MATERIAL SAFETY DATA SHEET

## 1. Product and Company Identification



## 2. Hazards Identification

| Emergency overview | CAUTION <br> EYE AND SKIN IRRITANT. <br> May cause sensitization by inhalation and skin contact. |
| :---: | :---: |
| 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 | Not available |

3. Composition / Information on Ingredients

| Ingredient(s) | CAS \# | Percent |
| :--- | :---: | :---: |
| Sodium carbonate | $497-19-8$ | $3-7$ |
| Sodium hydrosulfite | $7775-14-6$ | $15-40$ |
| Sodium metabisulfite | $7681-57-4$ | $15-40$ |
| Citric acid | $77-92-9$ | $1-5$ |
| Sodium sulfite | $7757-83-7$ | $0.5-1.5$ |
| Sodium bisulfite | $7631-90-5$ | $0.1-1$ |

## 4. First Aid Measures

## First aid procedures

[^0]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. |
| 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 sulphur. Hydrogen sulphide. 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 <br> not touch damaged containers or spilled material unless wearing appropriate protective <br> 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. |
| Methods for cleaning up | Should not be released into the environment. Before attempting clean up, refer to hazard <br> data given above. Use broom or dry vacuum to collect material for proper disposal <br> without raising dust. Rinse area with water. Prevent large spills from entering sewers or <br> waterways. Contact emergency services and supplier for advice. |

## 7. Handling and Storage

## Handling

## Storage

Use good industrial hygiene practices in handling this material. Avoid breathing dust. Wash thoroughly after handling.
Keep out of reach of children. Store in a closed container away from incompatible materials.

## 8. Exposure Controls / Personal Protection

| Exposure limits |  |
| :---: | :---: |
| Citric acid | ACGIH-TLV |
|  | TWA: $10 \mathrm{mg} / \mathrm{m} 3$ |
|  | OSHA-PEL |
|  | TWA: $10 \mathrm{mg} / \mathrm{m} 3$ |
| Sodium bisulfite | ACGIH-TLV |
|  | TWA: $5 \mathrm{mg} / \mathrm{m} 3$ |
|  | OSHA-PEL |
|  | Not established |
| Sodium carbonate | ACGIH-TLV |
|  | Not established |
|  | OSHA-PEL |
|  | Not established |
| Sodium hydrosulfite | ACGIH-TLV |
|  | Not established |
|  | OSHA-PEL |
|  | Not established |
| Sodium metabisulfite | ACGIH-TLV |
|  | TWA: $5 \mathrm{mg} / \mathrm{m} 3$ |
|  | OSHA-PEL |
|  | Not established |
| Sodium sulfite | ACGIH-TLV |
|  | Not established |
|  | OSHA-PEL |
|  | Not established |
| 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

| Appearance | Powder |
| :--- | :--- |
| Color | White |
| Form | Powder |
| Odor | Characteristic |
| Odor threshold | Not available |
| Physical state | Solid |
| pH | Not available |
| 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, \% <br> by volume | Not applicable |
| Flammability limits in air, upper, \% <br> by volume | Not applicable |
| Vapor pressure <br> Vapor density <br> Specific gravity <br> Octanol/water coefficient <br> Percent volatile | Not available |

## 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. |
| Incompatible materials | Acids. Oxidizers. |
| Hazardous decomposition products | May include and are not limited to: Oxides of carbon. Oxides of sulphur. Hydrogen <br> sulphide. Hydrogen chloride. |

## 11. Toxicological Information



| genicity See below. |  |  |
| :---: | :---: | :---: |
| ACGIH - Threshold Limit Values - Carcinogens |  |  |
| Sodium bisulfite | 7631-90-5 | A4 - Not Classifiable as a Human Carcinogen |
| Sodium metabisulfite | 7681-57-4 | A4 - Not Classifiable as a Human Carcinogen |
| IARC - Group 3 (Not Classifiable) |  |  |
| Sodium bisulfite | 7631-90-5 | Monograph 54 [1992] (listed under Sulfur dioxide and some sulfites bisulfites and metabisulfites) |
| 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 | Not classified or listed by IARC, NTP, OSHA and ACGIH. |  |
| Reproductive effects | Not classified or listed by IARC, NTP, OSHA and ACGIH. |  |
| Teratogenicity | Not classified or listed by IARC, NTP, OSHA and ACGIH. |  |
| Name of Toxicologic Products | stic Not |  |

