

**Section 1: IDENTIFICATION****1.1 PRODUCT IDENTIFIER**

**Product Name:** ZP-5B  
**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 12, 2014      **Version #:** 1.0

**Section 2: HAZARD(S) IDENTIFICATION****2.1 CLASSIFICATION OF THE CHEMICAL ACCORDING TO OSHA HAZCOM 2012****Hazard class**

Acute toxicity 4 (Inhalation)  
Skin irritation 2  
Eye irritation 2A  
Carcinogenicity 1A  
Specific target organ toxicity - Repeated exposure 1

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

**Signal Word:** Danger

**Hazard Statement:** Harmful if inhaled. Causes skin irritation. Causes serious eye irritation. May cause cancer. Causes damage to lungs through prolonged or repeated exposure.

**Prevention:** Use only outdoors or in a well-ventilated area. Wash hands thoroughly after handling. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product.

**Response:** If exposed or concerned: 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. If on skin: Wash with plenty of water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention. 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:** Store locked up.

**Disposal:** Dispose of contents and container in accordance with all local, regional, national and international regulations.

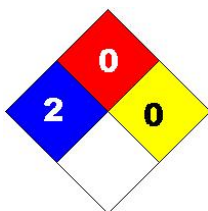
## 2.3 ADDITIONAL INFORMATION

**Hazards not otherwise classified:** Not applicable.

39 % 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 D2A – Carcinogenicity  
Class D2A - Chronic Toxicity  
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. %
Talc	Not available.	Not available.	14807-96-6	40 – 70
Calcium carbonate	Not available.	1/0/0	1317-65-3	10 – 30
Polyalkyleneoxide heptamethyltrisiloxane	Not available.	Not available.	27306-78-1	3 – 7
Trisodium phosphate	Not available.	Not available.	7601-54-9	1 – 5
Poly(oxy-1,2-ethanediyl), .alpha.-methyl-	Not available.	Not available.	27252-80-8	1 – 5

.omega.-(2-propenyloxy)-				
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Alcohols, C12-15, ethoxylated propoxylated	Not available.	Not available.	68551-13-3	0.5 - 1.5
Sodium metasilicate	UN3253	Not available.	6834-92-0	0.5 - 1.5
Silica, crystalline, quartz	Not available.	Not available.	14808-60-7	0.1 – 1
Didecyldimethylammonium chloride	Not available.	Not available.	7173-51-5	0.1 – 1
Ethylene oxide	UN1040	3/4/3	75-21-8	< 0.1
Acetaldehyde	UN1089	3/4/2	75-07-0	< 0.1
1,4-Dioxane	UN1165	2/3/1	123-91-1	< 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

<b>Eye:</b>	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.
<b>Skin:</b>	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.
<b>Inhalation:</b>	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical advice/attention if you feel unwell.
<b>Ingestion:</b>	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

<b>Eye:</b>	Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.
<b>Skin:</b>	Causes skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin.
<b>Inhalation:</b>	Harmful if inhaled. Dust may cause respiratory tract irritation.
<b>Ingestion:</b>	May be harmful if swallowed. May cause stomach distress, nausea or vomiting.

### 4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENTS NEEDED

<b>Note to Physicians:</b>	Symptoms may not appear immediately.
<b>Specific Treatments:</b>	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

<b>Flammability:</b>	Not flammable by WHMIS/OSHA/NOM-018-STPS-2000 criteria.
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## 5.2 EXTINGUISHING MEDIA

**Suitable Extinguishing Media:** Treat for surrounding material.

**Unsuitable Extinguishing Media:** None known.

## 5.3 SPECIAL HAZARDS ARISING FROM THE CHEMICAL

**Products of Combustion:** May include, and are not limited to: oxides of carbon, oxides of silicon, formaldehyde.

**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).

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## Section 6: ACCIDENTAL RELEASE MEASURES

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### 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.

