

Reference Material Documentation

Iron

Element	Curie Point (°C/K)
Iron (Fe)	767/1,040.15 ± 3.0 ¹

Trade Name: Iron, High Purity

EA Labs P/N: N-RSFE01

CAS#: 7439-89-6

Engineering Analytics Laboratories provides the above material as a calibration standard with the intended use of determining the Curie point, also known as the magnetic transition point by Thermogravimetric Analysis (TGA) or Simultaneous Differential Thermogravimetric (SDT) Analysis. Specific information about the transition temperature for this material may be found in EA Labs technical papers.

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. Langner, Jeremy and Cahoon, J.R. “Increase in the Alpha to Gamma Transformation Temperature of Pure Iron upon Very Rapid Heating.” *Metallurgical and Materials Transactions A* vol. 41A (2010) pp. 1278

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):	Iron (99.99+%)
EA Labs Lot Number:	FE1901
Material Dimensions / Mass:	1.0 mm x 65 mm (d x l) / 401 mg
Intended Use:	Curie Point
Literature Curie Point:	767 + 3.0 °C 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 / %
Iron (Fe)	99.995 %
Lead (Pb)	45.7
Tin (Sn)	7.8
Copper (Cu)	1.5
Calcium (Ca)	1.1
Boron (B)	0.8
Sodium (Na)	0.7

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