

# MATERIAL SAFETY DATA SHEET

<b>Identity: ACTIVATED Sporidicin® Sterilizing and Disinfecting Solution</b>		01/01/2006
<b>SECTION 1: Manufacturer/Distributor Distributed By</b>		
American Air & Water, Inc. 12 Gibson Drive Hilton Head Island, SC 29926	<u>Telephone Numbers</u> <b>Information: 888-378-4892</b> <b>Emergency: 800-424-3733</b>	
<b>SECTION 2: Ingredients/Identity Information: ACTIVATED SOLUTION</b>		
Total Phenol 1.93% 5 ppm (19 mg/m <sup>3</sup> ) 5 ppm (19 mg/m <sup>3</sup> )	Glutaraldehyde 1.12% 0.2 ppm (0.8 mg/m <sup>3</sup> ) 0.2 ppm (0.8 mg/m <sup>3</sup> )	
<b>SECTION 3: Physical and Chemical Characteristics: ACTIVATED SOLUTION</b>		
Boiling Point: 100°C/212°F Vapor Pressure (mm Hg): N/A Vapor Density: (Air=1) 1.1 Solubility in Water: Complete Fragrance: Antiseptic	Specific Gravity (H <sub>2</sub> O=1): 1.007 Melting Point: Not applicable Evaporation Rate (Butyl Acetate=1): 1.0 Appearance: Clear pH: Mildly alkaline	
<b>SECTION 4: Fire and Explosion Data: ACTIVATED SOLUTION</b>		
Flash Point: N/A (Aqueous solution) Extinguishing Media: N/A (Aqueous solution) Special Fire Fighting Procedures: None Unusual Fire and Explosion Hazards: None	<b>NFPA RATINGS</b> Health: 1 Flammability: 0 Reactivity: 0 Special Hazards: None	
<b>SECTION 5: Reactivity Data: ACTIVATED SOLUTION</b>		
Stability: Stable Incompatibility: Cationic chemicals	Hazardous Polymerization: Will not occur Hazardous Decomposition or Byproducts: None	
<b>SECTION 6: Health Hazard Data: ACTIVATED SOLUTION</b>		
<p><b>Effects of Overexposure:</b></p> <p><b>Inhalation:</b> Vapor may be irritating to the respiratory tract. May cause stinging sensations in the eyes, nose and throat.</p> <p><b>Skin:</b> Direct contact may cause skin irritation or aggravate an existing dermatitis. Repeated exposure can result in sensitization and allergic contact dermatitis.</p> <p><b>Ingestion:</b> May cause irritation or chemical burns of the mouth, throat, esophagus, and stomach, vomiting, diarrhea, dizziness, faintness and general systemic illness.</p> <p><b>Eyes:</b> Contact with eyes may cause damage, including possible corneal injury, which could impair vision if prompt first aid and medical treatment are not obtained.</p> <p><b>Carcinogenicity:</b> Phenol and Glutaraldehyde are not listed as carcinogens by NTP, IARC monographs or OSHA.</p> <p><b>Emergency and First Aid Procedures:</b></p> <p><b>Inhalation:</b> Remove to fresh air. If symptoms persist, obtain medical attention.</p> <p><b>Skin:</b> Immediately remove contaminated clothing, if necessary, and thoroughly wash skin with soap and water.</p> <p><b>Ingestion:</b> DO NOT INDUCE VOMITING. Drink large quantities of water. Call a physician immediately.</p> <p><b>Eyes:</b> Immediately flush eyes with water and continue washing for at least 15 minutes. DO NOT remove contact lenses during washing procedure. Obtain immediate medical attention</p>		

