

1. Product and Company Identification

Product name	Mineraluxe™ Hot Tub Sanitizer Brominating Tablets
Type of product and use	Spa and hot tub disinfectant
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	Bromo-chloro-5,5-dimethylhydantoin
Synonym(s)	BCDMH
Chemical formula	C ₅ H ₆ BrClN ₂ O ₂
Chemical family	Halogenated hydantoin
Molecular weight	241.5

2. Hazards identification

GHS classification	Acute Tox. 4, H302 Harmful if swallowed Skin Corr. 1B, H314 Causes severe skin burns and eye damage Skin Sens. 1, H317 May cause an allergic skin reaction Aquatic Acute 1, H400 - Very toxic to aquatic life
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Labels and other form of warning

Symbol(s)



Signal Word

DANGER

Hazard statements

H302 - Harmful if swallowed
 H314 - Causes severe skin burns and eye damage
 H317 - May cause an allergic skin reaction
 H400 - Very toxic to aquatic life
 EUH031 - Contact with acids liberates toxic gas

Precautionary statements

P260 - Do not breathe dust/fume/gas/mist/vapors/spray
 P273 - Avoid release to the environment
 P280 - Wear protective gloves/protective clothing/eye protection/face protection
 P301 + P330 + P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting
 P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower
 P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention
 P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 P310 - Immediately call a POISON CENTER or doctor/physician
 P362 + P364 - Take off all contaminated clothing and wash it before reuse
 P391 - Collect spillage
 P264 - Wash hands thoroughly after handling
 P270 - Do not eat, drink or smoke when using this product
 P272 - Contaminated work clothing should not be allowed out of the workplace
 P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
 P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
 P330 - Rinse mouth
 P405 - Store locked up
 P501 - Dispose of contents/container to licensed hazardous waste disposal agent/site in accordance with local, regional, national and international legislation

NFPA Ratings (Scale 0-4)

Health = 3, Fire = 0, Reactivity = 1. Special Hazard Warning: OXIDIZER.

HMIS Ratings (Scale 0-4)

Health = 3, Fire = 0, Reactivity = 1.

3. Composition / information on ingredients
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Components	CAS No.	Weight %
Bromochloro-5,5-dimethylhydantoin	32718-18-6	96



Eye contact	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
Skin contact	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
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. Call a poison control center or doctor for further treatment advice.
Ingestion	Call poison control center, or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

Most important symptoms and effects, acute or delayed

- Eye Contact	Corrosive to eyes
- Skin contact	Corrosive to skin Exposure to wet skin may cause burns.
- Inhalation	Irritant to upper respiratory tract.
- Ingestion	Harmful if swallowed.
- Sensitization	May cause skin sensitization
Note to physician	Corrosive No specific antidote. Treat symptomatically and supportively. In case of ingestion DO NOT induce vomiting. Probable mucosal damage may contraindicate the use of gastric lavage.

5. Fire-fighting measures

Suitable extinguishing media	Dry powder or carbon dioxide. Water may be ineffective. In case of exothermic decomposition and appearance of smoke, water should be used to suppress it.
Extinguishing media not to be used	Do not use dry chemical extinguisher containing ammonia compounds.
Unusual fire and explosion hazards	Forms explosive mixtures with combustible, organic or other easily oxidizable materials. When heated to decomposition, may release poisonous and corrosive fumes. Dust may form a weak explosive mixture with air (class St1), but is not sensitive to ignition from electrostatic discharges.

Fire-fighting procedure

Cool containers with water spray. In closed stores, provide fire-fighters with self-contained breathing apparatus in positive pressure mode.

6. Accidental release measures

Personal precautions

Evacuate area. Use respirator with combined filter (inorganic gas and dust), gloves, chemical safety goggles and body covering clothes. If material is decomposing, use self-contained breathing apparatus and a fully encapsulated suit.

