Section 1. Chemical Product and Company Identification

<table>
<thead>
<tr>
<th>Product name</th>
<th>Classification</th>
<th>CAS</th>
<th>UN number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blueshield</td>
<td>CSA:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EXCELARC 18;</td>
<td>E48018/ E4918;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LA 7018;</td>
<td>E48018-1/ E4918-1-H4;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LA 18 LMP;</td>
<td>E48018-1/ E4918-1-H4;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LA 18 PLUS;</td>
<td>E48018-1/ E4918-1-H4;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LA 18 PLUS LMP;</td>
<td>E48018-1/ E4918-1-H4;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NUCLEARCA LA 7018;</td>
<td>E48018-1/ E4918-1-H4;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LA 7028;</td>
<td>E48028/ E4928;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LA 18 PLUS COMPLETE;</td>
<td>E48018-1/ E4918-1-H4;</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Section 2. Hazards Identification

Physical state and Appearance: Solid.

Emergency overview: These hazards relate to welding fumes (electrodes in use) and not to the electrodes as sold.

WARNING!

MAY BE HARMFUL IF INHALED. CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION. MAY CAUSE ALLERGIC SKIN REACTION. CONTAINS MATERIAL THAT MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA. CANCER HAZARD - CONTAINS MATERIAL WHICH CAN CAUSE CANCER.

Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Use only with adequate ventilation. Do not eat, drink or smoke when using this product. Avoid contact with eyes, skin and clothing. Keep container tightly closed. Use personal protective equipment as required. Wash thoroughly after handling.

Routes of entry: Dermal contact. Eye contact. Inhalation.

Potential acute health effects:

Eyes: Very hazardous by the following route of exposure: of eye contact (irritant). Inflammation of the eye is characterized by redness, watering and itching.

Skin: Hazardous by the following route of exposure: of skin contact (corrosive, irritant, sensitizer). Skin contact may produce burns. Skin inflammation is characterized by itching, scaling, reddening or, occasionally, blistering.

Inhalation: Hazardous by the following route of exposure: of inhalation (lung irritant).

Ingestion: Since the product (welding fumes) is a gas and that it is mostly probable that it will be inhaled more than ingested, please consider first to look at the preventive measures in case of inhalation.

Potential chronic health effects:

Carcinogenicity:

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>ACGIH</th>
<th>OSHA</th>
<th>IARC</th>
<th>NTP</th>
<th>EU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Titanium dioxide</td>
<td>A4</td>
<td>-</td>
<td>2B</td>
<td>-</td>
<td>Carc. 2, H351</td>
</tr>
<tr>
<td>Calcium fluoride</td>
<td>A4</td>
<td>-</td>
<td>3</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Crystalline silica respirable</td>
<td>A2</td>
<td>-</td>
<td>1</td>
<td>Known to be a human carcinogen.</td>
<td></td>
</tr>
<tr>
<td>nickel</td>
<td>A5</td>
<td>-</td>
<td>2B</td>
<td>Reasonably anticipated to be a human carcinogen.</td>
<td></td>
</tr>
</tbody>
</table>

Mutagenic effects: Not available.

Teratogenic effects: Not available.

Medical conditions aggravated by over-exposure: Pre-existing skin disorders and disorders involving any other target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.

(*) See Abbreviations (section 16).

Section 3. Composition, Information on Ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS #</th>
<th>% by weight</th>
<th>UN number</th>
</tr>
</thead>
</table>

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The fumes emitted by the electrodes, in use, are hazardous. This MSDS is written for workers using these electrodes. See Section 8 for Exposure Limits of the oxides found in the welding fumes.

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### Section 4. First Aid Measures

- **Eye contact**: Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.

- **Skin contact**: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.

- **Inhalation**: Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

- **Ingestion**: Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

---

### Section 5. Fire Fighting Measures

- **Flammability of the product**: Non-flammable. Emits toxic fumes when heated.