## MATERIAL SAFETY DATA SHEET

<b>Identity: ACTIVATED Sporidicin Sterilizing and Disinfecting Solution</b>	<b>01/01/2006</b>
<b>SECTION 7: Precautions for Safe Handling and Use: ACTIVATED SOLUTION</b>	
<p>Wear suitable protective clothing, gloves and eyewear.</p> <p><b>Spills:</b> (1 gallon or less): Wipe with sponge or mop down area with an equal amount of water. Flush with large quantities of water down drain. Thoroughly rinse the mop and any sponges or paper towels used for final cleaning with large amounts of water. Discard paper towels or sponges in a tightly closed trash bag.</p> <p><b>Waste Disposal Method:</b> Dispose of used Sporidicin Solution down the drain, in accordance with state and local requirements. Flush thoroughly with large quantities of water. Rinse empty containers thoroughly with water, wrap container and put in trash. Do not reuse empty container.</p> <p><b>EPA Hazardous Waste Number:</b> not applicable.</p> <p><b>Precautions to be Taken in Handling and Storing:</b> Wear protective gloves and eye wear. Store product in closed container at controlled room temperature, 59°-86°F (15°-30°C).</p>	
<b>SECTION 8: Control Measures: ACTIVATED SOLUTION</b>	
<p><b>Ventilation:</b> Sporidicin Sterilizing and Disinfecting Solution should be used in a well ventilated area in closed containers with tight fitting lids. Rooms where Sporidicin Sterilizing and Disinfecting Solution is used should be large enough to ensure adequate dilution of vapor. If vapors are strong enough to be irritating to the nose (or eyes), the threshold limit value (TLV) is probably being exceeded and additional ventilation is needed.</p> <p><b>Respiratory Protection:</b> None required if adequate ventilation control measures are in place to control glutaraldehyde vapor levels below the TLV.</p> <p><b>Eye Protection:</b> Safety goggles or safety glasses.</p> <p><b>Skin Protection:</b> Wear protective gloves. Before using latex gloves, contact the glove manufacturer to determine if their gloves are suitable for use with glutaraldehyde solutions.</p>	

<b>Identity: BUFFER for Sporidicin® Sterilizing and Disinfecting Solution</b>		01/01/2006
<b>SECTION 1:</b>		
American Air & Water, Inc. 12 Gibson Drive Hilton Head Island, SC 29926	<u>Telephone Numbers</u> Phone: 843-785-8699 Fax: 843-785-2064	Information:
<b>SECTION 2: Ingredients/Identity Information</b>		
Chemical: Phenol/Sodium Phenate Percentage: 2.02% OSHA PEL: 5 ppm (19 mg/m <sup>3</sup> ) ACGIH TLV: 5 ppm (19 mg/m <sup>3</sup> )		
<b>SECTION 3: Physical and Chemical Characteristics</b>		
Boiling Point: 100°C/212°F Vapor Pressure (mm Hg): N/A Vapor Density: (Air=1) 1.1 Solubility in Water: Complete Fragrance: Antiseptic	Specific Gravity (H <sub>2</sub> O=1): 1.007 Melting Point: Not applicable Evaporation Rate (Butyl Acetate=1): 1.0 Appearance: Clear pH: Mildly alkaline	
<b>SECTION 4: Fire and Explosion Data</b>		
Flash Point: N/A (Aqueous solution) Extinguishing Media: N/A (Aqueous solution) Special Fire Fighting Procedures: None Unusual Fire and Explosion Hazards: None	NFPA RATINGS Health: 1 Flammability: 0 Reactivity: 0 Special Hazards: None	
<b>SECTION 5: Reactivity Data</b>		
Stability: Stable Incompatibility: Cationic chemicals	Hazardous Polymerization: Will not occur Hazardous Decomposition or Byproducts: None	
<b>SECTION 6: Health Hazard Data</b>		
<p><b><u>Effects of Overexposure:</u></b>  <b>Inhalation:</b> May be mildly irritating.  <b>Skin:</b> May cause mild irritation.  <b>Ingestion:</b> May cause nausea and vomiting.  <b>Eyes:</b> May cause irritation on direct contact.</p> <p><b><u>Carcinogenicity:</u></b> Phenol and Sodium phenate are not listed as carcinogens by NTP, IARC monographs or OSHA.</p> <p><b><u>Emergency and First Aid Procedures:</u></b>  <b>Inhalation:</b> Remove to fresh air.  <b>Skin:</b> Wash with soap and water.  <b>Ingestion:</b> If large amount is ingested, contact a physician.  <b>Eyes:</b> Immediately flush with water. If necessary contact a physician.</p>		

**SECTION 7: Precautions for Safe Handling and Use**

Wear suitable protective clothing, gloves and eyewear.

**Spills** (1 gallon or less): Wipe with sponge or mop down area with an equal amount of water. Flush with large quantities of water down drain. Thoroughly rinse the mop and any sponges or paper towels used for final cleaning with large amounts of water. Discard paper towels or sponges in a tightly closed trash bag.

**Waste Disposal Method:** Dispose of Buffer Solution at the end of its use life down the drain, in accordance with state and local requirements. Flush thoroughly with large quantities of water. Rinse empty containers thoroughly with water, wrap container and put in trash. Do not reuse empty container.

