

SAFETY DATA SHEET

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name Supplier Name Address

Telephone Emergency Web Site Email Synonym(s) CleanOxide Tablets Natural Water Solutions 6 / 7Prindiville Drive Wangara, Perth, WA 6065 1800 226 303 0409 928 820 www.naturalwatersolutions.com.au admin@nwsolutions.com.au

None

Uses

Disinfectant for rainwater tanks, boats, caravans, spas, pools and ornamental ponds.

2. HAZARDS IDENTIFICATION

GLOBALLY HARMONISED SYSTEM

| Hazard Classification | | Skin Corrosion - Category 2 | |
|-----------------------|--------------------|--|--|
| | | Eye Damage - Category 1 | |
| | | Acute Toxicity, Inhalation (of dust) – Category 3 | |
| | | WARNING | |
| Signal Word: | DANGER | | |
| Pictograms: | | | |
| Hazard Statem | ents: | \mathbf{v} | |
| | H315 | Causes skin irritation | |
| | H320 | Causes eye irritation | |
| | H400 | Toxic to aquatic life | |
| Preventative: | - / 00 | | |
| | P102 | Keep out of reach of children | |
| | P262 | Do not breathe fumes, mist or spray. | |
| | P264 | wash contacted areas thoroughly after handling | |
| | P273 | Avoid release to the environment | |
| | P280 | wear protective gloves, protective clothing and face protection. | |
| Response: | | | |
| • | P301 + P330 + P331 | IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. | |
| | P302 + P352 | IF ON SKIN (or hair): Wash with plenty of soap | |
| | P362 | Take off contaminated clothing and wash before reuse | |
| | P305 + P351 + P338 | IF IN EYES: Rinse cautiously with water for several minutes. | |
| | | Remove contact lenses, if present and easy to do. Continue rinsing. | |
| | P321 | See First Aid Measures on Safety Data Sheet for specific treatment. | |
| | P332+P313 | If skin irritation occurs. Get medical advice. | |
| | P337+P313 | If eye irritation persists. Get medical advice | |
| | P370+P378 | Not combustible. Use extinguishing media suited to burning materials | |

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| Storogo | P370+P378 | Not combustible. Use extinguishing media suited to burning materials |
|-----------------------------------|------------|---|
| Storage. | P402+ P404 | Store in a dry place. Store in a closed container |
| Disposal: | P501 | Dispose of contents/container in accordance with local, state and federal regulations. |
| DANGEROUS GOODS CLASSIFICATION | | Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea Not Classified as a Dangerous Good according to the criteria of the Australian Dangerous Goods Code for the Transport of Dangerous Goods by Road and Rail (ADG Code). |

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Ingredient | CAS No. | Content |
|---------------------------|------------|-----------|
| Sodium Carbonate | 1497-19-18 | 15 to 20% |
| Sodium Hydrogen Sulphate | 7681-38-1 | 10 to 15% |
| Sodium Chlorite | 7758-19-2 | 15 to 20% |
| Citric Acid | 77-92-9 | 6 to 10% |
| Non-hazardous ingredients | | 40-60% |

4. FIRST AID MEASURES

| Symptoms caused by exposure | Eye: Hold eyes open and flush immediately with running water for at least 15 minutes. Seek immediate medical attention. Inhalation: No first aid measures normally required. However, if inhalation has occurred, and irritation has developed, remove to fresh air and observe until recovered. If irritation becomes painful or persists more than about 30 minutes, seek medical advice Skin: Rinse immediately with clean water. Remove contaminated clothing immediately and launder before re-use. Get medical attention, if irritation persists. Ingestion: DO NOT INDUCE VOMITING. Rinse mouth with water. Give plenty of water to drink provided victim is conscious. Get immediate medical attention. First Aid Facilities: Emergency eye wash facilities should be available in the immediate vicinity of any potential exposure. | |
|---|--|--|
| Medical Attention and Special Treatment 5. FIRE FIGHTING MEASURES Fire and Explosion Hazards | Eye : Direct contact will cause irritation and/or burns with symptoms of redness, itching, swelling and possible destruction of tissue. Contact with eyes can result in permanent injury. Ingestion : Irritating with potential for damage to the mouth and oesophagus. Regarded as having low toxicity but may cause upset stomach and diarrhoea. Inhalation of spray mist may cause irritation of the mucous membranes and respiratory tract. Severe overexposures may cause lung damage, mucosal irritation, coughing and difficulty breathing. Skin contact will result in severe irritation of tissue. | |
| | Symptomatic treatment and supportive therapy as indicated. | |

There is no risk of explosion from this product under normal circumstances if it's involved in a fire.

