



Abbott Analytical



Consulting Scientists to the Disinfectant Industry

Certificate of Analysis

Sample(s) : One sample of Trionic D Concentrate
Expiry Date September 2014
Lot 02640

Received from: Ebiox Ltd. 822 Fountain Court, Birchwood Boulevard,
Birchwood, Warrington, WA3 7QZ

Date received: 11 January 2013 **Date tested:** 14 January 2013

Certificate no: 13A.031Cd.EBI **Certificate date:** 25 January 2013

Sample ref: 13A/031 **Page:** 1 of 3

Analysis required: EN 13704, Chemical disinfectants - Quantitative suspension test for the evaluation of sporicidal activity of chemical disinfectants used in human medicine, veterinary field, and food, industrial, domestic and institutional areas - Test method and requirements (phase 2, step 1)

Product stored at: Room temperature

Active substance: Not declared

Test conditions: Dirty

Interfering substance: 3.0g/l bovine albumin

Product test concentration: 2% v/v

Product diluent used during test: Sterile hard water 300mg/l CaCO₃

Contact time: 1 minute & 3 minutes

Test temperature: 20°C ± 0.5°C

Neutralising solution: 30g/l Polysorbate 80, 3g/l Lecithin, 1g/l Histidine, 1g/l Cysteine

Incubation temperature: 30°C ± 1°C

Identification of bacterial strain(s) used: *Clostridium difficile* NCTC 11209

D C Watson



Abbott Analytical



Consulting Scientists to the Disinfectant Industry

25 January 2013

Certificate No: 13A.031Cd.EBI

Page: 2 of 3

Test results: 1 minute

Test Organism	<i>Clostridium difficile</i>	
Validation Suspension (N _v)	Vc1 316	Vc2 272
	$\bar{x} = 294$	
Experimental Control (A)	Vc1 284	Vc2 302
	$\bar{x} = 293 \geq 0.5N_{v_0}$	
Neutraliser Control (B)	Vc1 328	Vc2 274
	$\bar{x} = 301 \geq 0.5N_{v_0}$	
Method Validation (C)	Vc1 266	Vc2 292
	$\bar{x} = 279 \geq 0.5N_{v_0}$	
Test Suspension	10 ⁻⁴ Vc1 322	Vc2 294
	10 ⁻⁵ Vc1 35	Vc2 30
(N = \bar{w})	lg N = 6.49	
(N ₀ = 0.1N)	lg N ₀ = 5.49	
Results	Vc1 27	Vc2 21
	lg Na = 2.38	
(R)	lg R = 3.11	
Pass: lg R ≥ 3	PASS	

Vc = plate count per ml
 \bar{x} = average of Vc1 and Vc2
 \bar{w} = weighted mean of \bar{x}
R = reduction (lg R = lg N₀ - lg Na)

Requirements & Conclusion:

This batch of Trionic D Concentrate, when diluted 1 part Trionic in 49 parts water, passes the requirements of EN 13704 for bactericidal activity in 1 minute at 20°C under dirty conditions against all of the reference organisms detailed.

D C Watson

D C Watson BSc, CBiol, MSB, MIFST, ACIEHO
PO Box 95, New Ferry, Wirral, CH62 6HA
Tel: 0151 637 3331 Mob: 07767 871275
email: abbottanalytical@hotmail.co.uk



Abbott Analytical



Consulting Scientists to the Disinfectant Industry

25 January 2013

Certificate No: 13A.031Cd.EBI

Page: 3 of 3

Test results: 3 minutes

Test Organism	<i>Clostridium difficile</i>	
Validation Suspension (N_{v0})	Vc1 316	Vc2 272
	$\bar{x} = 294$	
Experimental Control (A)	Vc1 284	Vc2 302
	$\bar{x} = 293 \geq 0.5N_{v0}$	
Neutraliser Control (B)	Vc1 328	Vc2 274
	$\bar{x} = 301 \geq 0.5N_{v0}$	
Method Validation (C)	Vc1 266	Vc2 292
	$\bar{x} = 279 \geq 0.5N_{v0}$	
Test Suspension	10 ⁻⁴ Vc1 322	Vc2 294
	10 ⁻⁵ Vc1 35	Vc2 30
(N = \bar{w}) (N₀ = 0.1N)	lg N = 6.49	
	lg N ₀ = 5.49	
Results (Na = 10\bar{x}) (R)	Vc1 15	Vc2 11
	lg Na < 2.16 lg R > 3.33	
Pass: lg R ≥ 3	PASS	

Vc = plate count per ml
 \bar{x} = average of Vc1 and Vc2
 \bar{w} = weighted mean of \bar{x}
R = reduction (lg R = lg N₀ - lg Na)

Requirements & Conclusion:

This batch of Trionic D Concentrate, when diluted 1 part Trionic in 49 parts water, passes the requirements of EN 13704 for bactericidal activity in 3 minute at 20°C under dirty conditions against all of the reference organisms detailed.

D C Watson

D C Watson BSc, CBiol, MSB, MIFST, ACIEHO
PO Box 95, New Ferry, Wirral, CH62 6HA
Tel: 0151 637 3331 Mob: 07767 871275
email: abbottanalytical@hotmail.co.uk