

# REPORT No 11678

*Date of issue: May 22, 2026*

**Status: FINAL REPORT**

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## ISO 7086-1

# GLASS HOLLOWWARE IN CONTACT WITH FOOD RELEASE OF LEAD AND CADMIUM - TEST METHOD -

## Program: SQ-1623.V2

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## 1. FOREWORD

This report summarizes the results of the **SQ-1623.V2** proficiency testing program on the verification of the release of lead and cadmium from glass hollowware that is intended to be used in contact with food. This program is conducted in a bilateral format, following the “split-sample” design described in clause A.4.2 of ISO/IEC 17043: 2023 (Alternative interlaboratory comparisons).

**South Quality** conducted the testing program in April 2026 with the aim of assessing the laboratory's ability to competently perform the designated tests.

## 2. ORGANIZATION

Program Coordinator: Eng. Erika Brest  
 Assistant Technician: Mateo Giovanni  
 Statistics: Lic. Manuel Tozaki  
 Supervision: Eng. Emiliano Medina

## 3. OBJECTIVE

The objective of this proficiency testing program is the evaluation of release of lead and cadmium, using the following standard:

Standard
ISO 7086-1: 2019

For verification, batches of drinking glasses have been selected.

Participants in this program have not been previously informed about the expected behavior of the samples they receive.

## 4. PARTICIPANT

Company: **Bureau Veritas Consumer Products Services (Bangladesh) Ltd.**  
 Laboratory: **Bureau Veritas Consumer Products Services (Bangladesh) Ltd.**  
 Country: Bangladesh  
 Client ID: S340  
 Contact person: Dulaly Chowdhury  
 Manager, Technical Service  
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## 5. HOMOGENEITY

Several batches were prepared identically by the staff at South Quality.

Subsequently, a homogeneity study was conducted with an ISO 17025 accredited laboratory.

The control process followed ISO 33405: 2024, clauses 7.4.1.1 / 7.4.1.2. Stratified random sampling was applied, and samples were selected using random number generation software.

The results of this test are presented below:

Size of each batch: **100 units**

Tested samples from each batch: **20 units**

DETERMINATION	HOMOGENEITY OF RESULTS IN THE ANALYZED SAMPLES		
	BATCH: LGC3170	BATCH: LGC3171	BATCH: LGC3172
Release of lead	YES	NO	YES
Release of cadmium	YES	YES	YES

Samples for this program are taken from selected batch identified as **LGC3172**.

For the batch indicated, the values determined in the homogeneity study are used as assigned values.

Analysis of this test data indicated that the selected samples were sufficiently homogeneous for the program and therefore the results of participants identified as outliers cannot be attributed to sample variability.

## 6. SAMPLE INFORMATION

The following sample was sent for testing:

Batch:	LGC3172
Sample ID:	05
Characteristics:	Drinking glass 100 ml - 60x65 cm - 4 units

## 7. IMAGES



## 8. ASSIGNED VALUES

PARAMETER	BATCH: LGC3172	
	AVG	SD
RELEASE OF LEAD (µg/L)	99.12	3.256
RELEASE OF CADMIUM (µg/L)	31.51	0.138

## 9. PARTICIPANT RESULTS (SEE APPENDIX)

PARAMETER	CODE: LGC3172-05 ( AVG )
RELEASE OF LEAD (µg/L)	104.33
RELEASE OF CADMIUM (µg/L)	31.34

## 10. STATISTICS

The results must be treated as quantitative.

According to B.4.1.3 of ISO 17043 the appropriate technique is to compare participant results with the assigned values. The results can be compared using **z score**.

$$z = \frac{x - X}{\hat{\sigma}}$$

$x$  is the participant's result

$X$  is the assigned value

$\hat{\sigma}$  is the standard deviation

The performance evaluation of each sample is carried out with the following criteria:

$|z| \leq 2.0$  indicates "satisfactory" performance and generates no signal;

$2.0 < |z| < 3.0$  indicates "questionable" performance and generates a warning signal;

$|z| \geq 3.0$  indicates "unsatisfactory" performance and generates an action signal;

## 11. EVALUATION OF PERFORMANCE

BATCH	PARAMETER	AVERAGE		z score	PERFORMANCE RESULT
		PARTICIPANT RESULT	ASSIGNED VALUE		
LGC3172	RELEASE OF LEAD (µg/L)	104.33	99.12	1.60	SATISFACTORY
	RELEASE OF CADMIUM (µg/L)	31.34	31.51	1.23	SATISFACTORY

## 12. CONCLUSIONS

The overall performance on this **SQ-1623.V2** program from the participant laboratory **Bureau Veritas Consumer Products Services (Bangladesh) Ltd.**, is **SUFFICIENT** based on expected results.

The criteria used for the evaluation of the overall performance are the following:

- **SUFFICIENT** performance: No unsatisfactory/questionable results were obtained.
- **ALMOST SUFFICIENT** performance: No unsatisfactory results were obtained, but one questionable result was found.
- **INSUFFICIENT** performance: An unsatisfactory result or two questionable results were obtained.

# APPENDIX

## PARTICIPANT RESULTS

### (Results form)



# INSTRUCTIONS & RESULTS FORM

<b>PROGRAM:</b>	Glass hollowware in contact with food release of lead and cadmium - Test method
<b>CODE:</b>	SQ-1623
<b>VERSION:</b>	2
<b>STANDARD:</b>	ISO 7086-1
<b>COORDINATOR:</b>	Eng. Erika Brest ( <a href="mailto:ebrest@ptsouthquality.com">ebrest@ptsouthquality.com</a> )

### 1 - General

This document serves as a guide for managing the results of the **SQ-1623.V2** program.

Results must be typed, not handwritten.

### 2 - Standard

**ISO 7086-1: 2019**

### 3 - Tests involved

TEST
Verification of the release of lead and cadmium from glass hollowware that is intended to be used in contact with food

### 4 - Samples

CODE	SAMPLE	QUANTITY
LGC3172-05	Drinking glass 100 ml - 60x65 cm	4

### 5 - Notes

- a) Being a bilateral program, there is no deadline for submitting results.
- b) The tables in this document may be modified by the participant, if desired, to include data or observations.
- c) The samples are to be handled as routine lab samples, with all testing, documentation, and reporting adhering to **ISO 7086-1**.
- d) Samples must be retained until the end of the program, which concludes with the submission of the final report.
- e) To review the results, test images would be appreciated. Images can be attached at the end of this document or sent by email.
- f) Once this document is completed, it must be converted into a PDF file and sent to the program coordinator.

## 6 - Test results

Test date:	02.04.2026
Analytical method:	ISO 7086-1

CODE	Item	Release of lead (µg/L)	Release of cadmium (µg/L)
LGC3172-05	1	95.56	31.22
	2	108.53	31.60
	3	92.30	31.26
	4	120.92	31.29
	MEAN	104.33	31.34

OBSERVATIONS

**PHOTOGRAPHS**

**----- END OF REPORT -----**