BUREAU OF ANALYSED SAMPLES LTD

BRITISH CHEMICAL STANDARD REFERENCE MATERIAL

ANALYSIS REPORT
BCS-RM No. 192j
HIGH PURITY TIN

ANALYSIS

mass content in %

	As	Bi	C	Cd	Cu	Fe	In
Mean	<0.0001	<0.0001	0.001	<0.0001	<0.0001	<0.0005	<0.0001

	Ni	Pb	S	Sb	Zn	Sn (by difference)
Mean	<0.0001	<0.001	0.0002	<0.001	<0.0001	99.996

Melting or Freezing Point 231.9ºC

METHODS USED

ELEMENT	METHODS
Arsenic	Silver diethyldithiocarbamate (DDTC) - Atomic Absorption Spectrometry Electro Thermal Atomisation - Atomic Absorption Spectrometry after dissolving in a strong acid mixture
Bismuth	Electro Thermal Atomisation - Atomic Absorption Spectrometry after dissolving in a strong acid mixture
Carbon	Combustion followed by Non-aqueous Titration after absorption in organic solvent
Cadmium	Flame Atomic Absorption Spectrometry Electro Thermal Atomisation - Atomic Absorption Spectrometry after removing tin with HBr
Copper	Flame Atomic Absorption Spectrometry Flame Atomic Absorption Spectrometry after removing tin with HBr
Iron	Flame Atomic Absorption Spectrometry Flame Atomic Absorption Spectrometry after removing tin with HBr in the presence of $HClO_4$
Indium	Electro Thermal Atomisation - Atomic Absorption Spectrometry Electro Thermal Atomisation - Atomic Absorption Spectrometry after removing tin with HBr in the presence of $HClO_4$
Nickel	Flame Atomic Absorption Spectrometry Electro Thermal Atomisation - Atomic Absorption Spectrometry after removing tin with HBr
Lead	Flame Atomic Absorption Spectrometry Flame Atomic Absorption Spectrometry after removing tin with HBr
Sulphur	Photometric as Methylene Blue after evolution as H_2S
Antimony	Electro Thermal Atomisation - Atomic Absorption Spectrometry Flame Atomic Absorption Spectrometry after dissolving in a strong acid mixture
Zinc	Flame Atomic Absorption Spectrometry Electro Thermal Atomisation - Atomic Absorption Spectrometry

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DESCRIPTION OF SAMPLE

This sample is sold either as 100g of millings or as a cast rectangular block weighing 300g.

BCS-RM 192j is classified as a Reference Material (RM) and **NOT** a Certified Reference Material (CRM) according to the definitions in the International Organisation for Standardisation (ISO) Guide 30 which state:-

Reference Material: Material, sufficiently homogeneous and stable with respect to one or more specified properties, which has been established to be fit for its intended use in a measurement process.

Certified Reference Material: Reference Material characterised by a metrologically valid procedure for one or more specific properties, accompanied by a Certificate that provides the value of the specified property, its associated uncertainty, and a statement of metrological traceability.

INTENDED USE

BCS-RM 192j may be used to establish and check the calibration of high temperature thermometers.

The finely divided material may also be used in situations where high purity tin is required, such as, for example, matrix matching or to form a series of calibration points and the block material may also be used for the construction of calibration curves. Both forms may be used for Quality Control Purposes.

STABILITY

The finely divided form of BCS-RM 192j will remain stable provided that the bottle remains sealed and is stored in a dry atmosphere. When the bottle has been opened the lid should be secured immediately after use.

Blocks of BCS-RM 192j will remain stable provided that they are stored in a dry atmosphere and are not subjected to excessive heat.

Further information and advice on this or other Certified Reference Materials or Reference Materials produced by Bureau of Analysed Samples Ltd may be obtained from the address below.

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For BUREAU OF ANALYSED SAMPLES LTD

R.P. MEERES,
Managing Director

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