- **Explosibility**: Non-explosive in the presence of the following materials or conditions: open flames, sparks and static discharge, heat and shocks and mechanical impacts.

- **Fire-fighting media and instructions**: Use an extinguishing agent suitable for the surrounding fire.

---

### Section 6. Accidental Release Measures

- **Small/Large Spill and Leak**: Use appropriate tools to transfer the spilled solid to a convenient waste disposal container.

---

### Section 7. Handling and Storage

- **Handling**: Avoid contact with eyes. Avoid breathing dust. Avoid prolonged or repeated contact with skin. Do not get on skin or clothing. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling. Avoid contact of spilled material and runoff with soil and surface waterways.

- **Storage**: All filler metals in their original, unopened containers should be kept in a relatively dry storage area at temperatures between 15°C (60°F) and 30°C (80°F) and 50% maximum relative humidity.

---

### Section 8. Exposure Controls, Personal Protection

- **Engineering controls**: Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

- **Personal protection**:
  - **Eyes**: Safety glasses with side shields. Face shield with radiation shielding.
  - **Body**: Full suit. Fire resistant.
  - **Respiratory**: Dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear a canister breathing apparatus (respirator) or a supplied-air respirator, when required, to weld in a confined space or when room exhaust or ventilation does not keep exposure below the acceptable values.
  - **Hands**: Gloves. Fire resistant.
  - **Feet**: Metal cap, safety boots.

---

### Occupational exposure limits

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>List name</th>
<th>TWA (8 hours)</th>
<th>STEL (15 mins)</th>
<th>Ceiling</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ppm mg/m³ Other</td>
<td>ppm mg/m³ Other</td>
<td>ppm mg/m³ Other</td>
<td>Notations</td>
</tr>
<tr>
<td>Titanium dioxide</td>
<td>US ACGIH 6/2013</td>
<td>0.1 - 2</td>
<td>0.01 - 0.5</td>
<td>Not available.</td>
</tr>
<tr>
<td>AB 4/2009</td>
<td>0.1 - 0.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BC 7/2013</td>
<td>0.1 - 0.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ON 1/2013</td>
<td>0.1 - 0.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>QC 12/2012</td>
<td>0.1 - 0.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>US ACGIH 6/2013</td>
<td>0.1 - 0.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AB 4/2009</td>
<td>0.1 - 0.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BC 7/2013</td>
<td>0.1 - 0.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ON 1/2013</td>
<td>0.1 - 0.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>QC 12/2012</td>
<td>0.1 - 0.5</td>
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</tr>
<tr>
<td>US ACGIH 6/2013</td>
<td>0.1 - 0.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aluminium oxide</td>
<td>US ACGIH 6/2013</td>
<td>0.1 - 2</td>
<td>0.01 - 0.5</td>
<td>Not available.</td>
</tr>
<tr>
<td>AB 4/2009</td>
<td>0.1 - 0.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BC 7/2013</td>
<td>0.1 - 0.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ON 1/2013</td>
<td>0.1 - 0.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>QC 12/2012</td>
<td>0.1 - 0.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>US ACGIH 6/2013</td>
<td>0.1 - 0.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>US ACGIH 6/2013</td>
<td>0.1 - 0.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aluminium oxide, as Al</td>
<td>US ACGIH 6/2013</td>
<td>0.1 - 2</td>
<td>0.01 - 0.5</td>
<td>Not available.</td>
</tr>
<tr>
<td>AB 4/2009</td>
<td>0.1 - 0.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BC 7/2013</td>
<td>0.1 - 0.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ON 1/2013</td>
<td>0.1 - 0.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>QC 12/2012</td>
<td>0.1 - 0.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>US ACGIH 6/2013</td>
<td>0.1 - 0.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manganese, as Mn</td>
<td>US ACGIH 6/2013</td>
<td>0.1 - 2</td>
<td>0.01 - 0.5</td>
<td>Not available.</td>
</tr>
<tr>
<td>AB 4/2009</td>
<td>0.1 - 0.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BC 7/2013</td>
<td>0.1 - 0.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ON 1/2013</td>
<td>0.1 - 0.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>QC 12/2012</td>
<td>0.1 - 0.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>US ACGIH 6/2013</td>
<td>0.1 - 0.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>US ACGIH 6/2013</td>
<td>0.1 - 0.5</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

