May 18, 2020

Nelson McIlveen
Celtic Plastic, LLC.
329 S. Rockford Dr. Ste 103
Tempe, AZ 85281
480-560-5404

Robert Papalos
Watch Water® USA
9171 128th Ave Largo
Florida 33773, USA
866-961-1366

Client ID: Virol-oxy Powder, and Virol-oxy Capsule

BCS ID: 2004379, 2005012

Project Name: Celtic Plastic's Human Coronavirus OC43 Reduction Efficacy Testing

Dear Nelson McIlveen,

We have completed the disinfection efficacy study on the submitted units/materials as outlined in the report notes. The contaminant species, study conditions, and parameters utilized were based on client's request and adaptation of the guidance documents and protocols listed below:

Validation of antiviral efficacy of supplied substrates: Performance determination as per laboratory disinfectionprotocol; BCS SOP-D1 (ISO17025:2017 Accredited) and ASTM E1053.

Following, you will find our report of the study conducted on the referenced samples. Should you have any questions, please do not hesitate to contact me.

Sincerely,

George Lukasik, Ph.D.
Laboratory Director

BCS LABORATORIES, INC. – GAINESVILLE
4609 NW 6TH STREET, STE. A, GAINESVILLE, FLORIDA 32609
TEL. (352) 377-9272, FAX. (352) 377-5630
WWW.MICROBIOSERVICES.COM
FL DOH E82924, ISO 17025:2017 L2422 (ANAB/ANSI), EPA FL01147

Analysis: *Coronavirus OC43 (ATCC VR 1558) Virus Reduction Efficacy* Test Carrier: Glass Slide 25mm

Application Method: Saturation by Spray Temp.: 20.6

Conformance of Study Control Data: Negative Control: Yes Positive Control: Yes Neutralizer Control Yes

Start Conc.*: 7.30E+06 MPN I.U. Contact Time: 10 minutes

Analyst: Jessica Weglarz, B.S. Challenge Start Date: 05/01/2020

BCS Sample ID: 2005012 Client ID: Virol-oxy Powder (1% Solution) Qualifier: None

End Conc.**: 3.30E+01 MPN I.U. % Reduct.: 99.9995 Log10 Reduct.: 5.3

Sample Analyst: Jessica Weglarz, B.S. Sample Analysis Date: 05/01/2020

Sample Notes: None

BCS Sample ID: 2005012 Client ID: Virol-oxy Powder (1% Solution) Qualifier: None

End Conc.**: 3.30E+01 MPN I.U. % Reduct.: 99.9995 Log10 Reduct.: 5.3

Sample Analyst: Jessica Weglarz, B.S. Sample Analysis Date: 05/01/2020

Sample Notes: None

BCS Sample ID: 2005012 Client ID: Virol-oxy Powder (1% Solution) Qualifier: None

End Conc.**: 1.40E+02 MPN I.U. % Reduct.: 99.998 Log10 Reduct.: 4.7

Sample Analyst: Jessica Weglarz, B.S. Sample Analysis Date: 05/01/2020

Sample Notes: None

*Start Conc. is average recovery from 2 control inoculated carriers not subjected to treatment.

**End Conc. is the recovery from carrier subjected to treatment and allowed indicated contact time.

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Application Method: Saturation by Spray Temp.: 20.6

Conformance of Study Control Data: Negative Control: Yes Positive Control: Yes Neutralizer Control Yes

Start Conc.*: 7.30E+06 MPN I.U. Contact Time: 10 minutes

Analyst: Jessica Weglarz, B.S. Challenge Start Date: 05/01/2020

BCS Sample ID: 2004379 Client ID: Virol-oxy (2 Capsule solution) Qualifier: None

End Conc.**: 1.60E+03 MPN I.U. % Reduct.: 99.98 Log10 Reduct.: 3.7

Sample Analyst: Jessica Weglarz, B.S. Sample Analysis Date: 05/01/2020

Sample Notes: None

BCS Sample ID: 2004379 Client ID: Virol-oxy (2 Capsule solution) Qualifier: None

End Conc.**: 9.40E+01 MPN I.U. % Reduct.: 99.999 Log10 Reduct.: 4.9

Sample Analyst: Jessica Weglarz, B.S. Sample Analysis Date: 05/01/2020

Sample Notes: None

BCS Sample ID: 2004379 Client ID: Virol-Oxy (2 Capsule solution) Qualifier: None

End Conc.**: 1.60E+03 MPN I.U. % Reduct.: 99.98 Log10 Reduct.: 3.7

Sample Analyst: Jessica Weglarz, B.S. Sample Analysis Date: 05/01/2020

Sample Notes: None

*Start Conc. is average recovery from 2 control inoculated carriers not subjected to treatment.

