

FOR ANY EMERGENCY, 24 HOURS / 7 DAYS, CALL: 1-800-654-6911 (OUTSIDE  
USA: 1-423-780-2970)  
FOR ALL TRANSPORTATION ACCIDENTS, CALL CHEMTREC®: 1-800-424-9300 (OUTSIDE  
USA: 1-703-527-3887)  
FOR ALL SDS QUESTIONS & REQUESTS, CALL: 1-800-511-MSDS (OUTSIDE  
USA: 1-423-780-2347)

PRODUCT NAME: **APPLIED BIOCHEMISTS SHOCKTRINE**

## SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

### Supplier

**Applied Biochemists**  
1400 Bluegrass Lakes Parkway ,  
Alpharetta, GA, 30004  
USA

**Telephone: +17705215999**  
**Telefax: +17705215999**  
**Web: www.poolspacare.com**

REVISION DATE: 05/26/2015  
SUPERCEDES: 07/30/2012

MSDS Number: 000000024509  
SYNONYMS: Potassium peroxymonosulfate  
CHEMICAL FAMILY: None  
DESCRIPTION / USE: Water treatment chemical  
FORMULA: None established

### Manufacturer


**Advantis Technologies**  
1200 Bluegrass Lakes Parkway  
Alpharetta, GA 30004  
United States of America

## SECTION 2. HAZARDS IDENTIFICATION

### GHS Classification

Acute toxicity (Oral) : Category 4  
Skin corrosion : Category 1B  
Skin sensitisation : Category 1  
Serious eye damage : Category 1

### GHS Label element

|                          |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|--------------------------|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Hazard pictograms        | : |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Signal word              | : | Danger                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Hazard statements        | : | H302 Harmful if swallowed.<br>H314 Causes severe skin burns and eye damage.<br>H317 May cause an allergic skin reaction.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Precautionary statements | : | <p><b>Prevention:</b><br/> P260 Do not breathe vapours.<br/> P264 Wash hands thoroughly after handling.<br/> P270 Do not eat, drink or smoke when using this product.<br/> P272 Contaminated work clothing should not be allowed out of the workplace.<br/> P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.</p> <p><b>Response:</b><br/> P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell.<br/> P330 Rinse mouth.<br/> P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.<br/> P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.<br/> P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.<br/> P362 + P364 Take off contaminated clothing and wash it before reuse.<br/> P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.<br/> P310 Immediately call a POISON CENTER or doctor/ physician.<br/> P321 Specific treatment (see supplemental first aid instructions on this label).<br/> P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p><b>Storage:</b><br/> P405 Store locked up.</p> <p><b>Disposal:</b><br/> P501 Dispose of contents/container in accordance with local regulation.</p> |

**Other hazards**

None known.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

| <u>CAS OR CHEMICAL NAME</u>                          | <u>CAS #</u> | <u>% RANGE</u> |
|------------------------------------------------------|--------------|----------------|
| Pentapotassium bis(peroxymonosulphate) bis(sulphate) | 70693-62-8   | 86 - 96        |
| POTASSIUM PEROXYDISULFATE                            | 7727-21-1    | 0 - 5          |
| Tetra[carbonato(2-)]dihydropentamagnesium            | 7760-50-1    | 1 - 2          |

Active Ingredient in this composition is POTASSIUM PEROXYMONOSULFATE, CAS. No. 10058-23-8, Concentration: 43-47% (Typical 45%)

### SECTION 4. FIRST AID MEASURES

|                 |                                                                                                                                                                                                                        |
|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| General Advice: | Call a physician immediately.                                                                                                                                                                                          |
| Inhalation:     | IF INHALED: Remove individual to fresh air. Seek medical attention if breathing becomes difficult or if respiratory irritation develops. If not breathing, give artificial respiration. Call for medical assistance.   |
| Skin Contact:   | IF ON SKIN: Immediately flush skin with plenty of water for 15 minutes. If clothing comes in contact with the product, the clothing should be removed immediately and laundered before re-use. Seek medical attention. |
| Eye Contact:    | IF IN EYES: Immediately flush eyes with plenty of water for at least 15 minutes. Seek medical attention immediately.                                                                                                   |
| Ingestion:      | IF SWALLOWED: Call a physician immediately. DO NOT induce vomiting unless directed to do so by a physician. Never give anything by mouth to an unconscious person.                                                     |