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Stability and reactivity

Form: [a]Respirable dust [b]Total dust [c]Total dust [d]Total dust. [e]Respirable fraction [f]Respirable [g]Inhalable fraction [h]fume [i]Respirable particulate [j]Respirable fraction: means that size fraction of the airborne particulate deposited in the gas-exchange region of the respiratory tract and collected during air sampling with a particle size-selective device that, (a) meets the ACGIH particle size-selective sampling criteria for airborne particulate matter; and (b) has the cut point of 4 µm at 50 per cent collection efficiency; [k]Respirable dust. [l]Inhalable fraction: means that size fraction of the airborne particulate deposited anywhere in the respiratory tract and collected during air sampling with a particle size-selective device that, (a) meets the ACGIH particle size-selective sampling criteria for airborne particulate matter; and (b) has the cut point of 100 µm at 50 per cent collection efficiency. [m]Inhalable particulate.

Section 9. Physical and Chemical Properties

Physical state and appearance: Solid.

Color: Reddish-brown. Grayish-white.

Odor: Odorless.

Melting/freezing point: 1540 to 2030°C (2804 to 3686°F)

Specific gravity: Not available.

Solubility: Insoluble in the following materials: cold water and hot water.

Section 10. Stability and Reactivity

Stability and reactivity: The product is stable.

Hazardous decomposition products: Metallic oxides. Carbon oxides (CO, CO₂). Arc radiation can support the production of ozone and nitrogen oxides.

Hazardous polymerization: Under normal conditions of storage and use, hazardous polymerization will not occur.

Section 11. Toxicological Information

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium carbonate</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>6450 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>Ferrosilicon</td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>&gt;20 g/kg</td>
<td>-</td>
</tr>
<tr>
<td>Manganese</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>9 g/kg</td>
<td>-</td>
</tr>
<tr>
<td>Calcium fluoride</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>4250 mg/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

Chronic effects and other toxic effects on humans: CARCINOGENIC EFFECTS: Classified + (Proven.) by NIOSH [Titanium dioxide]. Classified 2B (Possible for humans.) by IARC, 3 (Possible for humans.) by European Union [Titanium dioxide]. Classified A4 (Not classifiable for humans or animals.) by ACGIH [Titanium dioxide]. Classified A4 (Not classifiable for humans or animals.) by ACGIH [Zirconium]. Classified A4 (Not classifiable for humans or animals.) by ACGIH [Manganese]. Classified A4 (Not classifiable for humans or animals.) by ACGIH [Aluminium oxide]. Classified 1 (Proven for humans.) by IARC, 1 (Known to be human carcinogens.) by NTP, + (Proven.) by NIOSH, 1 (Proven for humans.) by European Union [Crystalline silica respirable]. Classified A2 (Suspected for humans.) by ACGIH [Crystalline silica respirable]. Classified + (Proven.) by NIOSH [Nickel]. Classified 2B (Possible for humans.) by IARC, 3 (Possible for humans.) by European Union [Nickel]. Classified 2 (Reasonably anticipated to be human carcinogens.) by NTP [Nickel]. Classified A5 (Not suspected for humans.) by ACGIH [Nickel].

Contains material which may cause damage to the following organs: blood, kidneys, lungs, the nervous system, upper respiratory tract, skin, eyes, bones, central nervous system (CNS), teeth.

Very hazardous by the following route of exposure: of eye contact (irritant).

