

Fapas® REFERENCE MATERIAL DATA SHEET	TFV002RM
Matrix	Milk powder
Weight / Volume of Contents	50 g
Description of material: Skimmed milk powder spiked with all analytes.	

Analyte	Reference Value	Expanded uncertainty U ($k = 2$)	Units	No. of data points producing Reference Value
Arsenic (As, total)	72.9	± 3.8	$\mu\text{g/kg}$	25
Cadmium (Cd)	21.2	± 0.7	$\mu\text{g/kg}$	27
Lead (Pb)	52.9	± 3.4	$\mu\text{g/kg}$	27
Mercury (Hg, total)	39.6	± 2.3	$\mu\text{g/kg}$	25

Date reference values were generated	24/03/2021
Reference values are valid until	24/03/2025
Recommended storage conditions on receipt	-20 °C
This material was approved on behalf of Fapas® by	Joe Holland

Notes

- Mix the reference material thoroughly before taking a representative analytical sample. It is intended to be used as a single-analysis sample (plus confirmation) for analytical quality control purposes. The recommended minimum analytical sub-sample size is 1 g.
- This is a reference material, not a certified reference material.
- This reference material has been produced according to the principles of ISO 17034:2016.
- The characterised reference values have been derived from the results consensus of ISO 17025 accredited laboratories in an interlaboratory comparison, using a variety of methods. The traceability is inherent in the accreditation status of the results used.
- The majority of methods contributing to the reference value generation were microwave digestion in nitric acid followed by ICP-MS determination.
- The Expanded Uncertainty U corresponds to a confidence level of about 95%. U has been derived from the observed standard deviation of the consensus data (the major component) plus contributions from homogeneity and stability studies. U corresponds to real-world uncertainty of the analysis in a food matrix, not of a pure substance.
- The stability of the reference material has been established from a formal study. The stability components combine long term (ideal storage) and short term stability (transportation) conditions. The validity date may be extended if supporting data becomes available.
- The previous validity date of this reference material was 24/03/2023