

**GOVT. REGISTERED****ISSUED TO:**

Chemtex Speciality Limited
111, Haute Street Corporate Park, 86A, Topsia Road South
Kolkata – 700046

REPORT NO: ADV/NN/2020-21/0158**REPORT ISSUE DATE: 06.08.2020****CUSTOMER REFERENCE: Via Email****SAMPLE SUBMISSION DATE: 24.04.2020**

TEST REPORT
SAMPLE DETAILS

SAMPLE MARKED AS	BATCH NO.	GENERIC NAME	DOM	DOE
Quaternary Silane based Retentive Anti-Microbial Coating Brand Name - CHEMTEX BIOBUBBLE COAT Item Code: CBBS20	BSS/RD 137	Trimethoxysilyl Quaternary Ammonium Chloride Compound	20.04.2020	19.04.2022

Modified Quantitative Surface Test for the evaluation of residual bactericidal and virucidal efficacy and fungicidal activity of
CHEMTEX BIOBUBBLE COAT as per EN-13697 standard

Test Organism: Gram Negative Bacteria	Media: Tryptic soya agar with lecithin and polysorbate 80
Date of Testing: 30.04.2020	Date of completion of Test: 01.08.2020

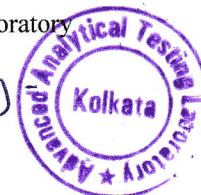
Sr.No.	Test Organism	Testing day	Reduction in Bacterial count (CFU)	Remarks
1.	Escherichia Coli standard strain ATCC 8739	1 hr.	Log 4	99.99% bactericidal activity observed
		7	Log 4	99.99% bactericidal activity observed
		15	Log 4	99.99% bactericidal activity observed
		30	Log 4	99.99% bactericidal activity observed
		60	Log 3	99.90% bactericidal activity observed
		90	Log 2	99.00% bactericidal activity observed
2.	Klebsiellapneumoniae standard strain ATCC 10081	1 hr.	Log 4	99.99% bactericidal activity observed
		7	Log 4	99.99% bactericidal activity observed
		15	Log 4	99.99% bactericidal activity observed
		30	Log 4	99.99% bactericidal activity observed
		60	Log 3	99.90% bactericidal activity observed
		90	Log 2	99.00% bactericidal activity observed
3.	Pseudomonas aeruginosa standard strain ATCC 27853	1 hr.	Log 4	99.99% bactericidal activity observed
		7	Log 4	99.99% bactericidal activity observed
		15	Log 4	99.99% bactericidal activity observed
		30	Log 4	99.99% bactericidal activity observed
		60	Log 3	99.90% bactericidal activity observed
		90	Log 2	99.00% bactericidal activity observed

Remarks: CHEMTEX BIOBUBBLE COAT sample in undiluted form brings killing/ inactivation of each of the test Gram negative bacterial species namely Escherichia Coli standard strain ATCC 8739, Klebsiellapneumoniae standard strain ATCC 10081 and Pseudomonas aeruginosa standard strain ATCC 27853 in a range of 99.00% to 99.99% after exposing them to plates for ten minutes sprayed with CHEMTEX BIOBUBBLE COAT, till 90-days.

Analyzed by: P.P Ganguly

For Advanced Analytical Testing Laboratory

P.P. Ganguly
P.P Ganguly
(Quality Manager)

**-: End of the report :-**



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Kolkata – 700046

REPORT NO: ADV/NN/2020-21/0158A

REPORT ISSUE DATE: 06.08.2020

CUSTOMER REFERENCE: Via Email

SAMPLE SUBMISSION DATE: 24.04.2020

TEST REPORT

SAMPLE DETAILS

SAMPLE NAME	BATCH NO.	GENERIC NAME	DOM	DOE
Quaternary Silane based Retentive Anti-Microbial Coating Brand Name - CHEMTEX BIOBUBBLE COAT Item Code: CBBS20	BSS/RD 137	Trimethoxysilyl Quaternary Ammonium Chloride Compound	20.04.2020	19.04.2022

Modified Quantitative Surface Test for the evaluation of residual bactericidal and virucidal efficacy and fungicidal activity of
CHEMTEX BIOBUBBLECOAT as per EN-13697 standard

Test Organism: Gram Positive Bacteria	Media: Tryptic soya agar with lecithin and polysorbate 80
Date of Testing: 30.04.2020	Date of completion of Test: 01.08.2020

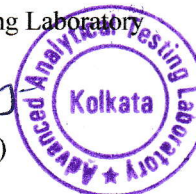
Sr.No.	Test Organism	Testing day	Reduction in Bacterial count (CFU)	Remarks
1.	Staphylococcus aureus standard strain ATCC 6538	1 hr.	Log 4	99.99% bactericidal activity observed
		7	Log 4	99.99% bactericidal activity observed
		15	Log 4	99.99% bactericidal activity observed
		30	Log 4	99.99% bactericidal activity observed
		60	Log 3	99.90% bactericidal activity observed
		90	Log 2	99.00% bactericidal activity observed
2.	Bacillus subtilis standard strain ATCC 6633	1 hr.	Log 4	99.99% bactericidal activity observed
		7	Log 4	99.99% bactericidal activity observed
		15	Log 4	99.99% bactericidal activity observed
		30	Log 4	99.99% bactericidal activity observed
		60	Log 3	99.90% bactericidal activity observed
		90	Log 2	99.00% bactericidal activity observed

