Section 1: IDENTIFICATION

1.1 PRODUCT IDENTIFIER
Product Name: WA-2B
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: June 20, 2014
Version #: 1.0

Section 2: HAZARD(S) IDENTIFICATION

2.1 CLASSIFICATION OF THE CHEMICAL ACCORDING TO OSHA HAZCOM 2012

<table>
<thead>
<tr>
<th>Hazard class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin Irritation 2</td>
</tr>
<tr>
<td>Serious Eye Damage 1</td>
</tr>
<tr>
<td>Reproductive Toxicity 2</td>
</tr>
</tbody>
</table>

2.2 LABEL ELEMENTS ACCORDING TO OSHA HAZCOM 2012

Hazard Pictogram:

Signal Word: Danger
Hazard Statement: Causes skin irritation. Causes serious eye damage. Suspected of damaging fertility or the unborn child.
Prevention: 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.
Response: If exposed or concerned: Get medical advice/attention. 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. Immediately call a poison center or doctor.

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.
6 % 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 - Reproductive Toxicity
Class D2B - Skin/Eye Irritant

WHMIS Hazard Symbols:

WHMIS Signal Word: WARNING

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>UN #</th>
<th>H / F / R / *</th>
<th>CAS No</th>
<th>Wt. %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium tetraborate decahydrate</td>
<td>Not available.</td>
<td>Not available.</td>
<td>1303-96-4</td>
<td>60 - 100</td>
</tr>
<tr>
<td>Alcohols, C6-10, ethoxylated propoxylated</td>
<td>Not available.</td>
<td>Not available.</td>
<td>68987-81-5</td>
<td>1 - 5</td>
</tr>
<tr>
<td>Benzyl chloride</td>
<td>UN1738</td>
<td>3/2/1</td>
<td>100-44-7</td>
<td>&lt; 0.1</td>
</tr>
<tr>
<td>1,4-Dioxane</td>
<td>UN1165</td>
<td>2/3/1</td>
<td>123-91-1</td>
<td>&lt; 0.1</td>
</tr>
<tr>
<td>Ethylene oxide</td>
<td>UN1040</td>
<td>3/4/3</td>
<td>75-21-8</td>
<td>&lt; 0.1</td>
</tr>
</tbody>
</table>

The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.
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, including under lids. If easy to do, remove contact lenses, if worn. Get medical attention immediately.

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 victim 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 damage. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. May cause burns.

Skin:
Causes 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:
This product is not flammable by WHMIS/OSHA/NOM-018-STPS-2000 criteria.

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.
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).

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. Good housekeeping is important to prevent accumulation of dust. Avoid generating and breathing dust. The use of compressed air for cleaning clothing, equipment, etc, is not recommended. Handle and open container with care. 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 locked up and out of reach of children. Keep container tightly closed. Store in dust-tight, dry, labelled containers. (See section 10)

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 CONTROL PARAMETERS

Exposure Guidelines

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>OSHA-PEL</th>
<th>ACGIH-TLV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium tetraborate decahydrate</td>
<td>10 mg/m³</td>
<td>2 mg/m³</td>
</tr>
<tr>
<td>Alcohols, C6-10, ethoxylated propoxylated</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Benzyl chloride</td>
<td>1 ppm</td>
<td>1 ppm</td>
</tr>
<tr>
<td>1,4-Dioxane</td>
<td>100 ppm</td>
<td>20 ppm</td>
</tr>
</tbody>
</table>
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 approved eye protection (properly fitted dust- or splash-proof chemical safety goggles) and face protection (face shield).
- **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:** Not available.
- **Odor:** Not available.
- **Odor Threshold:** Not available.
- **Physical State:** Solid.
- **pH:** Not available.
- **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:** Not available.
- **Solubility:** Not available.
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. Keep dry in storage.

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
Strong reducing agents.

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

Symptoms related to physical/chemical/toxicological characteristics:

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

Acute Toxicity:

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>IDLH</th>
<th>LC50</th>
<th>LD50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium tetraborate decahydrate</td>
<td>Not available.</td>
<td>Not available.</td>
<td>Oral 2660 mg/kg, rat</td>
</tr>
</tbody>
</table>
### Calculated overall Chemical Acute Toxicity Values

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>LC50 (inhalation)</th>
<th>LD50 (oral)</th>
<th>LD50 (dermal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzyl chloride</td>
<td>Not available.</td>
<td>Oral 340 mg/kg, rat</td>
<td>Oral 4200 mg/kg, rat</td>
</tr>
<tr>
<td>1,4-Dioxane</td>
<td>Inhalation 500 ppm 4h, rat</td>
<td>Oral 72 mg/kg, rat</td>
<td>Dermal 7600 mg/kg, rabbit</td>
</tr>
<tr>
<td>Ethylene oxide</td>
<td>Inhalation 800 ppm 4h, rat</td>
<td>Oral 72 mg/kg, rat</td>
<td>Oral 72 mg/kg, rat</td>
</tr>
</tbody>
</table>

