NEOGEN®

VIROXIDE SUPER

DEFRA approved (FMD, SVD, DoP and General Orders)

Proven effective against African Swine Fever

Peroxygen formulation for enhanced broad spectrum disinfection

Non-resistant oxidative chemistry for speed of kill

Effective in a wide range of temperatures and in hard water conditions

Suitable for livestock housing, equipment, aerial fogging, misting and foot dip applications




NEOGEN BioSecurity

Neogen® BioSecurity

Neogen Corporation develops and markets products dedicated to food and animal safety. Neogen's Animal Safety Division is a leader in the development of animal genomics, along with the manufacturing and distribution of a variety of animal healthcare products, including diagnostics, pharmaceuticals, veterinary instruments, wound care, hygiene products and aquaculture.

Your professional partner in biosecurity.

The Neogen BioSecurity range is benefiting from new product investment, underpinned by a commitment to high quality, in order to become a leader in animal safety.

Neogen BioSecurity products are developed and manufactured at Neogen's facility in Rochdale, United Kingdom.

Livestock:

Broad spectrum disinfectants for infectious disease control in livestock housing and equipment. High foaming detergents, pre-cleaners and sanitisers for animal housing and hatcheries.

Food Processing:

Food-safe cleaners and sanitisers for processing equipment, tanks and pipelines to prevent microbial food contamination and help meet stringent food safety standards. Degreasers and descalants to remove stubborn deposits.

Dairy Hygiene:

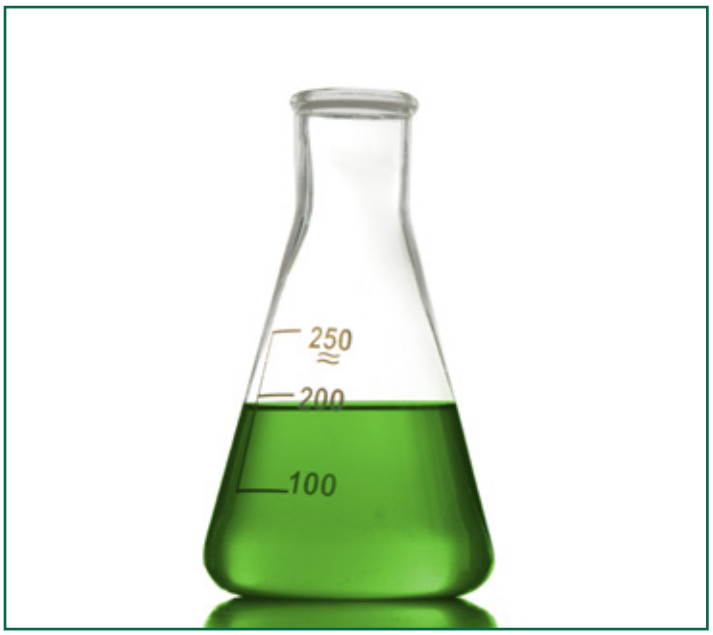
Pre-milking and post-milking teat dip, sprays and foams to protect against organisms that cause on-farm udder infections in dairy ruminants. Circulatory cleaners and disinfectants for the highest level of hygiene in milking parlours and milk bulk tanks, both conventional and robotic.

Aquaculture:

Cleaners and disinfectants for disease control during grow-out production, egg disinfection and equipment sanitation to stop spread of disease and invasive species contamination.

Neogen Viroxide Super

Good hygiene practice and biosecurity are essential to provide the highest level of protection against infectious livestock diseases on farm and in veterinary and zoological settings.



Neogen Viroxide Super peroxygen powder offers rapid broad spectrum disinfection and speed of kill as part of terminal disinfection, continual disinfection and emergency disease control programmes.

Neogen BioSecurity has positioned Neogen Viroxide Super as a key tool in support of the evolving markets for Emergency Disease Control products and additionally in the global movement to reduce antibiotic use within the food chain.

With increasing outbreaks of diseases known to cause economic hardship, Neogen Viroxide Super with its proven efficacy can be used as part of your biosecurity protocols across a number of specific application methods.

