Engineering Analytics Laboratories
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Reference Material Documentation

Tin

Element	Melting Point (°C/K)	ΔH_f (J/g)
Tin (Sn)	232.65 / 505.08[1]	60.4[1]

Trade Name: Tin Reference Standard
EA Labs P/N: N-RSSN01
CAS#: 7440-31-5

Engineering Analytics Laboratories provides the above 99.999% pure material as a calibration standard with the intended use of determining the melting point and Enthalpy of Fusion by Differential Scanning Calorimetry or Differential Thermal Analysis.

Safety:

Under the Occupational Safety and Health Administration (OSHA) 29 CFR 1910.1200, this material does not constitute a physical or health hazard. Dispose of this material per local, State, or Federal guidelines. Please see an appropriate industry MSDS for additional safety or handling information.

Made in the USA Statement:

EA Labs has verified, based on the reporting of suppliers, that each step of manufacturing has taken place in the United States of America from the point of raw material processing, and that "all or virtually all" of this material and manufacturing process complies with FTC standards for "Made in America" products.

References:

1. R. Sabbah et al., *Thermochimica Acta*, 331 (1999) pg. 123 – 126

Valid references utilized for the above properties determined and verified by Engineering Analytics Laboratories (EA Labs). Please direct any questions regarding the accuracy or verification of these properties to EA Labs at www.EngineeringAnalytics.us.

Specific Material Information

The following information is specific to the ordered item. Please retain a copy of this documentation for reference.

Information	Data
Product Name (Purity):	**Tin (99.999%)**
EA Labs Lot Number:	SN1801
Material Dimensions / Mass:	1.5 mm x 31 mm (d x l) / 400.1 mg
Intended Use:	Melting Point
Literature Melting Point:	232.65 °C[2]
Additional Use:	ΔH_f = 60.4 J/g[1]
Stability:	Single Use. Not intended for multiple uses.

Spectrographic Analysis

The following information is reported from the Certificate of Analysis provided by the manufacturer of the material. EA Labs is not responsible for the determination or validation of this data.

Element	ppm / %
Tin (Sn)	99.999 %
Lead (Pb)	5.7
Sulfur (S)	1.8
Antimony (Sb)	1.5
Indium (In)	1.5
Silver (Ag)	1.1
Nickel (Ni)	0.30

Element	ppm / %
Copper (Cu)	0.24
Aluminum (Al)	0.021
Cobalt (Co)	< 0.1
Arsenic (As)	< 0.05
Bismuth	< 0.01
Zinc (Zn)	< 0.01

Please contact Engineering Analytics Laboratories at EngAnLab@gmail.com with questions, clarifications, or concerns.