### SECTION 5. FIREFIGHTING MEASURES

|                                |                                                                                                                                                   |
|--------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| Flammability Summary (OSHA):   | Product is not known to be flammable, combustible, pyrophoric or explosive.                                                                       |
| <u>Flammable Properties</u>    |                                                                                                                                                   |
| Flash Point:                   | Not applicable                                                                                                                                    |
| Autoignition Temperature:      | Not applicable                                                                                                                                    |
| Fire / Explosion Hazards:      | Material will not ignite or burn. Will release oxygen when heated, intensifying a fire                                                            |
| Extinguishing Media:           | Water only.                                                                                                                                       |
| Fire Fighting Instructions:    | In case of fire, use normal fire-fighting equipment and the personal protective equipment recommended in Section 8. Use water to cool containers. |
| Hazardous Combustion Products: | Carbon monoxide, Carbon dioxide                                                                                                                   |

Upper Flammable / Explosive Limit, Not applicable  
% in air:  
Lower Flammable / Explosive Limit, Not applicable  
% in air:

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## SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Protection for Emergency Situations: Additional protective clothing must be worn to prevent personal contact with this material. Those items include but are not limited to boots, impervious gloves, hard hat, splash-proof goggles, impervious clothing, i.e., chemically impermeable suit, self-contained breathing apparatus.

### Spill Mitigation Procedures

Air Release:

Keep people away from and upwind of spill/leak.

Water Release:

Notify all downstream users of possible contamination. Divert water flow around spill if possible and safe to do so.

Land Release:

Sweep up and shovel into suitable containers for disposal. Avoid creating dust. Do not place spill materials back in their original containers.

Additional Spill Information :

Stop source of spill as soon as possible and notify appropriate personnel. Utilize emergency response personal protection equipment prior to the start of any response. Evacuate all non-essential personnel. Dispose of spill residues per guidelines under Section 13, Disposal Consideration.

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## SECTION 7. HANDLING AND STORAGE

Handling:

Do not take internally. Avoid contact with skin, eyes and clothing. Upon contact with skin or eyes, wash off with water. Avoid inhalation of dust and fumes.

Storage:

Store in a cool dry ventilated location, away from sources of ignition or other incompatible conditions and chemicals. Keep container(s) closed.

Incompatible Materials for Storage:

Refer to Section 10, "Incompatible Materials."

Empty Container Warning:

Empty containers retain hazardous residue, dispose of accordingly.

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## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ventilation:

Local exhaust ventilation or other engineering controls are normally required when handling or using this product to keep airborne exposures below the TLV, PEL or other recommended exposure limit.

Protective Equipment for Routine Use of Product

Respiratory Protection : Wear a NIOSH approved respirator if levels above the exposure limits are possible., Wear a NIOSH approved N95 respirator.

Skin Protection : Wear impervious gloves to avoid skin contact. A full impervious suit is recommended if exposure is possible to a large portion of the body.

Eye Protection: Use chemical goggles.

Protective Clothing Type: Neoprene

General Protective Measures: An eye wash and safety shower should be provided in the immediate work area.

#### Components with workplace control parameters

| Components (CAS-No.)                                     | Value | Control parameters    | Basis (Update)  |
|----------------------------------------------------------|-------|-----------------------|-----------------|
| POTASSIUM PEROXYDISULFATE (7727-21-1)<br>[as persulfate] | TWA   | 0.1 mg/m <sup>3</sup> | ACGIH (02 2014) |

Active Ingredient in this composition is POTASSIUM PEROXYMONOSULFATE, CAS. No. 10058-23-8, Concentration: 43-47% (Typical 45%)

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: solid

Form: solid

Color: white

Odor: None

Molecular Weight: None established

pH : 1.4  
( ) 10% solution

Boiling Point: Not applicable

Melting point/freezing point: Not applicable

Density: no data available

Bulk Density: ( )  
no data available

Vapor Pressure: Not applicable

Vapor Density: no data available

Viscosity: no data available

Solubility in Water: 250 g/l  
68 °F (20 °C)

Partition coefficient n-octanol/water: Not applicable

Evaporation Rate: Not applicable

Oxidizing: Product has oxidizing properties.