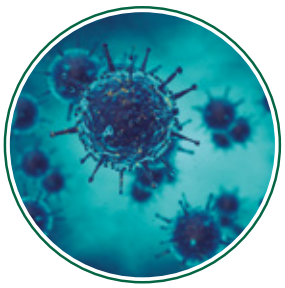
Micro-organisms such as bacteria have been shown to develop resistance not just to antibiotics but to other chemistry types. Neogen Viroxide Super can continue to be used safe in the knowledge that no known organism has yet developed tolerance to repeated exposure.

How it works

Neogen Viroxide Super utilises an oxidative chemistry to which no known organism has yet developed resistance to repeated exposure to the active substance. It causes extensive damage to the protective mechanisms of microbial cells, causing irreversible damage and rapid kill of bacteria, viruses, fungi and spores.

- Superior oxidisation for speed of kill
- Safe to use in the presence of livestock and farm workers during aerial disinfection
- Enhanced efficacy in a wide range of temperatures and in hard water areas
- Increased surfactant to aid pathogen penetration and cleaning action
- Contains a preferred short chain organic acid which has properties known to interrupt the propagation of many viruses, including respiratory viruses

Bacteria



Viruses

Fungi

Spores

Product applications

Neogen Viroxide Super can be used on hard and porous surfaces including housing and equipment, foot dips and vehicles, as well as drinking water systems and fogging and misting applications.

Under continuous biosecurity measures Neogen Viroxide Super can be used in the presence of animals, subject to country regulatory conditions.

Terminal disinfection

Terminal disinfection is a vital part of a biosecurity programme in order to remove as many organisms as possible down to a level that is not harmful to the health of livestock or human.

A terminal disinfection programme should consist of the removal of all organic matter from all surfaces and equipment achieved by washing with a high quality detergent to remove all dried on residues, greases and fats where organisms can live. Once areas to be disinfected have been thoroughly cleaned, apply a high quality disinfectant such as Neogen Viroxide Super at the recommended dilution and application rates.

Application of Neogen Viroxide Super during terminal disinfection can be carried out using the following methods:

Porous and non porous surface disinfection of housing and equipment

Physical application of a prepared Neogen Viroxide Super solution to pre-cleaned surfaces that can be carried out either automatically using a pressure washer, mechanically using a knapsack sprayer, or by soaking the equipment.

Aerial misting, cold and thermal fogging applications

Application of Neogen Viroxide Super disinfectant using the dispersal of suspended particles in the air is an excellent means of controlling micro-organisms entering buildings and ensuring disinfection of inaccessible areas. The technique relies on the disinfectant particles being able to travel to the surface and then be in sufficient quantity to ensure coverage of that surface.

- Misting or aerial spray using automated misting systems, a pressure washer or knapsack sprayer produces relatively large particles, which have a good ability to wet a surface and reduce residual dust.

- Cold fogging is carried out using a solution of Neogen Viroxide Super in a mechanical mister or ULV fogging machine, producing smaller particles circa 20 microns, which are able to travel further than misting or spraying. Cold fogging is a practical method for smaller building areas.

- Thermal fogging requires heating of the disinfectant to produce a highly visible fog, which is easy to control and covers a large space in a more efficient timescale. Thermal fogging is particularly useful as a final terminal disinfection procedure once all equipment and litter or bedding are in place. The extremely fine particles, typically 5 microns, can travel the furthest, give uniform distribution and give the best penetration of all the aerial disinfection methods.

Smaller particles are able to travel and penetrate further.

Continuous disinfection

Good biosecurity control measures require the use of continuous biosecurity to maintain an environment that stops pathogens from taking hold. Continuous biosecurity is a management process and it should be part of any HACCP policy to prevent the spread of unwanted organisms from place to place.

