



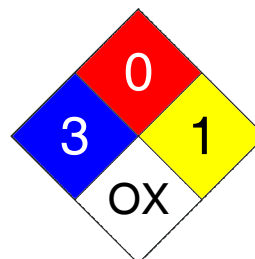
MATERIAL SAFETY DATA SHEET

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

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

Health	/ 3
Flammability	0
Physical Hazard	1
Personal Protection	B



2. Hazards Identification

Emergency overview DANGER -- CORROSIVE
Oxidizing material.

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 Prolonged or repeated exposure can cause drying, defatting and dermatitis.

Signs and symptoms Symptoms may include redness, edema, drying, defatting and cracking of the skin. The product causes burns of eyes, skin and mucous membranes.

3. Composition / Information on Ingredients

Ingredient(s)	CAS #	Percent
Peroxymonosulfuric acid, monopotassium salt	10058-23-8	20 - 40
Potassium persulfate	7727-21-1	2.5 - 10
Sodium carbonate	497-19-8	10 - 20
Sulfuric acid, monopotassium salt	7646-93-7	10 - 20
Carbonic acid, magnesium salt (1:1)	546-93-0	1 - 2.5

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. Rinse mouth with water, then drink one or two glasses of water. Obtain medical attention. Never give anything by mouth if victim is unconscious, or is convulsing.
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 OSHA criteria.
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.
Methods for containment	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Prevent entry into waterways, sewers, basements or confined areas.
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 this material in your eyes, on your skin, or on your clothing.
Storage	Keep out of reach of children. Store in a closed container away from incompatible materials. 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 persulfate	ACGIH-TLV TWA: 0.1 mg/m3 OSHA-PEL Not established
Sodium carbonate	ACGIH-TLV Not established OSHA-PEL Not established
Sulfuric acid, monopotassium salt	ACGIH-TLV TWA: 10 mg/m3 OSHA-PEL TWA: 10 mg/m3

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 & 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
Flash point	Not available
Evaporation rate	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
Auto-ignition temperature	Not available

10. Chemical Stability & Reactivity Information

Chemical stability	Stable under recommended storage conditions.
Conditions to avoid	Do not mix with other chemicals. Heat, flames and sparks.
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.
Possibility of hazardous reactions	Hazardous polymerization does not occur.

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 persulfate	> 5 Mg/L rat
Sodium carbonate	400 mg/m3 guinea pig
Sulfuric acid, monopotassium salt	Not available

Component analysis - Oral LD50

Ingredient(s)	LD50
Carbonic acid, magnesium salt (1:1)	Not available
Peroxymonosulfuric acid, monopotassium salt	2000 mg/kg rat
Potassium persulfate	802 mg/kg rat
Sodium carbonate	4090 mg/kg rat
Sulfuric acid, monopotassium salt	2340 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	Non-hazardous by OSHA criteria.
Chronic effects	Non-hazardous by OSHA criteria.
Carcinogenicity	Non-hazardous by OSHA criteria.
Mutagenicity	Non-hazardous by OSHA criteria.
Reproductive effects	Non-hazardous by OSHA criteria.
Teratogenicity	Non-hazardous by OSHA criteria.

12. Ecological Information

Ecotoxicity	Components of this product have been identified as having potential environmental concerns.
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Ecotoxicity - Freshwater Algae Data

Sodium carbonate	497-19-8	120 Hr EC50 Nitzschia: 242 mg/L
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Ecotoxicity - Freshwater Fish Species Data

Sodium carbonate	497-19-8	96 Hr LC50 Lepomis macrochirus: 300 mg/L [static]
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Ecotoxicity - Water Flea Data

Sodium carbonate	497-19-8	48 Hr EC50 Daphnia magna: 265 mg/L
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Environmental effects	Not available
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Aquatic toxicity	Not available
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Persistence / degradability	Not available
Bioaccumulation / accumulation	Not available
Partition coefficient	Not available
Mobility in environmental media	Not available
Chemical fate information	Not available

13. Disposal Considerations

Waste codes	Not available
Disposal instructions	Waste must be disposed of in accordance with federal, state and local environmental control regulations.
Waste from residues / unused products	Not available
Contaminated packaging	Not available

14. Transport Information

U.S. Department of Transportation (DOT)

Not regulated as dangerous goods - Consumer Commodity ORM-D (applicable to containers 2.2 lbs or less)

15. Regulatory Information

US Federal regulations	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. CERCLA/SARA Hazardous Substances - Not applicable.
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Occupational Safety and Health Administration (OSHA)

29 CFR 1910.1200 hazardous chemical Yes

CERCLA (Superfund) reportable quantity

None

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
Immediate Hazard - Yes
Delayed Hazard - No
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
Safe Drinking Water Act (SDWA)	Not available
Drug Enforcement Agency (DEA)	Not available
Food and Drug Administration (FDA)	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)
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U.S. - New Jersey - Right to Know Hazardous Substance List

Potassium persulfate	7727-21-1	sn 1580
Sulfuric acid, monopotassium salt	7646-93-7	sn 1569

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

Potassium persulfate	7727-21-1	Present
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U.S. - Rhode Island - Hazardous Substance List

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

Inventory status

Country(s) or region	Inventory name	On inventory (yes/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

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

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