

# TECHNICAL BULLETIN

**Bulletin No:** TB1721  
**Subject:** STERIPLEX® HC Technical Specifications

INGREDIENTS	Activated Solution	Part A	Part B Activator
Silver (Elemental)	<b>0.0300%*</b>	<b>0.0300%*</b>	0.0000%
Glycerol	19.0000%	19.0000%	0.0000%
Sorbitol	0.0004%	0.0004%	0.0000%
Ethanol	10.0000%	10.0000%	0.0000%
Hydrogen Peroxide	0.0300%	0.0000%	<b>22.0000%*</b>
Peroxyacetic Acid	0.2500%	0.0000%	<b>15.0000%*</b>
Acetic Acid	0.1900%	0.0000%	15.0000%
Water	70.4996%	70.9696%	48.0000%
<i>*Active Ingredient</i>			
	Activated Solution	Part A	Part B Activator
Oxidizing Properties	None	None	Oxidizer**
<i>**Oxidizer in Part B prior to Activation only; see MSDS, patented PAA conversion process below and read entire product label for Precautionary Statements and Activation Instructions.</i>			

Color: Clear to Light Yellow Liquid

Kilograms per Liter: 1.012

Shipping: Activated Formula – Not regulated (not classified as a Dangerous Goods material)  
 Part A – Not regulated (not classified as a Dangerous Goods material)  
 Part B – DOT: Organic Peroxide Type F, Liquid (Peroxyacetic Acid, Type F, Stabilized);  
 Class 5.2, UN3109, PGII  
 Part B – IATA: Organic Peroxide Type F, Liquid (Peroxyacetic Acid, Type F, Stabilized); Class 5.2, UN3109

### STERIPLEX HC's Patented Peroxyacetic Acid Conversion Process

STERIPLEX HC's patented, two-part formulation causes rapid and significant changes to the traditionally aggressive chemical characteristics of the peroxyacetic acid or "PAA" upon Activation which occurs by simply combining Part B (the "PAA" activator component) with Part A. Specifically:

- The hydrogen peroxide (H<sub>2</sub>O<sub>2</sub>) component of the PAA is rapidly converted into water and oxygen within minutes of Activation, and ceases to exist with zero VOC emissions; and
- The dramatically altered chemical form of the PAA post-Activation, is
  - Non-corrosive to the skin and eyes, which qualifies the STERIPLEX HC post-Activated formula for a remarkable health and safety rating of '0' (HMIS = 0) that exhibits no oral or inhalation toxicities, and only mild irritation when sprayed directly into the eyes (no permanent damage to the eyes) as validated in STERIPLEX Activated Formula's EPA registration toxicity studies; and is
  - Non-oxidizing to materials and is safe for direct application on stainless steels, plastics and polymers exhibiting excellent inhibition corrosion rates as validated in the STERIPLEX Activated Formula's independent materials compatibility corrosion studies.
- STERIPLEX HC's Activated Formula is:
  - Non-Corrosive
  - Non-Fuming, Non-Toxic to Inhale
  - Not a Skin Irritant or Sensitizer



## Material Safety Data Sheet

### 1. PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** STERIPLEX® HC Activated Formula

**GENERAL USE:** STERIPLEX® HC Activated Formula is a two-part system and, when Part A and Part B are combined, creates an effective Sterilant/Sporicide, Tuberculocide, Bactericide and Deodorizer.

**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

### 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	0.0300
Glycerol	56-81-5	19.0000
Sorbitol	50-70-4	0.0004
Ethanol	64-17-5	10.0000
Hydrogen Peroxide	7722-84-1	0.0300
Peroxyacetic Acid	79-21-0	0.2500
Acetic Acid	64-19-7	0.1900
Water	7732-18-5	70.4996

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- ▲ The hydrogen peroxide (H<sub>2</sub>O<sub>2</sub>) component of the PAA is rapidly converted into water and oxygen within minutes of Activation, and ceases to exist with zero VOC emission; and
- ▲ The dramatically altered chemical form of the PAA post-Activation, is
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### 3. PHYSICAL AND CHEMICAL PROPERTIES

- ▲ **SCENT:** Mild, vinegar like
- ▲ **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:** (H<sub>2</sub>O=1): 1.06 @ 20°C

### 4. TOXICOLOGICAL INFORMATION

- ▲ **TARGET ORGANS:** Eyes, skin, nose, throat, lungs
- ▲ **EYE EFFECTS:** Moderate, temporary eye irritation
- ▲ **SKIN EFFECTS:** Non-irritating
- ▲ **DERMAL LD50:** No mortalities or abnormalities > 5000 mg/kg
- ▲ **ORAL LD50:** No mortalities or abnormalities > 5000 mg/kg
- ▲ **INHALATION LC50:** Inhalation toxicity > 2.01 mg/L
- ▲ **CARCINOGENICITY:** No carcinogenic effect in rats or mice.

### ▲ HMIS

Health 0    Flammability 0    Physical Hazard 0    Personal Protection (PPE) A  
Protection = A (Safety glasses)

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 physician for treatment advice.

### 6. FIRE FIGHTING MEASURES

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

### FIRE FIGHTING INFORMATION

**Suitable extinguishing media:** Use media appropriate for the surrounding fire.

**Special protective equipment for firefighters:** Wear self-contained breathing apparatus for firefighting if necessary.

### ▲ 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 86° 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:** Protective eyewear is recommended.
- ▲ **RESPIRATORY:** When used as directed, respiratory protection is not required.
- ▲ **PROTECTIVE CLOTHING:** Not required.
- ▲ **GLOVES:** Not required.

## 11. STABILITY AND REACTIVITY

- ▲ **STABILITY:** Stable
- ▲ **HAZARDOUS POLYMERIZATION:** Will not occur
- ▲ **HAZARDOUS DECOMPOSITION PRODUCTS:** None

## 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

## 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.