1. Product and Company Identification

Product Name: Water Softener Cleaner & Rust Remover, Water Softener Cleaner

CAS #: Mixture

Product use: Rust & Stain Remover

Manufacturer: Pro Products LLC
7201 Engle Road
Fort Wayne, IN 46804-5875 US
Phone 260-483-2519
Emergency Phone: 1-800-424-9300 (CHEMTREC)

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.

Eyes: 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.

3. Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>Ingredient(s)</th>
<th>CAS #</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydrosulfite</td>
<td>7775-14-6</td>
<td>15 - 40</td>
</tr>
<tr>
<td>Sodium carbonate</td>
<td>497-19-8</td>
<td>10 - 30</td>
</tr>
<tr>
<td>Sodium metabisulfite</td>
<td>7681-57-4</td>
<td>10 - 30</td>
</tr>
<tr>
<td>Citric acid</td>
<td>77-92-9</td>
<td>1 - 5</td>
</tr>
<tr>
<td>Sodium sulfite</td>
<td>7757-83-7</td>
<td>0.5 - 1.5</td>
</tr>
</tbody>
</table>

4. First Aid Measures

First aid procedures
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.
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.

Hazardous combustion products
May include and are not limited to: Oxides of carbon. Oxides of sulfur. Hydrogen sulfide. Hydrogen chloride.

Explosion data
Sensitivity to mechanical impact
Not available

Sensitivity to static discharge
Not available

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.

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.
8. Exposure Controls / Personal Protection

<table>
<thead>
<tr>
<th>Ingredient(s)</th>
<th>Exposure Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Citric acid</td>
<td>ACGIH-TLV</td>
</tr>
<tr>
<td></td>
<td>TWA: 10 mg/m3</td>
</tr>
<tr>
<td></td>
<td>OSHA-PEL</td>
</tr>
<tr>
<td></td>
<td>TWA: 10 mg/m3</td>
</tr>
<tr>
<td>Sodium carbonate</td>
<td>ACGIH-TLV</td>
</tr>
<tr>
<td></td>
<td>Not established</td>
</tr>
<tr>
<td></td>
<td>OSHA-PEL</td>
</tr>
<tr>
<td></td>
<td>Not established</td>
</tr>
<tr>
<td>Sodium hydrosulfite</td>
<td>ACGIH-TLV</td>
</tr>
<tr>
<td></td>
<td>Not established</td>
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<tr>
<td></td>
<td>OSHA-PEL</td>
</tr>
<tr>
<td></td>
<td>Not established</td>
</tr>
<tr>
<td>Sodium metabisulfite</td>
<td>ACGIH-TLV</td>
</tr>
<tr>
<td></td>
<td>TWA: 5 mg/m3</td>
</tr>
<tr>
<td></td>
<td>OSHA-PEL</td>
</tr>
<tr>
<td></td>
<td>Not established</td>
</tr>
<tr>
<td>Sodium sulfite</td>
<td>ACGIH-TLV</td>
</tr>
<tr>
<td></td>
<td>Not established</td>
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<td></td>
<td>OSHA-PEL</td>
</tr>
<tr>
<td></td>
<td>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.

9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Free-flowing</td>
</tr>
<tr>
<td>Color</td>
<td>White</td>
</tr>
<tr>
<td>Form</td>
<td>Powder</td>
</tr>
<tr>
<td>Odor</td>
<td>Mint</td>
</tr>
<tr>
<td>Odor threshold</td>
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</tr>
<tr>
<td>Physical state</td>
<td>Solid</td>
</tr>
<tr>
<td>pH</td>
<td>5.5 - 6.5</td>
</tr>
<tr>
<td>Melting point</td>
<td>Not available</td>
</tr>
<tr>
<td>Freezing point</td>
<td>Not available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>Not available</td>
</tr>
<tr>
<td>Pour point</td>
<td>Not available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not available</td>
</tr>
<tr>
<td>Flash point</td>
<td>None</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not available</td>
</tr>
<tr>
<td>Flammability limits in air, lower, % by volume</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>
Flammability limits in air, upper, % by volume
Vapor pressure
Vapor density
Specific gravity
Relative density
Octanol/water coefficient
Viscosity
Percent volatile

10. Stability and Reactivity

Reactivity
Possibility of hazardous reactions
Chemical stability
Conditions to avoid
Incompatible materials
Hazardous decomposition products

This product may react with oxidizing agents. This product may react with strong acids.
Hazardous polymerization does not occur.
Stable under recommended storage conditions.
Do not mix with other chemicals.
Acids. Oxidizers.
May include and are not limited to: Oxides of carbon. Oxides of sulfur. Hydrogen sulphide. Hydrogen chloride.

