minēraluxe
ADVANCED HOT TUB WATER CARE

# MATERIAL SAFETY DATA SHEET

## 1. Product and Company Identification

**Product Name:** **Mineraluxe™ Hot Tub Sanitizer Stabilized Chlorinating Granules**

**Product Use:** For disinfection, sanitization and oxidation of spas and hot tubs

**Supplier:** Mineraluxe™ c/o. **Backyard Brands, Inc.**
**401 S. Enterprise Blvd.**
**Lebanon, IN 46052 USA – 1-866-875-0012**

**24 HR. EMERGENCY TELEPHONE NUMBERS**
**Poison Control Center (Medical): (800) 420-9236**
**CANUTEC (Canadian Transportation): (613) 996 - 6666**
**CHEMTREC (US Transportation): (800) 424 – 9300**.

**Chemical name** Sodium dichloroisocyanurate, dihydrate

**Synonym(s)** Sodium dichlor; Sodium dichloroisocyanurate,dihydrate; Sodium dichloro-s-triazinetrione dihydrate; Troclosene sodium

**Chemical formula** $NaCl_2(NCO)_3 x2H_2O$

**Chemical family** Chloroisocyanurate

**Molecular weight** 256

## 2. Hazards Identification

**GHS**
**GHS classification**

Acute Tox. 4, H302 Harmful if swallowed
Eye Irrit. 2, H319 Causes serious eye irritation
STOT SE 3, H335 May cause respiratory irritation
Aquatic Acute 1, H400 - Very toxic to aquatic life
Aquatic Chronic 1, H410 - Very toxic to aquatic life with long lasting effects

**Labels and other form of warning**

**Symbol(s)**

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| **Signal Word** | WARNING |
| **Hazard statements** | H302 - Harmful if swallowed<br>H319 - Causes serious eye irritation<br>H335 - May cause respiratory irritation<br>H410 - Very toxic to aquatic life with long lasting effects<br>EUH031 - Contact with acids liberates toxic gas |
| **Precautionary statements** | P261 - Avoid breathing dust/fume/gas/mist/vapors/spray<br>P280 - Wear protective gloves/protective clothing/eye protection/face protection<br>P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing<br>P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing<br>P264 - Wash hands thoroughly after handling<br>P270 - Do not eat, drink or smoke when using this product<br>P271 - Use only outdoors or in a well-ventilated area<br>P273 - Avoid release to the environment<br>P301 + P312 + P330 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.<br>P337 + P313 - If eye irritation persists: Get medical advice/attention.<br>P391 - Collect spillage<br>P403 + P233 - Store in a well-ventilated place. Keep container tightly closed<br>P312 - Call a POISON CENTER or doctor/physician if you feel unwell<br>P405 - Store locked up<br>P501 - Dispose of contents/container in accordance with national and international regulations |
| **NFPA Ratings (Scale 0-4)** | Health = 2, Fire = 0, Reactivity = 1. Special Hazard Warning: OXIDIZER. |
| **HMIS Ratings (Scale 0-4)** | Health = 3, Fire = 0, Reactivity = 1. |

## 3. Composition / Information on Ingredients

| Components | CAS No. | Weight % |
|---|---|---|
| SODIUM DICHLOROISO CYANURATE, DIHYDRATE | 51580-86-0 | 99-100 |
| SODIUM CHLORIDE | 7647-14-5 | 0-1 |

## 4. First Aid Measures

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| **Eye contact** | Hold eye open and rinse slowly and gently with water for 15-20 minutes.<br>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.<br>Call a poison control center or doctor for treatment advice. |
| **Skin contact** | Take off contaminated clothing.<br>Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.<br>Get medical attention immediately. |
| **Inhalation** | Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.<br>Call a poison control center or doctor for further treatment advice. |
| **Ingestion** | Call poison control center, or doctor immediately for treatment advice.<br>Have person sip a glass of water if able to swallow.<br>Do not induce vomiting unless told to do so by the poison control center or doctor.<br>Do not give anything by mouth to an unconscious person. |

