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Report on Leachable Antimony content of Glass Sample

Reference: The Sample No. CHI /CONT/GBL11013 submitted by M/s Gujrat Borosil Ltd. on 8 November, 2014

The sample was analysed in duplicate as per procedure outlined in Appendix-1 The results of the analyses are listed in the table below

Sr. No.	Details	Concentration of leachable antimony in the glass sample mg/kg
1	Analysis-1	3.44
2	Analysis-2	3.29

Signature

Vinay A. Juvekar

Appendix-1

Procedure for Determination of the leached antimony from glass sample

Introduction:

Antimony was leached from the glass sample supplied by M/s Gujarat Borosil Ltd. The glass sample (180x180 tempered glass block) was ground using mortar-and-pestle and passed through 36 Mesh BSS (425 micron) sieve. The material passing through 36 Mesh BSS sieve and retained above 52 Mesh BSS (300 micron) sieve was collected and two 10 g samples of glass grains were withdrawn from this material and were analyzed under identical condition to obtain leachable antimony content of the samples. The procedure used for the analysis is described below.

Procedure:

(a) Leaching of antimony

- 1. Taken 3 conical flasks (neat and cleaned and rinsed with double distilled water) of 250 ml capacity each
- 2. Added 10 gm glass grain each in two flasks. Third flask was used for the blank reading.
- 3. Added 100 ml double distilled water in each flask.
- 4. Covered all the three flasks tightly with fresh aluminum foil (rinsed with double distilled water).
- 5. Placed all three flasks in autoclave at room temperature.
- 6. Closed the autoclave lid securely, leaving the vent cock open.
- 7. Switched on autoclave and heated at constant rate till steam issued vigorously from the vent cock.
- 8. Closed the vent cock & increased the temperature at the rate of 1°C per minute till 121°C.
- 9. Maintained the temp. 121 °C \pm 1°C for 2 hrs.
- 10. Switched off the autoclave
- 11. Allowed to cool at room temperature.
- 12. Taken out the flasks from autoclave.