



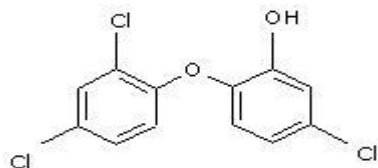
Kumar Organic Products Limited

Triclosan 5000

Triclosan is a potent wide spectrum and antibacterial and antifungal agent. It is a chlorinated aromatic compound which has functional groups representative of both ethers and phenols. Phenols often show antibacterial Properties.

Triclosan is found in soaps, deodorants, Toothpaste, shaving creams, mouth washes and cleansing supplies and is included in an increasing number of consumer products.

Triclosan is very effective in reducing and controlling bacterial contamination on the hands and on treated products. At use concentration, Triclosan acts as a biocide, with multiple cytoplasmic and membrane targets. At lower concentrations, Triclosan appears bacteriostatic and is seen to target bacteria mainly by inhibiting fatty acid synthesis.



2, 4, 4' - Trichloro - 2' - hydroxydiphenylether.

Molecular Formula: C₁₂H₇Cl₃O₂
CAS #: 3380 - 34 - 6
Molar Mass: 289.54
EINECS: 222 - 182 - 2
DMF#: 16818

Physico - Chemical Properties:

Appearance	White crystalline powder
Assay by GC	97 - 103 %
Melting Point	55 to 57°C
Impurities (all combined)	Not more than 0.5%
Solubility	Practically insoluble in water, soluble in ethanol, methanol, acetone. Slightly soluble in hexane.

Regulation:

Europe: 0.3% allowed for personal care applications

USA: 0.3% allowed for personal care applications

Japan: 0.1% in selected product categories

Rest of the World: 0.3% in most Asian countries

Consult your regulatory authority for use level and restrictions.

Selected Safety Data:

In classical toxicological terms, Triclosan is relatively non-toxic to humans and other animals. However, there have been reports of contact dermatitis, or skin irritation, from exposure to triclosan. There is also evidence that Triclosan may cause photoallergic contact dermatitis (PACD), which occurs when the part of the skin exposed to triclosan is also exposed to sunlight.

The dermal LD50 (the lethal dose that kills 50 percent of a population of test animals) of Triclosan for rats is 5000 mg/kg. The oral LD50 for rats is 4500-5000 mg/kg, for mice it is 4000 mg/kg, and for dogs it is over 5000 mg/kg. Triclosan has not been found to have any carcinogenic, mutagenic, or teratogenic effects. A number of recent studies have raised concerns that Triclosan and other similar products may promote the emergence of bacteria resistant to antibiotics. Laboratory studies with Triclosan have found a number of different strains of mutated bacteria that are resistant to Triclosan. It has been found to be highly toxic to different types of algae.

Packaging Sizes : 25 Kg HDPE drums
Shelf Life : Minimum 5 years
Storage Conditions : Keep away from sunlight and heat

Literature References:

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- [3] FS Panagakos, AR Volpe, ME Petrone, W DeVizio, RM Davis and HM Proskin, Advanced oral antibacterial-inflammatory technology: A comprehensive review of the clinical benefits of a triclosan/copolymer/fluoride dentrifice, J Clinical Dent, 16: Suppl S1-S19, 2005.
- [4] TJ Taylor, EP Seitz, P Fox, GE Fischler, JL Fuls, PL Weidner, Physicochemical factors affecting the rapid bacterial efficacy of the phenolic antibacterial triclosan, International J Cosmetic Science, 26(3):111-116, 2004.
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- [6] HN Bhargava, and PA Leonard, Triclosan: Applications and safety. Am J Infect Control, 24(3):209-218, 1996?
- [7] AB Zafar, RC Butler, DJ Reese, LA Gaydos, PA Mennonna, Use of 0.3% triclosan (Bacti-Stat) to eradicate an outbreak of methicillin-resistant Staphylococcus aureus in a neonatal nursery, American journal of infection control, 23(3):200-208, 1995.

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