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## Section 7: HANDLING AND STORAGE

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### 7.1 PRECAUTIONS FOR SAFE HANDLING

**Handling:** Avoid contact with skin and eyes. Do not swallow. Do not breathe dust/fume/gas/mist/vapors/spray. Good housekeeping is important to prevent accumulation of dust. Avoid generating dust. The use of compressed air for cleaning clothing, equipment, etc, is not recommended. Handle and open container with care. Use only 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. Store locked up. (See section 10)

**Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**
**8.1 CONTROL PARAMETERS**
**Exposure Guidelines**

Occupational Exposure Limits		
Ingredient	OSHA-PEL	ACGIH-TLV
Talc	20 mppcf	2 mg/m <sup>3</sup> (resp)
Calcium carbonate	15 mg/m <sup>3</sup> (total); 5 mg/m <sup>3</sup> (resp)	10 mg/m <sup>3</sup>
Polyalkyleneoxide heptamethyltrisiloxane	Not available.	Not available.
Trisodium phosphate	Not available.	Not available.
Poly(oxy-1,2-ethanediyl), .alpha.-methyl-.omega.-(2-propenyloxy)-	Not available.	Not available.
Alcohols, C12-15, ethoxylated propoxylated	Not available.	Not available.
Sodium metasilicate	Not available.	Not available.
Silica, crystalline, quartz	((10 mg/m <sup>3</sup> )/(%SiO <sub>2</sub> +2) (resp)) ((30 mg/m <sup>3</sup> )/(%SiO <sub>2</sub> +2) (total)) ((250)/(%SiO <sub>2</sub> +5) mppcf (resp))	0.025 mg/m <sup>3</sup>
Didecyldimethylammonium chloride	Not available.	Not available.
Ethylene oxide	1 ppm	1 ppm
Acetaldehyde	200 ppm; 360 mg/m <sup>3</sup>	Not available.
1,4-Dioxane	100 ppm	20 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:** Granular powder.  
**Color:** White.  
**Odor:** Mild to none.  
**Odor Threshold:** Not available.

<b>Physical State:</b>	Solid.
<b>pH:</b>	10.3 (10% in water)
<b>Melting Point/Freezing Point:</b>	Not available.
<b>Initial Boiling Point and Boiling Range:</b>	Not available.
<b>Flash Point:</b>	Not available.
<b>Evaporation Rate:</b>	Not available.
<b>Flammability:</b>	Not flammable.
<b>Lower Flammability/Explosive Limit:</b>	Not available.
<b>Upper Flammability/Explosive Limit:</b>	Not available.
<b>Vapor Pressure:</b>	Not available.
<b>Vapor Density:</b>	Not available.
<b>Relative Density/Specific Gravity:</b>	0.6 (bulk)
<b>Solubility:</b>	20% in water.
<b>Partition coefficient: n-octanol/water:</b>	Not available.
<b>Auto-ignition Temperature:</b>	Not available.
<b>Decomposition Temperature:</b>	Not available.
<b>Viscosity:</b>	Not available.
<b>Oxidizing Properties:</b>	Not available.
<b>Explosive Properties:</b>	Not available.

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## Section 10: STABILITY AND REACTIVITY

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### 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.

### 10.5 INCOMPATIBLE MATERIALS

Acids. Oxidizers.

### 10.6 HAZARDOUS DECOMPOSITION PRODUCTS

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

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## Section 11: TOXICOLOGICAL INFORMATION

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### 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:** Causes skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin.

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

**Inhalation:** Harmful if inhaled. Dust may cause respiratory tract irritation.

### Acute Toxicity:

Ingredient	IDLH	LC50	LD50
Talc	1000 mg/m <sup>3</sup>	Not available.	Not available.
Calcium carbonate	Not available.	Not available.	Oral 6450 mg/kg, rat
Polyalkyleneoxide hepta methyltrisiloxane	Not available.	Inhalation 2 g/m <sup>3</sup> 4h, rat	Oral 4920 µL/kg, rat
Trisodium phosphate	Not available.	Inhalation >2.16 mg/L 1h, rat	Oral >2000 mg/kg, rat Dermal >2 mg/kg, rabbit
Poly(oxy-1,2-ethanediyl), .alpha.-methyl-.omega.-(2-propenyloxy)-	Not available.	Not available.	Not available.
Alcohols, C12-15, ethoxylated propoxylated	Not available.	Not available.	Not available.
Sodium metasilicate	Not available.	Not available.	Oral 600 mg/kg, rat
Silica, crystalline, quartz	Ca [25 mg/m <sup>3</sup> (cristobalite, tridymite) 50 mg/m <sup>3</sup> (quartz, tripoli)]	Not available.	Oral 500 mg/kg, rat
Didecyldimethylammonium chloride	Not available.	Not available.	Oral 84 mg/kg, rat
Ethylene oxide	Ca [800 ppm]	Inhalation 800 ppm 4 h, rat	Oral 72 mg/kg, rat
Acetaldehyde	Ca [2000 ppm]	Inhalation 13300 ppm 4h, rat	Oral 1930 mg/kg, rat
1,4-Dioxane	Ca [500 ppm]	Inhalation 48.5 mg/L 4 h, rat	Oral 4200 mg/kg, rat Dermal 7600 mg/kg, rabbit

