MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

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

2. Hazards Identification

Emergency overview	DANGER -- CORROSIVE OXIDIZER. CONTACT WITH OTHER MATERIAL MAY CAUSE FIRE.
Potential short term health effects	
Routes of exposure	Eye, Skin contact, Inhalation, Ingestion.
Eyes	Causes chemical burns. May cause blindness.
Skin	Causes chemical burns.
Inhalation	Dust extremely irritating to respiratory tract.
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.
Potential environmental effects	Not available

3. Composition / Information on Ingredients

Ingredient(s)	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
Carbonic acid, magnesium salt (1:1)	546-93-0	1 - 5
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	Move victim to fresh air. If symptoms persist, obtain medical attention.
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	carbon dioxide (CO2)
Protection of firefighters	
Specific hazards arising from the chemical	Container may explode in heat of fire.
Protective equipment 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 sulphur. Hydrogen sulphide. 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

Exposure limits

Ingredient(s)	Exposure Limits
Carbonic acid, magnesium salt (1:1)	**ACGIH-TLV** Not established **OSHA-PEL** TWA: 15 mg/m3
Peroxymonosulfuric acid, monopotassium salt	**ACGIH-TLV** TWA: 5 mg/m3 **OSHA-PEL** Not established
Potassium hydrogen sulfate	**ACGIH-TLV** TWA: 10 mg/m3 **OSHA-PEL** TWA: 10 mg/m3
Potassium persulfate	**ACGIH-TLV** TWA: 0.1 mg/m3 **OSHA-PEL** Not established
Sodium carbonate	**ACGIH-TLV** Not established **OSHA-PEL** Not established

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.
General hygiene considerations	Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. Wash hands before breaks and immediately after handling the product.

9. Physical and Chemical Properties

Appearance	Granular
Color	White
Form	Solid.
Odor	Odorless
Odor threshold	Not available
Physical state	Solid
pH	Not available
Melting point	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, lower, % by volume	Not applicable

Flammability limits in air, upper, % by volume	Not applicable
Vapor pressure	Not available
Vapor density	Not available
Specific gravity	Not available
Octanol/water coefficient	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 sulphur. Hydrogen sulphide. Oxygen.

11. Toxicological Information

Component analysis - LC50

Ingredient(s)	LC50
Carbonic acid, magnesium salt (1:1)	Not available
Peroxymonosulfuric acid, monopotassium salt	> 5 mg/kg rat
Potassium hydrogen sulfate	Not available
Potassium persulfate	> 5 Mg/L rat
Sodium carbonate	400 mg/m3 guinea pig

Component analysis - Oral LD50

Ingredient(s)	LD50
Carbonic acid, magnesium salt (1:1)	Not available
Peroxymonosulfuric acid, monopotassium salt	2000 mg/kg rat
Potassium hydrogen sulfate	2340 mg/kg rat
Potassium persulfate	802 mg/kg rat
Sodium carbonate	4090 mg/kg rat

Effects of acute exposure

Eye	Causes chemical burns. May cause blindness.
Skin	Causes chemical burns.
Inhalation	Dust extremely irritating to respiratory tract.
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.

Ecotoxicity - Freshwater Algae - Acute Toxicity Data

Sodium carbonate	497-19-8	120 Hr EC50 Nitzschia: 242 mg/L

Ecotoxicity - Freshwater Fish - Acute Toxicity Data

Sodium carbonate	497-19-8	96 Hr LC50 Lepomis macrochirus: 300 mg/L [static]; 96 Hr LC50 Pimephales promelas: 310 - 1220 mg/L [static]

Ecotoxicity - Water Flea - Acute Toxicity Data

Sodium carbonate	497-19-8	48 Hr EC50 Daphnia magna: 265 mg/L

Persistence / 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

Other adverse effects 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:

Proper shipping name Consumer commodity

Hazard class ORM-D

Additional information:

Packaging exceptions applicable to containers <1kg

Transportation of Dangerous Goods (TDG - Canada)

Basic shipping requirements:

Proper shipping name Consumer commodity

Hazard class Not applicable

Additional information:

Packaging exceptions applicable to containers <1kg

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 List

Potassium hydrogen sulfate	7646-93-7	1 %
Potassium persulfate	7727-21-1	0.1 %
Sodium carbonate	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.

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

Section 302 extremely hazardous substance No

Section 311 hazardous chemical Yes

Clean Air Act (CAA) Not available

Clean Water Act (CWA) Not available

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

U.S. - Massachusetts - Right To Know List

Carbonic acid, magnesium salt (1:1)	546-93-0	Present (dust, exempt when encapsulated or if particulates are not present and cannot be substantially generated through use of the product)
Potassium persulfate	7727-21-1	Present

U.S. - Minnesota - Hazardous Substance List

Carbonic acid, magnesium salt (1:1)	546-93-0	Present (dust)

U.S. - New Jersey - Right to Know Hazardous Substance List

Carbonic acid, magnesium salt (1:1)	546-93-0	sn 4018
Potassium hydrogen sulfate	7646-93-7	sn 1569
Potassium persulfate	7727-21-1	sn 1580

U.S. - Pennsylvania - RTK (Right to Know) List

Potassium persulfate	7727-21-1	Present

U.S. - Rhode Island - Hazardous Substance List

Carbonic acid, magnesium salt (1:1)	546-93-0	Toxic
Potassium persulfate	7727-21-1	Flammable

Inventory name

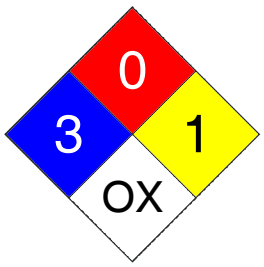
Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

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

16. Other Information

LEGEND HMIS/NFPA	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

Health	*	3
Flammability		0
Physical Hazard		1
Personal Protection		B



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.

Issue date 16-Jun-2011

Effective date 01-Jul-2011

Expiry date 01-Jul-2014

Prepared by Dell Tech Laboratories Ltd. (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.