Analysis Report – BA LMG-00795/20

CLIENT DETAILS
Requesting company's name*: INCOCRYL INDUSTRIA E COMERCIO DE TINTAS LTDA
Address*: JACINTO GONCALVES, 254 - SAO PAULO - SP - 05568-240
Name of the requester: Hermes Paulo de Amorim Filho

SAMPLE DETAILS
Test item identification*: REVITARE NANO IS-47, REVITARE NANO IS-47, REVITARE NANO IS-47
Test item code (Merieux): SAN-1223-01/20, SAN-1224-01/20, SAN-1225-01/20
Lot of test item*: 082006B (production = 1,000 liters)
Sampler*: Sample provided by the client and/or requesting company (*1): Provided by the Client
Test item manufacturing date*: 8/25/2020
Test item expiration date*: 2/25/2022
Commercial Process No.: 05278/20
Date of receipt of the test item: 9/24/2020 8:25 AM
Test start date: 10/26/2020
Test end date: 11/9/2020
Methodology used: SOP M 0202 (BASED ON JIZ STANDARD)
Notes*: ---

(*1) The analysis results refer only to the test items analyzed and apply to the sample as received

Procedures

A bacterial suspension is inoculated, in triplicate, on the sample surfaces with additive and without additive (White). The samples are covered with cellophane until the inoculum spreads close to the edge. The samples are kept at 35°C +/- 1.0°C for 24 hours +/- 1 hour in humidity conditions of not less than 90%. After 24 hours the surfaces are recovered into a neutralization medium, previously validated, so that the action of the additive is neutralized. The number of microorganisms surviving from the sample can be recovered and determined quantitatively. The number of bacteria for the samples without additive (White) is determined and the reduction in the count of the number of viable cells attributed to the test substance is calculated by the difference, under the same conditions of the test.

Test conditions

Neutralizing: Casein peptone, soy peptone, sodium chloride, disodium hydrogen phosphate, glucose, lecithin, and tween 80.
Number of parts used: 3 pieces with active/3 pieces without active
Applied concentration: up to 5% of common water
Residual time: Time 0.
Microorganisms tested: *Staphylococcus aureus ATCC* 6538, *Salmonella choleraesuis* ATCC 10708, *Pseudomonas aeruginosa* ATCC 15442 and *Escherichia coli* ATCC 8739.

Acceptance criterion: The value of the antimicrobial activity obtained by the methods described in the standard must be at least 2.0 logs of reduction. Values other than 2.0 may apply if agreed between the parties, laboratory, and customer.

ANALYTICAL RESULTS OF THE SAMPLE

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Table 1. Results of the evaluation of the efficacy of biocides incorporated in the specimens against *Staphylococcus aureus* ATCC 6538.

Sample without additive - White		Sample with additive		Result of the reduction obtained in the sample with additive in relation to White	
Count in ufc/piece	Log10 of count in ufc/piece	Count in ufc/piece	Log10 of count in ufc/piece	Log10 reduction compared to control	Reduction percentage
8.36×10^5	5.92	6.86×10^2	2.83	3.09	99.91%

Abbreviation: ufc (colony-forming units).

Table 2. Results of the evaluation of the effectiveness of biocides incorporated in the specimens against *Salmonella choleraesuis* ATCC 10708.

Sample without additive - White		Sample with additive		Result of the reduction obtained in the sample with additive in relation to White	
Count in ufc/piece	Log10 of count in ufc/piece	Count in ufc/piece	Log10 of count in ufc/piece	Log10 reduction compared to control	Reduction percentage
1.03×10^6	6.01	8.70×10^2	2.93	3.08	99.91%

Table 3. Results of the evaluation of the efficacy of biocides incorporated in the specimens against *Escherichia coli* ATCC 8739.

Sample without additive - White		Sample with additive		Result of the reduction obtained in the sample with additive in relation to White	
Count in ufc/piece	Log10 of count in ufc/piece	Count in ufc/piece	Log10 of count in ufc/piece	Log10 reduction compared to control	Reduction percentage
1.06×10^6	6.02	1.10×10^3	3.04	2.98	99.89%

Table 4. Results of the evaluation of the effectiveness of biocides incorporated in the specimens against *Pseudomonas aeruginosa* ATCC 15442.

Sample without additive - White		Sample with additive		Result of the reduction obtained in the sample with additive in relation to White	
Count in ufc/piece	Log10 of count in ufc/piece	Count in ufc/piece	Log10 of count in ufc/piece	Log10 reduction compared to control	Reduction percentage
6.43×10^5	5.80	6.43×10^2	2.80	3.00	99.90%

This Report refers only to the sample analyzed and is not extended to other lots and/or products,
Sampling plan not carried out by the Laboratory.
The documents and records generated in this essay will be kept in the file(s) for a minimum period of six (6) years.

Piracicaba, November 9, 2020.

Mariana Ayres Ferraz da Silva

Laboratory Coordinator