

## Virkon Aquatic Information.

- Virkon is the most proven livestock disinfectant in the world.
- Fast acting- 1% solution independently proven to kill bacteria and fungi in less than 5 minutes and parvovirus in less than 10 minutes.
- Independently proven effective on porous surfaces such as wood, against organic challenge, in hard water and at low temperature.
- High levels of surfactancy with acidic and oxidising power provide superior destruction of biofilms.
- UK Defra approved at exceptionally high dilutions:-
- Friendly to man, animals and the environment.
- Non-tainting, [no environmental residue problems](#), of exceptionally low toxicity.
- A powder for easy storage and transportation and accurate dilution - readily soluble in tepid water.

## Versatile

- Complete control - aerial, surface and water system disinfectant.
- Can be applied to surfaces and equipment to clean and disinfect in a one step operation - passes AOAC detergent sanitizer test at 1:200 dilution.
- Suitable for use in all types of poultry and animal housing, fish farms, greenhouses and veterinary surgeries.

## Chemical and physical properties

- **COMPOSITION:** A balanced, stabilised blend of peroxygen compounds, surfactant, organic acids, and an inorganic buffer system.
- **APPEARANCE:** Pink/grey powder (yellow/orange in US). **ODOUR:** Faint lemon odour.
- **ACTIVITY:** Strong oxidising system.
- **STABILITY:** Powder: 2.3% average loss of initial activity after 36 months at 20°C. 1% solution: only 10% loss of initial activity after 7 days in 350ppm hard water.
- **SOLUBILITY:** Readily soluble in tepid water giving a clear pink solution (yellow in US).
- **CORROSIVITY:** No corrosive effects on mild or stainless steel when used as directed.
- **HYDROGEN ION CONCENTRATION:** 1% solution - pH2.6.

## Environmental Impact

- **[Ecotoxicity:](#)** "Non toxic" according to EU standards for soil toxicity; lower aquatic toxicity than peracetic acid and will not present a threat to sewage treatment facilities when used as directed. Water Research Council UK.
- **[Environmental effect:](#)** "In the dilution normally encountered all of the Virkon ingredients are either decomposed and/or biodegraded and are comparatively harmless. The triple salt of potassium monopersulphate will decompose into harmless by-products. In the aqueous environment the product will eventually

degrade and should pose no problem to sewage treatment processes" Anglian Water, August 1994

- Biochemical Oxygen Demand: In a 5 day Biochemical Oxygen Demand test carried out by Anglian Water a 1% solution of Virkon (subsequently diluted to a level typically found in effluent streams) did not inhibit the BOD test. From this it can be concluded that Virkon was degradable under the conditions of test and as such would not affect the functioning of sewage treatment plants.
- [Biodegradability](#): Virkon consists mainly of inorganic salts which decompose into harmless by-products. The surfactant is a salt of a straight chain alkyl benzene sulphonate complying with EEC directive 82/243, giving more than 90% biodegradability under OECD test conditions.

## Safety

- Exposure: No occupational exposure limits are specified for Virkon components according to the requirements laid down in Health and Safety Executive Guidance Note EH 40/95 under the Control of Substances Hazardous to Health, (COSHH) Regulations, 1994.
- Irritancy: At 1% in use dilution Virkon is classified as:- Non-irritant to skin, Non-irritant to eyes, when tested according to EU Directive 67/548/EEC.

Dose. See table below For pond treatment. May be used on a weekly basis whilst bacterial or Viral problems are suspected at 1 to 2 grams per 220 gallons. In tablet form - each tablet weighs 5 grams.

Water Hardness: Terms and Conversion mg/l CaCO <sub>3</sub>	German Degrees of Hardness	Described as	Dose per 220 gallons
0 - 50	0 - 3	soft	2gm
50 - 100	03-06	fairly soft	2.5gm
100 - 200	06-12	slightly hard	3gm
200 - 300	12-18	moderately hard	3.5gm
300 - 540	18 - 30	hard	4gm
540 +	30 +	very hard	5gm
1 degree of hardness = approx 18 mg/l CaCO <sub>3</sub>			