



Abbott Analytical



Consulting Scientists to the Disinfectant Industry

Certificate of Analysis

Product name: Disinfectant Base 9

Batch or ref no: TZBS1 P37 09/12/2015

Manufacturer or supplier: Coventry Chemicals Ltd
Woodhams Road, Siskin Drive, Coventry, CV3 4FX

Sample ref: 15M/018 **Date received:** 10 December 2015

Date tested: 11 December 2015 **Certificate date:** 14 December 2015

Certificate no: 15M.018SB.CVC **Page:** 1 of 6

Analysis required: EN 13697:2015, Chemical disinfectants and antiseptics - Quantitative non-porous surface test for the evaluation of bactericidal and/or fungicidal activity of chemical disinfectants used in food, industrial, domestic and institutional areas - Test method and requirements without mechanical action (phase 2, step 2)

Storage conditions: Room temperature in darkness

Appearance of product (solution): Clear colourless liquid

Active substance(s) and their concentration(s): Not disclosed

Notes

The test results in this report relate only to the sample(s) tested. This test report may not be reproduced except in full, adapted, altered or used to create a derivative work, without written approval from Abbott Analytical.

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Experimental conditions

Concentration(s) of product tested: Neat as received

Product diluent: N/A

Test organism(s): *Pseudomonas aeruginosa* (NCTC 13359)
Escherichia coli (NCTC 10418)
Staphylococcus aureus (NCTC 10788)
Enterococcus hirae (NCTC 13383)

Contact time(s): 5 min ± 10s

Test temperature: Between 18°C ± 1°C and 25°C ± 1°C
(room temperature)

Test conditions: Dirty

Interfering substance: 3.0g/l bovine albumin

Method: Dilution-neutralisation

Neutralising solution: 30g/l Polysorbate 80 + 3g/l Lecithin +
1g/l L-histidine + 1g/l L-cysteine

Incubation temperature: 37°C ± 1°C

Conclusion

When tested neat this sample of Disinfectant Base 9 passes the requirements of EN 13697:2015 for bactericidal activity in 5 minutes at room temperature, under dirty conditions, against *Pseudomonas aeruginosa* (NCTC 13359), *Escherichia coli* (NCTC 10418), *Staphylococcus aureus* (NCTC 10788) and *Enterococcus hirae* (NCTC 13383).

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Results: *Pseudomonas aeruginosa* (NCTC 13359)

Validation and controls:

Bacterial test suspension (N)			Neutralizer toxicity control (NC)			Method validation (NT)		
	Vc1	Vc2		Vc1	Vc2		Vc1	Vc2
10^{-6}	312	322	10^{-4}	189	204	10^{-4}	184	170
10^{-7}	35	40	10^{-5}	28	39	10^{-5}	23	34
$\bar{x}(wm) = 8.06 \times 10^6$ $lg = 6.91$			$\bar{x}(wm) = 2.09 \times 10^7$ $lg = 7.32$			$\bar{x}(wm) = 1.87 \times 10^7$ $lg = 7.27$		
$6.57 \leq lg N \leq 7.10$? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no			$\bar{x}(NC) \geq 0.5 \times \bar{x}(Nc)$? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no			$\bar{x}(NT) \geq 0.5 \times \bar{x}(Nc)$? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no		
Control of weighted mean counts (N)			Quotient = 8.45 Between 5 and 15 ? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no					

Water control:

Nc	Vc1	Vc2	
10^{-4}	206	150	$\bar{x}(wm) = 1.90 \times 10^7$ $lg Nc = 7.28$
10^{-5}	36	26	$lg Nc \geq 6.27$? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Nts	57		

Test:

Product test conc.	Contact time	Diln. step	Vc1	Vc2	$Nd = \bar{x}(wm) \times 10$ $lg Nd =$	$lg R = (lg Nc - lg Nd)$	Status
Neat	5 min	10^0	139	161	3.19	4.09	PASS
		10^{-1}	15	28			
		10^{-2}	2	3			
		Nts	22				

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Results: Escherichia coli (NCTC 10418)

Validation and controls:

Bacterial test suspension (N)			Neutralizer toxicity control (NC)			Method validation (NT)		
	Vc1	Vc2		Vc1	Vc2		Vc1	Vc2
10^{-6}	296	319	10^{-4}	168	175	10^{-4}	140	162
10^{-7}	27	31	10^{-5}	27	34	10^{-5}	23	32
$\bar{x}(wm) = 7.65 \times 10^6$ $lg = 6.88$			$\bar{x}(wm) = 1.84 \times 10^7$ $lg = 7.26$			$\bar{x}(wm) = 1.62 \times 10^7$ $lg = 7.21$		
6.57 ≤ lg N ≤ 7.10 ? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no			$\bar{x}(NC) \geq 0.5 \times \bar{x}(Nc)$? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no			$\bar{x}(NT) \geq 0.5 \times \bar{x}(Nc)$? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no		
Control of weighted mean counts (N)			Quotient = 10.60 Between 5 and 15 ? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no					