**EPA Hazardous Waste Number:** not applicable

**Precautions to be Taken in Handling and Storing:** Store product in original sealed container at controlled room temperature, 59°-86° F (15°-30°C).

**SECTION 8: Control Measures**

**Ventilation:** Sporidicin Sterilizing and Disinfecting Solution should be used in a well ventilated area in closed containers with tight fitting lids. Rooms where Sporidicin Sterilizing and Disinfecting Solution is used should be large enough to ensure adequate dilution of vapor. If vapors are strong enough to be irritating to the nose (or eyes) the TLV is probably being exceeded and additional ventilation is needed.

**Respiratory Protection:** None required, if adequate ventilation control measures are in place.

**Eye Protection:** Safety goggles or safety glasses.

**Skin Protection:** Protective gloves.

**SECTION 9: Transportation Data and Additional Information**

Proper Shipping Name: Sporidicin Sterilizing and Disinfecting Solution

DOT (ground)

IATA (air)

IMO (ocean)

NOT REGULATED

NOT RESTRICTED

NOT REGULATED

Hazard Class:

None

None

None

# MATERIAL SAFETY DATA SHEET

**Identity: ACTIVATOR for Sporidicin® Sterilizing and Disinfecting Solution 01/01/2006**

## SECTION 1:

American Air & Water, Inc.  
12 Gibson Drive  
Hilton Head Island, SC 29926

Telephone Numbers  
**Phone:** 843-785-8699  
**Fax:** 843-785-2064

## SECTION 2: Ingredients/Identity Information

Chemical: Glutaraldehyde, 25% aqueous solution	Chemical Family: Aldehydes
Formula: OHCC3H6CHO	Molecular Weight: 100.11
Synonyms: Glutaral, glutaric dialdehyde, pentanedial	CAS# & Name: See Section 4, "Ingredients"

## SECTION 3: Physical Data (Determined on typical material)

Boiling Point, 760 mm Hg: ~100.5 C (~213 F)	Specific Gravity (H <sub>2</sub> O=1): 1.064 at 20 C
Freezing Point: ~ -10C (~14 F)	Vapor Pressure (Active Ingredient) at 20C: 0.20 mmHg
Vapor Density (air=1): 0.8	Solubility in water by wt: 100% at 20C
Evaporation Rate: (Butyl Acetate=1) 0.9	Odor: Sharp, Fruity, Medicinal
Appearance: Transparent colorless	
Physical State: Liquid	

## SECTION 4: Ingredients

<u>Material</u>	<u>%</u>	<u>CAS#</u>	<u>Exposure Limit</u>
Glutaraldehyde	25	111-30-8	See Section 6
Water	75	7732-18-5	None established
Methanol	0.25	67-56-1	See Section 6

## SECTION 5: Fire and Explosion Hazard Data

Flash Point (test method(s)):  
(Tag Closed Cup ASTM D 56): None  
(Tag Open Cup ASTM D 1310): None  
Flammable Limits in Air, by volume:  
Lower: Not Determined, Aqueous System  
Upper: Not Determined, Aqueous System  
Extinguishing Media: If water is evaporated, material can burn. Use carbon dioxide or dry chemicals for small fires. Use foam (alcohol, polymer or ordinary) or water fog for large fires.  
Special Fire Fighting Procedures: Self-contained breathing apparatus and clothing.  
Unusual Fire and Explosion Hazards: None

## MATERIAL SAFETY DATA SHEET

**Identity: ACTIVATOR for Sporidicin Sterilizing and Disinfecting Solution** 01/01/2006

### SECTION 6: Health Hazard Data (continued)

#### **EFFECTS OF SINGLE OVEREXPOSURE:**

Although Sporidicin Activator is packaged in relatively small volumes (5.73 oz. and 1.43 oz.) the following information is provided:

##### **Swallowing:**

Moderately toxic. May cause moderate to marked irritation and possibly chemical burns of the mouth, throat, esophagus, and stomach. There may be discomfort or pain in the chest and abdomen, nausea, vomiting, diarrhea, dizziness, faintness, drowsiness, thirst, weakness, circulatory shock, collapse and coma. Aspiration into the lungs may occur during ingestion or vomiting, resulting in lung injury.

##### **Inhalation:**

Vapor may be irritating to the respiratory tract, causing stinging sensations in the nose and throat, discharge from the nose, possibly bleeding from the nose, coughing, chest discomfort and tightness, difficulty with breathing, and headache. Heating the solution may result in more severe irritant effects.

