General Information

Contact

Eckert & Ziegler
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Licensing Requirements

It is Company policy to require written verification of the customer's Agreement State or NRC radioactive materials license for all items. No orders will be processed without a copy of the customer's license on file at Eckert & Ziegler Isotope Products (EZIP). This may be either a copy of the applicable portion of the license or a signed document on company letterhead stating that the customer's license (include license number) authorizes possession of the desired items in the form and quantity described on the purchase order. Compliance with applicable local, state and federal regulations concerning procurement and possession of radioactive materials is the responsibility of the customer.

Exempt Quantities

Small amounts of some byproduct material may be purchased without a specific license per Nuclear Regulatory Commission (NRC) regulations 10CFR30.18 and 10CFR30.71 Schedule B or the equivalent Agreement State regulations. Sources purchased as exempt quantities must be catalog items. Up to ten license exempt radioactive standards or sources may be shipped at one time. NRC regulations prohibit the further incorporation or use of license exempt sources in a manufactured device intended for further distribution. Contact the NRC or appropriate state agency for information on the use or possession of license exempt sources.

Returns Policy

Due to the nature of our products, all sales are final and no items can be returned for credit unless the customer has demonstrated that the product does not meet specifications. Such a claim must be made, and the source returned to EZIP, within 60 days after receipt of the shipment. NOTE: Before any return is made, EZIP must be notified so that a return authorization number can be assigned and proper shipping arrangements can be made. Shipments returned without a proper authorization number may be refused upon delivery.

Full credit will be given for sources that are found not to meet specifications as long as the source is returned to EZIP within the 60-day period mentioned above. EZIP will pay the return freight for the source, and the freight on the replacement. Sources reported and returned after the 60-day period will not be given credit, nor will EZIP pay for the return freight.

In the case that the customer ordered the incorrect part the following will apply:

- The customer will have 30 days to request a replacement source. There will be a restocking fee charged for the original source. If the customer calls between 30 and 60 days, only 50% credit will be given for the original source.
- After a 60-day period, no credit will be given.
- In all instances freight charges are the responsibility of the customer. In the event that the sources are being returned from an overseas location, the shipment must be sent with DDP (Delivery Duty Paid) terms so that the customer is billed for all fees.

General Information

Quality Assurance

EZIP maintains a comprehensive Quality Assurance program based on a number of industry recognized standards and regulations ensuring the production of consistently high value quality products.

EZIP's quality system is registered to ISO 9001/EN46001 and follows the regulations set forth in NRC Regulatory Guide 4.1.5 and 10CFR Appendix B, the required directive for the Nuclear Power Utilities and their suppliers.

For the quality-control testing of custom-geometry gamma-ray standards, Eckert & Ziegler Isotope Products maintains a current database including efficiencies from more than 40,000 individual standards in over 600 geometries. This data collection also allows Eckert & Ziegler Isotope Products to assist its customers in making informed decisions when choosing geometries and optimum activities for calibrating detectors.

These services are included as part of the package when purchasing standards from EZIP. All of our resources are available to assist you with your purchase. These are the reasons we say "Our Universe is Calibration" and why we believe it makes a difference to our customers. We invite you to visit our universe and investigate how we can meet your calibration needs.

EZIP manufactures a wide range of nuclear medicine devices that bear the CE Mark. Please note that these items are not offered in this catalog. Please request a Nuclear Medicine catalog from our customer service department for a full listing of our CE Marked products. This indicates their conformity to the provisions of Council Directive 93/42/EEC Annex II and enables them to be distributed freely within the European Community. All issues regarding any EZIP CE Marked sources in Europe are handled and reported by EZIP's European representative which can be contacted as follows:

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D-13125 Berlin
www.bebig.de
Phone: + 49 (0) 30 94 10 84 - 0
Fax: + 49 (0) 30 94 10 84 - 240

Product Changes

New product and method development is a continuing process at EZIP. Catalog specifications notwithstanding, we reserve the right to change production methods or fabrication techniques which do not diminish the performance of the product.

Please contact customer support for product options or configurations that you may want that are not explicitly stated in this catalog. EZIP also offers engineering support to design or develop custom sources for your specific radiological needs.