Foot dips

Foot dips are an effective way of preventing cross-contamination between sites and buildings. They are a visible means of both demonstrating a biosecurity protocol and ensuring participation of these procedures by both staff and visitors alike. Using a prepared Neogen Viroxide Super solution in a container large enough to accommodate appropriate footwear, the foot dip should be placed at farm and building entrances, along with a brush to remove large debris before dipping. An instruction sheet of how to use the dip must be located above the foot dip, so that all users are familiar with its correct use.

Foot dips should be changed twice a week, more if high footfall is expected.

Vehicle and wheel disinfection

Vehicles permitted to pass critical biosecurity control points must be disinfected to prevent cross contamination between sites. A Neogen Viroxide Super solution can be applied to the wheels and vehicle using an automated drive-through, a pressure washer, a knapsack sprayer or systems such as a drive-through wheel dip.

Cold and thermal fogging applications

Neogen Viroxide Super can be used in solution for cold and thermal fogging applications, as part of a continual disinfection plan for preventative action of cross infection or during outbreaks of disease challenge. Cold fogging and thermal fogging are safe to use in the presence of livestock and farm workers, if local regulation permits.

Drinking water treatment

All water systems have the ability to harbour contamination, which can support microbial life. Header tanks and other water storage solutions are areas where debris and dust accumulate, providing a breeding ground where pathogens can multiply and spread. The microbial quality of the water source, particularly non-mains supplies, can vary greatly and can potentially introduce pathogens into the drinking water if left untreated.

Neogen Viroxide Super can be added to storage tanks to improve overall water quality and for terminal disinfection of the water lines.

Continuous water disinfection with Neogen Viroxide Super consists of the uninterrupted application of disinfectant to the water lines using an automated dosing system which can reduce build up of scale and biofilm, maintaining pipe diameter, water flow and volume.

Neogen Viroxide Super safety in operation

- Components are readily biodegradable
- Easy to transport and store with no special requirements
- Formulated with a ‘ready-for-use’ colour indicator system
- Proven to be non-corrosive to skin

Refer to the Neogen Viroxide Super instructions for use which give dilution rates relating to each application method.

Biocidal efficacy

Neogen Viroxide Super is independently tested and proven effective against a wide range of disease causing organisms:

DEFRA Approval		
Type	Micro-organism	Disease
FMD Orders	Foot and Mouth Disease virus	Foot and Mouth Disease Orders
SVD Orders	Swine Vesicular Disease virus	Swine Vesicular Disease Orders
DoP Orders	Newcastle Disease virus	Diseases of Poultry Orders
General orders	Salmonella enteritidis	Diseases of animals - various

Fungicidal activity: EN 1657:2016		
Type	Micro-organism	Disease
Saccharomycetes	Candida albicans	Candidiasis

Mycobactericidal activity: EN 14204:2012		
Type	Micro-organism	Disease
Mycobacteriacae	Mycobacterium avium	Respiratory disease

Sproicidal activity: EN 13704:2018		
Type	Micro-organism	Disease
Bacteria G-+e	Bacillus cereus spores	
Bacteria G-+e	Bacillus subtilis spores	
Bacteria G-+e	Clostridium perfringens	Enterotoxemia, Necrotising Enterocolitis, Necrotic Enteritis

Bactericidal activity: EN 1656:2009		
Type	Micro-organism	Disease
Bacteria G-ve	Bordetella avium	Bordetellosis
Bacteria G-ve	Bordetella bronchiseptica	Infectious bronchitis
Bacteria G-ve	Brachyspira spp.	Intestinal infections
Bacteria G-ve	Campylobacter jejuni	Intestinal infections
Bacteria G+ve	Erysipelothrix rhusiopathiae	Diamond skin disease
Bacteria G-ve	Escherichia coli	Intestinal infections
Bacteria G-ve	Klebsiella pneumoniae	Pneumonia
Bacteria G-ve	Ornithobacterium rhinotracheale	Respiratory disease
Bacteria G-ve	Pasteurella multocida	Pneumonia, Atrophic Rhinitis, Fowl Cholera
Bacteria G-ve	Proteus vulgaris	Various
Bacteria G-ve	Pseudomonas aeruginosa	Mastitis
Bacteria G-ve	Salmonella enteritidis	Salmonellosis
Bacteria G-ve	Salmonella typhimurium	Paratyphoid
Bacteria G+ve	Enterococcus hirae	Septicaemia
Bacteria G+ve	Listeria monocytogenes	Septicaemia
Bacteria G+ve	Staphylococcus aureus	Mastitis
Bacteria G+ve	Streptococcus equi	Strangles
Bacteria G+ve	Streptococcus suis	Septicaemia

