

Introducing Stop Borne

Stop Borne:

Based on Silver Nano Technology Universal Disinfectant & Biocide .

Stop Borne is an eco friendly, non toxic, universal disinfectant and biocide. It eliminates all types of pathogenic yeasts, moulds, fungi amoeba, bacteria, and virus.

Stop Borne as a biocide and universal disinfectant has multiple applications in sectors as varied as food processing , aquaculture , agriculture , floriculture, poultry, food & beverages , pharmaceuticals , hospitals , hospitality and many more sectors where disinfection and microbe load elimination plays an integral role for quality output in terms of a product / service.

Stop Borne is prepared by a unique process in which nano Silver ions and Hydrogen Peroxide re mixed, bonded and complexed to give an oligo-dynamic, stable and long lasting effect.

Stop Borne is completely bio-degradable and quickly eliminates micro-organisms thereby making it a safe, convenient and easy to use product that leaves no residues.

A Historical Brief

Hippocrates, the father of modern medicine, wrote that silver had beneficial healing and anti-disease properties. The anti microbial effect of silver has been known and applied since the early 1800's. There were approximately four dozen different silver compounds in the market by 1940 being used to treat every known infectious disease owing to its biocidal action.

Louis Jacque Thenard – a French chemist discovered hydrogen peroxide in 1818. Hydrogen peroxide has been reported to be first used in Eastern Europe in early 1950's for drinking water disinfection owing to the biocidal / germicidal action exhibited by it.

Fields of Application

Agriculture
Animal farms Aquaculture
Bakeries
Blood banks
Bottling plants Breweries
Bulk Drug Units

Consumer goods
Cooling towers and air-conditioning plants Cosmetics industry
Dentistry
Diagnostic Labs
Distilleries
Drinking water
Fish and Meat Processing
Food and beverage industry
Formulation units
Health Care
Hospitals and Clinics
Flower industry
Ice cream manufacturing units
Linen sterilisation
Livestock farms and fish docks
Metal Polishing
Microbiology
Milk processing plants
Mouthwashes
Parenteral preparations
Pharmaceutical industry
Post harvest treatment
Poultry Farms

Public Toilets, Bath Rooms
Sauna pools
Stables
Swimming pools
Wall and Floor disinfection
Waste Water Treatment
Zoo and many more ...

Mode of Action

Stop Borne is a unique multi component formulation based on nano silver ions and Hydrogen Peroxide. The combination of these two elements has a synergistic effect in killing all forms of microbes

Stop Borne effectively disinfects through its two pronged approach by effectively utilising nano silver ions and hydrogen peroxide (H_2O_2) as its main 'action' components.

Hydrogen peroxide splits to release oxygen which attacks the cell walls of microbes upon contact

Oxygen reacts with the cell wall molecules of the microbes and denatures and destroys the microbial cell wall.

Nano silver ions bind to the molecular components of the microbial cell and further deactivate the metabolic system and inhibit further reproduction of the microbe eventually killing it.

Hydrogen peroxide later breaks down into water and oxygen ($H_2O_2 = H_2O + O_2$) thus causing no residual toxicity.

Traces of silver remain on the sterilised surface that are not visible and non –toxic but actively check any further microbial resurgence and germination.

Method of Application

Topical Application: Mix 10 ml of Stop Borne in 1 L of water and spray on the target area
Swabbing : Dilute 10 ml of Stop Borne in 1 L of water and swab the target area to be disinfected.

Fogging : Stop Borne @ 25 ml / L of water can be effectively used for fumigation and fogging for elimination of air borne bacteria , fungi and virus.

Time required for disinfection of the room depends on total volume of the room. Spraying of Stop Borne doesn't cause any side effects to eyes, nose and skin, unlike conventionally used fumigants.

The recommended ULV fogger forms a very fine mist which allows the formulation to be suspended in the atmosphere for a longer period of time ensuring a 100% kill rate on all air-borne microbes.

All open electrical points such as plug points, bulb holders must be covered by an adhesive cellophane tape because the nascent oxygen on coming in contact with live wire / electricity may be inflammable.

Bio Hazardous Material disposal: Make 0.5 – 1% solution of Stop Borne in water . All disposable surgical instruments, syringes, blood bags, bottles, catheters, etc. can be disinfected by dipping or spraying and made ready for disposal. Cotton wastes, wound dressing and similar items can be disinfected by spraying.

Field Debris disinfection: Collect all pruned plant parts and disinfect by using 0.5 – 1.0 % solution of Stop Borne in water.

Hand disinfection: Make 0.1% solution of Stop Borne , dip hand in this solution. Do not wash. Hands are disinfected as soon as hands dry.

Drinking water disinfection for Poultry / Animals : Dilute 1 ml of Stop Borne in 10 L of drinking water for poultry and animals.

Target Organisms

All types of microbes – yeasts, moulds, fungi amoeba, bacteria, and virus Some of the targets are listed under and may not be limited to the same :

- Amoebae
- Bacillus-Species
- Bacteriophage
- Cholera
- ECBO viruses
- Fungi
- Gram+, gram- bacteria
- Viruses
- Yeasts and mould

- **Compatibility**

Stop Borne is compatible with all agricultural chemicals

Stop Borne should not be used along with microbial BioPesticides and BioFertilisers as it is a biocide and will inactivate / kill the active beneficial microbes contained in the BioPesticide/ BioFertiliser

- **Shelf Life**

Stop Borne is stable for a period of 12 months from the date of manufacturing.

- **Cautions for handling and use of product**

1. Avoid inhalation and skin contact while diluting as there could be spillage / splashes of the product
2. Do not eat / drink / smoke during application.
3. Direct incidence of Stop Borne may cause irritation and therefore it is recommended that the operator should use protective gear viz gloves, apron, mask, eye gear and hood.

Symptoms and Antidotes

Symptoms: Use of Stop Borne is known to have no side effects. However, occasional symptoms include

head ache and nausea.

Antidote: In the case of ingestion: symptomatic treatment is advised. In the case of contact with Eyes: Flush with water liberally for 20 minutes. In case of Skin contact, wash the affected area with plenty of water and soap.

Citations

There are many citations in public domain on effectiveness of Silver and Hydrogen Peroxide as a disinfectant and Biocide

Commitment to Nature

- Stop Borne can be used as an effective component in IPM programmes, disinfection programmes thereby leading to a reduction in use of chemical pesticides/ fungicides/ fumigants and creating a safer environment.
- Stop Borne does not lead to residue problems and doesn't cause resistance or resurgence problems.

Benefits from Stop Borne

- Stop Borne effectively kills all types of micro organisms including virus and disinfects the target surface area.
- Pathogenic microbe load reduction leads to improved plant health and thereby increased crop productivity.
- Bio degradable and does not affect the chemistry or quality of the product treated

- Does not alter the pH, taste, colour or smell of treated product
- Does not create any odour
- Does not form chemical compounds with other chemicals.
- Effective in wide water temperatures ranging from 0°C - 100°C
- Free from Chlorine, carcinogenic or mutagenic effect
- Free from danger of microbial resistance
- No need to use combinations of several disinfectants or to choose strain specific disinfectants
- No neutralisation necessary after use
- Non carcinogenic / Non Corrosive / Non Inflammable
- Parameters like Hardness, Salinity, pH cannot impair the efficiency of Stop Borne
- Prevents recontamination or reoccurrence.