**Most important symptoms and effects, acute or delayed**

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| **Eye Contact** | Severe irritation and/or burns can occur following eye exposure. Contact may cause impairment of vision and corneal damage. |
| **Skin contact** | Dermal exposure can cause severe irritation and/or burns characterized by redness, swelling and scab formation.<br>Prolonged skin exposure may cause permanent damage. |
| **Inhalation** | Irritating to the nose, mouth, throat and lungs.<br>It may also cause burns to the respiratory tract with the production of lung edema that can result in shortness of breath, wheezing, choking, chest pain, and impairment of lung function.<br>Inhalation of high concentrations can result in permanent lung damage from the corrosive action of the lung. |
| **Ingestion** | Irritation and/or burns can occur to the entire gastrointestinal tract, including the stomach and intestines, characterized by nausea, vomiting, diarrhea, abdominal pain, bleeding and/or tissue ulceration.<br>Ingestion causes severe damage to the gastrointestinal tract with the potential to cause perforation. |
| **Note to physician** | Probable mucosal damage may contraindicate the use of gastric lavage.<br>No specific antidote.<br>Treat symptomatically and supportively.<br>In case of ingestion DO NOT induce vomiting. |

## 5. Fire Fighting Measures

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| **Suitable extinguishing media** | Water. |
| **Extinguishing media not to be used** | Do not use dry chemical extinguisher containing ammonia compounds. |
| **Unusual fire and explosion hazards** | When heated to decomposition, may release poisonous and corrosive fumes of nitrogen trichloride, chlorine and CO. |
| **Fire fighting procedure** | Cool containers with water spray. Fire fighters should wear full protective clothing and self-contained breathing apparatus (SCBA) in positive pressure mode. On small fires, use water spray or fog. On large fires, use heavy deluge or fog streams. Flooding amounts of water may be required before extinguishment can be accomplished. |

## 6. Accidental release measures

## Personal precautions

For small spills in a well-ventilated areas, wear a NIOSH approved half-face or full face tight fitting respirator or a loose fitting powered air purifying respirator equipped with chlorine cartridges. Chemical goggles should be worn when using a half-face respirator. In addition to respiratory protection, wear coveralls, chemical resistant gloves, chemical resistant footwear; and chemical resistant headgear for overhead exposure. For clean-up of large spills, or small dry spills in confined areas, wear full-face respirator with chlorine cartridges or a positive pressure supplied air respirator. Additionally, body protection should be impervious clothing covering entire body to prevent personal contact with material. CAUTION - Protection concerns must also address the following: If this material becomes damp/wet or contaminated in a container, the formation of nitrogen trichloride gas may occur and an explosive condition may exist.

**Methods for cleaning up** — Hazardous concentrations in air may be found in local spill area and immediately downwind. If spill material is still dry, do not put water directly on this product as a gas evolution may occur.

**Environmental precautions**

- **Soil** — Do not contaminate spill material with any organic materials, ammonia, ammonium salts or urea. Clean up all spill material with clean, dry dedicated equipment and place in a clean dry container.
- **Water** — This material is heavier than and soluble in water. Stop flow of material into water as soon as possible. Begin monitoring for available chlorine and pH immediately.
- **Air** — Vapors may be suppressed by the use of water fog.

## 7. Handling and storage

**Handling** — Do not take internally. Avoid contact with skin, eyes, and clothing. Upon contact with skin or eyes, wash off with water.

**Storage** — Store in a dry, cool, well-ventilated area.
away from incompatible materials (see "materials to avoid"). Do not store at temperatures above 60°C/140°F.
Product has an indefinite shelf-life limitation.

## 8. Exposure controls / personal protection

**Exposure Limits:**

| Components | ACGIH-TLV Data | OSHA (PEL) Data |
|---|---|---|
| SODIUM DICHLOROISO CYANURATE, DIHYDRATE<br>51580-86-0 | Not determined | Not determined |
| SODIUM CHLORIDE<br>7647-14-5 | Not determined | Not determined |

**Ventilation requirements** — Use local exhaust ventilation to minimize dust and chlorine levels where industrial use occurs. Otherwise, ensure good general ventilation.

