SAFETY DATA SHEET
Rust-B-Gone
Formula: 4100

Product Name: Rust-B-Gone
Date: 12/17/2014

SECTION 1 IDENTIFICATION

Supplier: Phoenix Products Company
55 Container Drive
Terryville, CT 06786
(860) 589-7502

Distributor: 1-800-633-8253

Product Name: Rust-B-Gone
Synonyms: None
Chemical Name: Sodium Metabisulfite & Sodium Hydrosulfite mixture.
Chemical Formula: Na$_2$S$_2$O$_5$ & Na$_2$S$_2$O$_4$
CAS Number: 7681-57-4 & 7775-14-6
Product Use: Rust Remover.

SECTION 2 HAZARDS IDENTIFICATION

Emergency Overview

CAUTION
Eye, skin and respiratory irritant.
May cause allergic reaction in some asthmatics and sulfite sensitive individuals.

Potential Short Term Health Effects

Routes of Exposure: Eye, Skin contact, Inhalation, Ingestion.

Eye: Causes irritation.
Skin: Causes irritation.
Inhalation: Dusts of this product may cause irritation of the nose, throat, and respiratory tract.
Ingestion: May cause stomach distress, nausea or vomiting.

Target Organs: Eyes. Respiratory system. Skin.

Chronic Effects: May cause respiratory and/or skin sensitization in sensitive individuals. Prolonged or repeated exposure can cause drying, defatting and dermatitis.

Signs and Symptoms: Symptoms may include redness, edema, drying, defatting and cracking of the skin. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

OSHA Regulatory Status: This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Potential Environmental Effects: See SECTION 12.

SECTION 3 COMPOSITION, INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Metabisulfite</td>
<td>7681-57-4</td>
<td>60% - 70%</td>
</tr>
<tr>
<td>Sodium Hydrosulfite</td>
<td>7775-14-6</td>
<td>25% - 30%</td>
</tr>
<tr>
<td>Sodium Carbonate Anhydrous</td>
<td>497-19-8</td>
<td>5% - 7%</td>
</tr>
</tbody>
</table>
SECTION 4  FIRST-AID MEASURES

Eye Contact: Immediately flush with cool water. Remove contact lenses, if applicable, and continue flushing for 15 minutes. Obtain medical attention if irritation develops or persists.

Skin Contact: Brush away excess of dry material. Immediately flush with water. Wash with soap and water. Obtain medical attention if irritation persists.

Inhalation: If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention.

Ingestion: Do not induce vomiting. Never give anything by mouth if victim is unconscious, or is convulsing. Obtain medical attention.

Notes to Physician: Symptoms may be delayed.

General Advice: If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Avoid contact with eyes and skin. Keep out of reach of children.

SECTION 5  FIRE FIGHTING MEASURES

Flammable Properties: Not flammable by WHMIS/OSHA criteria.

Extinguishing Media
  Suitable Extinguishing Media: Dry chemical. Carbon dioxide. Foam.
  Unsuitable Extinguishing Media: Not available

Protection of Firefighters
  Specific hazards arising from the chemical: Not available.
  Protective equipment for firefighters: Firefighters should wear full protective clothing including self contained breathing apparatus.


Explosion Data
  Sensitivity to mechanical impact: Not available
  Sensitivity to static discharge: Not available

SECTION 6  ACCIDENTAL RELEASE MEASURES

Personal Precautions: Keep unnecessary personnel away. Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak.

Environmental Precautions: Prevent entry into waterways, sewers, basements or confined areas.

Methods for Containment: Stop leak if you can do so without risk. Prevent entry into waterways, sewers, basements or confined areas.

Methods For Cleaning Up: Should not be released into the environment. Before attempting clean up, refer to hazard data given above. Use broom or dry vacuum to collect material for proper disposal.
without raising dust. Rinse area with water. Prevent large spills from entering sewers or waterways. Contact emergency services and supplier for advice.

SECTION 7  HANDLING AND STORAGE

Handling: Use good industrial hygiene practices in handling this material. Avoid contact with eyes. Avoid contact with skin and clothing. Do not breathe dust from this material. Avoid prolonged or repeated skin contact with this material. Wash thoroughly after handling.

Storage: Keep out of reach of children. Store in a closed container away from incompatible materials.

