Section 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name: Sodium Metabisulfite
Importer/Supplier: ATA Chem Ltd.
2506 Silica Pl., Coquitlam, B.C.
V3E 3K9
www.atachem.com
Phone Number: (604) 630-7866
Emergency Phone: North America: CHEM TEL (800) 255-3924
INTERNATIONAL: +01-813-248-0585
Date of Preparation: February 14, 2007

Section 2: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

DANGER
HARMFUL BY INHALATION. HARMFUL IF SWALLOWED. MAY CAUSE EYE IRRITATION. MAY CAUSE SKIN IRRITATION. CONTACT WITH WATER AND ACIDS LIBERATES TOXIC SULPHUR DIOXIDE GAS.

Potential Health Effects: See Section 11 for more information.

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

Eye: Irritating to eyes. May cause burns in the presence of moisture.
Skin: May cause skin irritation. May cause burns in the presence of moisture.
Ingestion: Harmful if swallowed. May cause stomach distress, nausea or vomiting. May cause burns in the presence of moisture.
Inhalation: Harmful by inhalation. Irritating to respiratory tract. May cause burns in the presence of moisture.

Chronic Effects: Prolonged or repeated contact may dry skin and cause irritation.

Signs and Symptoms: Severe irritation, redness and pain. May cause burns in the presence of moisture. Symptoms may include redness, drying, defatting and cracking of the skin. Abdominal pain. Burning sensation. Shock or collapse. Death. Irritating to respiratory tract.

Medical Conditions Aggravated By Exposure: Asthma. Allergies.

Target Organs: Skin, eyes, gastrointestinal tract, respiratory system.

Potential Environmental Effects: May cause long-term adverse effects in the aquatic environment. See Section 12 for more information.

Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS #</th>
<th>Wt. %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium metabisulfite</td>
<td>7681-57-4</td>
<td>95 - 100</td>
</tr>
</tbody>
</table>
Section 4: FIRST AID MEASURES

Eye Contact: In case of contact, immediately flush eyes with plenty of water. If easy to do, remove contact lenses, if worn.

Skin Contact: 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 inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Ingestion: If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

General Advice: In case of accident or if you feel unwell, seek medical advice immediately (show the label or MSDS where possible).

Note to Physicians: Symptoms may not appear immediately.

Section 5: FIRE FIGHTING MEASURES

Flammability: Not flammable by WHMIS criteria.

Means of Extinction:

Suitable Extinguishing Media: Powder, foam, carbon dioxide. DO NOT USE WATER.

Unsuitable Extinguishing Media: Not available.

Products of Combustion: DANGER! Combustion products are toxic. May include, and are not limited to: sodium sulphide, sulphur dioxide, oxides of sulphur, oxides of sodium.

Explosion Data:

Sensitivity to Mechanical Impact: Not available.

Sensitivity to Static Discharge: Not available.

Protection of Firefighters: Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

Section 6: ACCIDENTAL RELEASE MEASURES

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

Environmental Precautions: This material is a water pollutant. Keep out of drains, sewers, ditches, and waterways. Minimize use of water to prevent environmental contamination.

Methods for Containment: Contain and/or absorb spill with inert material (e.g. sand, vermiculite), then place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).

Methods for Clean-Up: Vacuum or sweep material and place in a disposal container. Allow gas to dissipate harmlessly into the atmosphere.

Other Information: Not available.
Section 7: HANDLING AND STORAGE

Handling:
Avoid contact with skin and eyes. Do not swallow. Do not breathe gas/fumes/vapor/spray. Use only in well-ventilated areas. Handle and open container with care. Wear appropriate NIOSH approved dust mask or filtering facepiece if dust is generated. When using do not eat or drink. Never add water to this product.

Storage:
Keep out of the reach of children. Keep container tightly closed and dry. Keep away from food, drink and animal feedingstuffs.

Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Exposure Limits ACGIH-TLV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium metabisulfite</td>
<td>5 mg/m³</td>
</tr>
<tr>
<td>Sulphur dioxide</td>
<td>2 ppm</td>
</tr>
</tbody>
</table>

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

Personal Protective Equipment:
- **Eye/Face Protection**: Wear eye/face protection.
- **Hand Protection**: Wear suitable gloves.
- **Skin and Body Protection**: Wear suitable protective clothing.
- **Respiratory Protection**: Wear appropriate NIOSH approved dust mask or filtering facepiece if dust is generated.