Remarks: CHEMTEX BIOBUBBLE COAT sample in undiluted form brings killing/ inactivation of each of the test Gram positive bacterial species namely Staphylococcus aureus standard strain ATCC 6538 and Bacillus subtilis standard strain ATCC 6633 a range of 99.00% to 99.99% after exposing them to plates for ten minutes sprayed with CHEMTEX BIOBUBBLECOAT, till 90-days.

Analyzed by: P.P Ganguly

For Advanced Analytical Testing Laboratory

P.P. Ganguly
(Quality Manager)



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REPORT NO: ADV/NN/2020-21/0158B**REPORT ISSUE DATE: 06.08.2020****CUSTOMER REFERENCE: Via Email****SAMPLE SUBMISSION DATE: 24.04.2020**

TEST REPORT
SAMPLE DETAILS

SAMPLE NAME	BATCH NO.	GENERIC NAME	DOM	DOE
Quaternary Silane based Retentive Anti-Microbial Coating Brand Name - CHEMTEX BIOBUBBLE COAT Item Code: CBBS20	BSS/RD 137	Trimethoxysilyl Quaternary Ammonium Chloride Compound	20.04.2020	19.04.2022

Modified Quantitative Surface Test for the evaluation of residual bactericidal and virucidal efficacy and fungicidal activity of
CHEMTEX BIOBUBBLE COAT as per EN-13697 standard

Test Organism: Lipophilic Enveloped Virus	Media: Tryptic soya agar with lecithin and polysorbate 80
Date of Testing: 30.04.2020	Date of completion of Test: 01.08.2020

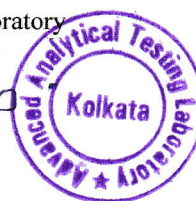
Sr.No.	Test Organism	Testing day	Reduction in Viral load count (copies/ml)	Remarks
1.	H. Influenzae Standard strain ATCC 1021	1 hr.	Log 4	99.99% virucidal activity observed
		7	Log 4	99.99% virucidal activity observed
		15	Log 4	99.99% virucidal activity observed
		30	Log 4	99.99% virucidal activity observed
		60	Log 3	99.90% virucidal activity observed
		90	Log 3	99.90% virucidal activity observed
2.	HRSV standard strain ATCC 9320	1 hr.	Log 4	99.99% virucidal activity observed
		7	Log 4	99.99% virucidal activity observed
		15	Log 4	99.99% virucidal activity observed
		30	Log 4	99.99% virucidal activity observed
		60	Log 3	99.90% virucidal activity observed
		90	Log 3	99.90% virucidal activity observed

Remarks: CHEMTEX BIOBUBBLE COAT sample in undiluted form brings killing/ inactivation of each of the test Lipophilic Enveloped virus species namely H. Influenzae Standard strain ATCC 1021 and HRSV standard strain ATCC 9320 a range of 99.90% to 99.99% after exposing them to plates for ten minutes sprayed with CHEMTEX BIOBUBBLE COAT, till 90-days.

Analyzed by: P.P Ganguly

For Advanced Analytical Testing Laboratory

P.P. Ganguly
(Quality Manager)

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Kolkata – 700046
24.04.2020

REPORT NO: ADV/NN/2020-21/0158C**REPORT ISSUE DATE: 06.08.2020****CUSTOMER REFERENCE: Via Email****SAMPLE SUBMISSION DATE:**

TEST REPORT
SAMPLE DETAILS

SAMPLE NAME	BATCH NO.	GENERIC NAME	DOM	DOE
Quaternary Silane based Retentive Anti-Microbial Coating Brand Name - CHEMTEX BIOBUBBLE COAT Item Code: CBBS20	BSS/RD 137	Trimethoxysilyl Quaternary Ammonium Chloride Compound	20.04.2020	19.04.2022

Modified Quantitative Surface Test for the evaluation of residual bactericidal and virucidal efficacy and fungicidal activity of CHEMTEX BIOBUBBLE COAT as per EN-13697 standard

Test Organism: Fungus	Media: Tryptic soya agar with lecithin and polysorbate 80
Date of Testing: 30.04.2020	Date of completion of Test: 01.08.2020

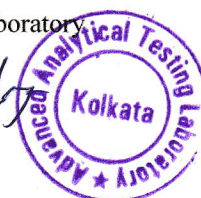
Sr.No.	Test Organism	Testing day	Reduction in Bacterial count (CFU)	Remarks
1.	Candida albicans standard strain ATCC 10231	1 hr.	Log 4	99.99% fungicidal activity observed
		7	Log 4	99.99% fungicidal activity observed
		15	Log 4	99.99% fungicidal activity observed
		30	Log 4	99.99% fungicidal activity observed
		60	Log 3	99.90% fungicidal activity observed
		90	Log 3	99.90% fungicidal activity observed

Remarks: CHEMTEX BIOBUBBLECOAT sample in undiluted form brings killing/ inactivation of each of the test fungal species namely Candida albicans standard strain ATCC 10231 in a range of 99.90% to 99.99% after exposing them to plates for ten minutes sprayed with CHEMTEX BIOBUBBLE COAT, till 90-days.