Methods for cleaning up

Sweep up, place in a suitable container and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

Environmental precautions

Avoid access to streams, lakes or ponds

7. Handling and storage

Handling

Keep containers tightly closed.

Storage

Keep away from all sources of ignition. Recommended storage temperature below 30°C. For transportation purposes it is possible to store at temperatures up to 50°C. Store in a dry, well-ventilated area. Store away from incompatible materials (see "materials to avoid")

8. Exposure controls / personal protection

Exposure Limits:

Components	ACGIH-TLV Data	OSHA (PEL) Data
Bromochloro-5,5-dimethylhydantoin 32718-18-6	Not determined	Not determined

Manufacturer's TLV-Ceiling

0.1 mg/m³

Ventilation requirements

Use local exhaust as necessary, especially under dusty conditions. Ventilation must be sufficient to maintain atmospheric concentration below recommended exposure limit.

Personal protective equipment:

- **Respiratory protection** Respirator with combined filter (inorganic gas and dust).
- **Hand protection** Neoprene gloves
- **Eye protection** Chemical safety goggles
- **Skin and body protection** Body covering clothes and boots

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

Appearance	White to off-white tablet with faint halogenous odour
Melting point/range	Not applicable (decomposes)
Boiling point/range	Not applicable
Flash point	Not applicable
Evaporation rate (ether=1)	Not applicable under standard conditions
Flammable/Explosion limits	Not available
Vapor pressure	9.35x10(-3) Pa (25°C)
Vapor density	Not applicable under standard conditions
- Solubility in water	0.22 g/100ml at 25°C
- Solubility in other solvents	Benzene: 2.5 g/100g at 25°C
Partition coefficient (n-octanol/water)	Kow = <1 (pH 5-9)
Auto-ignition temperature	Not available
Decomposition temperature	>160°C
Viscosity	Not applicable
Specific gravity	1.8-2.0
Explosive properties	Dust may form a weak explosive mixture with air (class St1), but is considered insensitive to ignition from electrostatic discharges.
Oxidizing properties	Not sufficient for classification as oxidizer (Method A17 & UN Test O.1)
Particle size	Not available

10. Stability and reactivity

Reactivity	Combustible materials. Oxidizing agents. Bases.
Stability	Stable under normal conditions
Possibility of hazardous reactions	Contact with combustible materials may initiate decomposition of the material and emission of smoke. Contact with acids liberates toxic gas.
Conditions to avoid	Exposure to moisture. Heating above decomposition temperature.
Materials to avoid	Oxidizing agents. Bases. COMBUSTIBLE ORGANIC MATERIALS.
Hazardous decomposition products	CO, HBr, Cl ₂ , NO _x , HCl, CO ₂

11. Toxicological information

Likely Routes of Exposure	Skin Eye contact Inhalation Ingestion
Acute toxicity:	
- Rat oral LD50	929 mg/kg
- Rat inhalation LC50	1.1 mg/l/4 hour (powder)
- Dermal irritation (rabbit)	Corrosive
Dermal sensitization	Sensitizer.
Chronic toxicity	Prolonged skin contact may cause sensitization
Mutagenicity	Mutagenic by the Ames Test Mutagenic in the mouse lymphoma L5178Y test system. Non genotoxic in an in-vivo micronucleus test in mice. Non genotoxic in an in-vivo liver unscheduled DNA synthesis (USD) assay
Carcinogenicity	Not classified by IARC Not included in NTP 12th Report on Carcinogens

12. Ecological information

Aquatic toxicity:

- 96 Hour-LC50, Fish	1.2 mg/l (Eastern oyster, Acute flow through) 1.9 mg/l (Mysid shrimp, Acute flow through) 0.4 mg/l (Rainbow trout, Static) 0.46 mg/l (Bluegill sunfish, Static) 1.6 mg/l (Sheepshead minnow, Acute flow through)
- 48 hour-LC50, Daphnia magna	0.75 mg/l (Static)

Avian toxicity:

- Oral LD50, Bobwhite quail	1839 mg/kg
- Dietary LC50, Mallard duck	>5620 ppm
- Dietary LC50, Bobwhite quail	>5620 ppm

Persistence and degradability BCDMH and the main degradation product DMH are biodegradable and do not persist in the environment

Bioaccumulative potential Based on low Kow values, i.e less than 1, BCDMH would not be predicted to significantly accumulate in aquatic organisms, or absorb to organic material in soil or sediment.

