



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Product name Spa Oxidizing Shock
CAS # Mixture
Product use Spa water treatment
Manufacturer Natural Chemistry L.P.
40 Richards Ave.
Norwalk, CT 06854 US
Phone: (800) 753-1233
Emergency Phone: CHEMTREC (800) 424-9300

2. Hazards Identification

Emergency overview DANGER -- CORROSIVE
CAUSES EYE BURNS. CAUSES SKIN BURNS.
CAUSES RESPIRATORY TRACT IRRITATION.
OXIDIZER. CONTACT WITH OTHER MATERIAL MAY CAUSE FIRE.
May cause sensitization by inhalation and skin contact.

Potential short term health effects

Routes of exposure Eye, Skin contact, Inhalation, Ingestion.

Eyes Causes chemical burns. May cause blindness.

Skin Causes chemical burns. May cause skin sensitization, an allergic reaction, which becomes evident on re-exposure to this material.

Inhalation Dust extremely irritating to respiratory tract. May cause allergic respiratory tract reaction.

Ingestion Harmful if swallowed. May cause chemical burns to mouth, throat and stomach.

Target organs Eyes. Respiratory system. Skin.

Chronic effects May cause respiratory and/or skin sensitization in sensitive individuals.

Signs and symptoms The product may cause burns to eyes, skin and mucous membranes.

OSHA regulatory status This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

3. Composition/Information on Ingredients

Components	CAS #	Percent
Peroxymonosulfuric acid, monopotassium salt	10058-23-8	30 - 60
Potassium hydrogen sulfate	7646-93-7	10 - 30
Sodium carbonate	497-19-8	10 - 30
Potassium persulfate	7727-21-1	1 - 5

4. First Aid Measures

First aid procedures

Eye contact Immediately flush with cool water. Remove contact lenses, if applicable, and continue flushing for 15 minutes. Obtain medical attention immediately.

Skin contact Brush away excess of dry material. Immediately flush with cool water for 15 minutes. Obtain medical attention if irritation persists.

Inhalation If symptoms develop, move victim to fresh air. If symptoms persist, obtain medical attention. If breathing has stopped, trained personnel should administer CPR immediately.

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. This substance is an oxidizing agent and can supply oxygen to stimulate or accelerate the combustion of organic or other combustible substances.
Extinguishing media	
Suitable extinguishing media	Dry chemical. Foam. Water spray.
Unsuitable extinguishing media	Not available
Protection of firefighters	
Specific hazards arising from the chemical	Container may explode in heat of fire.
Protective equipment and precautions 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 sulfur. Hydrogen sulfide. Oxygen.
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 not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak.
Environmental precautions	Prevent entry into waterways, sewers, basements or confined areas.
Methods for containment	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Stop leak if you can do so without risk.
Methods for cleaning up	Before attempting clean up, refer to hazard data given above. Use broom or dry vacuum to collect material for proper disposal without raising dust. Rinse area with water. Prevent large spills from entering sewers or waterways. Contact emergency services and supplier for advice.

7. Handling and Storage

Handling	Use good industrial hygiene practices in handling this material. Do not get in eyes, on skin or on clothing. Keep from contact with clothing and other combustible materials. Wash thoroughly after handling.
Storage	Keep out of reach of children. Store in a cool, dry, well-ventilated place. Store in a closed container away from incompatible materials. Do not store with chlorine, bromine or liquid acids. Keep away from heat, open flames or other sources of ignition.

8. Exposure Controls/Personal Protection

Occupational exposure limits		
US. ACGIH Threshold Limit Values		
Components	Type	Value
Potassium persulfate (CAS 7727-21-1)	TWA	0.1 mg/m3
Exposure limits	Chemicals listed in section 3 that are not listed here do not have established limit values for ACGIH.	
Engineering controls	Use only under good ventilation conditions or with respiratory protection.	
Personal protective equipment		
Eye / face protection	Chemical splash goggles.	
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.	

9. Physical and Chemical Properties

Appearance	Granular
Color	White
Form	Solid.
Odor	Odorless
Odor threshold	Not available.
Physical state	Solid.
pH	Not available.
Freezing point	Not available.
Boiling point	Not available.
Pour point	Not available.
Evaporation rate	Not available
Flash point	Not available.
Auto-ignition temperature	Not available.
Flammability limits in air, upper, % by volume	Not available.
Flammability limits in air, lower, % by volume	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Specific gravity	Not available.
Partition coefficient (n-octanol/water)	Not available.
Solubility (water)	Not available.
Relative density	Not available.
Viscosity	Not available.
VOC	Not available
Percent volatile	Not available

10. Stability and Reactivity

Reactivity	This product reacts with acids. and halogenated compounds
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Chemical stability	Stable under recommended storage conditions.
Conditions to avoid	Heat, flames and sparks. Do not mix with other chemicals.
Incompatible materials	Acids. Halogenated compounds. Metals.
Hazardous decomposition products	May include and are not limited to: Oxides of carbon. Oxides of sulfur. Hydrogen sulphide. Oxygen.