## 12. Ecological Information

| Ecotoxicity | See below |  |
| :---: | :---: | :---: |
| Ecotoxicity - Freshwater Algae - Acute Toxicity Data |  |  |
| Sodium carbonate | 497-19-8 | 120 Hr EC50 Nitzschia: $242 \mathrm{mg} / \mathrm{L}$ |
| Sodium hydrosulfite | 7775-14-6 | 72 Hr EC50 Desmodesmus subspicatus: $120 \mathrm{mg} / \mathrm{L} ; 96 \mathrm{Hr}$ EC50 Desmodesmus subspicatus: $87 \mathrm{mg} / \mathrm{L}$ |
| Sodium metabisulfite | 7681-57-4 | 72 Hr EC50 Desmodesmus subspicatus: $48 \mathrm{mg} / \mathrm{L} ; 96 \mathrm{Hr}$ EC50 Desmodesmus subspicatus: $40 \mathrm{mg} / \mathrm{L}$ |
| Ecotoxicity - Freshwater Fish - Acute Toxicity Data |  |  |
| Citric acid | 77-92-9 | 96 Hr LC50 Lepomis macrochirus: $1516 \mathrm{mg} / \mathrm{L}$ [static] |
| Sodium bisulfite | 7631-90-5 | 96 Hr LC50 Gambusia affinis: $240 \mathrm{mg} / \mathrm{L}$ [static] |
| Sodium carbonate | 497-19-8 | 96 Hr LC50 Lepomis macrochirus: $300 \mathrm{mg} / \mathrm{L}$ [static]; 96 Hr LC50 Pimephales promelas: $310-1220 \mathrm{mg} / \mathrm{L}$ [static] |
| Sodium hydrosulfite | 7775-14-6 | 96 Hr LC50 Leuciscus idus: $46-68 \mathrm{mg} / \mathrm{L}$ [static] |
| Sodium metabisulfite | 7681-57-4 | 96 Hr LC50 Lepomis macrochirus: $32 \mathrm{mg} / \mathrm{L}$ [static] |
| Sodium sulfite | 7757-83-7 | 96 Hr LC50 Leuciscus idus: $220-460 \mathrm{mg} / \mathrm{L}$ [static] |
| Ecotoxicity - Water Flea - Acute Toxicity Data |  |  |
| Citric acid | 77-92-9 | 72 Hr EC50 Daphnia magna: $120 \mathrm{mg} / \mathrm{L}$ |
| Sodium bisulfite | 7631-90-5 | 48 Hr EC50 Daphnia magna: $119 \mathrm{mg} / \mathrm{L}$ |
| Sodium carbonate | 497-19-8 | 48 Hr EC50 Daphnia magna: $265 \mathrm{mg} / \mathrm{L}$ |
| Sodium hydrosulfite | 7775-14-6 | 48 Hr EC50 Daphnia magna Straus: $98 \mathrm{mg} / \mathrm{L}$ |
| Sodium metabisulfite | 7681-57-4 | 24 Hr EC50 Daphnia magna Straus: $89 \mathrm{mg} / \mathrm{L}$ |
| Sodium sulfite | 7757-83-7 | 24 Hr LC50 Psammechinus miliaris: $330 \mathrm{mg} / \mathrm{L}$ |
| 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 <br> products | Not available |
| Contaminated packaging | Not available |

## 14. Transport Information

## U.S. Department of Transportation (DOT) <br> Not regulated as dangerous goods. <br> 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 bisulfite | $7631-90-5$ | $1 \%$ |
| 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 <br> Yes

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

## U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

Sodium bisulfite 7631-90-5 5000 Lb final RQ; 2270 kg final RQ
CERCLA (Superfund) reportable quantity
Sodium bisulfite: 5000.0000
Sodium tripolyphosphate: 5000.0000
Metaphosphoric acid, trisodium salt: 5000.0000
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
No
hazardous substance
Section 311 hazardous chemical Yes

| Clean Air Act (CAA) | Not available |
| :--- | :--- |
| Clean Water Act (CWA) | Not available |

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 bisulfite | 7631-90-5 | Present |  |
| Sodium metabisulfite | 7681-57-4 | Present |  |
| U.S. - Louisiana - Reportable Quantity List for Pollutants |  |  |  |
| Sodium bisulfite | 7631-90-5 | 5000 Lb final RQ; 2270 kg final RQ |  |
| U.S. - Massachusetts - Right To Know List |  |  |  |
| Sodium bisulfite | 7631-90-5 | Present |  |
| Sodium hydrosulfite | 7775-14-6 | Present |  |
| Sodium metabisulfite | 7681-57-4 | Present |  |
| U.S. - Minnesota - Hazardous Substance List |  |  |  |
| Sodium bisulfite | 7631-90-5 | Present |  |
| Sodium metabisulfite | 7681-57-4 | Present |  |
| U.S. - New Jersey - Right to Know Hazardous Substance List |  |  |  |
| Sodium bisulfite | 7631-90-5 | sn 1685 |  |
| Sodium hydrosulfite | 7775-14-6 | sn 1697 |  |
| Sodium metabisulfite | 7681-57-4 | sn 1708 |  |
| U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances |  |  |  |
| Sodium bisulfite | 7631-90-5 | 5000 Lb RQ (air); 100 lb RQ (land/water) |  |
| U.S. - Pennsylvania - RTK (Right to Know) List |  |  |  |
| Sodium bisulfite | 7631-90-5 | Environmental hazard |  |
| Sodium hydrosulfite | 7775-14-6 | Present |  |
| Sodium metabisulfite | 7681-57-4 | Present |  |
| U.S. - Rhode Island - Hazardous Substance List |  |  |  |
| Sodium bisulfite | 7631-90-5 | Toxic |  |
| Sodium hydrosulfite | 7775-14-6 | Flammable |  |
| Sodium metabisulfite | 7681-57-4 | Toxic |  |
| Inventory name |  |  |  |
| Country(s) or region | Inven | name | On inventory (yes/no)* |
| Canada | Dom | ubstances List (DSL) | Yes |
| Canada | Non- | tic Substances List (NDSL) | No |
| United States \& Puerto Rico | Toxic | ances Control Act (TSCA) Inventory | Yes |
| A "Yes" indicates that all compone | ts of this prod | ply with the inventory requirements adminis | ning country(s) |

## 16. Other Information

## Disclaimer

## Issue date

Effective date
Expiry date
Prepared by
Other information

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.
23-Jun-2011
15-Aug-2011
15-Aug-2014
Dell Tech Laboratories Ltd. (519) 858-5021
For an updated MSDS, please contact the supplier/manufacturer listed on the first page of the document.


[^0]:    Eye contact