General Hygiene Considerations: Handle according to established industrial hygiene and safety practices.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

- **Appearance**: Crystals.
- **Color**: White.
- **Odour**: Slight sulphur dioxide.
- **Odour Threshold**: Not available.
- **Physical State**: Solid.
- **pH**: 4.3-4.5 (1%)
- **Viscosity**: Not applicable.
- **Freezing Point**: ~ 150.1 °C (~ 302.18 °F)
- **Boiling Point**: Not available.
- **Flash Point**: Not available.
- **Evaporation Rate**: Not available.
- **Lower Flammability Limit**: Not available.
- **Upper Flammability Limit**: Not available.
Vapor Pressure: Not available.
Vapor Density: Not available.
Specific Gravity: 1.4 - 1.5
Solubility in Water: Complete.
Coefficient of Water/Oil Distribution: Not available.
Auto-ignition Temperature: Not available.
Percent Volatile, wt. %: Not available.
VOC content, wt. %: Not available.

Section 10: STABILITY AND REACTIVITY

Stability: Stable under normal storage conditions.
Hazardous Decomposition Products: DANGER! Combustion products are toxic. May include, and are not limited to: sodium sulphide, sulphur dioxide, oxides of sulphur, oxides of sodium.
Possibility of Hazardous Reactions: No dangerous reaction known under conditions of normal use. Sulphur dioxide is released slowly at ambient temperatures.

Section 11: TOXICOLOGY INFORMATION

EFFECTS OF ACUTE EXPOSURE

Component Analysis

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>LD₅₀ (oral)</th>
<th>LC₅₀</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium metabisulfite</td>
<td>1131 mg/kg, rat</td>
<td>Not available.</td>
</tr>
<tr>
<td>Sulphur dioxide</td>
<td>Not available.</td>
<td>2520 ppm/1hr, rat</td>
</tr>
</tbody>
</table>

Eye: Severe irritation, redness and pain. May cause burns in the presence of moisture.
Skin: May cause skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin. May cause burns in the presence of moisture.
Ingestion: Harmful if swallowed. May cause stomach distress, nausea or vomiting. May cause burns in the presence of moisture. Abdominal pain. Burning sensation. Shock or collapse. Death.
Inhalation: Harmful by inhalation. Irritating to respiratory tract. May cause burns in the presence of moisture.

EFFECTS OF CHRONIC EXPOSURE

Target Organs: Not available.
Chronic Effects: Not hazardous by WHMIS criteria.
Carcinogenicity: Not hazardous by WHMIS criteria.

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Chemical Listed as Carcinogen or Potential Carcinogen *</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium metabisulfite</td>
<td>Not listed.</td>
</tr>
</tbody>
</table>
* See Section 15 for more information.

**Mutagenicity:** Not hazardous by WHMIS criteria.

**Reproductive Effects:** Not hazardous by WHMIS criteria.

**Developmental Effects:**
- **Teratogenicity:** Not hazardous by WHMIS criteria.
- **Embryotoxicity:** Not hazardous by WHMIS criteria.

**Respiratory Sensitization:** Hazardous by WHMIS criteria.

**Skin Sensitization:** Not hazardous by WHMIS criteria.

**Toxicologically Synergistic Materials:** Not available.

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### Section 12: ECOLOGICAL INFORMATION

**Ecotoxicity:** May cause long-term adverse effects in the aquatic environment

**Persistence / Degradability:** Not available.

**Bioaccumulation / Accumulation:** Not available.

**Mobility in Environment:** Not available.

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### Section 13: DISPOSAL CONSIDERATIONS

**Disposal Instructions:**
This material and its container must be disposed of in a safe way.

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### Section 14: TRANSPORTATION INFORMATION

**TDG Classification**
Not regulated

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### Section 15: REGULATORY INFORMATION

**Federal Regulations**
- **Canadian:** 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.

**Global Inventories**

**Ingredient**
- Sodium metabisulfite

**Canada**
- DSL/NDSL
  - DSL

**HMIS - Hazardous Materials Identification System**

<table>
<thead>
<tr>
<th>Health</th>
<th>Flammability</th>
<th>Physical Hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

**NFPA - National Fire Protection Association:**

<table>
<thead>
<tr>
<th>Health</th>
<th>Fire</th>
<th>Reactivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

**Hazard Rating:**
0 = minimal, 1 = slight, 2 = moderate, 3 = severe, 4 = extreme
WHMIS Classification(s):
Class D2A - Respiratory Sensitization
Class D2B - Skin/Eye Irritant

WHMIS Hazard Symbols:

SOURCE AGENCY CARCINOGEN CLASSIFICATIONS:

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

Disclaimer:
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Version #:  1.0

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