Volatiles, % by vol.: no data available

|             |                                                                                                                                                                                                                                                                   |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| VOC Content | no data available This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM Intermediate or Final VOC's (40 CFR 60.489). This product does not contain any VOC exemptions listed under the U.S. Clean Air Act Section 450. |
| HAP Content | Not applicable                                                                                                                                                                                                                                                    |

## SECTION 10. STABILITY AND REACTIVITY

|                                   |                                                                                                              |
|-----------------------------------|--------------------------------------------------------------------------------------------------------------|
| Stability and Reactivity Summary: | Stable under normal conditions., Product will not undergo hazardous polymerization.                          |
| Conditions to Avoid:              | Sparks, open flame, other ignition sources, and elevated temperatures., Contact with incompatible substances |
| Chemical Incompatibility:         | Halides, Heavy metals, Cyanides, Oxidizing agents                                                            |
| Hazardous Decomposition Products: | Decomposes when heated or dampened, releasing oxygen and heat, Oxides of sulfur                              |
| Decomposition Temperature:        | no data available                                                                                            |

## SECTION 11. TOXICOLOGICAL INFORMATION

### Component Animal Toxicology

#### Oral LD50 value:

Pentapotassium bis(peroxymonosulphate) bis(sulphate) LD50 500 mg/kg Rat

### Component Animal Toxicology

#### Dermal LD50 value:

Pentapotassium bis(peroxymonosulphate) bis(sulphate) LD50 > 2,000 mg/kg Rat

### Component Animal Toxicology

#### Inhalation LC50 value:

### Product Animal Toxicity

Oral LD50 value: LD50 = 2,000 mg/kg Rat  
Dermal LD50 value: LD50 > 11,000 mg/kg Rabbit  
Inhalation LC50 value: LC50 4 h > 5.0 mg/l Rat

Skin Irritation: Corrosive to skin  
 Eye Irritation: Corrosive to eyes  
 Skin Sensitization: Possible skin sensitizer based on animal tests

Acute Toxicity: This product is corrosive to all tissues contacted and upon inhalation, may cause irritation to mucous membranes and respiratory tract.

Subchronic / Chronic Toxicity: Not known or reported to cause subchronic or chronic toxicity.

|                                          |                                                                                                                    |
|------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| Reproductive and Developmental Toxicity: | Not known or reported to cause reproductive or developmental toxicity.                                             |
| Mutagenicity:                            | Not known or reported to be mutagenic.                                                                             |
| Carcinogenicity:                         | This product is not known or reported to be carcinogenic by any reference source including IARC, OSHA, NTP or EPA. |

## SECTION 12. ECOLOGICAL INFORMATION

Overview: Moderately toxic to fish and other aquatic organisms.

### Ecological Toxicity Values - Product:

|                                     |                       |
|-------------------------------------|-----------------------|
| Oncorhynchus mykiss (rainbow trout) | - 96 h LC50 = 53 mg/l |
| Daphnia magna (Water flea)          | - 48 h EC50= 3.5 mg/l |

### Ecological Toxicity Values for: POTASSIUM PEROXYDISULFATE

|                                     |                          |
|-------------------------------------|--------------------------|
| Cyprinus carpio (Carp)              | - 48 h LC50 = 1,360 mg/l |
| Oncorhynchus mykiss (rainbow trout) | - 48 h LC50 = 234 mg/l   |
| Poecilia reticulata (guppy)         | - 48 h LC50 = 845 mg/l   |
| Daphnia magna (Water flea)          | - 48 h LC50= 92 mg/l     |

## SECTION 13. DISPOSAL CONSIDERATIONS

**CARE MUST BE TAKEN TO PREVENT ENVIRONMENTAL CONTAMINATION FROM THE USE OF THE MATERIAL. THE USER OF THE MATERIAL HAS THE RESPONSIBILITY TO DISPOSE OF UNUSED MATERIAL, RESIDUES AND CONTAINERS IN COMPLIANCE WITH ALL RELEVANT LOCAL, STATE AND FEDERAL LAWS AND REGULATIONS REGARDING TREATMENT, STORAGE AND DISPOSAL FOR HAZARDOUS AND NONHAZARDOUS WASTES.**

|                          |                                                                                                                 |
|--------------------------|-----------------------------------------------------------------------------------------------------------------|
| Waste Disposal Summary : | If this product becomes a waste, it will be a nonhazardous waste.                                               |
| Disposal Methods :       | As a nonhazardous solid waste it should be disposed of in accordance with local, state and federal regulations. |

