

# MATERIAL SAFETY DATA SHEET

Pharmaceutical Research Laboratories Inc. • 562 Captain Neville Drive, Waterbury CT 06705  
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www.pharmaceutical.com

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## (1) IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

**PRODUCT: VIRKON-S EPA REG # 62432-1**

**IMPORTER:** Pharmaceutical Research Laboratories

562 Captain Neville Drive Waterbury CT 06705

Tel: 800-243-5350

Virkon is the trade name of a disinfectant active against viruses, bacteria, and fungi pathogenic to animals and poultry. It is composed of peroxygen compounds, organic acids, surfactant and buffer.

The information provided in this Material Safety Data Sheet refers to the Virkon S in-use solutions, unless otherwise stated.

### SECTION 1 - MANUFACTURING INFORMATION

Product is manufactured by Antec International, Windham Road, Chilton Industrial Estate, Sudbury, Suffolk, CO10 6XD, England.

### SECTION 2 - COMPOSITION INFORMATION

#### Active Ingredients

Potassium peroxymonosulfate (CAS # 70693-62-8).....20.4%

Sodium Chloride (CAS # 7647-14-5).....1.5%

Equivalent to 9.75% available chlorine

### SECTION 3 - PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point ..... Not Applicable  
Vapor Pressure ..... Not Applicable  
Vapor Density ..... Not Applicable  
Evaporation Rate ..... Not Applicable  
Solubility in Water ..... Freely soluble in warm water

approximately 65g/l at 20°C (68°F)

Specific Gravity ..... 1.07  
Melting Point ..... Not Applicable  
Appearance ..... Yellow liquid

### SECTION 4 - FIRE AND EXPLOSION HAZARD DATA

Flash Point ..... Not Applicable  
Flammable Limits ..... Not Applicable  
Extinguishing Media ..... Water, Dry Powder, CO<sub>2</sub>  
Special Fire Fighting Procedures ..... Wear self contained  
breathing apparatus SCUBA and full protective equipment.

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## SECTION 5 - HEALTH - HAZARD DATA

### Acute Dermal Toxicity:

**Powder:** LD<sub>50</sub> greater than 2.0g/kg in rabbits.

### Acute Oral Toxicity:

**Powder:** LD<sub>50</sub> of 1.70g/kg in male rats and 1.16g/kg in female rats.

**Dilution:** LD<sub>5</sub> of 4123 mg/kg in male and female rats. This is considered to be slightly toxic (LD<sub>5</sub> 500-5000mg/kg).

### Acute Inhalation Toxicity:

**Powder:** LC<sub>50</sub> greater than 6.147mg/l of air over 4 hours in male and female rats.

**Dilution:** LC<sub>50</sub> @ 4 hour exposure is greater than 6 mg/l (by analytical determination). Test article was calculated at a 5% w/w dilution.

### Guinea Pig Dermal Sensitisation:

**Powder** does not appear to be a primary skin irritant, fatiguing agent or skin sensitizer.

**Dilution:** No risk phrase is required for VIRKON 1% solution in respect to its skin sensitisation potential. Does not appear to be a primary skin irritant.

**Primary Skin Irritation:** The **powder** is corrosive to the skin of rabbits with an irritation index of 7.00. A dilution of 5% results in an irritation index of 0.08 in rabbits.

**Primary Eye Irritation:** The **powder** is corrosive to rabbits' eyes. A dilution of 5% produces conjunctival irritation.

**Effects of Overexposure:** Inhalation of dust may cause choking, coughing or wheezing. **A 1% solution is normally non-irritating.**

### Emergency First Aid

**Hazards To Humans and Domestic Animals** - Danger, powder is corrosive. Causes skin burns and irreversible eye damage. Harmful if swallowed, absorbed through skin or inhaled. Do not get in eyes, on skin, or on clothing. Wear protective clothing and rubber gloves. Avoid breathing dust. Wear goggles, face shield or safety glasses. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse. Corrosive statement refers to powder only, not in-use solution.

### Practical Treatment:

If in **eyes**, hold eyelids open and flush with a steady, gentle stream of water for 15 minutes. Get prompt medical attention.

If on **skin**, wash with plenty of soap and water. Get medical attention if irritation persists.

If **inhaled** or symptoms of coughing, choking or wheezing are troublesome, remove to fresh air and seek medical attention.

If **swallowed**, drink promptly a large quantity of water. Avoid alcohol. Get immediate medical attention.

**Notice to Physician:** Probable mucosal damage may contraindicate the use of gastric lavage.

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## SECTION 6 - REACTIVITY DATA

Stability: Solution is stable for 7 days

Conditions To Avoid: Moisture, direct sunlight and excessive heat.

Incompatibilities: Avoid alkaline materials.

Hazardous Decomposition Products: Releases sulfur dioxide gas upon heating above 70°C (158°F)

## SECTION 7 - SPILL OR LEAK PROCEDURE

Contain spilled material. Neutralize and then dispose of material in accordance with all Federal, State, and Local Regulations.

## CHEMICAL NEUTRALIZATION:

Treating Virkon S 1% with an alkali will expedite the degradation of the oxidizing system, and neutralize the acidity. By adding Sodium Bicarbonate at a rate of 30g per liter of Virkon S 1% solution, the pH will raise to approximately 7.6, which is most beneficial when considering neutralization. This equates to 114 grams or 4 ounces of Sodium Bicarbonate per 1 US gallon of Virkon S 1:100 (1%) solution.

## SECTION 8 - SPECIAL PROTECTION INFORMATION

Respiratory Protection ..... Dust/Mist Respirator N95 3M # 8210

Protective Clothing ..... PVC Gloves, Goggles

NFPA

Health-1 Fire-0 React-0

HMIS

Health-1 Fire-0 React-0

## SECTION 9- TRANSPORTATION INFORMATION

TRANSPORTATION INCIDENT INFORMATION:

NOT TRANSPORTED IN THIS FORM

DOT IDENTIFICATION NUMBER:

N/A

SHIPPING DESCRIPTION:

NOT TRANSPORTED IN THIS FORM

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