Virucidal activity: EN 14675:2015		
Type	Micro-organism	Disease
Adenoviridae	Aviadenovirus	Egg Drop Syndrome
Asfarviridae	African Swine Fever virus	African Swine Fever
Birnaviridae	IBD virus	Infectious Bursal Disease (IBD), Gumboro
Coronaviridae	Coronavirus	Porcine epidemic diarrhea virus (PEDV)
Coronaviridae	Coronavirus	Transmissible gastroenteritis coronavirus (TGEV)
Coronaviridae	Coronavirus	Infectious Bronchitis; SARS, MERS
Flaviviridae	Pestiviridae, BVDV-1	Bovine Viral Diarrheal Virus (BVDV)
Herpesviridae	Herpes virus	Infectious Bovine rhinotracheitis (IBR)
Herpesviridae	Herpes virus	Aujeskys disease, Pseudorabies
Herpesviridae	Herpes virus	Infectious laryngotracheitis (ILT)
Herpesviridae	Herpes virus	Marek's disease
Orthomyoxoviridae	H1N1 strain	Swine Influenza
Poxviridae	Vaccinia virus MVA	Smallpox
Picornaviridae	Bovine enterovirus-1 (ECBO) VR-248/BT cells	Enteric Cytopathic Bovine Orphan (ECBO) virus
Picornaviridae	Apthovirus	FMD
Picornaviridae	Enterovirus	SVD
Reoviridae	Rotavirus	Calf Rotavirus
Reoviridae	Avian reovirus	Avian Arthritis, Blue Wing diseas
Togaviridae	Coronavirus	Porcine Respiratory & Reproductive Syndrome (PRRS)

Bactericidal activity: EN 1276:2009		
Type	Micro-organism	Disease
Bacteria G-ve	Escherichia coli	Intestinal infections
Bacteria G-ve	Pseudomonas aeruginosa	Mastitis
Bacteria G+ve	Enterococcus hirae	Septicaemia
Bacteria G+ve	Staphylococcus aureus	Tenosynovitis

*ASFv has similarities with other viruses and a suitable surrogate has been used for efficacy testing as appropriate

NEOGEN®

VIROXIDE SUPER

REASONS WHY

- ☑ DEFRA approved (DoP, FMD, SVD and General Orders)
- ☑ Independently laboratory tested with proven rapid action against bacteria, viruses, fungi and spores
  - Independently tested for virucidal activity (EN14675)
  - Proven activity against bacteria (EN1656 and EN1276), fungi (EN1657) and spores (EN13704)
- ☑ Complete disinfectant product for hard surfaces, equipment, livestock housing, vehicles, foot dips, aerial fogging and misting applications
- ☑ Safe to use in the presence of livestock and farm workers during aerial disinfection
- ☑ Superior oxidisation for speed of kill
- ☑ Enhanced efficacy in a wide range of temperatures and in hard water areas
- ☑ Increased surfactant to aid pathogen penetration and cleaning action
- ☑ Reduces build up of scale and biofilm, maintaining pipe diameter, water flow and volume
- ☑ Suitable for drinking water systems
- ☑ Can be used in all terminal or continual disinfection programmes

NEOGEN BioSecurity

Manufactured in the UK by Quat-Chem Ltd. a Neogen® company
1-4 Sandfield Industrial Park, Dodgson Street, Rochdale, Greater Manchester, United Kingdom, OL16 5SJ
animalsafety.neogen.com biosecurity.sales@neogeneurope.com Tel: +44(0)1706 344 797
EN ISO 9001:2015 QMS GMP ISO 22716:2007

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