**Personal protective equipment:**

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| **- Respiratory protection** | A respiratory protection program meeting OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use. |
| **- Respiratory protection** | When dusty conditions are encountered, wear a NIOSH/OSHA full-face respirator with chlorine cartridges for protection against chlorine gas and dust/mist pre-filter. |
| **- Hand protection** | Neoprene gloves (0.67 mm) |
| **- Eye protection** | Use chemical safety glasses to avoid eye contact. Where industrial use occurs, chemical goggles may be required. |
| **- Skin and body protection** | Impervious body covering clothes, boots and neoprene apron |
| **Hygiene measures** | Do not eat, smoke or drink where material is handled, processed or stored. Wash hands thoroughly after handling and before eating or smoking. Safety shower and eye bath should be provided. |

## 9. Physical and chemical properties

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| **Appearance** | White granules or tablet-form product |
| **Odor** | Mild chlorine-like |
| **Odor threshold** | Not determined |
| **pH** | 6-6.5 (1% solution) |
| **Melting point/range** | Not applicable |
| **Boiling point/range** | Not applicable |
| **Flash point** | Not applicable |
| **Evaporation rate (ether=1)** | Not applicable under standard conditions |
| **Flammability (solid, gas)** | Not determined |
| **Flammable/Explosion limits** | Not determined |
| **Vapor pressure** | Not applicable under standard conditions |
| **Vapor density** | Not applicable under standard conditions |
| **Relative density** | tap density= 0.974 g/mL<br>pour density= 1.083 g/mL |
| **Solubility:** | |
| **- Solubility in water** | 24-25 g/100g |
| **Partition coefficient (n-octanol/water)** | LogP - -0.0056 (estimated) |
| **Auto-ignition temperature** | Not self-ignitable |
| **Decomposition temperature** | Begins to lose 1 mole water at approximately 50°C; second mole water at 95°C; Decomposes at 240-250°C |
| **Viscosity** | Not applicable |
| **Explosive properties** | Not determined |
| **Oxidising properties** | Not oxidizing |
| **Particle size** | Non-inhalable |

## 10. Stability and Reactivity

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| **Reactivity** | Begins to lose one mole of water at approximately 50°C. |
| **Stability** | Stable under normal conditions |
| **Possibility of hazardous reactions** | If this material becomes damp/wet or contaminated in a container, the formation of nitrogen trichloride gas may occur and an explosive condition may exist. |
| **Conditions to avoid** | Heating above decomposition temperature |

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| | Do not package in paper or cardboard. |
| **Materials to avoid** | Organic materials, reducing agents, nitrogen containing materials, other oxidizers, acids, bases, oils, grease, sawdust, dry fire extinguishers containing monoammonium compounds. |
| **Hazardous decomposition products** | Nitrogen trichloride, chlorine, carbon monoxide |

## 11. Toxicological information

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| **Likely Routes of Exposure** | Skin<br>Inhalation<br>Ingestion<br>Eye contact |
| **Acute toxicity:** | |
| **- Rat oral LD50** | 1671 mg/kg |
| **- Rat dermal LD50** | >5000 mg/kg |
| **- Eye irritation (rabbit)** | Severe irritant |
| **- Dermal irritation (rabbit)** | Severe irritant |
| **Dermal sensitization** | Not a sensitizer |
| **Immediately Dangerous to Life or Health (IDLH)** | No level has been established for the components or the product itself. |

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| **Chronic toxicity** | Chronic inhalation exposure may cause impairment of lung function and permanent lung damage. |
| **Mutagenicity** | Not mutagenic in five Salmonella strains with or without metabolic activation. |
| **Carcinogenicity** | Not classified by IARC, OSHA, EPA.<br>Not included in NTP 12th Report on Carcinogens |
| **Reproductive toxicity** | Sodium dichloroisocyanuric acid when given orally to pregnant mice from day 6 to day 15 of gestation, did not induce any significant teratogenic effects. |

## 12. Ecological Information

**Aquatic toxicity :**

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| **- 96 Hour-LC50, Fish** | 0.22 mg/l (rainbow trout)<br>0.28 mg/l (bluegill sunfish) |
| **- 48 hour-LC50, Daphnia magna** | 0.2 mg/l |