11. Toxicological Information

Component analysis - LC50
Ingredient(s) LC50
Citric acid Not available
Sodium carbonate 400 mg/m3 guinea pig
Sodium hydrosulfite Not available
Sodium metabisulfite Not available
Sodium sulfite 5.5 mg/l/4h rat

Component analysis - Oral LD50
Ingredient(s) LD50
Citric acid 5040 mg/kg mouse; 3000 mg/kg rat
Sodium carbonate 4090 mg/kg rat
Sodium hydrosulfite 2500 mg/kg rat
Sodium metabisulfite 1131 mg/kg rat
Sodium sulfite 820 mg/kg mouse; 820 mg/kg rat

Effects of acute exposure
Eye
Skin
Inhalation
Ingestion
Sensitization

Causes irritation.
Causes irritation.
Dusts of this product may cause irritation of the nose, throat, and respiratory tract.
May cause stomach distress, nausea or vomiting.
May cause sensitization by inhalation or skin contact. May cause severe allergic reaction in some asthmatics and sulfite sensitive individuals.

Chronic effects
Carcinogenicity

Non-hazardous by WHMIS/OSHA criteria.
See below.

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)
Sodium sulfite 7757-83-7 Monograph 54 [1992] (listed under Sulfur dioxide and some sulfites bisulfites and metabisulfites)

Mutagenicity
Reproductive effects

Non-hazardous by WHMIS/OSHA criteria.
Non-hazardous by WHMIS/OSHA criteria.
12. Ecological Information

Ecotoxicity

See below

Ecotoxicity - Freshwater Algae - Acute Toxicity Data
- Sodium carbonate: 120 Hr EC50 Nitzschia: 242 mg/L
- Sodium hydrosulfite: 72 Hr EC50 Desmodesmus sp: 120 mg/L; 96 Hr EC50 Desmodesmus sp: 87 mg/L
- Sodium metabisulfite: 72 Hr EC50 Desmodesmus sp: 48 mg/L; 96 Hr EC50 Desmodesmus sp: 40 mg/L

Ecotoxicity - Freshwater Fish - Acute Toxicity Data
- Citric acid: 96 Hr LC50 Lepomis macrochirus: 1516 mg/L [static]
- Sodium carbonate: 96 Hr LC50 Lepomis macrochirus: 300 mg/L [static]; 96 Hr LC50 Pimephales promelas: 310 - 1220 mg/L [static]
- Sodium hydrosulfite: 96 Hr LC50 Leuciscus idus: 46 - 68 mg/L [static]
- Sodium metabisulfite: 96 Hr LC50 Lepomis macrochirus: 32 mg/L [static]
- Sodium sulfite: 96 Hr LC50 Leuciscus idus: 220 - 460 mg/L [static]

Ecotoxicity - Water Flea - Acute Toxicity Data
- Citric acid: 72 Hr EC50 Daphnia magna: 120 mg/L
- Sodium carbonate: 48 Hr EC50 Daphnia magna: 265 mg/L
- Sodium hydrosulfite: 48 Hr EC50 Daphnia magna Straus: 98 mg/L
- Sodium metabisulfite: 24 Hr EC50 Daphnia magna Straus: 89 mg/L
- Sodium sulfite: 24 Hr LC50 Psammechinus miliaris: 330 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

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

14. Transport Information

U.S. Department of Transportation (DOT)
- Not regulated as dangerous goods.

Transportation of Dangerous Goods (TDG - Canada)
- Not regulated as dangerous goods.

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
- Citric acid: 77-92-9 1 %
- Sodium carbonate: 497-19-8 1 %
- Sodium metabisulfite: 7681-57-4 1 %

WHMIS status
- Controlled

WHMIS classification
- Class D - Division 2A, 2B
WHMIS labeling

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

Superfund 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

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)

16. Other Information

Disclaimer

The data contained in this material safety data sheet was obtained from sources that were technically accurate, reliable, and state of the art when this document was prepared. If data was unavailable to complete certain sections, the absence of that data is identified in this document. Because the supplier cannot know the exact circumstances during actual use of this product, other hazards, exposure scenarios, disposal considerations, and regulations may apply and it is the responsibility of the user to read and understand the product label and this document before use. Do not use the product for purposes other than those stated in Section 1.

Issue date

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Effective date

01-Nov-2012

Expiry date

01-Nov-2015

Prepared by

Dell Tech Laboratories Ltd. (519) 858-5021
For an updated MSDS, please contact the supplier/manufacturer listed on the first page of the document.