Material Safety Data Sheet

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: STERIPLEX® Ultra Activated Formula

GENERAL USE: STERIPLEX® Ultra Activated Formula is a two-part system and, when Part A and Part B are combined, creates a sterilant that will decontaminate Anthrax (B. Anthracis) that is to be used only by certified, trained first responders, including:

- Federal On-Scene Coordinators and contractors and other trained federal/state/local response personnel under the FOSC's supervision;
- Trained U.S. Military personnel and contractors under their supervision;
- Persons who, within the preceding 24 months, have been trained and determined to be competent by the registrant (or its contractor) following completion of the required training.

MANUFACTURER: SBIOMED LLC, 1272 South 1380 West, Orem, UT 84058, PHONE: 1 (888) 234-6142

DATE REVISED: 07-14-2011

This version replaces all previous versions.

EMERGENCY TELEPHONE NUMBERS

Poison Center call: (800) 222-1222

For leak, fire, spill, or accident emergencies, call: (800) 424-9300 (CHEMTREC - U.S.A. & Canada)

2. COMPOSITION / INFORMATION ON INGREDIENTS

The combined ingredients of this product at their given percentages are not considered hazardous to your health.

Chemical Name	CAS#	Wt.%
Silver (Elemental)	7440-22-4	0.0200-0.0500
Glycerol	56-81-5	17.0000-20.0000
Sorbitol	50-70-4	0.0002-0.0005
Ethanol	64-17-5	9.0000-11.0000
Hydrogen Peroxide	7722-84-1	0.0300
Peroxyacetic Acid	79-21-0	1.1500-1.4500
Acetic Acid	64-19-7	0.8000-1.1000
Water	7732-18-5	71.9998-66.3695

3. PHYSICAL AND CHEMICAL PROPERTIES

- **ODOR:** Sharp, pungent, vinegar like odor
- **APPEARANCE:** Clear to light yellow liquid
- **BOILING POINT:** 86°C (187°F) at 630 mm Hg
- **DENSITY / WEIGHT PER VOLUME:** 1.044 g/ml or 8.7 lbs/gal
- **EVAPORATION RATE:** Above 1 (Butyl Acetate = 1)
- **OXIDIZING PROPERTIES:** None
- **pH:** 2.8
- **SOLUBILITY IN WATER:** (% by wt. @ 25°C / 77°F): 100
- **SPECIFIC GRAVITY:** (H2O=1): 1.06 @ 20ºC

4. TOXICOLOGICAL INFORMATION

- **EYE EFFECTS:** Eye irritation
- **SKIN EFFECTS:** Irritating
- **DERMAL LD50:** No data available for the product.
- **ORAL LD50:** No data available for the product.
- **INHALATION LC50:** No data available for the product.

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- **TARGET ORGANS:** Eyes, skin, nose, throat, lungs
- **ACUTE EFFECTS FROM OVEREXPOSURE:** Liquid may cause irritation to eyes. Product contains peracetic acid. Inhalation of peracetic acid vapors causes lacrimation and irritation of the mucous membranes, eyes and nasal passages.
- **CHRONIC EFFECTS FROM OVEREXPOSURE:** No data available for the product.
- **CARCINOGENICITY:** No carcinogenic effect in rats or mice.

- **HMIS**

Health 0 Flammability 0 Physical Hazard 0 Personal Protection (PPE) H
Protection = H (Safety goggles, gloves, apron and a vapor respirator)
HMIS = Hazardous Materials Identification System Degree of Hazard Code:
4 = Severe 3 = Serious 2 = Moderate 1 = Slight 0 = Minimal

5. FIRST AID MEASURES

- **EYES:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, and then continue rinsing. Call a poison control center or doctor for treatment advice.

NOTES TO MEDICAL DOCTOR: This product may be an irritant to eyes and mucous membranes.

6. FIRE FIGHTING MEASURES

- **FLAMMABLE LIMITS:** Not available
- **SENSITIVITY TO IMPACT:** Not available
- **SENSITIVITY TO STATIC DISCHARGE:** Not available

- **NFPA**

Health 0 Flammability 0 Reactivity 0
NFPA = National Fire Protection Association
Degree of Hazard Code:
4 = Extreme 3 = High 2 = Moderate 1 = Slight 0 = Insignificant

7. ACCIDENTAL RELEASE MEASURES

- **RELEASE NOTES:** Control run off and isolate discharged material for proper disposal.

8. HANDLING AND STORAGE

- **HANDLING:** Special ventilation not required.
- **STORAGE:** Store in a cool, dry, well ventilated area. For quality purposes, avoid temperatures above 86º F. higher temperatures will accelerate decomposition resulting in a loss of assay. Do not store in direct sunlight, or near sources of ignition or heat. Use first in, first out storage system.

9. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMITS

Chemical Name	ACGIH TLV	OSHA PEL	ACGIH STEL	ACGIH TWA
Acetic Acid	10 ppm	10 ppm	15 ppm	10 ppm
Ethanol	1000 ppm	1000 ppm	1000 ppm	1000 ppm
Hydrogen Peroxide	1 ppm	1 ppm	–	1 ppm

10. PERSONAL PROTECTIVE EQUIPMENT

- **EYES AND FACE:** Use cup type chemical goggles and a full-face shield when mixing and applying this product to the intended surfaces.
- **RESPIRATORY:** Wear an approved full-face acid/gas cartridge or canister respirator. If concentrations are unknown (e.g., significant spill or other emergencies), or if they are anticipated to be above 5 ppm for hydrogen peroxide or 50 ppm for acetic acid, use a self-contained breathing apparatus (SCBA).

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Follow manufacturer's instruction for cleaning/maintaining protective eyewear and respirator users:
The respirator user must be fit tested and fit checked using a program that conforms to OSHA's requirements (29 CFR 1910.134)
The respirator user must be trained using a program that conforms to OSHA's requirements (29 CFR 1910.134)
The respirator user must be examined by a qualified medical practitioner to ensure the physical ability of the user to safely wear the type of respirator to be worn.
The respirator equipment must be maintained according to a program that conforms to OSHA's requirements (29 CFR 1910.134).
PROTECTIVE CLOTHING: Rubber or neoprene footwear. Rubber or neoprene aprons or full protective clothing. GLOVES: Rubber or neoprene gloves. Thoroughly wash the outside of gloves with soap and water prior to removal. Inspect regularly for leaks.

THIS INFORMATION HAS BEEN PROVIDED BY THE NATIONAL RESPONSE FRAMEWORK AND THE ENVIRONMENTAL PROTECTION AGENCY.

11. STABILITY AND REACTIVITY

- **CONDITIONS TO AVOID:** Open flames, elevated temperatures, any source of heat, combustibles such as paper and wood and contamination. For quality purposes, avoid temperatures above 86ºF. Higher temperatures will accelerate decomposition resulting in a loss of assay.
- **STABILITY:** Stable
- **HAZARDOUS POLYMERIZATION:** Will not occur
- **INCOMPATIBLE MATERIALS:** Dirt, alkali, reducing agents, organics and heavy metals such as iron, copper, chromium, aluminum, cobalt and caustic.

12. ECOLOGICAL INFORMATION

- **ECOTOXICOLOGICAL INFORMATION:** This product decomposes naturally. Peracetic acid is completely miscible with water. Aqueous solutions of peracetic acid hydrolyze to acetic acid and hydrogen peroxide. When this product contacts soil the peracetic acid and hydrogen peroxide are completely decomposed to water, acetic acid and oxygen within 20 minutes. This decomposition is accelerated by the naturally occurring transition metal components in the soil.

13. DISPOSAL CONSIDERATIONS

- **DISPOSAL METHOD:** Discharge into a suitable treatment system in accordance with local, state and federal governmental agencies.

14. TRANSPORT INFORMATION

- **U.S. DEPARTMENT OF TRANSPORTATION (DOT)**
- **Domestic (Land, D.O.T.)**
- **Proper Shipping Name:** Not regulated (not classified as a Dangerous Goods material)
- **Hazard Class:** Not applicable
- **UN/NA:** Not applicable
- **Packing Group:** Not applicable
- **International (Water, I.M.O.)**
- **Proper Shipping Name:** Not regulated (not classified as a Dangerous Goods material)
- **Hazard Class:** Not applicable
- **UN/NA:** Not applicable
- **Packing Group:** Not applicable

- **International (Air, I.C.A.O.)**
- **Proper Shipping Name:** Not regulated (not classified as a Dangerous Goods material)
- **Hazard Class:** Not applicable
- **UN/NA:** Not applicable
- **Packing Group:** Not applicable

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15. REGULATORY INFORMATION

International Inventory Status:

Ingredient	CAS#	Europe (EINECS/ELINCS)	Canada (DSL)	Australia (AICS)	Japan (MITI)	Korea (TCCL)	Philippines (PICCS)	China (IECSC)	New Zealand (NZIoC)
Silver	7440-22-4	YES	YES	YES	NO	YES	YES	YES	YES
Hydrogen Peroxide	7722-84-1	YES	YES	YES	YES	YES	YES	YES	YES
Peroxyacetic Acid	79-21-0	YES	YES	YES	YES	YES	YES	YES	YES
Acetic Acid	64-19-7	YES	YES	YES	YES	YES	YES	YES	YES
Ethanol	64-17-5	YES	YES	YES	YES	YES	YES	YES	YES
Glycerol	56-81-5	YES	YES	YES	YES	YES	YES	YES	YES

United States

Ingredient	CAS#	OSHA	CAA	CWA	RCRA	SARA 302	SARA 313	TSCA
Hydrogen Peroxide	7722-84-1	YES	NO	NO	NO	NO	NO	NO
Peroxyacetic Acid	79-21-0	YES	YES	NO	NO	YES	YES	NO
Acetic Acid	64-19-7	YES	NO	YES	NO	NO	NO	NO
Ethanol	64-17-5	YES	NO	NO	NO	NO	NO	YES
Glycerol	56-81-5	YES	NO	NO	NO	NO	NO	YES
Water	7732-18-5	YES	NO	NO	NO	NO	NO	YES

16. Further information

Data for the production of the safety data sheet from the studies available and from the literature. Further information about the characteristics of the product can be found in the product code of practice or in the product brochure .

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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