##### **Skin Contact:**

Brief contact may cause slight irritation with itching and local redness. Prolonged contact may cause severe irritation, with local discomfort or pain, and local redness and swelling. Contact with solutions of glutaraldehyde may cause a harmless yellow or brownish discoloration of the skin.

##### **Eye Contact:**

Liquid will cause a severe and persistent conjunctivitis, seen as excess redness and marked swelling of the conjunctiva with profuse discharge. Severe corneal injury may develop, which could permanently impair vision if prompt first-aid and medical treatment are not obtained. Vapor will cause stinging sensations in the eye with excess tear production, blinking, and possibly a slight excess redness of the conjunctiva.

##### **Effects of Repeated Overexposure:**

Repeated skin contact may cause a cumulative dermatitis.

##### **Medical Conditions Aggravated by Overexposure:**

Skin contact may aggravate an existing dermatitis. Inhalation of material may aggravate asthma and inflammatory or fibrotic pulmonary disease.

#### **EMERGENCY AND FIRST AID PROCEDURE:**

##### **Swallowing:**

**DO NOT INDUCE VOMITING.** Do not give anything to drink. Obtain immediate medical attention.

Notes to Physician:

Due to the severely irritating or corrosive nature of the material, swallowing may lead to ulceration and inflammation of the upper alimentary tract with hemorrhage and fluid loss. Also perforation of the esophagus or stomach may occur, leading to mediastinitis or peritonitis and the resultant complications. Material aspirated during vomiting may cause lung injury. Therefore, emesis should not be induced mechanically or pharmacologically. If it is considered necessary to evacuate the stomach contents, this should be done by means least likely to cause aspiration (e.g., gastric lavage after endotracheal intubation).

##### **Skin:**

Flush thoroughly with water. Wash skin with soap and water. If irritation persists, obtain medical attention.

##### **Inhalation:**

Remove to fresh air. If symptoms persist, obtain medical attention.

##### **Eyes:**

Immediately flush eyes with water and continue washing for at least 15 minutes. **DO NOT** remove contact lenses, if worn. Obtain immediate medical attention preferably from an ophthalmologist.

## MATERIAL SAFETY DATA SHEET

**Identity: ACTIVATOR for Sporidicin® Sterilizing and Disinfecting Solution 1/01/2006**

### SECTION 7: Reactivity Data

Stability: Stable

Incompatibility (materials to avoid): Strong alkalis and acids catalyze an aldol-type condensation (exothermic, but not expected to be violent).

Hazardous Combustion or Decomposition Products: Burning can produce Carbon monoxide and/or carbon dioxide.

Carbon monoxide is highly toxic if inhaled; carbon dioxide in sufficient concentrations can act as an asphyxiant.

Hazardous Polymerization: Will Not Occur

Conditions to Avoid: Temperatures above 100 degrees C.

### SECTION 8: Spill or Leak Procedures

Steps To Be Taken If Material is Released or Spilled:

Wear suitable protective equipment. Very low concentrations (5 ppm or less of glutaraldehyde) can be degraded in a biological treatment system. Thus small spills can be flushed with large quantities of water.

Waste Disposal Method:

Atomize into a very hot incinerator fire or mix with a suitable flammable solvent, and incinerate where permitted under appropriate Federal, State and local regulations.

### SECTION 9: Special Protection

Ventilation:

General (mechanical) room ventilation is expected to be satisfactory if this material is kept in covered equipment.

However, if vapors are strong enough to be irritating to the nose (or eyes), the TLV is probably being exceeded and special ventilation may be required.

Protective Gloves:

Polyethylene

Nitrile (NBR)

Butyl

Eye Protection:

Splash proof monogoggles or safety glasses with wide shields.

### SECTION 10: Special Precautions

Do not get in eyes, on skin, or on clothing.

Avoid breathing vapor.

Do not swallow.

Wear eye protection, protective clothing, and rubber gloves. Wash thoroughly with soap and water after handling.

### SECTION 11: Regulatory Information

Massachusetts 105 CMR 670.000 Right-To-Know. Substance List (MSL)

Hazardous Substances and Extraordinarily Hazardous Substances on the MSL must be identified when present in products. Components present in this product at a level which could require reporting under the statute are:

Hazardous Substances (= > 1%)

Chemical

CAS Number

Upper Bound Concentration %

Glutaraldehyde

111-30-8

25