

## Set-Up Sample

# Certificate of Analysis

ISO  
9001:2015

**Product ID:** MBH-Pb11-22

### Product Description: High Purity 99.99% Lead SUS

Revision No.: 000  
Revision Date: 08/29/2023

**Description and Intended Use:**

This Set-Up Sample (SUS) was processed under a quality management system that is registered/accredited to **ISO 9001**. This SUS is provided in the form of a solid disk. The intended use of this SUS may include, but is not limited to, routine instrument monitoring and drift correction of Arc-Spark OES and XRF Spectrometers.

Assigned Values listed in ppm							
Ag	<5	Co	<5	Na	<5	Te	<5
Al	<5	Cu	<5	Ni	<5	Zn	<5
As	<5	Fe	<5	S	<5		
Bi	60	In	<5	Sb	<5		
Ca	<5	Mg	<5	Se	<5		
Cd	<5	Mn	<5	Sn	<5		

**Homogeneity:**

Homogeneity samples are selected by a systematic sampling procedure. The number of samples may be determined by the equation below, where  $N_{\text{prod}}$  is the number of units produced and  $N_{\text{min}}$  is the number of samples used for homogeneity testing. These samples are arranged in a simple randomized design such that each sample is analyzed multiple times. Homogeneity may also have been determined within sample using an applied version of ASTM E826.

$$N_{MIN} = \max(10, \sqrt[3]{N_{PROD}})$$

**Instructions for Use:**

The test surface is on the opposite side of the labeled surface, which includes the material identification. The assigned values are applicable for the entire thickness of the unit. Each packaged disk has been prepared by finishing the test surface using a lathe or a saw. The user must determine whether additional surface preparation is needed for their analytical technique. The user is cautioned to use care when either resurfacing the disk or performing additional polishing, as these processes may contaminate the surface. If resurfacing for use in an XRF spectrometer, the remaining depth of the disk must be greater than the infinite thickness of the x-ray emission lines being measured (typically 2-5mm in a metal matrix).

**Period of Validity:**

The assigned value of this material is valid indefinitely provided the material is handled and stored in accordance with the instructions stated on this certificate. The assigned values are nullified if the material is damaged, contaminated, otherwise modified, or used in a manner for which it was not intended.

Chuck Gordon

**Chuck Goudreau, Certifying Officer**

August 29, 2023  
Date Issued

**Conditions of Sale and Supply:** All CRMs, RMs & SUSs sold are subject to applicable LGC Standard Terms and Conditions of Sale.