minēraluxe
ADVANCED HOT TUB WATER CARE

SAFETY DATA SHEET

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-triazinetrione	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
Dipotassium peroxodisulphate				
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
Dipotassium peroxodisulphate				
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 (CO^2), 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 : rat Skin irritation :	> 5 mg/l, 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.

Sodium dichloro-S-triazinetrione

Dermal LD50 :	> 2,000 mg/kg, rabbit
Oral LD50 :	1,420 mg/kg, rat
Inhalation 4 h LC50 : rat	0.036 - 0.799 mg/l,
	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 : cells.	Did not cause genetic damage in cultured bacterial
	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): Troclosene 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): Troclosene 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).

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