

Chlorine Dioxide Disinfection Tablets

Description

Hydro Dioxide uses the power of ClO_2 to make a high level sporicidal disinfection solution that is more powerful, yet uses one tenth of the chemicals of equivalent chlorine tablets or bleach. Provided as a safely packaged, single use tablet, Hydro Dioxide is dropped into the required quantity of water to make a powerful disinfection solution that can be used in the most challenging applications. Hydro Dioxide solutions are less corrosive than equivalent chlorine or peroxide disinfectants, whilst providing sporicidal, fungicidal, bactericidal and viricidal effectiveness when tested against the most challenging European Standards.

Hydro Dioxide can be used as a proactive treatment and a general area disinfectant and in the following areas:

Swimming Pools	Biofilm control, Filter Media treatments (Glass and Sand), highly effective treatment for pseudomonas and surface disinfection
Balance Tanks	Slime and biofilm removal, surface disinfection, elimination of moulds and mildew
Spa and Hot Tubs	Internal pipework cleaning, biofilm control, high effective treatment for pseudomonas general surface disinfection and cartridge filter disinfection
PVC fabric and PVC/Polycarbonate slatted covers:	Slime and biofilm removal, surface disinfection, elimination of moulds and mildew
Play Equipment	General surface disinfection including foam flotation equipment
General Cleaning	General disinfection use including the clean down of hard surfaces
Parasite & pathogens	Effective treatment for cryptosporidium and other hard to treat bacteria and parasites

Features and Benefits

- **More effective:** Fast-acting disinfection, more powerful than chlorine
- **Easier to handle:** No mixing of powders or liquids and no need to store different chemicals
- **Reduced environmental hazards:** Does not damage drainage systems due to the discharge of concentrated chlorine or peroxide disinfectants

Characteristics

Property	Value
Active Ingredient	Chlorine Dioxide
Usage Scenario	PT2 (Product Type Category): Disinfectants and algaecides not intended for direct application to humans/animals
CAS Number	N/A
Colour	Off-White
Odour	Slight Chlorine
Solubility in Water	Soluble
pH	2.5 - 4.5

Active Ingredient

Chlorine Dioxide (ClO_2) has unrivalled disinfecting power, with lower corrosion rates, greater selectivity to target biological contaminants, and significantly fewer environmental side effects compared to bleach and chlorine tablets. It is a fast-acting, highly convenient, and more accurate alternative to liquid bleach and chlorine tablets requiring a lower dose rate.

Regulatory Compliance

Hydro Dioxide tablets are intended for use in accordance with the terms of the EU Biocidal Product Regulation (BPR, Regulation (EU) 528/2012). Approved for sale in the UK. The product is labelled in accordance with the Classification, Labelling and Packaging (CLP) Regulation ((EC) No 1272/2008).

Instructions for Use

Dissolve tablets in the volume of water stated in the Application Guidance on the dilution table according to the use required.

Safety Data Sheet

For information on safe handling, a safety data sheet containing additional data for Hydro Dioxide is available on request.

Safe Handling and Storage

Store in original container. Keep tightly closed in a cool dry place.
Use biocides safely. Always read the label and product information before use.



Biocidal Efficacy

Test Method	Target	Test Organism	Condition	Log Reduction Required	Result (log reduction)
Quantitative Suspension					
<ul style="list-style-type: none"> Bactericidal Activity, Clean Surface: Concentration: 75ppm, Contact Time: 1 min Bactericidal Activity, Dirty Surface: Concentration: 100ppm, Contact Time: 5 min 					
EN1276	Bacteria	P. aeruginosa	Clean	>5	>5.17
		S. aureus			>5.41
		E. hirae			>5.13
		E. coli			>5.52
		L. pneumophila			>5.03
Quantitative Suspension					
<ul style="list-style-type: none"> Bactericidal Activity, Clean Surface: Concentration: 75ppm, Contact Time: 1 min Bactericidal Activity, Dirty Surface: Concentration: 100ppm, Contact Time: 5 min 					
EN13727	Bacteria	P. aeruginosa	Clean	>5	>5.22
		S. aureus			>5.15
		E. hirae			>5.17
		E. coli			>5.15
		MRSA			>5.15
EN13727	Bacteria	P. aeruginosa	Dirty	>5	>5.29
		S. aureus			>5.32
		E. hirae			>5.25
		E. coli			>5.28
		MRSA			>5.25

