



# Safety Data Sheet (SDS) BIODEX LABORATOIRES, LLC

## Sparkle Shock Non-Chlorine Shock

SDS Number: 234

Revision Date: 5/9/2015

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### 1 PRODUCT AND COMPANY IDENTIFICATION

#### Manufacturer

BIODEX LABORATOIRES, LLC  
4212 W. INNOVATION DR.  
PHOENIX, AZ 85086

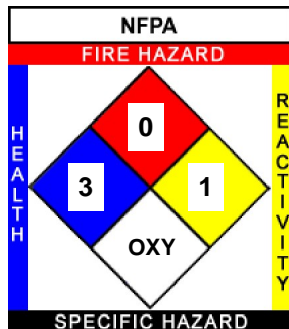
**Contact:** BIODEX LABORATOIRES, LLC  
**Phone:** 800-617-3477 // 623-582-2400  
**Web:** www.biodex.com

**Product Name:** Sparkle Shock Non-Chlorine Shock  
**Revision Date:** 5/9/2015  
**Version:** 1  
**SDS Number:** 234  
**CAS Number:** MIXTURE  
**Chemical Family:** Mineral acid, organic acid solution  
**Chemical Formula:** \*\*PROPRIETARY\*\*  
**Synonyms:** Non-Chlorine Oxidizing Shock Treatment  
**Product Use:** Oxidizing Shock Product Used to Destroy Organic Contamination and Reduce Chloramine Odors in Pot  
**Emergency Phone:** (800) 424-9300 (CHEMTREC)

### 2 HAZARDS IDENTIFICATION

NFPA:  
HMIS III:

Health = 3, Fire = 0, Reactivity = 1  
H\*3/F0/PH1



HMIS III	
HEALTH	3
FLAMMABILITY	0
PHYSICAL HAZARDS	1
PERSONAL PROTECTION F   Safety Glasses, Gloves, Apron, Dust Respirator	

PERSONAL PROTECTION INDEX			
A		G	
B		H	
C		I	
D		J	
E		K	
F		X	Consult your supervisor or S.O.P. for "SPECIAL" handling directions
A	n	o	p
q	r	s	t
u	w	y	z
Additional information			

GHS Signal Word:  
DANGER

GHS Hazard Pictograms:





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GHS Classifications:

- Physical, Oxidizing Solids, 3
- Health, Skin corrosion/irritation, 1 B
- Health, Respiratory or skin sensitization, 1 Skin
- Health, Serious Eye Damage/Eye Irritation, 1
- Health, Respiratory or skin sensitization, 1 Respiratory
- Health, Specific target organ toxicity - Single exposure, 3

GHS Phrases:

- H272 - May intensify fire; oxidizer
- H314 - Causes severe skin burns and eye damage
- H317 - May cause an allergic skin reaction
- H318 - Causes serious eye damage
- H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
- H335 - May cause respiratory irritation

GHS Precautionary Statements:

- P210 - Keep away from heat/sparks/open flames/hot surfaces. No smoking
- P220 - Keep/Store away from clothing/combustible materials.
- P221 - Take any precaution to avoid mixing with combustibles.
- P260 - Do not breathe dust/fume/gas/mist/vapors/spray.
- P262 - Do not get in eyes, on skin, or on clothing.
- P264 - Wash skin thoroughly after handling.
- P271 - Use only outdoors or in a well-ventilated area.
- P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- P285 - In case of inadequate ventilation wear respiratory protection.
- P301+330+331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- P303+361+353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P304+340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P305+351+338 - IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
- P321 - Specific treatment (see supplementary first aid instructions on this label).
- P333+313 - If skin irritation or a rash occurs: Get medical advice/attention.
- P342+311 - If experiencing respiratory symptoms: Call a POISON CENTER or a doctor/physician.
- P363 - Wash contaminated clothing before reuse.
- P370+378 - In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
- P403+233 - Store in a well ventilated place. Keep container tightly closed.
- P405 - Store locked up.
- P501 - Dispose of contents/container to an approved waste disposal plant.



