



## Viruzyme®

# A Proteolytic Double-Enzyme Biological Cleaner for Endoscopes & Medical Equipment

## Technical Information

### Description & Application:

Viruzyme is a new biological enzymatic detergent for use in washer/disinfectors. It is a dual enzymatic detergent specifically formulated to remove high levels of proteins, fats and other organic material from instruments and equipment. Its dual enzyme formulation dissolves and removes all types of protein and organic material, even dried on blood and tissue; in particular it is suitable for the automated reprocessing of endoscopes in endoscope washer.

Viruzyme is a highly effective and safe for the cleaning of endoscopes, medical, dental and delicate instruments against a wide range of contaminants.

Viruzyme is registered as a Class I medical Device

Primary features attributable to Viruzyme are:

- Biological cleaner suitable for removal of proteinaceous and organic contaminants from sensitive instrument materials ;
- Uses a blend of proteolytic and amylase enzymes that have added safety:
  - Low toxicity;
  - Pleasant odour;
- Reduced instrument damage and repair:
  - Excellent material compatibility;
  - Non-fixative;
  - Non-corrosive will not damage delicate coatings.
- Increased speed and efficiency:
  - Rapid cleaning time – 5 minute immersion at 20 to 55°C;
  - Cost effective – improved staff productivity, more flexible, more devices processed per litre;

### Applications



**Infection  
Controlled**

Viruzyme is ideal for removing bioburden from medical instruments, endoscopes and other equipment used in hospitals, health centres, dentists and laboratories.

## **Compatibility**

Viruzyme is compatible with a wide range of fabrics, rubbers, plastics and hard surface materials and will not attack metal surfaces if used in accordance with the recommended dilution rate and contact time.

## **Health and Safety**

Viruzyme is biodegradable.

Viruzyme is certified as being non-hazardous when diluted and used according to the specified user directions.

The neat product is classed as being Irritant and contact with skin and eyes should be avoided.

The organisms used in the formulation are naturally occurring and are known to be non-pathogenic to humans and animals.

See Safety Data Sheets for details.

## **Typical Properties**

Appearance	Pale red liquid
Odour	Pleasant odour
pH,	9.5 units (neat)
Density, g/cm <sup>3</sup> @ 20°C	1.05 (neat)
Solubility in water	Completely miscible
Flash Point (Abel closed cup)	None

**Shelf Life:** Concentrate – 2 years in unopened original containers when stored between 5°C and 25°C out of direct sunlight.

## **Directions for Use**

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

### **Application:**

#### **For Manual/Ultrasonic Cleaning of instruments and equipment:**

For cleaning applications, dilute 1 part Viruzyme concentrate in 200 parts water (i.e. a 0.5% solution or 5ml/Litre)

Note Greater strengths of up to 2% Viruzyme concentrate (i.e. 1 part in 50 parts water or 50ml/Litre) may be used where high levels of contaminants or where difficult or hazardous contaminants may be present.

Soak parts for between 5 and 10 minutes in the diluted Viruzyme solution (allow longer times up to 20 minutes when dealing with dried on proteinaceous deposits or if low solution temperatures are employed).

After soaking, rinse off thoroughly with clean water or transfer to the next cleaning stage e.g. manual cleaning, washer/disinfector or ultrasonic equipment.

#### **For Automated Cleaning of instruments and equipment:**

Injectors should be adjusted to deliver between 5 and 10 ml per litre of water (i.e. between 0.5 and 1% solution) dependant on the expected soil loading of the contaminated equipment and the temperature of the water.

Recommended cleaning programs for WD and AER equipment are as follows:

<b>Washer-Disinfector equipment</b>					
<b>Phase</b>	<b>Water type</b>	<b>Time</b>	<b>Temp</b>	<b>Detergent</b>	<b>Dosage</b>
Pre-wash	Cold tap water	3 min	-	-	-
Wash	Hot tap water	10 min	55°C	Viruzyme	5 to 10ml / L (0.5 – 1%)
Rinse	Hot water	1 min	-	-	-
Rinse	DI water	1 min	-	-	-
Thermo-disinfection	DI water	3 min	93°C	Virudet NDA	0.5ml/L or 0.05%

<b>AER equipment</b>					
<b>Phase</b>	<b>Water type</b>	<b>Time</b>	<b>Temp</b>	<b>Detergent</b>	<b>Dosage</b>
Pre-wash	Cold tap water	3 min	-	-	-
Wash	Hot tap water	10 min	55°C	Viruzyme	5 to 10ml / L (0.5 – 1%)
Rinse	Hot water	2 min	-	-	-
High level disinfection	DI water	10 min	25°C	Virusolve+ EDS Auto	25ml/L (2.5%)
Rinse	DI water	2 min	-	-	-
Rinse	DI water	2 min	-	-	-
Rinse	DI water	2 min	-	-	-

Viruzyme is not a disinfectant and parts should proceed to disinfection or sterilisation by appropriate methods immediately following cleaning.

#### **General:**

Initial rinse temperature should be below 35°C otherwise the temperature may bake on protein contaminants rendering them more difficult to remove.

Enzyme activity increases with increased water temperature up to a maximum temperature of 55°C.

A policy by the practice to carefully monitor the above will help to reduce any potential problems.

For maximum effectiveness, the Viruszyme solution should be replaced at least daily or when the observed cleaning action falls off.

Do not add other cleaning agents to the Viruszyme solution as they can seriously impair performance of the Viruszyme cleaner.

### **Disposal of spent solutions:**

Flush to drain with copious water or soak up onto inert material and dispose of with clinical waste. Product is biodegradable under OECD conditions and will be treated in a foul water processing facility.

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### **CONTACT DETAILS:**

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### **Packaging Details:**

Viruszyme is available in the following packaging.

- 1 L container
- 5 L container
- 10 L container
- 25 L container
- 210 L container (available on request)
- 1,000 L IBC container (available on request)