



# Virusolve<sup>®</sup> +

## Specialized Cleaning and Disinfecting Fluid Technical Information

### Description & Application:

Virusolve+ is a complex blend containing the latest dodecylamine based structures, solvents and fully non-toxic, biodegradable detergent. The formulation does not contain any hazardous aldehydes or chlorine generating components.

The formulation is highly effective as a cleaner and terminal disinfectant against bacteria, bacterial spores, fungi and viruses. The product is designed to eliminate the risk of cross-infection from viruses, fungi and bacteria. Virusolve+ Advance does not simply render the microorganisms inert but has been demonstrated to kill these by disrupting the RNA of the microorganisms.

It is safe to use on any surface and is odourless and colourless.

Primary features attributable to Virusolve+ are:

- Suitable for disinfection and cleaning, contains powerful germicides;
- Low toxicity, does not contain chlorine or aldehyde compounds;
- Highly effective over a wide range of viruses, bacteria, fungi, yeasts and moulds, including MRSA, Hepatitis B and HIV agents;
- Highly effective against bacterial spores;
- Effective against the difficult non-enveloped type viruses such as Polio, Adenovirus and Norovirus;
- Non-selective;
- Versatile, simple to use and cost effective;
- Approved by accredited laboratories.

### Applications

Virusolve+ is ideal for removing biohazards in hospitals, health centres, dentists, vets, nursing homes, laboratories, food preparation areas and any environment where the risk of cross-infection needs to be eliminated, e.g. cruise ships.

Virusolve+ is suited for cleaning and disinfection of hard surfaces, walls, floors, glasswork and contaminated laundry.

It can also be used to disinfect medical and surgical instrumentation.

It can also be used to disinfect hairdressing equipment.

### Compatibility

Virusolve+ is compatible with a wide range of fabrics, rubbers, plastics and hard surface materials.



Certificate No. GB06/69741



Certificate No. GB06/69740

CE  
0120

Certificate No. GB06/69739

**Infection  
Controlled**

## **Health and Safety**

Virusolve+ is not flammable and is neither a known or suspected carcinogen, is non-hypoallergenic, and is fully biodegradable.

Virusolve+ is certified as being non-fuming and non-hazardous when used according to the specified user directions.

Virusolve+ is intended for external use only.

In the 'concentrate' form the product is classed as being Irritant and contact with skin and eyes should be avoided. Suitable protective clothing, gloves and eye/face protection should be used

Diluted Virusolve+ can be safely used in contact with skin. In the 'Ready-to-Use' form the product is classed as being non-irritant.

See Material Safety Data Sheets for details.

## **Typical Properties**

Appearance	Pale straw coloured liquid
Odour	Slight amine (fishy) odour
pH,	12.4 units (neat) 11.6 (10% solution) 11.2 (5% solution) 11.0 (1% solution)
Density, g/cm <sup>3</sup> @ 20 °C	1.02 (neat)
Solubility in water	Complete
Flash Point (Abel closed cup)	None

### **Shelf Life of Concentrate and Ready-to-Use**

2 years in unopened original containers when stored between 5 °C and 40 °C out of direct sunlight.

Virusolve+ in contrast to other disinfectants is capable of penetrating the outer membranes of the bacteria and viruses and as a result renders the genome material within the cell inactive. This is in contrast to other disinfectants in the marketplace that are composed of chemicals that may well inactivate the cells for a period of time, preventing growth, but after a period the cells will regenerate and multiply.

Virusolve+ will inactivate the cell to the point where the RNA is destroyed and therefore preventing replication.

Virusolve+ will also attack all single strand transcriptase positive and transcriptase negative viruses within similar families.

Virusolve+ has been thoroughly tested by independent laboratories and demonstrated to be effective against gram negative and gram positive bacteria, viruses and fungi/yeasts.

Efficacy data has been raised against the following specific organisms:

#### **Bacteria:**

- Acinetobacter calcoaceticus
- Bacillus stearothermophilus
- Bacillus cereus
- Campylobacter jejuni
- Clostridium difficile
- Clostridium perfringens
- Enterobacter sakazakii
- Enterococcus hirae
- Enterococcus faecalis Vancomycin Resistant (VRE)
- Escherichia coli
- Escherichia coli ESBL (Extended Spectrum beta-Lactamases)
- Escherichia coli - O157 Strain
- Legionella pneumophila (Sero Group 1)
- Listeria monocytogenes

Methicillin resistant Staphylococcus aureus (MRSA)  
Pseudomonas aeruginosa  
Salmonella typhimurium  
Serratia marsescens  
Shigella sonnei  
Stenotrophomonas maltophilia  
Staphylococcus aureus  
Vibrio parahaemolyticus  
Yersinia enterocolitica

Mycobacterium terrae (Note – has been used for testing against TB)  
Mycobacterium tuberculosis

**Viruses: -**

Avian flu (Bird Flu – Strain H5N1)  
Hepatitis B and C  
HIV-1 virus  
Influenza virus (Strain H3N2)  
Parainfluenzae 3 virus,  
Polio virus  
Vaccinia virus,  
Feline Calicivirus (Human norovirus surrogate)  
Adenovirus

**Spores:-**

Bacillus cereus  
Clostridium difficile  
Clostridium perfringens

**Fungi and Yeasts: -**

Aspergillus niger  
Candida albicans  
Microsporum canis  
Microsporum gypseum  
Trichophyton equinum  
Trichophyton mentographytes

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## **Directions for Use**

Virusolve+ is supplied as a concentrated product that requires dilution prior to use.