Availability

Since EZIP manufactures a large variety of products with many options, only a small inventory of certain finished products is maintained. Most items can be shipped within thirty to forty-five days after receipt of the order. Please contact the sales order department for more information regarding the availability of a certain product or nuclide.

Terms, Conditions and Warranty

Our payment terms are net 30 days from date of shipment, delays in mailing of invoice notwithstanding.

All payments are to be made in U.S. Dollars. A $700 documentary collection handling charge will be assessed to all orders involving a documentary letter of credit or draft for collection. A $50 handling fee will be charged for all orders involving prepayment via wire transfer of funds. All new accounts must submit banking information and three references for credit review. Please allow three days to verify your credit status.

See page 81 for complete terms and conditions.

Methods of Calibration

EZIP participates in the Radioactivity Measurements Assurance Program (MAP) conducted by the National Institute of Standards and Technology (NIST) in cooperation with the Nuclear Energy Institute (NEI).

In this program NIST provides blind samples which are assayed by EZIP, with the results sent to NIST. NIST then reports back to EZIP the difference between the NIST calibrated value and the EZIP calibrated value. In addition, EZIP routinely sends finished products to NIST for product verification and calibration. Over the years, EZIP has maintained a high degree of precision and accuracy with NIST. Traceability is established and maintained through this cross-calibration process.

EZIP is also accredited through DKD (a globally recognized calibration accreditation agency) with the German National Laboratory (PTB) to offer DKD accredited calibrations for a large number of nuclides that EZIP regularly handles in its manufacturing facilities. Please contact customer service for availability of DKD accredited certification for your sources.

A certificate of calibration is provided for each traceable source as either NIST or DKD. The certificate provides a statement of traceability, a complete description of the physical and nuclear characteristics of the source, a description of the calibration method and quantitative identification of detected impurities. Activities are given in the Curie and SI systems. Sources are manufactured with contained activity values of +/-15% of the requested activity value unless otherwise noted in the catalog. All electroplated sources have a tolerance of +/-30% of the total contained activity.

The uncertainty value of the measured activity for a NIST traceable calibration can be as low as +/-3% at the 99% confidence level (k=2.58), and is no greater than +/-5% unless otherwise noted in the catalog. The uncertainty value of the measured activity for a DKD accredited calibration is typically 3 – 3.5% at the 95% confidence level (k=2) for those nuclides in EZIP's DKD Scope of Accreditation. Please contact customer service regarding the specific measurement uncertainty limit for each nuclide.

EZIP maintains a variety of state-of-the-art detector systems to calibrate sources and to check for impurities. The calibration equipment is checked daily using NIST traceable standards and stability is further ensured by maintaining the instrumentation in a carefully controlled environment. All assay equipment and techniques are verified through MAP on an on-going basis.

Sources are either calibrated directly against NIST standards or by using NIST traceable assay equipment and techniques.

Traceability

Eckert & Ziegler Isotope Products is committed to ensuring the traceability of its radionuclide calibration standards. For more than twenty-five years Eckert & Ziegler Isotope Products has participated in Measurements Assurance Programs (MAPs) with the National Institute of Standards and Technology (NIST) and has successfully completed over 1800 individual measurements on 40 different radionuclides. EZIP's participation in the NIST/Nuclear Energy Institute (NIST/NEI) Measurements Assurance Program for the Nuclear Power Industry satisfies the requirements of the United States' Nuclear Regulatory Commission's Regulatory Guide 4.15, Revision 1, 1979, and ANSI N42.22-1995 American National Standard – Traceability of Radioactive Sources to the National Institute of Standards and Technology (NIST) and Associated Instrument Quality Control.

Eckert & Ziegler Isotope Products is an active participant with the American National Standards Institute (ANSI) subcommittee on radioactivity measurements. EZIP's personnel have assisted in the writing of the standard on traceability (ANSI N42.22) and are assisting in the development of an accreditation program for standards suppliers.

Half-Life Uncertainties

The half-lives for each nuclide mentioned in the EZIP Standards Catalog are listed along with their uncertainties and the reference from which these values were taken on pages 76–79 of the catalog. In all other sections of the catalog where half-lives are stated, the uncertainties have been omitted.

Photon Emissions Used in Source Calibration

A listing of the principal emissions are listed for every nuclide in all the individual sections of this product catalog. The specific values used in the calibration of the sources are listed for each nuclide on pages 76–79.