SECTION 8  EXPOSURE CONTROLS/PERSOAL PROTECTION

<table>
<thead>
<tr>
<th>Ingredient(s)</th>
<th>Exposure Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Metabisulfite</td>
<td>ACGIH-TLV: TWA: 5mg/m3</td>
</tr>
<tr>
<td></td>
<td>OSHA-PEL: Not established</td>
</tr>
<tr>
<td>Sodium Hydrosulfite</td>
<td>ACGIH-TLV: Not established</td>
</tr>
<tr>
<td></td>
<td>OSHA-PEL: Not established</td>
</tr>
<tr>
<td>Sodium Carbonate</td>
<td>ACGIH-TLV: Not established</td>
</tr>
<tr>
<td></td>
<td>OSHA-PEL: Not established</td>
</tr>
</tbody>
</table>

Engineering Controls: Use only under good ventilation conditions or with respiratory protection.

Personal Protective Equipment
Eye/Face Protection: Wear safety glasses with side shields.
Hand Protection: Rubber gloves. Confirm with a reputable supplier first.
Skin and Body Protection: As required by employer code.
Respiratory Protection: Where exposure guideline levels may be exceeded, use an approved NIOSH respirator.

General Hygiene Considerations: Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. Wash hands before breaks and immediately after handling the product.

SECTION 9  PHYSICAL AND CHEMICAL PROPERTIES

Appearance: White free-flowing powder
pH: 5.5 - 6.5
Melting Point: Not available
Freezing Point: Not available
Boiling Point: Not available
Pour Point: Not available
Evaporation Rate: Not available
Flash Point: None
Auto-ignition Temperature: Not available
Flammability limits in air, lower, % by volume: Not applicable
Flammability limits in air, upper, % by volume: Not applicable
Vapor Pressure: Not available
Vapor Density: Not available
Specific Gravity: Not available
Relative Density: 1.3 - 1.5 G/mL
SECTION 10  STABILITY AND REACTIVITY

Reactivity: This product may react with oxidizing agents. This product may react with strong acids.

Possibility of Hazardous Reactions: Hazardous polymerization does not occur.

Chemical Stability: Stable under recommended storage conditions.

Conditions To Avoid: Do not mix with other chemicals.


Hazardous Decomposition Products: May include and are not limited to: Oxides of carbon. Oxides of sulfur. Hydrogen sulphide. Hydrogen chloride.

SECTION 11  TOXICOLOGICAL INFORMATION

Component Analysis – LC50

<table>
<thead>
<tr>
<th>Ingredient(s)</th>
<th>LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Metabisulfite</td>
<td>Not available</td>
</tr>
<tr>
<td>Sodium Hydrosulfite</td>
<td>Not available</td>
</tr>
<tr>
<td>Sodium Carbonate</td>
<td>400 mg/m³ guinea pig</td>
</tr>
</tbody>
</table>

Component Analysis – Oral LD50

<table>
<thead>
<tr>
<th>Ingredient(s)</th>
<th>LD50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Metabisulfite</td>
<td>1131 mg/kg rat</td>
</tr>
<tr>
<td>Sodium Hydrosulfite</td>
<td>2500 mg/kg rat</td>
</tr>
<tr>
<td>Sodium Carbonate</td>
<td>4090 mg/kg rat</td>
</tr>
</tbody>
</table>

Effects of Acute Exposure

Eye: Causes irritation.
Skin: Causes irritation.
Inhalation: Dusts of this product may cause irritation of the nose, throat, and respiratory tract.
Ingestion: May cause stomach distress, nausea or vomiting.

Sensitization: May cause sensitization by inhalation or skin contact. May cause severe allergic reaction in some asthmatics and sulfite sensitive individuals.

Chronic Effects: Non-hazardous by WHMIS/OSHA criteria.

Carcinogenicity

ACGIH - Threshold Limit Values - Carcinogens
Sodium Metabisulfite 7681-57-4 A4 - Not Classifiable as a Human Carcinogen

IARC - Group 3 (Not Classifiable)
Sodium Metabisulfite 7681-57-4 Monograph 54 [1992] (listed under Sulfur dioxide and some sulfites bisulfites and metabisulfites)

Mutagenicity: Non-hazardous by WHMIS/OSHA criteria.
Reproductive Effects: Non-hazardous by WHMIS/OSHA criteria.
Teratogenicity: Non-hazardous by WHMIS/OSHA criteria.
Name of Toxicologically Synergistic Products: Not available.

