



SUPS

Version 2
Issue Date: October 2014

Instructions for Handling Chemical Test Materials and Recording Results

CHEMICAL TEST MATERIAL

Sample 9 Stevia

Sample details

Three samples of Stevia are to be analyzed for the % concentration of total steviol glycosides and the individual steviol glycosides.

Sample storage

All samples should be stored at 2-8°C in a dry, insect free, volatile free storage area from the time of arrival at your laboratory.

Sample preparation

Samples and standard material(s) should be handled in the same format during preparation stage. **Only absolute purity of standard material(s) is to be used for the calculation of concentration of each analyte.**

Dried according to the Food and Agriculture Organization (FAO) JECFA monograph 5(2008) specifications. Accurately weigh the required amount of sample and standard then dry in the same condition, at 105 °C for 2 hours. After drying the test material shall be stored in a desiccator and analysed within 24hrs. All samples should be equilibrated at room temperature 20(±5)°C before any analyses are performed.

Optionally to drying procedure, determine the moisture and solvent content in samples and standard material(s) at the time of preparation and calculate the absolute purity.

$$\text{Absolute purity} = (100\% - \text{water content \%} - \text{residual solvents \%} - \text{inorganic impurities \%}) \times (\text{HPLC purity}/100)$$

Sample analysis

Samples should be analysed by the normal method(s) used by your laboratory. Replicate determinations can be made if this is normal laboratory procedure, although only one value per method can be submitted to LGC Standards Proficiency Testing for statistical analysis and assessment of laboratory performance.

Stevia samples should be treated like routine laboratory samples and all normal quality control procedures should be adopted.

Results should be reported against the method(s) you have used, using the units and number of decimal places as detailed below.

Results should be corrected for recovery and blank, if appropriate, and if this is the normal practice in the laboratory. **If the sample is diluted as part of the analytical process, such dilutions should be corrected for.**



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Table 1 – Analytes to be quantified in the Stevia test material

Analyte	Method	Units	DP
Total steviol glycosides	1. USP- Food Chemicals Codex	% ($W_x/W_{\text{dried extract}}$)	2
Rebaudioside A	2. JECFA 2010 without modification	% ($W_x/W_{\text{dried extract}}$)	2
Rebaudioside B	3. JECFA 2010 with method modification	% ($W_x/W_{\text{dried extract}}$)	2
Rebaudioside C	4. HPLC – other	% ($W_x/W_{\text{dried extract}}$)	2
Rebaudioside D	5. Non – HPLC – other	% ($W_x/W_{\text{dried extract}}$)	2
Rebaudioside E		% ($W_x/W_{\text{dried extract}}$)	2
Rebaudioside F		% ($W_x/W_{\text{dried extract}}$)	2
Dulcoside A		% ($W_x/W_{\text{dried extract}}$)	2
Rubusoside		% ($W_x/W_{\text{dried extract}}$)	2
Steviolbioside		% ($W_x/W_{\text{dried extract}}$)	2
Stevioside		% ($W_x/W_{\text{dried extract}}$)	2

where: W_x = test parameter in question such as total steviol glycosides or rebaudioside B.

Note:

Participants are advised not to submit the result for analytes, which are not determined. All results must be reported on or before the specified reporting deadline. Once data has been submitted it can only be altered by LGC Standards Proficiency Testing.

Recording Results

- All results should be submitted using PORTAL
- Please go to <https://www.lgcpt.com/portal>
- Login using your Lab ID, username and password.
- A PORTAL user guide can be downloaded from the help section.

If you need any help at all please do not hesitate to contact our support team using the details below or your local LGC representative.

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Email: ptsupport@LGCGroup.com

The ICUMSA methods for microbiological and chemical analysis of sugar can be obtained from ICUMSA website at <http://www.icumsa.org>