Water control:

Nc	Vc1	Vc2	
10^{-4}	156	122	$\bar{x}(wm) = 1.43 \times 10^7$ $lg Nc = 7.15$
10^{-5}	14	22	$lg Nc \geq 6.27$? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Nts	57		

Test:

Product test conc.	Contact time	Diln. step	Vc1	Vc2	Nd = $\bar{x}(wm) \times 10$ lg Nd =	lg R = (lg Nc - lg Nd)	Status
Neat	5 min	10^0	0	0	< 2.15	> 5.00	PASS
		10^{-1}	0	0			
		10^{-2}	0	0			
		Nts	0				

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Results: *Staphylococcus aureus* (NCTC 10788)

Validation and controls:

Bacterial test suspension (N)			Neutralizer toxicity control (NC)			Method validation (NT)		
	Vc1	Vc2		Vc1	Vc2		Vc1	Vc2
10^{-6}	320	>330	10^{-4}	180	216	10^{-4}	166	148
10^{-7}	38	40	10^{-5}	31	42	10^{-5}	16	29
$\bar{x}(wm) = 8.29 \times 10^6$ $lg = 6.92$			$\bar{x}(wm) = 2.13 \times 10^7$ $lg = 7.33$			$\bar{x}(wm) = 1.63 \times 10^7$ $lg = 7.21$		
$6.57 \leq lg N \leq 7.10$? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no			$\bar{x}(NC) \geq 0.5 \times \bar{x}(Nc)$? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no			$\bar{x}(NT) \geq 0.5 \times \bar{x}(Nc)$? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no		
Control of weighted mean counts (N)			Quotient = 8.33 Between 5 and 15 ?			<input checked="" type="checkbox"/> yes <input type="checkbox"/> no		

Water control:

Nc	Vc1	Vc2	
10^{-4}	174	198	$\bar{x}(wm) = 2.04 \times 10^7$ $lg Nc = 7.31$ $lg Nc \geq 6.27$? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no
10^{-5}	37	39	
Nts	64		

Test:

Product test conc.	Contact time	Diln. step	Vc1	Vc2	$Nd = \bar{x}(wm) \times 10$ $lg Nd =$	$lg R =$ $(lg Nc - lg Nd)$	Status
Neat	5 min	10^0	0	3	< 2.15	> 5.16	PASS
		10^{-1}	0	0			
		10^{-2}	0	0			
		Nts	0				

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Results: *Enterococcus hirae* (NCTC 13383)

Validation and controls:

Bacterial test suspension (N)			Neutralizer toxicity control (NC)			Method validation (NT)		
	Vc1	Vc2		Vc1	Vc2		Vc1	Vc2
10 ⁻⁶	288	321	10 ⁻⁴	165	172	10 ⁻⁴	155	161
10 ⁻⁷	23	29	10 ⁻⁵	20	22	10 ⁻⁵	15	17
$\bar{x}(wm) = 7.51 \times 10^6$ lg = 6.88			$\bar{x}(wm) = 1.72 \times 10^7$ lg = 7.24			$\bar{x}(wm) = 1.58 \times 10^7$ lg = 7.20		
6.57 ≤ lg N ≤ 7.10 ? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no			$\bar{x}(NC) \geq 0.5 \times \bar{x}(Nc)$? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no			$\bar{x}(NT) \geq 0.5 \times \bar{x}(Nc)$? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no		
Control of weighted mean counts (N)			Quotient = 11.71 Between 5 and 15 ? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no					

Water control:

Nc	Vc1	Vc2	
10 ⁻⁴	160	125	$\bar{x}(wm) = 1.55 \times 10^7$ lg Nc = 7.19
10 ⁻⁵	22	35	lg Nc ≥ 6.27 ? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Nts	64		

Test:

Product test conc.	Contact time	Diln. step	Vc1	Vc2	Nd = $\bar{x}(wm) \times 10$ lg Nd =	lg R = (lg Nc - lg Nd)	Status
Neat	5 min	10 ⁰	0	2	< 2.15	> 5.04	PASS
		10 ⁻¹	0	0			
		10 ⁻²	0	0			
		Nts	0				

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