Mobility in soil There will be no exposure of BCDMH to soil. The main degradation product DMH is mobile in soil.

13. Disposal considerations

Waste disposal	Dispose of in approved landfill sites or an approved incinerator. Crush and bury empty containers. Avoid access to streams, lakes or ponds. Observe all federal, state and local environmental regulations when disposing of this material.
Disposal of Packaging	Crush and bury empty containers. Do NOT throw into public waste disposal site. Avoid contact with organic materials and moisture. See conditions to avoid (Section 10)

14. Transportation information

DOT	UN number 1479 Proper shipping name: Oxidizing Solid, n.o.s. (Bromo-Chloro-5,5-DimethylHydantoin) Class: 5.1 - Oxidizing substances Label: OXIDIZER (5.1) Packing Group II Marking: Marine Pollutant
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15. Regulatory Information

USA	This product is registered under FIFRA TSCA: EPA Number P-94-34 BCDMH is listed in TSCA inventory under CAS number:16079-88-2 Subject to reporting under SNUR (Significant New Use Rule) -any use, 60 CFR 11037
- EPA Registration no.	8622-70-90605
- Emergency overview in Accordance to EPA Master Label	DANGER Corrosive Causes irreversible eye damage and skin burns Eye contact may cause loss of vision May be fatal if inhaled Irritating to nose and throat Harmful if absorbed through skin or swallowed Do not smoke, drink, or eat when handling. This product is toxic to fish and aquatic organisms. Strong oxidizing agent
- SARA 313	This product does not contain a chemical listed at or above de minimis concentrations
- SARA (311, 312)	This product is a hazardous chemical under 29CFR 1910.1200, and categorized as an immediate and delayed health, and reactivity physical hazard
- Waste Classifications	Not listed under CERCLA. If this product becomes a waste, it meets the criteria of a hazardous waste as defined under 40 CFR 261 and would have the following EPA hazardous waste number:D001.

EU	Reported in EINECS
EC No.	251-171-5
Japan	ENCS No. 5-6368
New Zealand Inventory	Listed in NZIoC
China - China inventory	Listed in IECSC
Philippines	Listed in PICCS

16. Other information

COMMENTS: The contents and format of this MSDS are in accordance with OSHA Hazard Communication Standard 29 CFR 1910.1200 (GHS).

Although the information and recommendations set forth herein (hereinafter "information") are presented in good faith and believed to be correct as of the date hereof, Backyard Brands, Inc. makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving same will make their own determination as to its safety and suitability for their purposes prior to use. In no event will Backyard Brands, Inc. be responsible for damages of any nature whatsoever resulting from the use of or reliance upon information. NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESSED OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE, ARE MADE HEREUNDER WITH RESPECT TO INFORMATION OR THE PRODUCT TO WHICH THE INFORMATION REFERS.

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Expiry date	10 September, 2018
Date revised:	N/A
Revision #:	N/A
Prepared by	Backyard Brands, 1-866-875-0012

1. Product and Company Identification

Product Name Mineraluxe™ Oxygen
CAS # Mixture
Product use Oxidizer for hot tubs

Supplier Mineraluxe c/o Backyard Brands Inc.
BACKYARD BRANDS, INC • 401 S. Enterprise Blvd.
Lebanon, IN 46052 USA • 1-866-875-0012

24 HR. EMERGENCY TELEPHONE NUMBERS
Poison Control Center (Medical): (877) 800 - 5553
CANUTEC (Canadian Transportation): (613) 996 - 6666
CHEMTREC (US Transportation): (800) 424 - 9300

2. Hazards Identification

POTENTIAL HEALTH EFFECTS

SKIN: Causes skin irritation.