Hazardous by the following route of exposure: of skin contact (corrosive, irritant, sensitizer), of inhalation (lung irritant).
**Section 12. Ecological Information**

**Ecotoxicity data**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iron</td>
<td>Acute EC50 3700 µg/l Fresh water</td>
<td>Aquatic plants - Lemna minor</td>
<td>4 days</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 33000 to 10000 µg/l Marine water</td>
<td>Crustaceans - Cragon crangon</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 6.48 µg/l Marine water</td>
<td>Fish - Periophthalmus waltoni - Adult</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 100 mg/l Marine water</td>
<td>Algae - Glenodinium halli</td>
<td>72 hours</td>
</tr>
<tr>
<td></td>
<td>Acute EC50 5.83 mg/l Fresh water</td>
<td>Algae - Pseudokirchneriella subcapitata - Exponential growth phase</td>
<td>72 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 3 mg/l Fresh water</td>
<td>Crustaceans - Ceriodaphnia dubia - Neonate</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 5.5 ppm Fresh water</td>
<td>Daphnia - Daphnia magna - Juvenile (Fledgling, Hatchling, Weanling)</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 1000 mg/l Marine water</td>
<td>Fish - Pimephales promelas</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 &gt;1000000 µg/l Marine water</td>
<td>Fish - Fundulus heteroclitus</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 0.984 mg/l Fresh water</td>
<td>Algae - Pseudokirchneriella subcapitata - Exponential growth phase</td>
<td>72 hours</td>
</tr>
<tr>
<td>Titanium dioxide</td>
<td>Acute EC50 5.83 mg/l Fresh water</td>
<td>Aquatic plants - Lemna minor</td>
<td>4 days</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 3700 µg/l Fresh water</td>
<td>Crustaceans - Cragon crangon</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 6.48 µg/l Marine water</td>
<td>Fish - Periophthalmus waltoni - Adult</td>
<td>96 hours</td>
</tr>
<tr>
<td>Calcium carbonate</td>
<td>Acute LC50 56000 ppm Fresh water</td>
<td>Fish - Gambusia affinis - Adult</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 61 mg/l Fresh water</td>
<td>Fish - Oncorhynchus mykiss - Juvenile (Fledgling, Hatchling, Weanling)</td>
<td>28 days</td>
</tr>
<tr>
<td>Manganese</td>
<td>Acute EC50 31000 µg/l Fresh water</td>
<td>Aquatic plants - Lemna minor</td>
<td>4 days</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 29000 µg/l</td>
<td>Daphnia - Daphnia magna</td>
<td>48 hours</td>
</tr>
<tr>
<td>Nickel</td>
<td>Acute EC50 2 ppm Marine water</td>
<td>Algae - Macrocytis pyrifera - Young</td>
<td>4 days</td>
</tr>
<tr>
<td></td>
<td>Acute EC50 450 µg/l Fresh water</td>
<td>Aquatic plants - Lemna minor</td>
<td>4 days</td>
</tr>
<tr>
<td></td>
<td>Acute EC50 1000 µg/l Marine water</td>
<td>Daphnia - Daphnia magna</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 3.5 µg/l Marine water</td>
<td>Fish - Heteropneustes fossilis</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 47.5 mg/L Fresh water</td>
<td>Algae - Glenodinium halli</td>
<td>72 hours</td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 100 mg/l Marine water</td>
<td>Fish - Cyprinus carpio</td>
<td>4 weeks</td>
</tr>
</tbody>
</table>

**Section 13. Disposal Considerations**

**Waste information**: Waste must be disposed of in accordance with federal, state and local environmental control regulations. Recycle, if possible.

**Consult your local or regional authorities.**

**Section 14. Transport Information**

No transport class is found applicable to this product.

