

TECHNICAL BULLETIN



19 Motivation Dve, Wangara, WA, 6065 AUSTRALIA
T +61 8 9302 4000 | FREE 1800 999 196 | F +61 8 9302 5000

PROXITANE PERACETIC ACID SANITIZER

MATERIAL & FUNCTION

PERACETIC ACID, the active compound in **PROXITANE**, is amongst the most powerful biocides known to man. It is effective against a wide spectrum of microbiological contaminations including aerobic and anaerobic bacteria and their spores, yeasts, moulds, fungi and their spores, and viruses. It is extremely rapid in its action at ambient temperatures.

Computer searching of the literature, both applied and academic, has not revealed a reference to the induction of mutagenesis, leading to the development of resistant species, by **PERACETIC ACID**.

PROXITANE is used as a biocide to sanitize degreased and precleaned processing, transfer and storage plant in stainless steel or glass. It can also be used on floors, walls and in the atmosphere. In food and beverage processing and production it finds application in the regular cleaning cycle of syrup make up plant, treated water carbonators, fruit crushing, juice concentrators and reconstitutors, food or condiment cookers and processors, transfer pipes/pumps, bottling/packaging/canning machines. In breweries and wineries it finds application in the fermentation/ brew houses, the clarification/ filtration plant and tank farms/ bottling cellars during regular plant cleaning.

PROXITANE is “low foaming” and ideal for use in “Clean in Place” systems.

APPEARANCE

A water clear, colourless liquid comprising an equilibrium mixture of **PERACETIC ACID**, water, acetic acid and hydrogen peroxide.

Sanitizing with PROXITANE

PROXITANE was formulated for use on precleaned surfaces and contains no surfactant. Its effectiveness may be impaired by any major soiling such as adherent grease, fats, oils, protein, starch, sugar, animal or vegetable matter.

PROXITANE concentrate should be diluted with soft town water at a rate of variously 1 part to 100 parts water down to 1 part to 500 parts water giving 500 ppm to 100 ppm of **PERACETIC ACID** in the working solution. The actual dilution used depends on the class of contaminating microorganism and the efficiency of plant precleaning. Guidance can be given by Interlox technical personnel or determined by in house trial.

To achieve 200 ppm (maximum allowable in Meat and Poultry export establishments) add 4ml to 1 litre of water.

Solution should contact the plants' surfaces for 30 seconds to 2 minutes depending on the degree of residual soiling and the class of microbial contamination. Aerobic bacteria require lower concentrations of **PERACETIC ACID**/shorter contact times; fungi the opposite.

Spray balling with falling film contact is economically preferred to flood especially since the fog of **PERACETIC ACID** generated will sterilize the void in vessels.

PERACETIC ACID is biocidally most efficient at $\text{pH} < 7$, hence the need to rinse out the alkali. The pH of a 1 : 100 dilution of **PROXITANE** is about 3.2 and a 1 : 500 dilution about pH 4.0.

Working solutions must be prepared within an hour of intended use and should be used sacrificially for each plant sanitation. This is because dilution concentrate resets the equilibrium form **PERACETIC ACID** back to acetic acid and hydrogen peroxide.

Working solutions should be used at ambient (20°) conditions but may in special circumstances be used hot (70°).

There is no need to post rinse a **PROXITANE** sanitized plant. The plant should be sealed from top and allowed to bottom drain. Since **PROXITANE** contains no surfactants, the surface tension of its solutions is like water so they will drain free leaving no residues. If post rinsing is required it should be done with micro filtered town water, sterilized if possible to minimize reinfection.

Solutions of **PROXITANE** may be fogged onto walls, floors and into the air to kill surface and dust borne microbes.

PROXITANE was developed for sanitizing stainless steel or glass vessels and pipework. Compatibility with other materials such as rubbers, polymers, gaskets etc. should be confirmed with Interlox Chemicals prior to application.

PROXITANE solutions may not be used in systems containing mild steels or copper and copper alloys.

PROXITANE solutions must not be added to other chemicals of formulations. Instead of improving its biocidal performance the admixture often destabilizes the peroxygens with associated hazards.

Directions for use

Sequence	Operation	Contact Time
1.	Hot water until rinsings are clear	5-10 mins
2.	Hot caustic/ detergent rinse	10-30 mins
3.	Cold water rinse until rinsings are pH 7	5 mins
4.	PROXITANE rinse at appropriate dilution	30 sec – 2 mins

Additional Benefits

No Corrosion: Peroxygens in general passivate stainless steels. Any concentration of **PROXITANE** can be passed through stainless steel plant without problem of corrosion. This holds whether the solutions are used in hot or cold. It allows a single formulation, **PROXITANE**, to account for any class of problem microorganism.

No Adsorption: Results to date do not indicate adsorption of the compounds in **PROXITANE** to the materials of plant construction. Nor do they adsorb to the materials used in water treatment plant ie. the membranes used in Reverse Osmosis and Ultrafiltration, the resins used in Ion Exchange and the carbon or sand used in pretreatment beds. This allows fast drain down and rinse out times with quicker reuse of plant.

B.O.D/C.O.D. Reduction :

Whether by direct chemical action of the hydrogen peroxide and **PERACRTIC ACID** or by a “pay back” of developed oxygen from their decomposition, discharges from your plant to the trade waste sewers should lower if **PROXITANE** is used.

Non Derivatizing: Peroxygens are not known for proliferating side reactions. The active constituents in **PROXITANE** do not derivatise organics in our trade waste to more refractory or toxic products.

Acrid Odour: From the plant and operator safety viewpoint, the pungent odour of the concentrate is a benefit since it alerts operators quickly to a leakage or spillage of **PROXITANE**.

Packaging, Transport

Content type	net contents
HD polyethylene carboy	25 kg
Transport temperature	ambient

Transport and Packaging Regulations: The transport of **PROXITANE** must conform to any local regulations of competent authorities.

Regulation	Class	Subsidiary Risk	Packaging Group	Reference
ADG Code (1)	5.1	8	II	Sect. 7 & 9
IMDG Code	5.1	8	II	5043
IATA (2)	5.1	8		Forbidden

(1) The current edition of the Australian Code for Transport of Dangerous Goods by Road and Rail.

(2) The current edition of the Dangerous Goods Regulations, International Air Transport Association.

* Not a specification.

IMPORTANT NOTICE TO CUSTOMER

*Since the use of this product is beyond the control of either seller or manufacturer, their only obligation shall be to replace any quantity of product which is proven defective. They cannot assume any risk or liability in excess of the purchase price of the product itself, which does not include labour or any consequential damages resulting from the use of this product. Determining the suitability of this product for any intended use shall be solely the responsibility of the user. **ALWAYS TEST FIRST.***