EYE CONTACT: Causes eye irritation. May cause burns or external ulcers. May cause permanent eye injury if not promptly treated.

INHALATION: May cause irritation of respiratory tract. Other effects may include; difficulty in breathing, shortness of breath.

INGESTION: May cause: inflammation of the stomach (gastritis). Other effects may include: Necrosis, Internal bleeding.

AGGRAVATED MEDICAL CONDITION: Skin disorders. Gastrointestinal tract.

CARCINOGENICITY: None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP or OSHA, as a carcinogen.

3. Composition / Information on Ingredients

Ingredient(s)	CAS #	Percent
Pentapotassium bis(peroxymonosulfate) bis(sulphate)	70693-62-8	45-55%
Sodium dichloro-S-triazinetriene	2893-78-9	45-55%
Dipotassium peroxodisulphate	7727-21-1	0-2%

4. First Aid Measures

SKIN CONTACT: Immediately flush skin with large amounts of water. Wash contaminated clothing before re-use. Consult a physician.

EYE CONTACT: Rinse immediately with plenty of water and seek medical advice.

INHALATION: Move person to fresh air. Artificial respiration and/or oxygen may be necessary. Consult a physician.

INGESTION: Do NOT induce vomiting. Drink 1 or 2 glasses of water. Never give anything by mouth to an unconscious person. Call a physician or poison control centre immediately.

5. Fire Fighting Measures

FIRE AND EXPLOSION HAZARD: The product itself does not burn. Heating will release oxygen and increase the intensity of a fire.

SUITABLE EXTINGUISHING MEDIA: Water

UNSUITABLE EXTINGUISHING MEDIA: Do not use carbon dioxide or other gas-filled fire extinguishers.

FIREFIGHTING INSTRUCTIONS: Wear self-contained breathing apparatus (SCBA) and protective suit. Evacuate personnel to safe areas. Flood with water.

6. Accidental Release Measures

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

SAFEGUARDS (PERSONNEL) : Evacuate personnel to safe areas. Wear respiratory protection.

SPILL CLEANUP: Shovel or sweep up. Flush with plenty of water.

ACCIDENTAL RELEASE MEASURES: All flushing and clean-up residuals should be collected for proper disposal to prevent soil and surface, ground and sewer water contamination. Prevent material from entering sewers, waterways, or low areas.

7. Handling and Storage

HANDLING (PERSONNEL): Avoid inhalation. Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing before re-use. Wash hands before breaks and immediately after handling the product. Wash hands before eating, drinking, or smoking.

STORAGE: Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from: Combustible material, oxidizing agents. Keep away from oxidizing agents and strongly acid or alkaline materials. Do not store together with acids and ammonium salts. Stable under recommended storage conditions.

8. Exposure Controls / Personal Protection

ENGINEERING CONTROLS: Ensure adequate ventilation.

PERSONAL PROTECTIVE EQUIPMENT:

Respiratory protection: Provide adequate ventilation. Where there is potential for airborne exposures in excess of applicable limits, wear approved respiratory protection with dust/mist cartridge.

Hand protection: Material: Impervious gloves

Eye protection: Wear safety glasses or coverall chemical splash goggles. Additionally wear a face shield where the possibility exists for face contact due to splashing, spraying or airborne contact with this material.

Skin and body protection: Where there is potential for skin contact, have available and wear as appropriate, impervious gloves, apron, pants, jacket, hood and boots.