### Ingredient List

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Chemical Listed as Carcinogen or Potential Carcinogen (NTP, IARC, OSHA, ACGIH, CP65)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium tetraborate decahydrate</td>
<td>G-A4</td>
</tr>
<tr>
<td>Alcohols, C6-10, ethoxylated propoxylated</td>
<td>Not listed.</td>
</tr>
<tr>
<td>Benzyl chloride</td>
<td>G-A3, I-2A, CP65</td>
</tr>
<tr>
<td>1,4-Dioxane</td>
<td>G-A3, I-2B, N-2, CP65</td>
</tr>
<tr>
<td>Ethylene oxide</td>
<td>O, G-A2, I-1, N-1, CP65</td>
</tr>
</tbody>
</table>

* See Section 15 for more information.

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

#### Skin Corrosion/Irritation:
- Causes skin irritation.

#### Serious Eye Damage/Irritation:
- Causes serious eye damage.

#### 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:** Suspected of damaging the unborn child.
  - **Teratogenicity:** Based on available data, the classification criteria are not met.
  - **Embryotoxicity:** Based on available data, the classification criteria are not met.
  - **Fertility:** Suspected of damaging fertility.

#### 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.
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

<table>
<thead>
<tr>
<th>DOT</th>
<th>TDG</th>
<th>NOM-004-SCT2-1994</th>
</tr>
</thead>
</table>

14.2 UN PROPER SHIPPING NAME

<table>
<thead>
<tr>
<th>DOT</th>
<th>TDG</th>
<th>NOM-004-SCT2-1994</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable.</td>
<td>Not applicable.</td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>

14.3 TRANSPORT HAZARD CLASS (ES)

<table>
<thead>
<tr>
<th>DOT</th>
<th>TDG</th>
<th>NOM-004-SCT2-1994</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable.</td>
<td>Not applicable.</td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>

14.4 PACKING GROUP

<table>
<thead>
<tr>
<th>DOT</th>
<th>TDG</th>
<th>NOM-004-SCT2-1994</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable.</td>
<td>Not applicable.</td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>

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.


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

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Section 302 (EHS) TPQ (lbs.)</th>
<th>Section 304 EHS RQ (lbs.)</th>
<th>CERCLA RQ (lbs.)</th>
<th>Section 313</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzyl chloride</td>
<td>500</td>
<td>100</td>
<td>100</td>
<td>313</td>
</tr>
<tr>
<td>1,4-Dioxane</td>
<td>Not listed.</td>
<td>Not listed.</td>
<td>100</td>
<td>313</td>
</tr>
<tr>
<td>Ethylene oxide</td>
<td>1000</td>
<td>10</td>
<td>10</td>
<td>313</td>
</tr>
</tbody>
</table>

**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:**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Canada DSL/NDSL</th>
<th>USA TSCA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium tetraborate decahydrate</td>
<td>DSL</td>
<td>Yes.</td>
</tr>
<tr>
<td>Alcohols, C6-10, ethoxylated propoxylated</td>
<td>NDSL</td>
<td>Yes.</td>
</tr>
<tr>
<td>Benzyl chloride</td>
<td>DSL</td>
<td>Yes.</td>
</tr>
<tr>
<td>1,4-Dioxane</td>
<td>DSL</td>
<td>Yes.</td>
</tr>
<tr>
<td>Ethylene oxide</td>
<td>DSL</td>
<td>Yes.</td>
</tr>
</tbody>
</table>

**NFPA-National Fire Protection Association:**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Health:</td>
<td>2</td>
</tr>
<tr>
<td>Fire:</td>
<td>0</td>
</tr>
<tr>
<td>Reactivity:</td>
<td>0</td>
</tr>
</tbody>
</table>

**HMIS-Hazardous Materials Identification System:**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Health:</td>
<td>2*</td>
</tr>
<tr>
<td>Fire:</td>
<td>0</td>
</tr>
<tr>
<td>Physical Hazard:</td>
<td>0</td>
</tr>
</tbody>
</table>

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:  June 20, 2014
Expiry Date:  June 20, 2017
Version:  1.0
Revision Date:  June 20, 2014

Conforms to OSHA HazCom 2012, CPR & NOM-018-STPS-2000 Standards

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Prepared for:  Magnaflux

End of Safety Data Sheet