**Concentrate dilution:**

For cleaning and disinfection applications, dilute 1 part Virusolve+ concentrate to 19 parts cold water (i.e. a 5% solution)

For special cleaning cases, greater strengths of up to 10% Virusolve+ (i.e. 1 part to 9 parts water) may be used.

**Application:**

**General Surface Cleaning and Healthcare Environment:**

Dispense / Spray (DO NOT MIST) Virusolve+ diluted solution directly onto the surface to be treated and wipe gently over the whole area with a clean low lint cloth. Allow a minimum contact time of 1 minute before wiping clean or brushing to remove grease, blood and organic debris.

Removal of stubborn deposits may be assisted by the use of a stiff bristle brush.

Rinse treated surface with clean water if required.

Note: Food preparation surfaces should be allowed to dry before use.

**For Disinfection of medical, surgical and dental instruments and equipment (Manual procedure):**

Completely immerse the instrument (preferably disassembled, where applicable) in Virusolve+ diluted solution (temp. no higher than 35°C) for at least 5-10 minutes. Remove instrument and wipe or brush clean to remove debris that remains. Rinse treated instrument in sterile, cold water and allow to dry. Replace used Virusolve+ diluted solution at least once every 14 days, or earlier if gross soiling of the solution becomes evident.

**Laundry:**

Apply diluted Virusolve+ solution and allow to soak prior to washing.

N.B. Ensure fabrics are colour fast prior to use. If in doubt test a small inconspicuous area before application.

**Animals:**

Areas where animals are kept should be regularly cleaned and disinfected using diluted Virusolve+ to ensure good animal welfare.

**CONTACT DETAILS:****For UK and Rest of the World:**

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For any further information, please contact your distributor or Amity.

In the event of any technical queries, please contact:  
 Mr. Ram Singh at the UK/ROW address, above, or by e-mail to:

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**Packaging Details:**

Virusolve+ is available in the following packaging.  
 Users will need to specify requirements on their order.

As a Concentrate in:

- 2 Litre containers;
- 25 litre container;
- 210 litre drum;
- IBC (1000 litres).

As a Ready-to-Use (RTU) solution in:

- 750 ml trigger spray container (minimum order is pack of 12);
- 5 Litre containers;
- 25 litre container;
- 210 litre drum;
- IBC (1000 litres).

As a Pre-impregnated RTU Wipe in:

- Tub of 50 sheets (130mm x 200mm, 35 gsm) (minimum order case of 12 tubs);
- Pillow pack of 50 sheets (200mm x 280mm, 35 gsm) (minimum order case of 10 packs);
- Tub of 100 sheets (200mm x 220mm, 35 gsm) (minimum order case of 6 tubs);
- Bucket of 500 sheets (200mm x 230mm, 35 gsm);
- Bucket of 800 sheets (200mm x 230mm, 28 gsm) for Food Industry sector use;

## **Approval and Test Data for Virusolve+**

### **1. Approvals.**

- 1.1 Virusolve+ has been satisfactorily tested by leading laboratories for viral, bacterial and fungi testing.
  - Micropathology Ltd, Coventry;
  - H.I.R.L (Hospital Infection Research Laboratory) City Hospital Birmingham
  - Bodycote Materials Testing, Law Laboratories, Birmingham.
  - Texcell Laboratory (Part of Institute Pasteur®), Paris, France
  - Health Protection Agency, UK.
  - Retroscreen Virology Ltd (Queen Mary Hospital, University of London)
- 1.2 Virusolve+ has been satisfactorily tested as a disinfectant and approval granted by the UK Department for Environment, Food and Rural Affairs (DEFRA) for the following:
  - General Orders, as defined in the Diseases of Animals (Approved Disinfectant) Order 1978 at a dilution of 1 part disinfectant to 19 parts of water.
  - The Disease of Poultry Order and The Avian Influenza and Influenza of Avian Origin in Mammals Order at a dilution rate of 1 part disinfectant to 9 parts of water.

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### **2. Test compliance**

- 2.1 Testing carried out according to;
  - BS6471,
  - BS6424,
  - BS6905,
  - EN 13727(2003),
  - EN 14348, and
  - AFNOR (EC) procedures.
- 2.2 Virusolve+ has been tested for bactericidal efficacy according to BS EN 1276 (European Suspension Test) and demonstrates a > log 5 reduction in counts at 20 °C for all three time intervals selected.
- 2.3 Basic fungicidal and yeastical activity tested in accordance with BS EN 1275 (European Suspension Test) and demonstrates a > log 5 reduction in counts at 20 °C after 1, 2 and 5 minute contact times.
- 2.4 Sporicidal Efficacy tested in accordance with BS EN 14347 and achieved >5 log 10 reduction in all test organisms for all contact times down to 1 minute.
- 2.5 Sporicidal Efficacy tested in accordance with BS EN 13704 and achieves a >3 log 10 reduction in all test organisms for all contact times down to 1 minute.
- 2.6 Virucidal activity tested according to norm NFT 72-180 and passes requirement (> 4 log 10 reduction at 1 minute exposure).
- 2.7 Bactericidal Efficacy for disinfection of medical instruments tested in accordance with BS EN 13727 and achieved >5 log 10 reduction in all test organisms.
- 2.8 Bactericidal and Fungicidal Efficacy in food, industrial and institutional areas tested in accordance with BS EN 13697 and achieved >5 log 10 reduction within a 5 minute contact time.
- 2.9 Complies with BS ISO 4120:2004, food taint test.
- 2.10 Feline calicivirus (Human norovirus surrogate), polio virus and adenovirus tests carried out in accordance with test standards EN 14476.
- 2.11 Bactericidal efficacy against Mycobacterium tuberculosis established using BS EN 14348.