

# STERIFUM®



## High Spectrum Environmental Fumigating Disinfectant

### DESCRIPTION

The disinfectant power of STERIFUM is very high and the product has also a well known actions as a potent bactericide, fungicide and virucide.

STERIFUM is an active agent against: colibacillus, salmonellae, streptococcus, staphilococcus, pneumococcus, brucellae, shigellae, pasteurellae, proteus and also moulds and virus.

These bacteria are immediately killed by the action of formaldehyde gas. However, during the practice of disinfection, the time of contact between the bacteria and the gas is longer than necessary, in order to allow the gas saturation of the place.

The concentration of formaldehyde necessary to obtain a disinfecting action varies according to the period of contact of the gas in the room and the objects to disinfect.

One block of STERIFUM is needed for 100/400 m<sup>3</sup> of premises according to the sector of utilization. Each block of STERIFUM must be placed on a metallic tray or on a heat-

resistant material. When the flame spread all over the block, it has to be extinguished by covering for a few seconds: a slow flameless combustion has begun.

Thus a constant emission of formaldehyde gas is obtained for about 3 hours. The strong and lasting bactericide power and the innocuity for most of the materials make the application of STERIFUM very rapid and simple.

## COMPOSITION

Paraformaldehyde: 36%

Excipients: 64%

## CHEMICAL-PHYSICAL INFORMATION AND STABILITY

It is a block with 700 grs weight; the color is gray-green and the smell is characteristic of formaldehyde.

- Apparent density: 0,79 Kg/dm<sup>3</sup>
- Acidity: 40 mg KOH/grs product
- Fire danger only during flame exposition.
- The product is not corrosive.
- No limit expiration date: in normal condition of temperature and humidity the product doesn't change its chemical-physical characteristics.

## CHEMICAL-PHYSICAL INCOMPATIBILITY

Pure paraformaldehyde is chemically incompatible with the following products: liquid oxygen, strong acid, acidic anhydride, strong oxidant and strong reductant agents, brass, cupric, cupric alloys, cupric and silver salts, bronze, isocyanates, tannins, gelatin and bisulfites.

## ACTIVITY

The bactericide power of formaldehyde, that according to some authors is superior to the one of phenol, is very high and is considered to derive mainly from its ability to blend with the proteic substance of microbic protoplasma.

For its particular formulation, STERIFUM is able to release formaldehyde gas slowly and consistently and to assure continuous emission. Thus allowing a lasting capillary disinfection and ensuring a stable concentration of gas for 4 hours.

## TOXICITY

The toxicity is caused by formaldehyde, which is the active principle released from combustion. Formaldehyde is a natural substance in first place, ubiquitously present.

In the atmosphere it is continuously formed by photochemical processes. This means, that as long as there are human beings on the earth, they have inhaled formaldehyde contained in the air.

Furthermore, it is produced in all combustions, being present, for example, in automobile exhaust, tobacco smoke, etc.

Formaldehyde is also an essential intermediate in the metabolism of normal cells in animals and humans. All tissues permanently contain measurable amounts of formaldehyde, e.g., human blood 2-3 ppm. There is no accumulation of formaldehyde in the environment or in the human body since it is rapidly oxidized and biodegraded.

In the body exogenous formaldehyde has half-life of 1,5 minutes because then it is metabolised into formic acid and carbondioxide.

The Formic Aldehyde is very toxic against micro-organism (unicellular organism); while no adverse effects on superior human organisms are known.

Only little irritant effects on the mucous membranes have been observed, but these symptoms disappear as soon as the formaldehyde exposure ceases. It is not possible to find residue of Formic Aldehyde in the disinfected area; after one day of air entrainment the concentration of Formic Aldehyde is less than the maximum tolerable value in the environment: 2 ppm.

## WARNING

In case of contact with skin, wash with water for 15 minutes, possibly take off contaminated dresses and shoes. In case of inhalation, ventilate with fresh air; if it's necessary make mouth to mouth respiration, and only in dangerous conditions (dyspnea) make oxygen-therapy (use breathing apparatus).

Protect face with a mask that has organic gas filter and eyes with protective glasses before performing.

Leave the room after igniting the block and go back in again only after 8 hours. At the end of this period put on individual protective devices and open doors and windows in order to air the place and enter again only when the typical odor of formaldehyde has gone away. In case of fire carbon monoxide and bioxide are generated. To put out the fire use carbon dioxide fire extinguishers.