**Section 15. Regulatory Information**

**HCS Classification**: These hazards relate to welding fumes (electrodes in use) and not to the electrodes as sold.

- Irritating material
- Sensitizing material
- Carcinogen
- Target organ effects

**U.S. Federal regulations**

- TSCA 8(a) CDR Exempt/Partial exemption: Not determined
- United States inventory (TSCA 8b): Not determined.
- SARA 302/304: No products were found.
- SARA 311/312 Hazards identification: Immediate (acute) health hazard, Delayed (chronic) health hazard
- Clean Water Act (CWA) 307: Copper; Nickel

**SARA 313**

<table>
<thead>
<tr>
<th>Product name</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manganese</td>
<td>7439-96-5</td>
<td>0.01 - 4</td>
</tr>
<tr>
<td>Aluminium oxide</td>
<td>1344-28-1</td>
<td>0.01 - 2</td>
</tr>
<tr>
<td>Nickel</td>
<td>7440-02-0</td>
<td>0.01 - 0.5</td>
</tr>
<tr>
<td>Manganese</td>
<td>7439-96-5</td>
<td>0.01 - 4</td>
</tr>
<tr>
<td>Aluminium oxide</td>
<td>1344-28-1</td>
<td>0.01 - 2</td>
</tr>
<tr>
<td>Nickel</td>
<td>7440-02-0</td>
<td>0.01 - 0.5</td>
</tr>
</tbody>
</table>

SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

**State regulations**

- **Massachusetts**: The following components are listed: TITANIUM DIOXIDE; ALUMINUM OXIDE; MANGANESE; ZIRCONIUM
- **New York**: The following components are listed: Nickel
**CEPA Toxic substances**: The following components are listed: Inorganic fluorides

**Canadian ARET**: None of the components are listed.

**Canadian NPRI**: The following components are listed: Aluminum oxide (fibrous forms only); Manganese (and its compounds); Calcium fluoride

**Alberta Designated Substances**: None of the components are listed.

**Ontario Designated Substances**: None of the components are listed.

**Quebec Designated Substances**: None of the components are listed.

**WHMIS (Canada)**

These hazards relate to welding fumes (electrodes in use) and not to the electrodes as sold.

**Class D-2A**: Material causing other toxic effects (Very toxic).

**Class D-2B**: Material causing other toxic effects (Toxic).

**CEPA Toxic substances**: The following components are listed: Inorganic fluorides

**Canadian ARET**: None of the components are listed.

**Canadian NPRI**: The following components are listed: Aluminum oxide (fibrous forms only); Manganese (and its compounds); Calcium fluoride

**Alberta Designated Substances**: None of the components are listed.

**Ontario Designated Substances**: None of the components are listed.

**Quebec Designated Substances**: None of the components are listed.

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

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**Section 16. Other Information**

<table>
<thead>
<tr>
<th>Label requirements</th>
<th>Hazardous Material Information System (U.S.A.)</th>
<th>National Fire Protection Association (U.S.A.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>See Section 2.</td>
<td>Health: 2* Fire: 0 Reactivity: 0</td>
<td>Health: 2 Fire: 0 Reactivity: 0 Other: None</td>
</tr>
</tbody>
</table>

**References**


**Abbreviations and acronyms**

- **ACGIH**: American Conference of Governmental Industrial Hygiene.
- ACGIH-A2-Suspected Human Carcinogen.
- ACGIH-A3-Animal Carcinogen.
- ACGIH-A4-Not Classifiable as a Human Carcinogen.
- ACGIH-A5-Not suspected as a Human Carcinogen.
- **IARC**: International Agency for Research on Cancer.
  - IARC 1: Proven.
  - IARC 2A: Probable for human.
  - IARC 2B: Possible for human.
  - IARC 3: Not classifiable for human.
- **NIOSH**: National Institute of Occupational Safety and Health.
- NIOSH +: Proven.
- NIOSH : None.
- **EU**: European Union
  - Carc. 1A: May cause cancer (Known)
  - Carc. 1B: May cause cancer (Presumed)
  - Carc. 2: Suspected of causing cancer
  - **NTP**: National Toxicology program.
  - NTP 1: Known to be human carcinogens.
  - NTP 2: Reasonably Anticipated to be human carcinogens.

**Responsible name**

- IHS

**Date of previous issue**

- 01/15/2011

**Version**

- 5

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