| | Only small quantities of decomposition products are expected from this product at temperatures normally achieved in a fire. This will only occur after heating to dryness. |
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| | if inhaled. Take suitable protective measures |
| Extinguishing Media | Not Combustible. Use extinguishing media suited to burning materials |
| Fire Fighting | If a significant quantity of this product is involved in a fire, call the fire brigade. Cool closed, undamaged containers exposed to fire with water spray. |
| Specific hazards | When strongly heated, the product may release gases which will increase the burning rate of combustible matter. Contact with moisture will produce chlorine dioxide gas. The lower explosive limit (LEL) for chlorine dioxide is 10%. If large amounts of the product are involved in a fire, it is possible that the application of water mist or fog |
| | could release enough chlorine dioxide gas in a confined space to present an explosion hazard. The chlorine dioxide will dissolve harmlessly in flooding amounts of water. |
| Special Protective Equipment and Precautions for Fire Fighters | Decomposes on heating emitting toxic fumes, including chlorine gas. Fire fighters to wear self-contained breathing apparatus and apply water from a protected location or from a safe distance. |

6. ACCIDENTAL RELEASE MEASURES

| Precautions, Personal Protective Equipment (PPE) and emergency procedures | Wear personal protective equipment as specified in Section 8. Contain spillage. Avoid generating dust. Scoop up or vacuum into a container for reclamation or disposal. Neutralise concentrated chlorine dioxide solutions with sodium bisulphite or sodium thiosulphate. Soak up spill using an absorbent material. Flush residual material to waste with an excess of water, in accordance with local regulations. |
|---|--|
| Environmental precautions | Prevent run-off into drains or waterways using sand, earth or other absorbent material. If product does enter a waterway advise the environmental protection authority or your local waste management. Notify all downstream water users of possible contamination. |
| Methods and materials for containment and clean up | Soak up spilled solutions using absorbent non-combustible material such as sand or soil. Sweep or shovel spills into an appropriate container for disposal. Do not absorb with combustible materials (e.g. sawdust). Flush with plenty of water. Prevent water from entering public water, sewers or soil. Neutralise spills with sodium bisulphite or sodium thiosulphate. Wash traces away from spill site with water. |

7. STORAGE AND HANDLING

| Precautions for safe handling | Wash hands immediately after handling. Avoid generating or | |
|---|---|--|
| | breathing dust or powder. Avoid contact with skin, eyes and clothing. | |
| | Use with adequate ventilation. | |
| Conditions for safe storage including Store in a cool, well ventilated area. Keep containers closed w | | |
| any incompatibilities not in use. Do not store near acids, reducing agents, orga | | |
| | compounds, wood or paper. Store away from risk of fire. | |

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure standards

No exposure standard has been established for this product by the National Occupational Health and Safety Commission (NOHSC). However, the exposure standard for chlorine dioxide gas is: 8hr TWA = 0.28mg/m₃ (0.1ppm);

Biological monitoring Engineering controls

Individual protection measures and Personal Protective Equipment (PPE) 15min STEL = 0.83mg/m₃ (0.3ppm).

No information available.

When handling small quantities, ensure plenty of fresh air. When handling large quantities in an occupational setting, a system of local and/or general exhaust is recommended to keep employee exposure as low as possible. Local exhaust ventilation is preferable because it can control the emissions of the contaminant at its source preventing dispersion into the general work area.

When handling small quantities, household gloves and eye protection should be worn. If handling large quantities in an industrial setting the following measures should be considered: **Respirator:** When a risk of inhalation exists, wear a half-face respirator fitted with a filter suitable for combined particulate/organic gases and vapours [boiling point >65'C (149'F)](AS1715/1716). **Eyes:** Chemical goggles, full-face shield or full-face respirator (AS 1336/1337).

Hands: Wear impervious gloves such as butyl rubber or neoprene (AS 2161)

Clothing: Wear overalls and impervious boots of chemically resistant material (AS 3765/2210).



9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance Odour pH (0.2% in water) Vapour Pressure White tablets Odourless to slight chlorine 5 to 8 Negligible Melting Point Solubility (Water) Flammability Bulk Density Bulk Density Not Applicable Reacts with water Not combustible 1.5g/cc approx Not Determined

10. STABILITY AND REACTIVITY

Reactivity Chemical stability

Hazardous reactions Conditions to avoid Materials to avoid Decomposition Hazardous decomposition Reacts with water to form chlorine dioxide. In the absence of moisture, product is stable under normal conditions of temperature and pressure. On exposure to moisture, chlorine dioxide gas is generated. Store away from heat and moisture Incompatible with acids and strong oxidising agents. Thermal decomposition >180^oC