## USE AND DOSAGE

One block of STERIFUM is able to disinfect an area of 100/400 m<sup>3</sup> according to the sector of utilization on.

1 block for 100 m<sup>3</sup>

*Total elimination of pathogen microorganisms and high reduction of environmental bacteria. Sterilizing effect.*

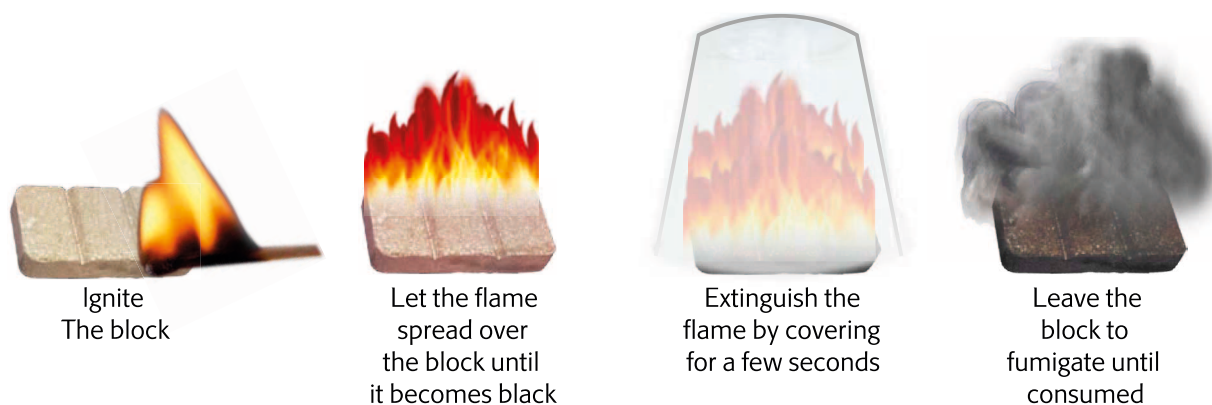
1 block for 200 m<sup>3</sup>

*Aerobacter Cloacae - Bacillus Subtilis - Brucella Abortus and Bronchiseptica - Budenheimers Bacillus - Eberthella Typhosa - Escherichia Coli - Klegshilla Pneumoniaiae - Micrococcus Flavus and Roseus - Mycobacterium Ranae - Pasteurella Pseudotuberculosis - Proteus Vulgaris - Pseudomonas Aeruginosa - Salmonella Enteritidis, Pullorum and Suipestifer - Sarcina Flava - Shigella Dysenteriae - Staphilococcus Albus and Aureus - Streptococcus Agalactiae, Erisipelatus, Hemolyticus and Viridans*

1 block for 300/400 m<sup>3</sup>

*Brucella Bronchiseptica - Eberthella Typhosa - Micrococcus Flavus and Roseus - Pasteurella Pseudotuberculosis - Salmonella Enteritidis and Pullorum - Shigella Dysenteriae - Staphilococcus Aureus - Streptococcus Agalactiae, Erisipelatus, Hemolyticus and Viridans*

Each block of STERIFUM must be placed on a metallic tray or on a heat-resistant material. Ignite the block, let the flame spread all over the block until it becomes black and then it has to be extinguished by covering it for a few seconds: a slow flameless combustion has begun. Therefore a constant emission of formaldehyde gas is obtained for about 3 hours and the block is left to fumigate until consumed, then open the place after 8 hours.



## APPLICATIONS

STERIFUM is a High Spectrum Environmental Fumigating Disinfectant and had to be suggested for his strong and lasting bactericide, fungicide, virucide power and for his rapid and simple application.

For its polyvalence of use against micro-organism and virus and for its simple application, STERIFUM is used in zootecnical sector to disinfect all kinds of breeding: poultry houses, pig pens, cow sheds, stables, rabbit-breedings and, in agricultural sector it is used to disinfect storage-bins.

STERIFUM is also recommended for disinfection of holds and for all kinds of places that need a specific capillary disinfection.

## PACKAGES

The STERIFUM is packed in cartons of 20 blocks 700 grs each (+/- 3%).

Each block is sealed in an envelope on which are printed the instructions for use.

*Use biocide with caution. Before using read always the label and the information about the product.*