



VIRKON

SAFETY DATA SHEET HSD/11

(1) IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

**Name:** Virkon (Powder as supplied)

**Supplier:** Russell Mainstream Supply Limited  
2 Commercial Road  
Ladybank  
Cupar  
Fife  
KY15 7JS

**Tel:** 44-(0)1787-377305  
**Fax:** 44-(0)1787-310846

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(2) COMPOSITION/INFORMATION ON INGREDIENTS

**Composition:** A blend of an inorganic peroxygen compound, inorganic salts, organic acid, anionic detergent, fragrance and dye.

<u>Chemical</u>	<u>% Concentration</u>	<u>Classification</u>	<u>CAS</u>	<u>Exposure</u>
Pentapotassium bis(peroxymonosulphate) bis(sulphate)	<50	C;R34. Xn;R22 R52	70693-62-8	10mg/m <sup>3</sup> 8 hour TWA ref. period (respirable dust - manufacturer's recommendation)
Sulphamidic acid	5 - 10	X <sub>i</sub> ;R36/38 R52/53	5329-14-6	None assigned
Sodium dodecylbenzenesulfonate	5 - 15	X <sub>n</sub> ;R22 X <sub>i</sub> ;R36/38	25155-30-0	None assigned
Dipotassium peroxodisulphate	<2%	O; R8 Xn; R22 Xi; R36/37/38 R42/43	7727-21-1	OES 1mg.m <sup>-3</sup> 8 hour TWA ref. period.

For the full text of the R phrases mentioned in this section, see section 16.

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(3) HAZARDS IDENTIFICATION

May cause serious eye damage.  
Irritating to skin.  
May cause irritation to the respiratory system through dust release.  
Harmful to aquatic organisms.

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(4)

**FIRST AID MEASURES****Exposure Route**  
**INHALATION****Symptom**

Irritation to nose, throat, lungs, respiratory tract.

**Treatment**

Remove to fresh air. If symptoms of coughing, choking or wheezing prove troublesome, or recovery is not rapid, seek medical attention.

**SKIN CONTACT**

May cause irritation, especially under moist conditions.

Drench skin with plenty of water. Remove contaminated clothing. If irritation persists after rinsing with water, consult a medical advisor.

**EYE CONTACT**

Strong irritation, corrosion.

Rinse thoroughly with clean water or buffered eye wash for at least 15 minutes. Obtain medical attention.

**INGESTION**

May cause severe irritation to mouth, throat, digestive tract and stomach.

Do NOT induce vomiting. Drink plenty of water (or milk) if conscious. Obtain immediate medical attention

(5)

**FIRE-FIGHTING MEASURES****Suitable Extinguisher:**FOAM, DRY POWDER, CO<sub>2</sub>**Special Precautions:**

VIRKON itself is not flammable, but may assist combustion of other materials under exceptional circumstances, e.g. when involved in a fire.

**Special Protective Equipment:**

Fire-fighting personnel are required to wear self contained breathing apparatus in the event of a fire involving Virkon, since release of Sulphur dioxide gas may occur.

(6)

**ACCIDENTAL RELEASE PROCEDURES****Personal Precautions:**

Wear protective equipment (see section 8). Prevent build up of dust as far as possible and remove sources of ignition.

**Environmental precautions:**

Do not allow the powder concentrate to enter drains or water courses. Small quantities (&lt;1kg) however may be diluted to waste via a treatment facility with large quantities of water. Observe local restrictions.

**Methods for Cleaning up:**

Sweep up carefully to prevent formation of dusts, preferably with aid of a suitable dry anti-dusting agent if available. Keep product dry, if possible, during clean-up procedure. Place in suitable containers for disposal. Prevent powder from becoming moist whilst awaiting disposal, if possible. Clean affected area thoroughly with water.

Moist product awaiting disposal must be kept away from combustible material and stored in manner which allows suitable ventilation of the waste.

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(7) **HANDLING AND STORING**

**Precautions**

**during handling:**

Handle with sufficient care to prevent dust build up.

The use of L.E.V. may be required when handling the product supplied in bulk quantities.

Wear protective clothing. (see section 8).

Where significant dust formation occurs (e.g. when handling bulk quantities) the use of a suitable dust mask may be required (see section 8).

**Storage:**

Keep containers tightly sealed and avoid coming into contact with moisture during storage. Keep away from combustible material.

Avoid contamination of product.

Virkon 1% solution: Store in clean loosely capped plastic containers at normal temperatures away from direct sunlight. Do not allow to freeze. Discard solution either once the colour is lost, or after 7 days from date of preparation.

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(8) **EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Engineering measures:**

Appropriate Local Exhaust Ventilation (L.E.V.) is necessary for handling the product in situations where dust formation is a problem ie. in bulk quantities. Not normally necessary for preparation of solutions from 50g, 2.5kg, 1kg and 5kg packs.

**Control**

**Parameters:**

10mg/m<sup>3</sup> (8 hr T.W.A.) for respirable dust (manufacturers recommendation).

**Personal Protection**

**Respiratory:**

Powder Concentrate:

Where necessary, dust mask for fine particles (eg. 3M Type 8710).

Diluted Product:

When working in mists of Virkon, respiratory protection in the form of a type AP (organic vapour - particulate matter) filter is recommended (e.g Arco Filtermax face mask and A<sub>2</sub>P<sub>3</sub> filter).

**Hand:**

Rubber gloves (eg. Marigold type G01R)

**Eye:**

Goggles or face-shield to BS EN166.