EXPOSURE GUIDELINES:

EXPOSURE LIMIT VALUES

Potassium monopersulfate compound				
AEL *	(DUPONT)	1 mg/m ³	8 & 12 hr. TWA	Total dust
Dipotassiumperoxodisulphate				
TLV	(ACGIH)	0.1 mg/m ³	TWA as persulfate	
Pentapotassium bis(peroxymonosulphate) bis(sulphate)				
AEL *	(DUPONT)	1 mg/m ³	8 & 12 hr. TWA	Total dust
Dipotassiumperoxodisulphate				
TLV	(ACGIH)	0.1 mg/m ³	TWA as persulfate	

* AEL is DuPont's Acceptable Exposure Limit. Where governmentally imposed occupational exposure limits which are lower than the AEL are in effect, such limits shall take precedence.

9. Physical & Chemical Properties

FORM: Granular

ODOUR: Chlorine

pH: 3.5-4 (1% solution in water)

% VOLATILE: <1%

SPECIFIC GRAVITY: 1.1 to 1.4

WATER SOLUBILITY: at 20°C (68°F) 25 g 100 cc water

10. Chemical Stability & Reactivity Information

STABILITY: Stable under recommended storage conditions.

CONDITIONS TO AVOID: Exposure to moisture. Avoid extreme heat.

INCOMPATIBILITY: Halogenated compounds Heavy metal salts

HAZARDOUS DECOMPOSITION PRODUCTS: Decomposition can cause large release of heat, Oxygen, Carbon dioxide (CO²), Chlorine

HAZARDOUS REACTIONS: Polymerization will not occur.

11. Toxicological Information

Pentapotassium bis(peroxymonosulphate) bis(sulphate)

Dermal LD50 :	> 11,000 mg/kg, rabbit
Oral LD50 :	200 - 2,000 mg/kg, rat Gastrointestinal ulceration Internal bleeding
Inhalation 4 h LC50 :	> 5 mg/l,
rat Skin irritation :	Corrosive
Eye irritation :	Corrosive
Skin sensitization :	Patch test on human volunteers did not demonstrate sensitization properties.
Repeated dose toxicity :	Inhalation Eyes, corneal damage, Reversible Oral Stomach, Pathologic changes
Mutagenicity :	Did not cause genetic damage in cultured bacterial cells. Tests on mammalian cell cultures showed mutagenic effects., Evidence suggests this substance does not cause genetic damage in animals.
Teratogenicity :	Animal testing showed effects on embryo-fetal development at levels equal to or above those causing maternal toxicity.

Sodiumdichloro-S-triazinetriene

Dermal LD50 :	> 2,000 mg/kg, rabbit
Oral LD50 :	1,420 mg/kg, rat
Inhalation 4 h LC50 :	0.036 - 0.799 mg/l,
rat	Respiratory tract irritation
Skin irritation :	Species: rabbit irritant
Eye irritation :	Species: rabbit irritant
Skin sensitization :	Species: animals (unspecified species) Not a skin sensitizer. The toxicological data has been taken from products of similar composition.
Repeated dose toxicity :	Oral - drinking water, rat
Carcinogenicity :	Animal testing did not show any carcinogenic effects.
Mutagenicity :	Did not cause genetic damage in cultured bacterial cells. Did not cause genetic damage in cultured mammalian cells. Did not cause genetic damage in animals., Information given is based on data obtained from similar product.
Reproductive toxicity :	Evidence suggests the substance is not a reproductive toxin in

animals.
Teratogenicity : Evidence suggests the substance is not a developmental toxin in animals.

Dipotassium peroxodisulphate

Dermal LD50 : > 10,000 mg/kg, rabbit
Oral LD50 : 1,100 mg/kg, rat
Oral LD50 : 802 mg/kg, rat
Inhalation : Animals (unspecified species)
Skin irritation : Irritant
Eye irritation : Irritant
Skin sensitization : Causes sensitization.
Mutagenicity : Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

12. Ecological Information

Aquatic Toxicity

Pentapotassium bis(peroxymonosulphate) bis(sulphate)
96 h LC50 : Oncorhynchus mykiss (rainbow trout) 53 mg/l
72 h ErC50 : Algae > 1 mg/l
48 h EC50 : Daphnia 3.5
mg/l Sodium dichloro-S-triazinetrione
96 h LC50 : Lepomis macrochirus (Bluegill sunfish) 0.43 mg/l
48 h EC50 : Daphnia magna (Water flea) 0.11 - 0.28
mg/l Dipotassium peroxodisulphate
48 h LC50 : Daphnia magna (Water flea) 92 mg/l

13. Disposal Considerations

Waste Disposal : Treatment, storage, transportation, and disposal must be in accordance with applicable federal, state/provincial, and local regulations.