SECTION 12  ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity - Freshwater Algae - Acute Toxicity Data
Sodium carbonate 497-19-8 120 Hr EC50 Nitzschia: 242 mg/L
Sodium hydrosulfite 7775-14-6 72 Hr EC50 Desmodesmus subspicatus: 120 mg/L; 96 Hr EC50 Desmodesmus subspicatus: 87 mg/L
Sodium metabisulfite 7681-57-4 72 Hr EC50 Desmodesmus subspicatus: 48 mg/L; 96 Hr EC50 Desmodesmus subspicatus: 40 mg/L

Ecotoxicity - Freshwater Fish - Acute Toxicity Data
Sodium carbonate 497-19-8 96 Hr LC50 Lepomis macrochirus: 300 mg/L [static]; 96 Hr LC50 Pimephales promelas: 310 - 1220 mg/L [static]
Sodium hydrosulfite 7775-14-6 96 Hr LC50 Leuciscus idus: 46 - 68 mg/L [static]
Sodium metabisulfite 7681-57-4 96 Hr LC50 Lepomis macrochirus: 32 mg/L [static]

Ecotoxicity - Water Flea - Acute Toxicity Data
Sodium carbonate 497-19-8 48 Hr EC50 Daphnia magna: 265 mg/L
Sodium hydrosulfite 7775-14-6 48 Hr EC50 Daphnia magna Straus: 98 mg/L
Sodium metabisulfite 7681-57-4 24 Hr EC50 Daphnia magna Straus: 89 mg/L

Persistence/Degradability: Not available
Bioaccumulation/Accumulation: Not available
Mobility in Environmental Media: Not available
Environmental Effects: Not available
Aquatic Toxicity: Not available
Partition Coefficient: Not available
Chemical Fate Information: Not available
Other Adverse Effects: Not available

SECTION 13  DISPOSAL CONSIDERATIONS

Disposal Instructions: Review federal, state/provincial, and local government requirements prior to disposal.

Waste from residues/unused products: Not available

Contaminated Packaging: Not available

SECTION 14  TRANSPORTATION DATA

DOT: Not Regulated
TDG: Not Regulated
MEX: Not Regulated
SECTION 15 REGULATORY INFORMATION

Canadian Federal Regulations: 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.

**Canada - WHMIS - Ingredient Disclosure List**
- Sodium carbonate 497-19-8 1%
- Sodium metabisulfite 7681-57-4 1%

**WHMIS Status:** Controlled
**WHMIS Classification:** Class D - Division 2A, 2B

**Occupational Safety and Health Administration (OSHA)**
- 29 CFR 1910.1200 Hazardous Chemical Yes

**US Federal Regulations:** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**CERCLA (Superfund) Reportable Quantity:** None

**Supersfund Amendments and Reauthorization Act of 1986 (SARA)**

- **Hazard Categories**
  - Immediate Hazard - Yes
  - Delayed Hazard - Yes
  - Fire Hazard - No
  - Pressure Hazard - No
  - Reactivity Hazard - Yes

- **Section 302 Extremely Hazardous Substance** No
- **Section 311 Hazardous Chemical** Yes
- **Clean Water Act (CWA):** Hazardous substance

**State Regulations:** This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

- **U.S. - California - 8 CCR Section 339 - Director's List of Hazardous Substances**
  - Sodium metabisulfite 7681-57-4 Present

- **U.S. - Massachusetts - Right To Know List**
  - Sodium hydrosulfite 7775-14-6 Present
  - Sodium metabisulfite 7681-57-4 Present

- **U.S. - Minnesota - Hazardous Substance List**
  - Sodium metabisulfite 7681-57-4 Present

- **U.S. - New Jersey - Right to Know Hazardous Substance List**
  - Sodium hydrosulfite 7775-14-6 sn 1697
  - Sodium metabisulfite 7681-57-4 sn 1708

- **U.S. - Pennsylvania - RTK (Right to Know) List**
  - Sodium hydrosulfite 7775-14-6 Present
  - Sodium metabisulfite 7681-57-4 Present

- **U.S. - Rhode Island - Hazardous Substance List**
  - Sodium hydrosulfite 7775-14-6 Flammable
  - Sodium metabisulfite 7681-57-4 Toxic

**Inventory Name**
## SAFETY DATA SHEET

**Rust-B-Gone**

**Formula:** 4100

### Country(s) or region | Inventory name | On inventory (yes/no)*
--- | --- | ---
Canada | Domestic Substances List (DSL) | Yes
Canada | Non-Domestic Substances List (NDSL) | No
United States & Puerto Rico | Toxic Substances Control Act (TSCA) Inventory | Yes

A “Yes” indicates that all components of this product comply with the inventory requirements administered by the governing country(s).

## SECTION 16  ADDITIONAL INFORMATION

**HMIS/NFPA Ratings:**
- Health:*2
- Flammability: 0
- Physical Hazard: 1
- Personal Protection: X

No representations or warranties, either expressed or implied, of merchant ability, fitness for a particular purpose or any other nature are made hereunder with respect to information or the product to which information refers.

Date: 12/17/2014
Phoenix Products Company