Analyzed by: P.P Ganguly

For Advanced Analytical Testing Laboratory

P.P. Ganguly
P.P. Ganguly
(Quality Manager)

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REPORT NO: ADV/NN/2020-21/0158D**REPORT ISSUE DATE: 06.08.2020****CUSTOMER REFERENCE: Via Email****SAMPLE SUBMISSION DATE: 24.04.2020**

TEST REPORT
SAMPLE DETAILS

SAMPLE NAME	BATCH NO.	GENERIC NAME	DOM	DOE
Quaternary Silane based Retentive Anti-Microbial Coating Brand Name - CHEMTEX BIOBUBBLE COAT Item Code: CBBS20	BSS/RD 137	Trimethoxysilyl Quaternary Ammonium Chloride Compound	20.04.2020	19.04.2022

Modified Quantitative Surface Test for the evaluation of residual bactericidal and virucidal efficacy and fungicidal activity of CHEMTEX BIOBUBBLE COAT as per EN-13697 standard

Test Organism: Environmental isolate	Media: Tryptic soya agar with lecithin and polysorbate 80
Date of Testing: 30.04.2020	Date of completion of Test: 01.08.2020

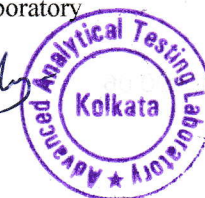
Sr.No.	Test Organism	Testing day	Reduction in Bacterial count (CFU)	Remarks
1.	Bacillus Species (Environmental isolate)	1 hr.	Log 4	99.99% bactericidal activity observed
		7	Log 4	99.99% bactericidal activity observed
		15	Log 4	99.99% bactericidal activity observed
		30	Log 4	99.99% bactericidal activity observed
		60	Log 3	99.90% bactericidal activity observed
		90	Log 3	99.90% bactericidal activity observed
2.	Staphylococcus Species (Environmental isolate)	1 hr.	Log 4	99.99% bactericidal activity observed
		7	Log 4	99.99% bactericidal activity observed
		15	Log 4	99.99% bactericidal activity observed
		30	Log 4	99.99% bactericidal activity observed
		60	Log 3	99.90% bactericidal activity observed
		90	Log 2	99.00% bactericidal activity observed

Remarks: CHEMTEX BIOBUBBLE COAT sample in undiluted form brings killing/ inactivation of each of the environmental isolated species namely Bacillus Species and Staphylococcus Species in a range of 99.00% to 99.99% after exposing them to plates for ten minutes sprayed with CHEMTEX BIOBUBBLE COAT, till 90-days.

Analyzed by: P.P Ganguly

For Advanced Analytical Testing Laboratory

P.P. Ganguly
(Quality Manager)



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SAMPLE DETAILS

SAMPLE NAME	BATCH NO.	GENERIC NAME	DOM	DOE
Quaternary Silane based Retentive Anti-Microbial Coating Brand Name - CHEMTEX BIOBUBBLE COAT Item Code: CBBS20	BSS/RD 137	Trimethoxysilyl Quaternary Ammonium Chloride Compound	20.04.2020	19.04.2022

Toxicity Quaternary Silane based Retentive Anti-Microbial Coating (CHEMTEX BIOBUBBLE COAT)

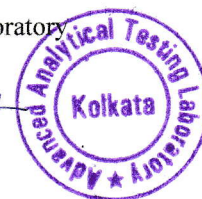
TEST	SPECIES	RESULTS
Oral LD ₅₀	Rat	>5000 mg/kg (Toxicity Category IV)
Dermal LD ₅₀	Rabbit	>2000 mg/kg (Toxicity Category III)
Inhalation LC ₅₀	Rat	>2.0 mg/L (1 hr.) (Toxicity Category IV)
Eye Irritation	Rat	Moderate Toxicity (Toxicity Category II)

Remarks: Upon reviewing the available toxicity information, it has concluded that there are no endpoints of concern for repeated oral or dermal exposure to the Trimethoxysilyl Quaternary Ammonium Chloride Compound. This conclusion is based on low toxicity observed in oral, dermal and other developmental studies conducted for Trimethoxysilyl Quaternary Ammonium Chloride Compound. The risk from inhalation exposure has not been characterized and an additional study designed to assess inhalation toxicity over time may be needed. In addition, moderate toxicity has been observed with regard to eye irritation.

Analyzed by: P.P Ganguly

For Advanced Analytical Testing Laboratory

P.P. Ganguly
P.P. Ganguly
(Quality Manager)



-: End of the report :-