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### 3 COMPOSITION/INFORMATION ON INGREDIENTS

#### Ingredients:

Cas #	Percentage	Chemical Name
N/A	43%	Trade Secret*
N/A	22-32%	Proprietary, non-hazardous, non-regulated
7646-93-7	15-25%	Potassium hydrogen sulfate
7727-21-1	<5%	Peroxydisulfuric acid ([ $(\text{HO})\text{S}(\text{O})_2$ ] $2\text{O}_2$ ), dipotassium salt
546-93-0	<5%	Carbonic acid, magnesium salt (1:1)

\*The specific chemical identities of the ingredients of this mixture labeled as "Trade Secret" are considered to be proprietary and are withheld in accordance with the provisions of 29CFR1910.1200 Sect. (i) Trade Secrets.

### 4 FIRST AID MEASURES

- Inhalation:** Give oxygen or artificial respiration if needed. If symptoms develop, move victim to fresh air. If symptoms persist, obtain medical attention.
- Skin Contact:** Take off contaminated clothing and shoes immediately. Wipe/brush off as much chemical as possible from skin BEFORE flushing skin with water (water will react exothermically with large amounts of residual dry chemical, potentially causing more severe burns). Promptly flush skin with water for at least 15 minutes to ensure all chemical is removed. If reddening and/or a rash develops and/or persists, obtain medical attention.
- Eye Contact:** Flush with large amounts of water for at least 15 minutes, lifting upper and lower lids occasionally. Get immediate medical attention. Continue rinsing eyes during transport to hospital.
- Ingestion:** Rinse mouth with water. Do NOT induce vomiting unless instructed to do so. Give 3-4 glasses of water or milk to dilute stomach contents. Never give anything by mouth to an unconscious person. Get immediate medical attention. Show this Safety Data Sheet to the attending physician.

#### Most important symptoms and effects, both acute and delayed:

The most important known symptoms and effects are described in the labelling (see Section 2) and/or Section 11. The primary hazard of this product is the corrosivity on the eyes, skin and mucous membranes. Direct eye contact is likely to cause corneal damage, especially if not washed immediately after exposure. Careful ophthalmologic evaluation is recommended. The possibility of local corticosteroid therapy should be considered. If this product is ingested, it may be advisable to insert a nasogastric or orogastric tube to relieve or prevent increased pressure that may result from the rapid evolution of Oxygen gas upon decomposition. Because of the likely corrosive effects on the gastrointestinal tract after ingestion, evacuating stomach contents via emesis or gastric lavage should be avoided. Delayed pulmonary edema can occur several hours after exposure.

#### Indication of any immediate medical attention and special treatment needed:

No data available.

### 5 FIRE FIGHTING MEASURES

- Flammability:** No data available
- Flash Point:** DNA
- Flash Point Method:** DNA
- Burning Rate:** No data available
- Autoignition Temp:** No data available
- LEL:** DNA



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UEL: DNA

### Extinguishing Media:

Alcohol-Resistant Foam  
Dry Chemical  
Dry Sand

### Special Hazards Arising From the Substance or Mixture:

Carbon Oxides  
Magnesium Oxides  
Potassium Oxides  
Sulfur Oxides

### Advice for Firefighters:

Firefighters should wear full-face, positive-pressure respirators.

### Further Information:

If incinerated, may release toxic fumes.

This product contains oxidizers and will release Oxygen gas upon thermal decomposition, which will intensify fires. Use extreme caution.

Use water spray to cool unopened containers. Wet or damp material may start to decompose and release heat causing any nearby combustibles to catch fire. If containers begin to discolor or vent violently, emergency responders should evacuate area.

Fight major fires involving large quantities of this product remotely due to the risk of explosion.

Large quantities of wet or damp product may react explosively with combustible materials. If fighting fires that involve both materials, use extreme caution.

See Section 7 for more information on safe handling.

See Section 8 for more information on personal protection equipment.

See Section 13 for disposal information.

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## ACCIDENTAL RELEASE MEASURES

### Personal Precautions, Protective Equipment and Emergency Procedures:

Use personal protective equipment, including dust respirator.

Avoid dust formation.

Avoid breathing dust.

Keep from contacting skin or eyes.

Avoid breathing vapors, mist or gas.

Ensure adequate ventilation.

Evacuate personnel to safe areas.

### Environmental Precautions:

Prevent further release (leakage/spillage) if safe to do so.