### Calculated overall Chemical Acute Toxicity Values

LC50 (inhalation)	LD50 (oral)	LD50 (dermal)
>1.0 but ≤5.0 mg/L 4h, rat	> 2000 mg/kg, rat	> 2000 mg/kg, rabbit

Ingredient	Chemical Listed as Carcinogen or Potential Carcinogen (NTP, IARC, OSHA, ACGIH, CP65)*
Talc	G-A4, I-3
Calcium carbonate	Not listed.
Polyalkyleneoxide heptamethyltrisiloxane	Not listed.
Trisodium phosphate	Not listed.
Poly(oxy-1,2-ethanediyl), .alpha.-methyl-.omega.-(2-propenyloxy)-	Not listed.
Alcohols, C12-15, ethoxylated propoxylated	Not listed.

Sodium metasilicate	Not listed.
Silica, crystalline, quartz	G-A2, I-1, N-1, CP65
Didecyldimethylammonium chloride	Not listed.
Ethylene oxide	O, G-A2, I-1, N-1, CP65
Acetaldehyde	G-A3, I-2B, N-2, CP65
1,4-Dioxane	G-A3, I-2B, N-2, CP65

\* See Section 15 for more information.

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

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

<b>Disposal Method:</b>	This material must be disposed of in accordance with all local, state, provincial, and federal regulations.
<b>Other disposal recommendations:</b>	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
Talc	Not listed.	Not listed.	Not listed.	Not listed.
Calcium carbonate	Not listed.	Not listed.	Not listed.	Not listed.
Polyalkyleneoxide heptamethyltrisiloxane	Not listed.	Not listed.	Not listed.	Not listed.
Trisodium phosphate	Not listed.	Not listed.	5,000	Not listed.
Poly(oxy-1,2-ethanediyl), .alpha.-methyl-.omega.-(2-propenyloxy)-	Not listed.	Not listed.	Not listed.	Not listed.
Alcohols, C12-15, ethoxylated propoxylated	Not listed.	Not listed.	Not listed.	Not listed.
Sodium metasilicate	Not listed.	Not listed.	Not listed.	Not listed.
Silica, crystalline, quartz	Not listed.	Not listed.	Not listed.	Not listed.
Didecyldimethylammonium chloride	Not listed.	Not listed.	Not listed.	Not listed.
Ethylene oxide	1,000	10	10	313
Acetaldehyde	Not listed.	Not listed.	1,000	313
1,4-Dioxane	Not listed.	Not listed.	100	313

### State Regulations

#### California Proposition 65:

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

#### Global Inventories:

Ingredient	Canada DSL/NDSL	USA TSCA
Talc	DSL	Yes.
Calcium carbonate	NDSL	Yes.
Polyalkyleneoxide heptamethyltrisiloxane	DSL	Yes.
Trisodium phosphate	DSL	Yes.
Poly(oxy-1,2-ethanediyl), .alpha.-methyl-.omega.-(2-propenyloxy)-	DSL	Yes.
Alcohols, C12-15, ethoxylated propoxylated	DSL	Yes.
Sodium metasilicate	DSL	Yes.
Silica, crystalline, quartz	DSL	Yes.
Didecyldimethylammonium chloride	DSL	Yes.
Ethylene oxide	DSL	Yes.
Acetaldehyde	DSL	Yes.
1,4-Dioxane	DSL	Yes.

#### NFPA-National Fire Protection Association:

Health:	2
Fire:	0
Reactivity:	0

#### HMIS-Hazardous Materials Identification System:

Health:	2*
Fire:	0
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.

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**Section 16: OTHER INFORMATION**

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**Date of Preparation:**      September 12, 2014**Expiry Date:**              September 12, 2017**Version:**                      1.0**Revision Date:**              September 12, 2014

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**Prepared by:**                  Nexreg Compliance Inc.  
Phone: (519) 488-5126  
[www.nexreg.com](http://www.nexreg.com)

**Prepared for:**                 Magnaflux

**End of Safety Data Sheet**