**Skin:**

Overalls may be required for dealing with large spills or when handling the product in large quantities.

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(9) **PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance/ Odour:</b>	Pink, free flowing powder with faint lemon odour.
<b>pH (1% solution, 20°C):</b>	2.6
<b>Boiling point/ Range:</b>	Decomposes on heating.
<b>Flash Point:</b>	Not applicable.
<b>Explosive properties:</b>	Not applicable.
<b>Oxidising properties:</b>	Not oxidising.
<b>Specific gravity:</b>	1.07 approximately.
<b>Solubility (water at 20°C):</b>	Approximately 65g/litre.

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(10) **STABILITY AND REACTIVITY**

<b>Stability:</b>	Stable under normal conditions.
<b>Conditions to avoid:</b>	Moisture ingress to the stored powder, which will cause rapid product degradation.
<b>Materials to avoid:</b>	Strong alkalis  Salt (Sodium chloride)  Combustible materials
<b>Hazardous decomposition products:</b>	Oxygen, Sulphur dioxide. Chlorine under certain extreme conditions if powder is allowed to become moist.

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(11) **TOXICOLOGICAL INFORMATION****TEST DATA**

<b>Acute oral toxicity:</b>	LD <sub>50</sub> (Rat), 4123mg/kg
<b>Acute dermal toxicity:</b>	LD <sub>50</sub> (Rat) 2200mg/kg

<b>Skin irritation:</b>	<u>Powder:</u> Moderately irritating primary irritation index = 2.8
	<u>Virkon 1% solution:</u> Non-irritating primary irritation index = 0
<b>Eye irritation:</b>	<u>Powder:</u> May cause eye damage
	<u>Virkon 1% solution:</u> Non-irritating.
<b>Skin Sensitisation:</b>	<u>Powder:</u> Not sensitising (Guinea pig, Magnusson & Kligman Maximisation Method, and; Guinea pig, Modified Buehler method).
	<u>Virkon 1% solution:</u> Not sensitising (Guinea pig, Magnusson & Kligman Maximisation Method).
<b>Human experience:</b>	The powder product is a strong eye irritant, irritant to skin and by inhalation of the dust.

(12) **ECOLOGICAL INFORMATION**

<b>Persistence and degradability:</b>	No data is available. However, based on evaluation of its components in accordance with 1999/45/EC, this product is not expected to display long term adverse effects in the aquatic environment.
<b>Bioaccumulation:</b>	Not noted.
<b>Aquatic toxicity:</b>	Harmful to aquatic organisms.

(13) **DISPOSAL CONSIDERATIONS**

<b>Disposal of product:</b>	Dispose of as Special Waste in compliance with the Special Waste Regulations 1996. Observe local restrictions.
<b>Disposal of packaging:</b>	Dispose of in compliance with the Environmental Protection (Duty of Care) Regulations 1990.

(14) **TRANSPORT INFORMATION**

<b>U.N. Number:</b>	None assigned
<b>U.K. Road (CDG-CPL):</b>	Not classified
<b>Sea (IMDG):</b>	Not classified

<b>Road/Rail (RID/ADR):</b>	Not classified
<b>Class Number:</b>	None assigned
<b>Packaging Group:</b>	None assigned
<b>Correct Shipping Name:</b>	Not applicable
<b>Marine Pollutant:</b>	No

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(15) **REGULATORY INFORMATION**

**Legislation:** The product is labelled in accordance with the Chemicals (Hazard Information and Packaging) Regulations 2002 (CHIP3). The product must be handled in accordance with the COSHH (Control of Substances Hazardous to Health) Regulations 2002.

**Symbol:** Irritant (X<sub>i</sub>)



**Irritant**

<b>R-Phrases:</b>	<b>R38</b>	Irritating to skin.
	<b>R41</b>	Risk of serious damage to eyes.
	<b>R52</b>	Harmful to aquatic organisms.
<b>S-Phrases:</b>	<b>S2</b>	Keep out of reach of children
	<b>S22</b>	Do not breathe the dust
	<b>S24/25</b>	Avoid contact with skin and eyes
	<b>S26</b>	In case of contact with eyes, rinse immediately with plenty of water, seek medical advice.

(16) **OTHER INFORMATION**

**Uses:** Disinfectant/Cleaning agent

**Further product information:** For uses other than those labelled on the package, please consult us prior to proceeding.

The customer should satisfy themselves that the product is suitable for the intended purpose, and that a suitable and sufficient assessment of any risks created by any activity using this product is undertaken before use.

**Explanation of Risk Phrases (R-phrases) mentioned in section 2:**

R8	Contact with combustible material may cause fire.
R22	Harmful if swallowed.
R34	Causes burns
R36/38	Irritating to eyes and skin.
R36/37/38	Irritating to eyes, respiratory system and skin.
R42/43	May cause sensitisation by inhalation and skin contact.
R52/53	Harmful to aquatic organisms, may cause long term adverse effects in the aquatic environment.

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Changes made since the last edition are indicated by a line in the margin.

The above information is based upon our current state of knowledge of the product at the time of publication. The data is given in good faith and is designed only as a guidance to users of possible risks, and therefore does not constitute a guarantee of product quality or performance.

**Revision:** I

**Date:** 12.07.04

**Replaces:** H Dated, 4<sup>th</sup> January 2001

**EMERGENCY TELEPHONE NUMBER (UK): 01787 377305**