

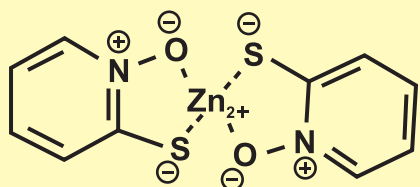


Sarex Overseas (A division of Saraf Chemicals Pvt. Ltd.)

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VENUS-ZP

1. STRUCTURE



2. PRODUCT NAME & DETAILS

Zinc Pyrithione (Venus-ZP)

Product Code	: 010232
CAS No.	: 13463-41-7
HS Code	: 2933.39.90
Molecular formula	: C ₁₀ H ₈ N ₂ O ₂ S ₂ Zn
Molecular weight	: 317.7

3. SPECIFICATION

Physical Appearance	: White Viscous Liquid
Miscibility	: Miscible With Water
Ionic Nature	: Anionic
pH of 1% Solution	: 8 ± 1
Solid Content (%)	: 52 ± 2
Stability In Dilute Acids	: Stable
Stability In Dilute Alkalies	: Stable
Odour	: Moderate

4. APPLICATION

- The general purpose plastics such as Styrene-ethylene / butylene-styrene (SEBS) (Thermoplastic elastomers) are widely used for making remote control keyboards, cell phone covers, toys, Tooth brush handles, Desktop / laptop keyboards, automobile seat covers etc.
- These article surface are constantly exposed to infectious droplets from cough, sneezes, speech produced by infected persons.
- Similarly plastics such as polyurethane foams, PVC, Polypropylenes are widely used by human are constantly under threat to the infectious contamination.
- The World Health Organization has disclosed that the most common route for the transmission of diseases is by contact with surfaces contaminated with infectious droplets from coughs, sneezes or speech produced by contaminated persons; that can remain on surfaces for days.

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4. APPLICATION

- These infected surfaces develop biofilm within hours. It is observed that these devices are not usually cleaned properly, its surface becomes a place for microbial growth, leading to spread of infections.
- Venus-ZP is an effective biocide which is able to migrate to the polymer surface, and inhibit the susceptible surface-colonizing cells, and hence delay biofilm accumulation. It is antimicrobial additive which has shown efficacy and fast results toward a large range of microorganisms, such as *Candida albicans*, *Escherichia coli*, *Pseudomonas aeruginosa*, *Salmonella choleraesuis* and *Staphylococcus aureus*.
- The biocide action of Venus-ZP relies on the inhibition of membrane transport and efflux pumps of microorganisms, preventing the accumulation of toxic substances inside the cells.
- The active ingredients of Venus-ZP have fast inhibition results against the microorganisms such as *Candida albicans*, *Escherichia coli*, *Pseudomonas aeruginosa*, *Salmonella choleraesuis*, *Staphylococcus aureus* etc.
- Antifungal action was evaluated against *Aspergillus niger*, *Candida albicans* and *Cladosporium cladosporioides*. Venus-ZP eliminated 99.9% of the *E. coli* and 99.7% of the *S. aureus* population, and presented an inhibition zone in the fungal assay. The method involves dispersing Venus-ZP uniformly throughout the plastic for example, by compound extrusion processing of such plastics when in a fluid state.
- Concentration of Venus-ZP - 1 to 6% (Depending on the polymer and application)
- Venus-ZP used by co-rotating double screw extruder with a temperature profile ranging from 170°C to 190°C, speed of 300 rpm and melt discharge temperature of 200°C. It is also used by injection molding machine at 190°C and an injection pressure of 17 bars.

5. HAZARD CLASSIFICATION

: Venus-ZP is classified as Hazardous substance. (UN 2811)



Acute Toxic



Corrosive



Environmental Hazard

6. CAPACITY

: 5 MT per month

7. STORAGE CONDITION

: Store in cool, ventilated shed away from heat and direct sunlight. Storage temperature should not exceed 35°C. Close lids firmly to avoid contact with air and moisture.

8. PACKING DETAILS

: 50 kg & 180 kg HM HDPE barrel.

9. SHELF LIFE

: 9 months from the date of manufacturing, if stored under controlled conditions. Store in closed container at the ambient temperature away from direct sunlight.

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