**End Conc. is the recovery from carrier subjected to treatment and allowed indicated contact time.

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Project: Celtic Plastic, LLC. Human Coronavirus OC43 Reduction Efficacy

Date Received: Testing April 15, 2020

Test Start Date: May 01, 2020 Test End Date: May 12, 2020

Report Notes:

The test substances were received from the study sponsor and was assigned the referenced BCS identifier number. The substances consisted containers each labeled and sealed. On the day of the study each of the containers were opened. For the capsule product (BCS ID 2004379), two capsules were removed and placed into a 8 oz fine mist spray bottle containing 8 oz. reagent water and homogenized. For the powder product (BCS ID 2005012), 10 grams were placed into 1-L reagent water and homogenized; the solution was then transfered to a fine mist sprayer. The study was performed to evaluate the solutions' Human Coronavirus strain OC43 virucidal efficacy as per laboratory protocol. The study protocol is based on ASTM 1053: Standard Practice to Assess Virucidal Activity of Chemicals Intended for Disinfection of Inanimate, Nonporous Environmental Surfaces. Briefly, one hundred microliters of virus suspension containing a protein /soil load was added and spread onto to each of the 25-mm sterile glass carriers and allowed to dry. Once dry, the carriers were each sprayed five times with a fine mist of solution until saturated. Each provided solution was tested on triplicate inoculated carriers. A NIST traceable laboratory timer was started following immediately after the last spray. Following a 10-minute contact time, each of the glass carriers was immediately added to sterile containers with 10mL of D/E Neutralizing Broth (Criterion) and homogenized. The samples were analyzed on the day of the study. Analysis was conducted on undiluted samples and and at serial ten-fold dilutions in replicates of 5. Positive, negative and neutralization controls were performed along with test subjects to provide quality control and reference data as per laboratory standard accredited ISO17025:2017 methodology. Viable virus was analyzed using HRT-18G cell infectivity assay. Cell monolayers were monitored for cytopathic effect development over a 14-day period. Viruses were enumerated as Infectious Units (I.U.) using the Most Probably Number (MPN) assay from the cell culture results. Analysis was conducted as per method EPA/600/R-95/178 and reported as Most Probable Number of Infectious Units (MPN I.U.). All equipment and supplies were validated to or were calibrated to NIST traceable standards. All QC were within method acceptance limit. No general environmental conditions are specified in the standard or have been identified that could affect the test results or measurements. End of Report Notes.

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*I certify that I have examined and I am familiar with the information submitted herein. The results pertain only to the sample(s) analyzed and associated identifier #(s). Based on my inquiry of the individuals responsible for the analysis, I believe the data to be true, accurate, and complete. Unit descriptions and names were obtained from the submitted documents. The analysis was authorized and commissioned by the client or client's representative. The resulting data are representative of the analysis conducted on the collected samples and its/their condition at the time of analysis. The data provided is strictly representative of the study conducted under laboratory conditions using the material/samples/articles provided by the client (or client's representative) and its (their) condition at the time of test. The data obtained may not be representative or indicative of a real-life process and/or application. The sample(s) were analyzed in accordance with the appropriate method, however due to the inherent limitations of methods, microorganisms may avoid detection. BCS Laboratories offers no express or implied warranties concerning the quality, safety, and/or purity of any sample, batch, source, or the process they are derived from. Quality assurance controls were performed as outlined in the method and as per Good Laboratory Practices. Analyses were performed in accordance with laboratory practices and procedures set-forth by ISO 17025-2017 and NELAP/TNI accreditation standards unless otherwise noted. BCS makes no express or implied warranty regarding the ownership, merchantability, safety or fitness for a particular purpose of any such property or product.

Signature of Laboratory Director/Authorized Rep. _____ Date: May 12, 2020

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DATA QUALIFIER CODES	
SYMBOL	MEANING
D	Measurement was made in the field.
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J1	The sample matrix interfered with the ability to make any accurate determination.
J2	No Quality Control criteria exist for the component.
^	analysis conducted outside the Laboratory's scope of accreditation
L	Off scale high. Actual value is known to be greater than value given.
O	Sampled, but analysis not performed.
Q	Sample held beyond the accepted holding time.
U	Indicates that the compound was analyzed for but not detected. The reported value is the method detection limit.
V	Analyte was detected in both sample and associated method blank. Data may not be accurate.
Y	The laboratory analysis was from an improperly preserved sample. The data may not be accurate.
Z	Too many colonies present (TNTC); the numeric value given represents the upper end of the value that can be determined based on the volume.
?	Data are rejected and should not be used. QC data did not meet acceptance criteria.
**	Analysis of analyte submitted to an accredited sub-contract laboratory.
!	Data deviate from historically established concentration range.
#	BCS Lab specific qualifier. See laboratory analysis notes.

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Test Substance Images:

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