Broad-Spectrum Biocide (Isothiazolinone CMIT/MIT)

CAS No. 55965-84-9 | HS Code 3808.94

This biocide is a CMIT/MIT (5-chloro-2-methyl-4-isothiazolin-3-one / 2-methyl-4-isothiazolin-3-one) isothiazolinone formulation used to control bacteria, fungi and biofilm in cooling water, paper machine white water and membrane systems. At 20–100 ppm slug dosing it disrupts microbial cell metabolism within hours, stripping sessile biofilm that shields bacteria beneath deposits and fouling layers.

It is non-oxidizing, so it does not react with the process chemistry the way hypochlorite does — no chlorinated by-products, compatibility with most scale and corrosion inhibitor programs, and full activity in systems where chlorine demand is high. It comes in two standard concentrations: 1.5% active for low-dose continuous protection and 14% active for concentrated slug dosing and shipping-cost efficiency.

Technical Specifications

Parameter	Unit	Value
Active content (CMIT + MIT)	%	1.5 or 14
CMIT:MIT ratio	—	Approx. 3:1
pH (as supplied)	—	2.0–5.0
Density (20 °C)	g/cm³	1.02–1.30 (by grade)
Chloride (Cl)	ppm	≤ 200
Solubility in water	—	Fully miscible
Appearance	—	Pale yellow transparent liquid

Applications

- Slug and continuous dosing against bacteria, fungi and algae in open cooling towers
- Biofilm and slime control in paper machine white water and pulp circuits
- Non-oxidizing disinfection of RO/NF membranes and storage between cleaning runs
- Alternate with oxidizing biocides in resistance-management microbial control programs

Packaging & Shipping

HDPE drum — 25 / 200 L

Storage & Shelf Life

Store between 5–35 °C in a ventilated warehouse, away from strong alkalis, oxidizers and reducing agents. Keep drums sealed — activity declines at high pH and elevated temperature. Shelf life 12 months in original sealed packaging.

Transport Classification

UN 3082, Class 9 (environmentally hazardous substance), PG III for sea transport per IMDG Code. Ships in UN-approved packaging with full dangerous-goods documentation.

Safety Notes

Corrosive and harmful if swallowed; causes skin and eye burns and may cause skin sensitization. Avoid contact with concentrated product. Wear chemical-resistant gloves, goggles and protective clothing when dosing. MSDS available on request.

Typical values for reference only. Final specifications are confirmed per batch Certificate of Analysis (COA) issued with each shipment. This document does not replace the MSDS — request it via the inquiry form.

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