Environmental Hazards : If recycling is not practicable, dispose of in compliance with local regulations.

14. Transport Information

TDG UN-Number : 1479
Proper shipping name : Oxidizing solid, n.o.s. (Sodium Dichloro-s-triazinetrione)
Class : 5.1
Packaging group : III
Labelling No. : 5.1

DOT UN-Number : 1479
Proper shipping name : Oxidizing solid, n.o.s. (Sodium Dichloro-s-triazinetrione)
Class : 5.1

Packaging group : III
Labelling No. : 5.1

IATA_C UN-Number : 1479
Proper shipping name : Oxidizing solid, n.o.s. (Sodium Dichloro-s-triazinetrione)
Class : 5.1
Packaging group : III
Labelling No. : 5.1

IMDG UN-Number : 1479
Proper shipping name : Oxidizing solid, n.o.s. (Sodium Dichloro-s-triazinetrione)
Class : 5.1
Packaging group : III
Labelling No. : 5.1

15. Regulatory Information

TSCA Status : Listed.
SARA 313 Regulated Chemical(s): SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Title III hazard classification: Acute Health Hazard: Yes
Chronic Health Hazard: No
Fire: No
Reactivity/Physical hazard: No
Pressure: No

California Prop. 65 : Chemicals known to the State of California to cause cancer, birth defects or any other harm: none known

PA Right to Know Regulated Chemical(s): Substances on the Pennsylvania Hazardous Substances List present at a concentration of 1% or more (0.01% for Special Hazardous Substances): Troclosen sodium

NJ Right to Know Regulated Chemical(s): Substances on the New Jersey Workplace Hazardous Substance List present at a concentration of 1% or more (0.1% for substances identified as carcinogens, mutagens or teratogens): Troclosen sodium

16. Other Information

		HMIS
Health	:	3
Flammability	:	0
Reactivity/ Physical Hazard	:	2
PPE	:	Personal Protection rating supplied by user depending on use conditions.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not considered a warranty or quality specification. The information relates to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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).

Disclaimer

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Prepared by

Backyard Brands, 1-866-875-0012

1. Product and Company Identification

Product Name	Mineraluxe™ Cube
Product use	Cleaning agent for hot tubs.
Supplier	Mineraluxe c/o Backyard Brands Inc. BACKYARD BRANDS, INC • 401 S. Enterprise Blvd. Lebanon, IN 46052 USA • 1-866-875-0012
	24 HR. EMERGENCY TELEPHONE NUMBERS Poison Control Center (Medical): (877) 800 - 5553 CANUTEC (Canadian Transportation): (613) 996 - 6666 CHEMTREC (US Transportation): (800) 424 - 9300

2. Hazards Identification

EMERGENCY OVERVIEW

PHYSICAL APPEARANCE: White cube with green flecks

IMMEDIATE CONCERNS: CORROSIVE. Irritating to respiratory system. Keep locked up and out of the reach of children. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

CLASSIFICATION: Corrosive.

PHYSICAL APPEARANCE:

HUMAN HEALTH HAZARDS: Causes burns. Irritating to respiratory system.

PHYSICAL/CHEMICAL HAZARDS: Not classified as dangerous.

ENVIRONMENTAL HAZARDS: Not classified as dangerous.

