

Technical Bulletin

Multiphen

Dual Phenolic Specialist Sanitiser

Product Description:

MULTIPHEN is a concentrated blend of phenolic antimicrobial compounds in a synthetic detergent base that cleans, sanitises and deodorises in a single operation.

Application:

MULTIPHEN has a built in detergent system, so it cleans as it sanitises. No need for separate operations. MULTIPHEN has a broad spectrum of activity, capable of killing a wide range of microbial activity, including bacteria, moulds and Fungi. Phenolic compounds (such as those used in Multiphen) are also reported to be able to inactivate lipophilic viruses. MULTIPHEN is soil tolerant, remains active even with quite high organic loading is present. Hence use in footbaths, floors and walls etc. MULTIPHEN is concentrated - a little goes a long way.

MULTIPHEN is a universal cleaner designed for regular maintenance procedures. As the degree and type of contamination determines in most cases the concentration, recommendations can only be given. Knives, tools, machinery, walls, footbaths - 1 part MULTIPHEN : 50 parts water (20ml per 1L).

To Disinfect and Clean

Dilute 1 part MULTIPHEN to 50 parts water. Mop or scrub the surface, pick up with the mop or wipe the excess solution, no need to rinse.

All Purpose Cleaner

Dilute 1 part MULTIPHEN to 80 parts water. Mop or scrub the surface, pick up with the mop or wipe the excess solution, no need to rinse.

To Clean Kitchen Floors

To guard against Gastroenteritis and other diseases, dilute 1 part MULTIPHEN to 50 parts water. Mop or scrub the surface, pick up with the mop or wipe the excess solution, no need to rinse.

To Clean Workshop Floors

Dilute 1 part to 10 parts water. Mop, wash or scrub surface, leave for 5 minutes and then pick up with mop or wipe excess solution, no need to rinse.

Efficacy testing

MULTIPHEN is a powerful detergent disinfectant blend of two phenolic actives: OPP (O-phenol phenol) (See also Dow Chemicals Dovicide 1, or Clariant Nipacide OPP) and Chlorophen; BCP (Dow Dovicide OBCP, or Clariant Nipacide BCP).

Individually these biocides are powerful, but together they form very effective synergistic disinfectants.

These actives are effective, reasonably fast acting, resistant to other organic soils (unlike chlorine and other oxidising biocides) and are classed as 'readily biodegradable' to OECD testing (>60% in under 28days).

MULTIPHEN kills a broad range of Gram-negative and Gram-positive organisms, fungi, TB organisms and inactivates certain virus organisms on inanimate environmental surfaces.

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The following are MIC (Minimum inhibitory Concentration) values for OPP and BCP:

OPP Antifungal and Antibacterial Efficacies:

Test Organism	% for Inhibition
FUNGI	
Rhizopus nigricans	0.015 - 0.02
Rhizoctonia solani	0.001 - 0.002
Chaetomium globosum (ATCC #6205)	0.0025 - 0.005
Hormiscus gelatinosum	0.005 - 0.01
Aspergillus niger	0.025 - 0.05
Polyporus tulipiferae (F.P.L. No. 517, ATCC #11245)	0.005 - 0.01
Aspergillus flavus (ATCC #9643)	0.005 - 0.01
Lenzites trabea (ATCC #11539)	0.0025 - 0.005
Ceratostomella pilifera	0.005 - 0.01
Trichophyton interdigitale	0.002 - 0.0035
Trichophyton rosaceum	0.0035 - 0.005

BACTERIA	
Staphylococcus aureus (ATCC #6538)	0.01 - 0.015
Bacillus subtilis (ATCC #8473)	0.01 - 0.015
Enterobacter aerogenes (ATCC #13048)	0.01 - 0.015
Klebsiella pneumoniae (ATCC #8308)	0.01 - 0.015
Pseudomonas aeruginosa (ATCC #10145)	0.02 - 0.025
Pseudomonas aeruginosa (ATCC #15442)	0.045 - 0.05
Proteus vulgaris (ATCC #881)	0.005 - 0.01
Escherichia coli (ATCC #11229)	0.01 - 0.015
Salmonella choleraesuis (ATCC #10708)	0.01 - 0.015

BCP Antifungal and Antibacterial Efficacies

Test Organism	% for Inhibition
FUNGI	
Aspergillus niger	0.025 - 0.05
Penicillium mineoluteum	0.0075 - 0.015
Fusarium solani	0.0075-0.015
Geotrichum candidum	0.005-0.01
YEAST	
Candida albicans	0.005-0.01
BACTERIA	
Pseudomonas aeruginosa	0.5 - 0.75
Pseudomonas putida	0.15 - 0.25
Proteus vulgaris	0.001 - 0.002
Escherichia coli	0.025 - 0.05
Salmonella choleraesuis	0.02 - 0.025
Staphylococcus aureus	0.0025 - 0.005

Also detailed are some AOAC dilution test results for these materials, see:

http://www.antimicrobialtestlaboratories.com/AOAC_Use_Dilution_Test_for_Disinfectants.htm for a description of this type of in use simulation testing.

The with Serum results simulate an additional organic loading.

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O-phenyl phenol AOAC Use Dilution test (5 min)

Test Organism	OPP Concentration (g/litre)	
	In water	Plus Serum
Escherichia coli	0.5	1.0
Pseudomonas aeruginosa	2.5	5.0
Staphylococcus aureus	0.75	2.5

OBCP -Chlorophen AOAC Use Dilution test (5 min)

Test Organism	OBCP Concentration (g/litre)	
	In water	Plus Serum
Escherichia coli	0.1	0.1
Pseudomonas aeruginosa	10.0	25.0
Staphylococcus aureus	0.25	1.0

Serum in both tests – 10% Yeast Extract + 10% Albumin

Food Safety Statement:

With regard to the use of this product as a cleaner and / or sanitiser that may have incidental contact with food:

When used in accordance with the directions described in this product technical bulletin, this product complies with recognised food safety parameters as safe to use with food preparation equipment and surfaces.

SHELF LIFE: As a quality assured manufacturer, Castle Chemicals has a stringent Quality assurance programme. As part of this regime, the label on this product shows a batch number and date of manufacture. This product has a shelf life of 24 months from the label printed date of manufacture. This information contained herein is based on data considered accurate. However, no warranty is expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof. Castle Chemicals assumes no responsibility for personal injury or property damage to vendees, users or third parties caused by the material. Such vendees or users assume all risks associated with the use of material.

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