



# ASK THE TIC

## THE METRIC SYSTEM: THE INTERNATIONAL SYSTEM FOR MEASUREMENT AND COMMERCE

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### WHY SHOULD I USE THE METRIC SYSTEM?

The metric system is the international standard of measurement and most of our trading partners require, or will soon require, metric units for measurements. Many non-metric U.S. products are not readily exportable to certain markets. More importantly, customers in other nations have lifelong experience with the metric system and expect products made to metric measures. They are neither familiar nor comfortable with U.S. pints, ounces, inches and pounds. On the shelves of shops in other nations, inch-pound products are at a disadvantage. In today's highly competitive world markets, any disadvantage quickly translates to lost sales and fewer exports.

Using harmonized global product standards can also help companies that trade in multiple markets maintain smaller inventories and streamline production.

### WHAT IS THE SI?

The International System of Units, universally abbreviated SI, is the modern metric system of measurement. The General Conference on Weights and Measures (CGPM) established the SI in 1960 and is the international authority that ensures SI dissemination and modification to reflect the latest advances in science and technology.

The CGPM is an intergovernmental treaty organization, which boasts 49 member states, including the United States and all the major industrialized countries and remains the basis of all international agreements on units of measurement.

Suggested modifications to the SI are made by committees composed of delegates from national metrology institutes such as the U.S. National Institute of Standards and Technology (NIST), specialized institutes, other international organizations and individual members. NIST Special

Publications reflecting changes incorporated by the committees are available online from the bibliography under metric publications at [www.nist.gov/metric](http://www.nist.gov/metric).

### WHAT ARE THE METRIC LABELING REQUIREMENTS FOR EXPORTS?

Every industrialized nation in the world, except the United States, prefers the metric system for weights and measures. Thus, the United States' trading partners require at least dual labeling (U.S. units and metric units), if not metric-only measurement units on product labels.

#### Europe

For example, the long-standing European Union (EU) Metric Directive mandated that after January 1, 2000, all products sold in the EU needed to specify and label in metric measurements only. Prior to implementation, the European Commission recommended a 10-year deferral of the metric-only directive, allowing companies to use dual labeling through 2009. The delay provides time for U.S. companies to prepare for a metric-only European market beginning January 1, 2010.

After the EU Directive takes effect, member and associated countries will no longer permit dual indications of measurement. U.S. exporters can no longer label or print inches, pounds, or any other non-metric measurement on shipments. This affects labels, packaging, advertising, catalogs, technical manuals and instructions. Legal units of measurement will now be referred to as SI units (International System) and enforcement mechanisms are already in place. Until 2010, U.S. companies selling in Europe will be able to continue to label their products in both metric and inch-pound measurements, as is required by the Fair Packaging and Labeling Act in the United States.

#### Asia

In Asia, Korea is changing from the older versions of the metric system to the SI. The revised Korean Metrology Law prescribes strict new guidelines effective July 1, 2001, mandating that measurements be expressed only in SI units. Both manufacturers and importers are required to adhere to metrification rules, which include technical requirements for weighing and measuring devices. Strict punishment for non-compliance may include fines and a prison term. The Japanese market strongly prefers metric labeling and their Measurement Law requires that all imported products and shipping documents show SI units. In the Philippines, only SI units can be used to measure any product, commodity, material or utility. SI is also the only system that can be used in any commercial transaction, contract and other legal

instrument, or other official documents. The Philippine government prohibits importation of non-metric measuring devices, instrumentation and apparatus without prior clearance from their Bureau of Product Standards.

### Latin America

In Latin America and the Caribbean, metric is increasingly becoming the standard. While Jamaica generally follows U.S. standards, their Bureau of Standards has recently become more vigilant in monitoring products sold on the local market. In 1995, an amendment to the Weights and Measures Act was passed to enforce compliance with the metric system of measurement; thus, imported goods should conform to the metric system. Chile requires that all labels must contain, in Spanish, size and weight converted to the metric system. Goods not complying with these measurements may be imported, but not sold to consumers until the conversion is made. Costa Rican law requires the exclusive use of the metric system, but in practice accepts U.S. and European commercial and product standards. In Brazil, product labels should have a Portuguese translation and use metric units or show a metric equivalent.

### Africa

Countries in Africa have similar metric requirements. Mauritius and Eritrea require metric weights and measures. Cameroon recommends French and English labeling, with all measurements in the metric system. Cote d'Ivoire also prefers French labeling and requires imported equipment adapted to run according to European electrical and metric standards. South Africa requires metric weights and measures on the bill of lading. All items entering Nigeria must be labeled in metric terms exclusively and products with dual or multi-markings will be confiscated or refused entry.



### HOW CAN I LEARN ABOUT METRIC REQUIREMENTS AND OTHER CHANGES IN STANDARDIZED LABELING?

The National Institute of Standards and Technology publishes a comprehensive guide to the European standards and regulatory committees that directly affect doing business in the EU and its associated countries. The guide, NIST Special Publication 891 "Standards Setting in the European Union--Standards Organizations and Officials in EU Standards Activities," is available as a PDF file on the web at [www.nist.gov/metric](http://www.nist.gov/metric). A limited number of printed copies of SP 891 are available by calling the NIST Inquiries Office at 301 975-NIST, or by email at [inquiries@nist.gov](mailto:inquiries@nist.gov).

NIST recently launched Export Alert! (See October 2001 Export America), a free Internet-based service that automatically notifies interested businesses when foreign governments propose changes to labeling, metric and other

standards that might influence the treatment of U.S. exports. Export Alert! gathers, organizes and disseminates by electronic mail the proposed regulatory changes issued by WTO members. This service monitors dozens of fields of activity and subscribers can specify the issues and regions they wish to track. Organizations and individuals interested in subscribing to the Export Alert! Service can sign up online at <http://ts.nist.gov/ncsci>. For additional information, contact NIST at (301) 975-4040 or [ncsci@nist.gov](mailto:ncsci@nist.gov).

The Trade Information Center (TIC) provides information about country labeling requirements. Please call the TIC at 1-800-USA-TRADE, email [tic@ita.doc.gov](mailto:tic@ita.doc.gov), or visit our website at <http://tradeinfo.doc.gov>.



### WHO ADMINISTERS THE U.S. METRIC PROGRAM?

The NIST Metric Program, within the U.S. Department of Commerce, handles metric issues. NIST helps implement the national policy to establish metric as the preferred system of weights and measures for U.S. trade and commerce. It provides leadership and assistance on metric use and conversion to federal agencies, state and local governments, businesses, trade associations, standards organizations and the educational community.

Current Metric Program initiatives focus on education and public awareness to gain broad-based public support for national metrication. ■

Direct general inquiries for information on the metric system to the NIST Metric Program at 301-975-3690 or [metric\\_prg@nist.gov](mailto:metric_prg@nist.gov). The Metric Program website [www.nist.gov/metric](http://www.nist.gov/metric) provides a variety of general information on the metric system and features links to other sources of metric information.

The U.S. Metric Association is the major American private sector organization supporting the work of the Metric Program. Their website, [www.usmetric.org](http://www.usmetric.org), provides a variety of resources, including a source listing of metric products and suppliers.

The Trade Information Center (TIC) is operated by the International Trade Administration of the U.S. Department of Commerce for the 20 federal agencies comprising the Trade Promotion Coordinating Committee. These agencies are responsible for managing the U.S. Government's export promotion programs and activities. You, too, can "Ask the TIC" by calling 1-800-USA-TRAD(E) toll free, Monday through Friday, 8:30-5:30 EST. Or visit the TIC's website at <http://tradeinfo.doc.gov>.