Do not allow product to enter drains.

Do not allow to drain to environment.

### Methods and Materials for Containments and Cleaning Up:

Pick up and arrange disposal without creating dust.

Sweep up, shovel or collect spillage with an electrically protected vacuum cleaner.

If product was previously diluted in water and in aqueous phase, absorb product with liquid-binding, non-combustible material (sand, diatomite, non-aidic clay) Do NOT use sawdust.

Place contaminated material into suitable, closed containers for disposal.

Combustible materials exposed to the product should be immediately submerged in or rinsed with large amounts of water to



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ensure that all product is removed. Residual product that is allowed to dry can concentrate on organic materials such as paper, fabrics, cotton, leather, wood or other materials can cause the material to spontaneously ignite and result in a fire. Dispose of contaminated material according to Section 13.

Oxidizer wastes are not to be mixed with any other wastes, including other oxidizer wastes!

After spillage has been collected, area may be flushed with water or wet-brushed.

Ensure adequate ventilation.

### Reference to Other Sections:

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for information on proper disposal.

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### HANDLING AND STORAGE

#### Handling Precautions:

Wear protective clothing. Avoid cotton, wool or leather.

Avoid breathing dusts, vapors or mist.

Avoid formation of dusts.

Avoid contact with eyes, skin, or clothing.

Use approved, original containers only.

Keep containers closed when not in use.

Do not expose containers to open flame, excessive heat, or direct sunlight.

Avoid contamination of material. Contamination may cause decomposition and generation of Oxygen gas which could result in high pressures and possibly rupture containers.

Do not puncture or drop containers.

Handle with care and avoid spillage on the floor.

Keep material out of reach of children.

Keep material away from incompatible materials.

Wash thoroughly after handling.

Ensure adequate ventilation.

#### Storage Requirements:

Keep away from heat, sparks and flames.

Do not store in direct sunlight.

Do not store at temperature exceeding 60 °C/140 °F.

Store in a dry place.

Store away from strong acids, strong bases, strong reducing agents, strong oxidizing agents, Zinc, all powdered metals, Iron, Copper, Nickel, Brass, all metal salts, metal oxides, organic material (including dirt), Cyanides, Alcohols, Phosphorous, Anhydrides, Halogens, water and combustible material (wood, paper, oils, fabrics, etc.).

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### EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Engineering Controls:

All ventilation should be designed in accordance with OSHA standard (29 CFR 1910.94). Use local exhaust at filling zones and where leakage and dust formation is probable. Use mechanical (general) ventilation for storage areas. Use appropriate ventilation as required to keep Exposure Limits in Air below TLV & PEL limits.

#### Personal Protective Equip:

Eye/face protection:

When using material use safety glasses, gloves, apron and dust respirator according to HMIS PP, F. All safety equipment should be tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

Skin protection:

Handle with gloves made from Neoprene, Nitrile, PVC or Buna rubber. Gloves must be



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inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact. Dispose of contaminated gloves according to applicable laws and laboratory practices.

### Body Protection:

Chemically resistant gloves, safety glasses and apron are recommended. Type of protective equipment should be selected based on concentration amount and conditions of use of this material.

### Respiratory protection:

Use of a dust respirator is recommended. Full-face vapor respirator may be required as backup to engineering controls when proper engineering controls are not in place to keep TLV and PEL limits below defined thresholds. Respiratory protection must comply with 29 CFR 1910.134.

### Control of environmental exposure:

Prevent leakage or spillage if safe to do so. Do not let material enter drains.

### Components with workplace control parameters:

Component(s): Peroxydisulfuric acid  $[(HO)S(O)_2O_2]$ , dipotassium salt; Carbonic acid, magnesium salt (1:1)

CAS No(s): 7727-21-1; 546-93-0

USA ACGIH (TWA/TLV): 0.1 mg/m<sup>3</sup>

USA OSHA Occupational Exposure Limits Table Z-1 Limits for Air Contaminants (TWA): 15 mg/m<sup>3</sup> (Total Dust)

USA NIOSH Recommended Exposure Limits (TWA): 5 mg/m<sup>3</sup> (Respirable Fraction)

USA NIOSH Recommended Exposure Limits (TWA): 10 mg/m<sup>3</sup> (Total Dust)

### Biological occupational exposure limits:

Contains no substances with biological occupational exposure limits values.