**Avian toxicity:**

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| **- Oral LD50, Bobwhite quail** | 730 mg/kg |
| **- Oral LD50, Mallard duck** | 3300 mg/kg |
| **- Dietary LC50, Mallard duck** | >10,000 ppm |
| **- Dietary LC50, Bobwhite quail** | >10,000 ppm |

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| **Persistence and degradability** | Not readily biodegradable. Rapidly hydrolyses in water into Cyanuric acid |
| **Bioaccumulative potential** | Not expected to bioaccumulate |
| **Mobility in soil** | The degradation product, Cyanuric acid, is weakly adsorbed to and highly mobile in all soils |

## 13. Disposal Considerations

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| **Waste disposal** | Care must be taken to prevent environmental contamination from the use of this material.<br>Observe all federal, state and local environmental regulations when disposing of this material. |
| **Disposal of Packaging** | Empty containers should be disposed of in accordance with all applicable laws and regulations |

## 14. Transportation Information

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| **DOT** | Not regulated for non-bulk shipments<br>For bulk shipments regulated as:<br>UN No. 3077<br>Proper shipping name: Environmentally hazardous substance, solid, n.o.s (Sodium Dichloroisocyanurate,dihydrate)<br>Class: 9 - Miscellaneous Hazardous Material<br>Label: 9 |

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| | Marking: Marine Pollutant<br>Packing Group: III<br>Note: Certain shipping modes or package sizes may have exceptions from the transport regulations and may be classified as Consumer Commodity and Limited Quantity. The classification provided may not reflect those exceptions and may not apply to all shipping modes or package sizes. |
| **IMDG** | UN No. 3077<br>Proper shipping name: Environmentally hazardous substance, solid, n.o.s (Sodium Dichloroisocyanurate,dihydrate)<br>Class: 9 - Miscellaneous Dangerous Substances and Articles<br>Label: 9<br>Mark: MARINE POLLUTANT<br>Packing Group: III |
| **ICAO/IATA** | UN No. 3077<br>Proper shipping name: Environmentally hazardous substance, solid, n.o.s (Sodium Dichloroisocyanurate,dihydrate)<br>Class: 9<br>Hazard label(s): Miscellaneous<br>Packing group: III<br>Marking: Environmentally hazardous substance |

## 15. Regulatory information

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| **USA** | All the components of this substance are listed on or are exempt from the inventory. |
| **- EPA Registration No.** | 69470-20-90605 |
| **- Emergency overview in Accordance to EPA Master Label** | DANGER<br>Hazards to humans and domestic animals<br>Corrosive<br>Causes irreversible eye damage<br>May be fatal if inhaled<br>Harmful if swallowed or absorbed through skin<br>Strong oxidizing agent<br>This pesticide is toxic to fish and aquatic organisms. |
| **- SARA (311, 312)** | This product is categorized as an immediate health hazard and fire and reactivity physical hazard. |
| **- Massachusetts Right-to-Know Hazardous Substances list** | Listed |
| **- Pennsylvania Right-to-Know Hazardous Substance** | Listed |

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| **- Waste Classifications** | If this product becomes a waste, it does not meet the criteria of a hazardous waste as defined under 40 CFR 261, in that it does not exhibit the characteristics of hazardous waste of Subpart C, nor is it listed as a hazardous waste under Subpart D. |
| **- Workplace Classification** | This product is considered hazardous under the OSHA Hazard Communication Standard (29CFR 1910.1200). |
| **EU** | Reported in EINECS |
| **Japan** | ENCS no. (5)-1043<br>ISHL no. (5)-1043 |
| **Australia** | Listed in AICS |
| **New Zealand Inventory** | Listed in NZIoC |
| **China**<br>**- China inventory** | Listed |
| **Philippines** | Listed in PICCS |

## 16. Other information

**COMMENTS:** The contents and format of this MSDS are in accordance with OSHA Hazard Communication Standard, National Fire Protection Association (NFPA), Hazardous Materials Identification System (HMIS), and Canada's Workplace Hazardous Information System (WHMIS) and Environmental Protection Agency (CEPA).

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| **Disclaimer** | Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document. |
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| **Prepared by** | **Backyard Brands, 1-866-875-0012** |