OTHER INFORMATION: Keep locked up and out of the reach of children. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

3. Composition / Information on Ingredients

Ingredient(s)	CAS #	Percent
Sodium carbonate	497-19-8	20-50%
Disodium metasilicate	6834-92-0	10-25%
Aluminium potassium bis(sulphates) dodecahydrate	7784-24-9	10-20%

4. First Aid Measures

EFFECT AND SYMPTOMS:

INHALATION: Corrosive. May cause sore throat and coughing. May cause shortness of breath or lack of breath.

SKIN CONTACT: Corrosive. May cause redness, pain and burns (blisters).

EYE CONTACT: Corrosive. May cause redness and severe pains. Tears.

INGESTION: Corrosive. May cause burning pain in throat and mouth. May cause a feeling of sickness, stomachache, vomiting and diarrhea.

FIRST AID MEASURES:

EYES: If in eyes: Move victim into fresh air. Hold eye(s) open and rinse slowly and gently with lukewarm water for at least 15 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call poison control center or doctor for treatment advice.

SKIN: If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water and soap before product dries up. Consult a poison control center or doctor in case burns or irritation occurs. Wash contaminated clothing before reuse.

INGESTION: If swallowed: Call poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

INHALATION: If inhaled: Move person to fresh air. If person has stopped breathing, give artificial respiration, preferably mouth to mouth. Call poison control center or doctor for treatment advice.

5. Fire Fighting Measures

EXTINGUISHING MEDIA: Carbon dioxide (CO₂). Foam. Dry chemical. Water fog.

SPECIAL EXPOSURE HAZARDS: None known. Non flammable product.

HAZARDOUS THERMAL DECOMPOSITION PRODUCTS: Not applicable.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS: Use adequate respiratory equipment in case of insufficient ventilation.

6. Accidental Release Measures

PERSONAL PRECAUTIONS: Danger of slipping. Clean up spills immediately. Wear shoes with non-slip soles. Avoid contact with spilled and released material. See also section 8. Do not breathe dust.

ENVIRONMENTAL PRECAUTIONS: Avoid release of product into sewers, surface water and/or ground water. Large scale discharge causing a very high pH may impair the biological system in sewage plants.

METHODS FOR CLEANING UP: Collect spilled material in containers. Dispose at an authorized waste collection point. Wash away remainder with plenty of water and soap.

OTHER: Notify authorities if any exposure to the general public or the environment occurs or is likely to occur.

7. Handling and Storage

HANDLING: Handle in accordance with good occupational hygiene and safety practices in well-ventilated areas. Avoid contact with skin and eyes. Wear protective clothing.

STORAGE: Keep in a cool, dry, well-ventilated area (>35°C). Keep away from food, drink and animal feed.

RECOMMENDED PACKAGING: Keep only in the original container.

USE: Use only as directed. Do not mix with other products.

8. Exposure Controls / Personal Protection

ENGINEERING MEASURES: Comply with standard precautionary measures for working with chemicals.

HYGIENIC MEASURES: When using this product, do not eat, drink or smoke.

OCCUPATIONAL EXPOSURE LIMITS: Occupational exposure limits have not been established for this product.

PERSONAL PROTECTIVE EQUIPMENT:

The efficiency of personal protective equipment depends among other things on temperature and degree of ventilation. Always get professional advice for the particular local situation.

BODY PROTECTION: Wear appropriate protective clothing, overalls or suit and similar boots.

Suitable material: PVC. **Indication of permeation breakthrough time:** not known.

RESPIRATORY: Avoid inhaling vapours or dust. In case of insufficient ventilation, wear an approved NIOSH respirator.

HAND PROTECTION: Wear appropriate safety gloves when handling this product. Suitable material: PVC ± 0.5 mm. Indication of permeation breakthrough time: Not known.

EYES PROTECTION: Wear appropriate safety glasses with side shields.

OTHER USE PRECAUTIONS: Facilities storing or utilizing this material should be equipped with an eyewash station.