## SECTION 14. TRANSPORT INFORMATION

**DOT**

UN number : 3260  
Description of the goods : Corrosive solid, acidic, inorganic, n.o.s.  
(Potassium hydrogenperoxomonosulphate)  
Class : 8  
Packing group : II  
Labels : 8  
Emergency Response : 154  
Guidebook Number

**TDG**

UN number : 3260  
Description of the goods : CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.  
(Potassium hydrogenperoxomonosulphate)  
Class : 8  
Packing group : II  
Labels : 8

**IATA**

UN number : 3260  
Description of the goods : Corrosive solid, acidic, inorganic, n.o.s.  
(Potassium hydrogenperoxomonosulphate)  
Class : 8  
Packing group : II  
Labels : 8  
Packing instruction (cargo aircraft) : 863  
Packing instruction (passenger aircraft) : 859  
Packing instruction (passenger aircraft) : Y844

**IMDG-CODE**

UN number : 3260  
Description of the goods : CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.  
(Potassium hydrogenperoxomonosulphate)  
Class : 8  
Packing group : II  
Labels : 8  
EmS Number 1 : F-A  
EmS Number 2 : S-B

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**SECTION 15. REGULATORY INFORMATION****EPCRA - Emergency Planning and Community Right-to-Know Act****SARA 302**



No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**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.

**Clean Air Act**

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM I Intermediate or Final VOC's (40 CFR 60.489).

**Clean Water Act**

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

**US State Regulations****Massachusetts Right To Know**

|                                 |           |
|---------------------------------|-----------|
| Dipotassium<br>peroxodisulphate | 7727-21-1 |
|---------------------------------|-----------|

**Pennsylvania Right To Know**

|                                                            |            |
|------------------------------------------------------------|------------|
| pentapotassium<br>bis(peroxymonosulphate)<br>bis(sulphate) | 70693-62-8 |
| Dipotassium<br>peroxodisulphate                            | 7727-21-1  |

**New Jersey Right To Know**

|                                                            |            |
|------------------------------------------------------------|------------|
| pentapotassium<br>bis(peroxymonosulphate)<br>bis(sulphate) | 70693-62-8 |
|------------------------------------------------------------|------------|

Dipotassium 7727-21-1  
peroxodisulphate  
tetra[carbonato(2-  
)dihydroxypentamagnesium 7760-50-1

**California Prop 65**

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

**The components of this product are reported in the following inventories:**

TSCA : The components of this product are listed on the TSCA Inventory of Existing Chemical Substances.

**Inventories**

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA)

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**SECTION 16. OTHER INFORMATION**

SECTIONS REVISED: 2, 3, 8, 11  
Major References : Available upon request.

THIS MATERIAL SAFETY DATA SHEET (MSDS) HAS BEEN PREPARED IN COMPLIANCE WITH THE FEDERAL OSHA HAZARD COMMUNICATION STANDARD, 29 CFR 1910.1200. THE INFORMATION IN THIS MSDS SHOULD BE PROVIDED TO ALL WHO WILL USE, HANDLE, STORE, TRANSPORT, OR OTHERWISE BE EXPOSED TO THIS PRODUCT. THIS INFORMATION HAS BEEN PREPARED FOR THE GUIDANCE OF PLANT ENGINEERING, OPERATIONS AND MANAGEMENT AND FOR PERSONS WORKING WITH OR HANDLING THIS PRODUCT. ARCH CHEMICALS BELIEVES THIS INFORMATION TO BE RELIABLE AND UP TO DATE AS OF THE DATE OF PUBLICATION BUT, MAKES NO WARRANTY THAT IT IS. ADDITIONALLY, IF THIS MSDS IS MORE THAN THREE YEARS OLD, YOU SHOULD CONTACT ARCH CHEMICALS MSDS CONTROL AT THE PHONE NUMBER ON THE FRONT PAGE TO MAKE CERTAIN THAT THIS DOCUMENT IS CURRENT. .