposure: | Based on available data, the classification criteria are not met. |
| Aspiration Hazard: | Based on available data, the classification criteria are not met. |
| Toxicologically Synergistic Materials: | Not available. |
| Other Information: | Not available. |

Section 12: ECOLOGICAL INFORMATION

12.1 ECOTOXICITY

Acute/Chronic Toxicity: May cause long-term adverse effects in the aquatic environment.

12.2 PERSISTENCE AND DEGRADABILITY

Not available.

12.3 BIOACCUMULATIVE POTENTIAL

Bioaccumulation: Not available.

12.4 MOBILITY IN SOIL

Not available.

12.5 OTHER ADVERSE EFFECTS

Not available.

Section 13: DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS

Disposal Method: This material must be disposed of in accordance with all local, state, provincial, and federal regulations.

Other disposal recommendations: Not available.

Section 14: TRANSPORT INFORMATION

14.1 UN NUMBER

| | | |
|----------------|----------------|--------------------------|
| DOT | TDG | NOM-004-SCT2-1994 |
| Not regulated. | Not regulated. | Not regulated. |

14.2 UN PROPER SHIPPING NAME

| | | |
|-----------------|-----------------|--------------------------|
| DOT | TDG | NOM-004-SCT2-1994 |
| Not applicable. | Not applicable. | Not applicable. |

14.3 TRANSPORT HAZARD CLASS (ES)

| | | |
|-----------------|-----------------|--------------------------|
| DOT | TDG | NOM-004-SCT2-1994 |
| Not applicable. | Not applicable. | Not applicable. |

14.4 PACKING GROUP

| | | |
|-----------------|-----------------|--------------------------|
| DOT | TDG | NOM-004-SCT2-1994 |
| Not applicable. | Not applicable. | Not applicable. |

14.5 ENVIRONMENTAL HAZARDS

Not available.

14.6 TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL 73/78 AND THE IBC CODE

Not available.

14.7 SPECIAL PRECAUTIONS FOR USER

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

Section 15: REGULATORY INFORMATION

15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/ LEGISLATIONS SPECIFIC FOR THE CHEMICAL

Canada: This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.

US: SDS prepared pursuant to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012

Mexico: SDS prepared pursuant to NOM-018-STPS-2000.

| SARA Title III | | | | |
|---|---------------------------------|------------------------------|---------------------|----------------|
| Ingredient | Section 302 (EHS) TPQ (lbs.) | Section 304 EHS RQ (lbs.) | CERCLA RQ (lbs.) | Section 313 |
| Pentaerythritol | Not listed. | Not listed. | Not listed. | Not listed. |
| Alcohols, C6-10, ethoxylated propoxylated | Not listed. | Not listed. | Not listed. | Not listed. |
| Trisodium hydrogencarbonate | Not listed. | Not listed. | Not listed. | Not listed. |
| Trisodium phosphate | Not listed. | Not listed. | 5,000 | Not listed. |
| Didecyldimethylammonium chloride | Not listed. | Not listed. | Not listed. | Not listed. |
| Ethylene oxide | 1,000 | 10 | 10 | 313 |

State Regulations
California Proposition 65:

This product contains a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

Global Inventories:

| Ingredient | Canada DSL/NDSL | USA TSCA |
|---|--------------------|-------------|
| Pentaerythritol | NDSL | Yes. |
| Alcohols, C6-10, ethoxylated propoxylated | NDSL | Yes. |
| Trisodium hydrogencarbonate | DSL | Yes. |
| Trisodium phosphate | DSL | Yes. |
| Didecyldimethylammonium chloride | DSL | Yes. |
| Ethylene oxide | DSL | Yes. |

NFPA-National Fire Protection Association:

| | |
|--------------------|---|
| Health: | 2 |
| Fire: | 1 |
| Reactivity: | 0 |

HMIS-Hazardous Materials Identification System:

| | |
|-------------------------|---|
| Health: | 2 |
| Fire: | 1 |
| Physical Hazard: | 0 |

Hazard Rating: 0 = minimal, 1 = slight, 2 = moderate, 3 = severe, 4 = extreme

SOURCE AGENCY CARCINOGEN CLASSIFICATIONS:

CP65 California Proposition 65

OSHA (O) Occupational Safety and Health Administration.

ACGIH (G) American Conference of Governmental Industrial Hygienists.

- A1 - Confirmed human carcinogen.
- A2 - Suspected human carcinogen.
- A3 - Animal carcinogen.
- A4 - Not classifiable as a human carcinogen.
- A5 - Not suspected as a human carcinogen.

IARC (I) International Agency for Research on Cancer.

- 1 - The agent (mixture) is carcinogenic to humans.
- 2A - The agent (mixture) is probably carcinogenic to humans; there is limited evidence of carcinogenicity in humans and sufficient evidence of carcinogenicity in experimental animals.
- 2B - The agent (mixture) is possibly carcinogenic to humans; there is limited evidence of carcinogenicity in humans in the absence of sufficient evidence of carcinogenicity in experimental animals.
- 3 - The agent (mixture, exposure circumstance) is not classifiable as to its carcinogenicity to humans.
- 4 - The agent (mixture, exposure circumstance) is probably not carcinogenic to humans.

NTP (N) National Toxicology Program.

- 1 - Known to be carcinogens.
- 2 - Reasonably anticipated to be carcinogens.

Section 16: OTHER INFORMATION

Date of Preparation: September 16, 2014

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Prepared by: Nexreg Compliance Inc.
Phone: (519) 488-5126
www.nexreg.com

Prepared for: Magnaflux

End of Safety Data Sheet