Test Method	Target	Test Organism	Condition	Log Reduction Required	Result (log reduction)
Quantitative Suspension					
<ul style="list-style-type: none"> Bactericidal Activity, Clean Surface: Concentration: 100ppm, Contact Time: 5 min Bactericidal Activity, Dirty Surface: Concentration: 250ppm, Contact Time: 5 min 					
EN14561	Bacteria	P. aeruginosa	Clean	>5	>5.19
		S. aureus			>6.10
		P. aeruginosa	Dirty		>5.98
		S. aureus			>6.10
		E. hirae			>6.19
Quantitative Suspension					
<ul style="list-style-type: none"> Yeasticidal Activity, Clean Surface: Concentration: 15ppm, Contact Time: 15 min Fungicidal activity, Clean Surface: Concentration: 75ppm, Contact Time 15 min 					
EN1650	Yeast	C. albicans	Clean	>4	>4.22
	Fungi	A. brasiliensis			>4.02
Quantitative Suspension					
<ul style="list-style-type: none"> Yeasticidal Activity, Clean Surface: Concentration: 10ppm, Contact Time: 1 min Yeasticidal Activity, Dirty Surface: Concentration: 100ppm, Contact Time: 5 min Fungicidal activity, Clean Surface: Concentration: 100ppm, Contact Time 5 min Fungicidal activity, Dirty Surface: Concentration: 300ppm, Contact Time 5 min 					
EN13624	Yeast	C. albicans	Clean	>4	4.05
		C. albicans	Dirty	>4	>4.10
	Fungi	A. brasiliensis	Clean	>4	>4.17
		A. brasiliensis	Dirty	>4	>4.21
Quantitative Suspension					
<ul style="list-style-type: none"> Bactericidal Activity, Clean Surface: Concentration: 75ppm, Contact Time: 5 min Bactericidal Activity, Dirty Surface: Concentration: 250ppm, Contact Time 5 min Yeasticidal Activity, Clean Surface: Concentration: 50ppm, Contact Time: 5 min Yeasticidal activity, Dirty Surface: Concentration: 50ppm, Contact Time 15 min Fungicidal Activity, Clean Surface: Concentration: 100ppm, Contact Time: 5 min 					
EN13697	Bacteria	P. aeruginosa	Clean	>4	>5.69
		S. aureus			>5.23
		E. hirae			>6.32
		E. coli			>5.37
EN13697	Bacteria	P. aeruginosa	Dirty	>4	>6.33
		S. aureus			>6.27
		E. coli			>6.23
	Yeast	C. albicans	Clean	>3	>6.25
		C. albicans	Dirty	>3	>6.25
	Fungi	A. brasiliensis	Clean	>3	>3.08

Test Method	Target	Test Organism	Condition	Log Reduction Required	Result (log reduction)
Quantitative Suspension					
<ul style="list-style-type: none"> • Mycobactericidal Activity, Clean Surface: Concentration: 50ppm, Contact Time: 5 min • Mycobactericidal Activity, Dirty Surface: Concentration: 250ppm, Contact Time: 5 min 					
EN14348	Myco-bacteria	M. avium	Clean	>4	>4.49
		M. terrae			>6.31
		M. avium	Dirty	>5	>5.19
		M. terrae			>5.24
Quantitative Suspension					
<ul style="list-style-type: none"> • Virucidal Activity, Clean Surface: Concentration: 75ppm, Contact Time: 5 min 					
EN14476	Virus	Poliovirus-1	Clean	>4	>5.67
		Adenovirus-5			>5.5
		Murine norovirus			>4
Quantitative Suspension					
<ul style="list-style-type: none"> • Sporicidal Activity, Clean Surface: Concentration: 100ppm, Contact Time: 5 min • Sporicidal Activity, Dirty Surface: Concentration: 250ppm, Contact Time: 5 min 					
EN13704	Bacterial Spore	C. difficile	Clean	>3	>3.08
		B. subtilis			>3
		B. cereus			>3.51
		C. difficile	Dirty	>3	>3.05
		B. cereus			>3.23

* 4 log reduction = 99.99%. 5 log reduction = 99.999% etc.