11. TOXICOLOGICAL INFORMATION

| Acute loxicity | Oral I D50 (rat): 165mg/kg |
|-----------------------|--|
| | |
| Skin Irritation | Harmful by skin contact. Contact with moist skin may cause severe irritation. Repeated or prolonged skin contact may cause dermatitis. |
| Sensitization | No component of this product is identified as probable, possible or confirmed human carcinogen by IARC. |
| Carcinogenicity | No information available |
| Mutagenic Effects | No information available |
| Reproductive Effects | No information available |
| Developmental Effects | No information available |

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| Teratogenicity STOT - single exposure | None known None known | | |
|--|---|--|--|
| STOT - repeated exposure | | | |
| Aspiration hazard | No information available | | |
| | No information available | | |
| Symptoms / effects, both acute and delayed Aspiration hazard | No information available | | |
| | None identified. The toxicological properties of this compound (active ingredient) have not been fully evaluated. | | |
| Other Adverse Effects | No information available | | |
| Endocrine Disruptor Information | | | |
| Health Hazard Summary | Product is a strong acid and hazard arising from the product are due to its acidity. | | |
| Eye | Risk of serious eye damage. Corrosive to eyes. May cause permanent eve iniury. | | |
| Inhalation | Inhalation of mist may cause irritation of the mucous membranes and upper respiratory tract. Symptoms include coughing, bloody nose, and sneezing. Severe overexposure may cause lung damage. | | |
| Skin | Not volatile. Breathing in dust may produce respiratory irritation. | | |
| ingestion | and chemical burns to the gastrointestinal tract. | | |
| Toxicity data | No data available for this product. | | |

12. ECOLOGICAL INFORMATION

| | No adverse environmental effects are expected if this product |
|-------------------------------|--|
| | handled in accordance with this Safety Data Sheet and the product |
| | label. Adverse effects that may arise if the product is mishandled |
| | and released into the natural environment include the following: |
| | Likely to cause short term adverse effects if released into the aquatic environment. Not likely to persist due to rapid chemical and biological |
| | degradation. |
| Ecotoxicity | Very toxic to aquatic life. May cause long term adverse effects in an aquatic environment. |
| Persistence and degradability | Degrades in the presence of moisture. |
| Bioaccumulative potential | Not expected to have any potential to bioaccumulate. |
| Mobility in soil | Reacts with moisture releasing chlorine dioxide. Residual material is a mixture of sodium salts including sulphate and chloride. |
| Other adverse effects | None known |

13. DISPOSAL CONSIDERATIONS

| Disposal methods | Packaging should be completely empty and rinsed thoroughly. Large quantities of waste material should be treated with excess water, neutralised with sodium bisulphite or sodium thiosulphate solution and disposed of in accordance with local, state and federal |
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| Legislation | regulations. Contact a specialist disposal company or the local waste regulator for advice. This should be done in accordance with "The Hazardous Waste Act". |

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14. TRANSPORT INFORMATION

| | Land Transport (ADG) | Sea Transport (IMDG) | Air Transport (IATA) |
|--------------------------|---|---|--|
| UN number | 1759 | 1759 | 1759 |
| UN Proper shipping name | Corrosive Solid n.o.s (Chlorine Dioxide tablet) | Corrosive Solid n.o.s (Chlorine Dioxide tablet) | Corrosive Solid n.o.s (Chlorine Dioxide tablet) |
| Transport hazard classes | | | 0 |
| DG Class | 8 | 8 | 8 |
| Subsidiary risk(s) | None allocated | None allocated | None allocated |
| Packing Group | III | III | 111 |
| Hazchem Code | 2X | 2X | 2X |

15. REGULATORY INFORMATION

| Poison Schedule Inventory Listing Other Information | A poison schedule number has not been allocated to this product using the criteria in the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP). AUSTRALIA: AICS (Australian Inventory of Chemical Substances) All ingredients are listed on AICS, or are exempt UNITED STATES: TSCA (US Toxic Substances Control Act) All components are listed on the TSCA inventory, or are exempt Not a scheduled poison. | | |
|---|---|---|--|
| | | | |
| | | 16. OTHER INFORMATION Additional Information | It should be noted that the effects from exposure to this product depend on many factors including the amount used, frequency and duration of use, control measures adopted, protective equipment used and method of use. It is impractical to prepare a data sheet that encompasses all possible situations; therefore, it is anticipated that users will assess the risks and apply appropriate control methods as required. |
| Report status | This Safety Data Sheet is based on the best available information at the time of issue concerning the product and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions. All due care has been taken to include accurate and up-to-date information. No warranty as to accuracy or completeness is provided. As far as lawfully possible, Natural Water Solutions accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person | | |

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End of Report