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## PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	White, free-flowing granules	<b>Odor:</b>	Characteristic
<b>Physical State:</b>	Solid	<b>Molecular Formula:</b>	MIXTURE
<b>Odor Threshold:</b>	Not determined	<b>Solubility:</b>	25.6%
<b>Particle Size:</b>	Not determined	<b>Softening Point:</b>	Not determined
<b>Spec Grav./Density:</b>	1.100 - 1.400 g/cm <sup>3</sup>	<b>Percent Volatile:</b>	Not determined
<b>Viscosity:</b>	Not determined	<b>Heat Value:</b>	Not determined
<b>Sat. Vap. Conc.:</b>	Not determined	<b>Freezing/Melting Pt.:</b>	Not determined, decomposes
<b>Boiling Point:</b>	Not determined	<b>Flash Point:</b>	DNA
<b>Flammability:</b>	(solid, gas): Not determined	<b>Octanol:</b>	Not determined
<b>Partition Coefficient:</b>	Not determined	<b>Vapor Density:</b>	(air = 1): Not determined
<b>Vapor Pressure:</b>	(mm Hg @ 20 °C): Not determined	<b>VOC:</b>	DNA
<b>pH:</b>	@ 10%: < 2.0	<b>Bulk Density:</b>	Not determined
<b>Evap. Rate:</b>	(N-Butyl Acetate = 1): Not determined	<b>Auto-Ignition Temp:</b>	Not determined
<b>Molecular weight:</b>	MIXTURE	<b>UFL/LFL:</b>	Not determined
<b>Decomp Temp:</b>	Not determined		





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**10 STABILITY AND REACTIVITY**

**Stability:** Product is stable under normal conditions.  
**Conditions to Avoid:** Incompatibilities, flames, ignition sources and moisture.  
**Materials to Avoid:** Strong acids, strong bases, strong reducing agents, strong oxidizing agents, Zinc, all powdered metals, Iron, Copper, Nickel, Brass, all metal salts, metal oxides, organic material (including dirt), Cyanides, Alcohols, Phosphorous, Anhydrides, Halogens and combustible material (wood, paper, oils, fabrics, etc.).  
**Hazardous Decomposition:** Carbon Oxides, Magnesium Oxides, Potassium Oxides and Sulfur Oxides.  
**Hazardous Polymerization:** Will not occur.

**11 TOXICOLOGICAL INFORMATION**

**Component(s):** Trade Secret; Potassium hydrogen sulfate; Peroxydisulfuric acid  $[(HO)S(O)_2]_2O_2$ , dipotassium salt; Carbonic acid, magnesium salt (1:1)  
**CAS No(s):** N/A; 7646-93-7; 7727-21-1; 546-93-0

**Acute Toxicity:**

LD50 Oral - Rat: 825 mg/kg  
LD50 Oral - Mouse: 5,040 mg/kg  
LD50 Dermal - Rabbit: > 10,000 mg/kg  
LC50 Inhalation - Rat: > 5 mg/l (4 h)

**Skin Corrosion/Irritation:** Causes severe skin irritation.

**Serious Eye Damage/Eye Irritation:** Causes severe eye irritation.

**Respiratory or Skin Sensitation:** Prolonged or repeated exposure may cause allergic reactions or asthma-like symptoms in certain sensitive individuals.

**Germ Cell Mutagenicity:** No data available.

**Carcinogenicity:**

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by IARC.  
ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.  
NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by NTP.  
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**Reproductive Toxicity:** No data available.