9. Physical & Chemical Properties

PHYSICAL STATE: Solid

COLOUR: White with green speckles

ODOUR: Light fragrance, spring rain

pH: N/A

SOLUBILITY IN WATER: Soluble

PARTITION COEFFICIENT (n-octanol/water): Not known

FLASH POINT: Not applicable

AUTO IGNITION TEMPERATURE: Not applicable, does not contain combustible substances.

BOILING POINT/BOILING RANGE: Not applicable

EXPLOSION LIMITS (IN AIR): Not applicable

OXIDIZING PROPERTIES: Not applicable. Does not contain oxidizing substances.

DECOMPOSITION TEMPERATURE: Not applicable

VISCOSITY (20°C): Not applicable

VAPOUR PRESSURE (20°C): Not known.

VAPOUR DENSITY (20°C): Not applicable (air=1)

RELATIVE DENSITY (20°C): ±1 g/ml

EVAPORATION RATE: <1 (n-butyl acetate =1)

10. Chemical Stability & Reactivity Information

STABILITY: This product is stable under normal conditions.

CONDITIONS TO AVOID: See section 7.

INCOMPATIBLE MATERIALS: Keep away from acids.

HAZARDOUS DECOMPOSITION: Not known.

PRODUCTS REACTIVITY: No other hazardous reactions known.

11. Toxicological Information

No toxicological research has been carried out on this product.

INHALATION:

ACUTE TOXICITY: Calculated LC₅₀: 5.267 mg/l. Ingredients of unknown toxicity: 50%.

ATE: 1.5 mg/l.

CORROSION/IRRITATION: Corrosive. May cause sore throat and coughing. May cause pulmonary edema. Symptoms of pulmonary edema often manifest after several hours.

MUTAGENICITY: Not classified, due to lack of data.

SKIN CONTACT:

ACUTE TOXICITY: Calculated LD₅₀: 2,446 mg/kg. Ingredients of unknown toxicity: 100%.

ATE: 300 mg/kg.

CORROSION/IRRITATION: Corrosive. May cause redness, pain and burns (blisters).

EYE CONTACT:

CORROSION/IRRITATION: Corrosive. Risk of serious damage to eyes.

INGESTION:

ACUTE TOXICITY: May cause signs of intoxication and reduced consciousness after exposure to high concentrations. May cause feeling of sickness, malaise, shortness of breath and lack of breath. Calculated LD₅₀: 1638 mg/kg. Ingredients of unknown toxicity: 13%. ATE: 500 mg/kg.

CORROSION/IRRITATION: Corrosive. May cause burning pain in throat and mouth. May cause a feeling of sickness, stomachache, vomiting and diarrhea.

MUTAGENICITY: Not classified, due to lack of data.

TOXICOLOGICAL INFORMATION:

Chemical Name	Property		Test Animal	Method
Sodium Silicate	LD50 (oral)	600 mg/kg	Rat	-----
	Skin Irritation	Corrosive	Rabbit	OECD 404

12. Ecological Information

ECOTOXICOLOGICAL INFORMATION: This product may be toxic to fish and aquatic organisms. Keep product from entering waterways and watersheds.

13. Disposal Considerations

DISPOSAL METHOD: Do not put product, spilled product, or filled or partially filled containers into the trash or waste compactor. Containers may be recycled. Treat product residues and non-empty pack as hazardous waste.

PRODUCT DISPOSAL: Dispose of unused, uncontaminated product in accordance with all municipal, provincial or federal regulations.

14. Transport Information

CANADA TRANSPORT OF DANGEROUS GOODS

PROPER SHIPPING NAME: CORROSIVE SOLID, BASIC, INORGANIC, N.O.S. (Sodium silicate).

PRIMARY HAZARD CLASS/DIVISION: 8 (Corrosive)

UN/NA NUMBER: 3262

PACKING GROUP: III



15. Regulatory Information

CANADA

WHMIS CLASS: E–Corrosive

DOMESTIC SUBSTANCE LIST (INVENTORY): Product ingredients are listed on DSL.

COMMENTS: This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and this MSDS contains all the information required by the Controlled Products Regulations.

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).

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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