11. Toxicological Information

Toxicological data

Components	Species	Test Results
Peroxymonosulfuric acid, monopotassium salt (CAS 10058-23-8)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 11000 mg/kg
<i>Inhalation</i>		
LC50	Rat	> 5 mg/kg
<i>Oral</i>		
LD50	Rat	2000 mg/kg

Components	Species	Test Results
Potassium hydrogen sulfate (CAS 7646-93-7)		
Acute		
<i>Dermal</i>		
LD50	Not available	
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<i>Inhalation</i>		
LC50	Not available	
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<i>Oral</i>		
LD50	Rat	2340 mg/kg
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Potassium persulfate (CAS 7727-21-1)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 11000 mg/kg
<hr/>		
<i>Inhalation</i>		
LC50	Rat	> 5 mg/L
<hr/>		
<i>Oral</i>		
LD50	Rat	1130 mg/kg
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Sodium carbonate (CAS 497-19-8)		
Acute		
<i>Dermal</i>		
LD50	Not available	
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<i>Inhalation</i>		
LC50	Guinea pig	400 mg/m3
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		0.8 mg/l, 2 Hours
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	Mouse	1.2 mg/l, 2 Hours
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	Rat	2.3 mg/l, 2 Hours
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<i>Oral</i>		
LD50	Rat	4090 mg/kg
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Effects of acute exposure		
Eye contact	Causes chemical burns. May cause blindness.	
Skin contact	Causes chemical burns. May cause skin sensitization, an allergic reaction, which becomes evident on re-exposure to this material.	
Inhalation	Dust extremely irritating to respiratory tract. May cause allergic respiratory tract reaction.	
Ingestion	Harmful if swallowed. May cause chemical burns to mouth, throat and stomach.	
Sensitization	May cause sensitization by inhalation or skin contact.	
Chronic effects	Non-hazardous by WHMIS/OSHA criteria.	
Carcinogenicity	Non-hazardous by WHMIS/OSHA criteria.	
Mutagenicity	Non-hazardous by WHMIS/OSHA criteria.	
Reproductive effects	Non-hazardous by WHMIS/OSHA criteria.	
Teratogenicity	Non-hazardous by WHMIS/OSHA criteria.	
Name of Toxicologically Synergistic Products	Not available.	

12. Ecological Information

Ecotoxicity Components of this product have been identified as having potential environmental concerns.

Ecotoxicological data**Components**

Sodium carbonate (CAS 497-19-8)

Components		Species	Test Results
Crustacea	EC50	Daphnia	265 mg/L, 48 Hours
Aquatic			
Crustacea	EC50	Water flea (Ceriodaphnia dubia)	156.6 - 298.9 mg/l, 48 hours
Fish	LC50	Bluegill (Lepomis macrochirus)	300 mg/l, 96 hours
Persistence and 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.		

13. Disposal Considerations

Disposal instructions	Review federal, state/provincial, and local government requirements prior to disposal.
Waste from residues / unused products	Not available
Contaminated packaging	Not available

14. Transport Information**U.S. Department of Transportation (DOT)****Basic shipping requirements:**

UN number	UN3260
Proper shipping name	Corrosive solid, acidic, inorganic, n.o.s. (Peroxymonosulfuric acid, monopotassium salt)
Hazard class	8
Packing group	II
Special provisions	IB8, IP2, IP4, T3, TP33
Packaging exceptions	154
Packaging non bulk	212
Packaging bulk	240

Transportation of Dangerous Goods (TDG - Canada)**Basic shipping requirements:**

UN number	UN3260
Proper shipping name	CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. (Peroxymonosulfuric acid, monopotassium salt)
Hazard class	8
Packing group	II
Special provisions	16

DOT



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: Threshold limits

Potassium hydrogen sulfate (CAS 7646-93-7)	1 %
Potassium persulfate (CAS 7727-21-1)	0.1 %
Sodium carbonate (CAS 497-19-8)	1 %

WHMIS status Controlled

WHMIS classification Class C - Oxidizing Material, Class D - Division 2A, 2B, Class E - Corrosive Material

WHMIS labeling



Occupational Safety and Health Administration (OSHA)

29 CFR 1910.1200 hazardous chemical Yes

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

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

CERCLA (Superfund) reportable quantity

None

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

State regulations

This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Not listed.

US - New Jersey RTK - Substances: Listed substance

Potassium hydrogen sulfate (CAS 7646-93-7)	Listed.
Potassium persulfate (CAS 7727-21-1)	Listed.

US - Texas Effects Screening Levels: Listed substance

Potassium persulfate (CAS 7727-21-1)	Listed.
Sodium carbonate (CAS 497-19-8)	Listed.

US. Massachusetts RTK - Substance List

Potassium persulfate (CAS 7727-21-1) Listed.

US. Pennsylvania RTK - Hazardous Substances

Potassium persulfate (CAS 7727-21-1) Listed.

US. Rhode Island RTK

Not regulated.

Inventory status

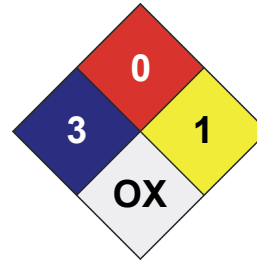
Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

16. Other Information

LEGEND	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

HEALTH	* 3
FLAMMABILITY	0
PHYSICAL HAZARD	1
PERSONAL PROTECTION	X

**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

Dell Tech Laboratories, Ltd. Phone: (519) 858-5021

Other information

For an updated MSDS, please contact the supplier/manufacturer listed on the first page of the document.

This MSDS conforms to the ANSI Z400.1/Z129.1-2010 Standard.