**Specific Target Organ Toxicity - Single Exposure:** Respiratory system - May cause respiratory irritation.

**Specific Target Organ Toxicity - Repeated Exposure:** No data available.

**Aspiration Hazard:** No data available.

**Additional Information:**



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Component: Trade Secret; RTECS: Not available  
Component: Potassium hydrogen sulfate; RTECS: TS7200000  
Component: Peroxydisulfuric acid  $[(HO)S(O)_2]_2O_2$ , dipotassium salt; RTECS: SE0400000  
Component: Carbonic acid, magnesium salt (1:1); RTECS: OM2470000

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#### ECOLOGICAL INFORMATION

**Component(s):** Trade Secret; Potassium hydrogen sulfate; Peroxydisulfuric acid  $[(HO)S(O)_2]_2O_2$ , dipotassium salt; Carbonic acid, magnesium salt (1:1)

**CAS No(s):** N/A; 7646-93-7; 7727-21-1; 546-93-0

**Toxicity:**

*Toxicity to fish:*

LC50 - Oncorhynchus mykiss (Rainbow Trout): 53 mg/l (96 h)

*Toxicity to daphnia and other aquatic invertebrates:*

EC50 - Daphnia magna (Water Flea): 3.5 mg/l (48 h)

*Toxicity to bacteria:*

EC50 - Bacteria: 83.7 mg/l (72 h)

**Persistence and Degradability:**

No data available.

**Bioaccumulative potential:**

No data available.

**Mobility in Soil:**

No data available.

**Results of PBT and vPvB assessment:**

Not required/conducted.

**Other Adverse Effects:**

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic life.

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#### DISPOSAL CONSIDERATIONS

Product: Hazardous wastes shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution, release into the environment or damage to people and animals. Contact a licensed professional waste disposal service to dispose of this material. Solutions greater than 3% by weight have a pH < 2.0 and may be considered RCRA hazardous waste upon disposal due to the acidic pH characteristic of the solution. If approved, flush to sewer or waste treatment plant. Large quantities should be neutralized with soda ash.

Contaminated Packaging: Dispose of as unused product.





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**14 TRANSPORT INFORMATION**

UN #: UN 3084, Class: 8 (5.1), Proper Shipping Name: Corrosive solid, oxidizing, n.o.s. (Monopersulfate Compounds)

**DOT (US)**

UN Number: 3084

Class: 8 (5.1)

Packing Group: II

ERG #: 140

Proper Shipping Name: Corrosive solid, oxidizing, n.o.s. (Monopersulfate Compounds)

Marine Pollutant: No

Poison Inhalation Hazard(s): No

**IMDG**

UN Number: 3084

Class: 8 (5.1)

Packing Group: II

EMS-No: F-A, S-Q

Proper Shipping Name: Corrosive solid, oxidizing, n.o.s. (Monopersulfate Compounds)

Marine Pollutant: No

**IATA**

UN Number: 3084

Class: 8 (5.1)

Packing Group: II

ERG #: 140

Proper Shipping Name: Corrosive solid, oxidizing, n.o.s. (Monopersulfate Compounds)

Marine Pollutant: No



**15 REGULATORY INFORMATION**

COMPONENT / (CAS/PERC) / CODES

\*Trade Secret (N/A 43%) NJHS, PA, SARA311/312, TSCA

\*Potassium hydrogen sulfate (7646937 15-25%) NJHS, PA, SARA311/312, TSCA

\*Peroxydisulfuric acid  $[(HO)S(O)_2]_2O_2$ , dipotassium salt (7727211 <5%) MASS, NJHS, PA, SARA311/312, TSCA

\*Carbonic acid, magnesium salt (1:1) (546930 <5%) MASS, NJHS, OSHAWAC, PA, TSCA, TXAIR

REGULATORY KEY DESCRIPTIONS

MASS = MA Massachusetts Hazardous Substances List

NJHS = NJ Right-to-Know Hazardous Substances

OSHA = OSHA Workplace Air Contaminants

PA = PA Right-To-Know List of Hazardous Substances

SARA311/312 = SARA 311/312 Toxic Chemicals



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TSCA = Toxic Substances Control Act

TXAIR = TX Air Contaminants with Health Effects Screening Level

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#### OTHER INFORMATION

##### Disclaimer:

The data in this Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material in any process. The information set forth herein is furnished free of charge and is based on technical data that BIO-DEX LABORATORIOS, LLC. believes to be reliable. It is intended for use by persons having technical skill and at their own discretion and risk. Since conditions of use are outside of BIO-DEX LABORATORIOS, LLC's control, BIO-DEX LABORATORIOS, LLC. makes no warranties, expressed or implied, and assumes no liability in connection with any use of this information. Nothing herein is to be taken as a license to operate under, or a recommendation to infringe upon, any patents.

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