NISTIR 8117

A Guide to United States Flat-Rolled Steel Compliance Requirements

NIST
National Institute of Standards and Technology
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A Guide to United States

Flat-Rolled Steel Compliance Requirements

How To Use This Guide

- Regulations are mandatory
- Standards are voluntary (unless "Incorporated by Reference" in a regulation)
- Guidelines may be voluntary (but are often *de facto* industry standards)
- "**Red**" text highlights mandatory requirements
- "**Blue**" text indicates a hyperlink to a website, page or document on the web

Scope

This guide addresses flat-rolled (hot or cold) steel, including stainless, alloy, non-alloy or iron. It does not include finished products.

Overview of U.S. Federal Regulatory Framework

Once a law has been enacted by Congress, the appropriate federal agency (e.g., the Consumer Product Safety Commission, the Federal Trade Commission, the National Highway Traffic and Safety Administration, *et al*.) may create the regulations to implement the law. Before such regulations can be adopted, the appropriate federal agency ordinarily will issue a notice of proposed rulemaking (NPRM) to solicit public comments on the proposed rules. To provide opportunity for public comment, the appropriate federal agency must issue draft regulations or "Proposed Rules" that are published in the *Federal Register* and as a WTO TBT notification. The agency reviews the comments and can then issue a "Final Rule" that also is published in the *Federal Register*, and later, published annually in the *Code of Federal Regulations (CFR)*. Together, the enabling acts and laws [published in the *United States Code (USC)* once passed] and the final regulations (published in the *CFR*) provide a framework for the implementation and enforcement of most federal laws in the United States.

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Federal Regulatory Authorities and Technical Regulations (Mandatory)

Agency	Scope
Customs and Border Protection (CBP)	Country of Origin (for most imported products, licensing, and composition), Composition Percentages
Department of Commerce (DOC)	Steel Import Monitoring and Analysis System
Federal Trade Commission (FTC)	Unfair Trade Practices

Customs and Border Protection (CBP)

Country of Origin: Marking of Imported Articles and Containers
Title 19, United States Code, Chapter 4, Section 1304
All products imported into the U.S. **must conform** to 19 CFR 134, Country of Origin Marking regulations. These regulations require that every article of foreign origin (or its container) imported into the U.S. be marked in a conspicuous place as legibly, indelibly, and permanently as the nature of the article (or container) will permit, and in such a manner as to indicate to the ultimate purchaser in the U.S., the English name of the country of origin of the article at the time of importation.

Composition Percentages
U.S. Customs and Border Protection (CBP) Regulation 19 CFR 141.89 outlines additional information that is required at the time of entry for iron or steel classifiable in Chapter 72 or under headings 7301 to 7307 in Chapter 73, of the *Harmonized Tariff Schedule of the United States* (*HTSUS*). A statement, in the form of a mill analysis or mill test certificate, is required indicating the percentages by weight or carbon and any metallic elements contained in the articles. A mill test certificate is required for each entry of a coated non-alloy flat-rolled steel product listed in Chapter 72 of the *HTSUS*.

For more detailed information, see CBP's:
Terminology and Methods for Marking of Country of Origin on U.S. Imports
What Every Member of the Trade Community Should Know About: Coated Non-alloy Flat-Rolled Steel

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Department of Commerce (DOC)

Licensing Requirements
All U.S. imports of basic steel mill products are subject to import licensing requirements per 19 CFR 360 Steel Import Monitoring and Analysis System through the Internet-based Steel Import Monitoring and Analysis (SIMA) system. The purpose of the SIMA system is to provide the public statistical data on steel imports entering the United States seven weeks earlier than it would otherwise be available to the public. Aggregate data collected from the licenses are made available to the public on a weekly basis following review by the Department. Any importer, importing company, customs broker or importer's agent with a U.S. street address may register and obtain the user identification number necessary to log on to the automatic steel import license issuance system. Foreign companies may obtain a user identification number if they have a U.S. address through which they may be reached; P.O. boxes will not be accepted.

On February 15, 2013, a Final Rule was published in the Federal register extending the licensing program through March 21, 2017.

Federal Trade Commission (FTC)

The FTC Act
Title 15, United States Code, Chapter 2, Subchapter I, Sections 41-58
The FTC Act broadly prohibits unfair or deceptive acts or practices in or affecting commerce. The Commission will find deception if, either by the inclusion or exclusion of information, it is likely to:

- Mislead consumers acting reasonably under the circumstances, and
- Affect the consumer's choice or conduct, thereby leading to injury.

The FTC Act allowed the FTC to enact regulations intended to prohibit unfair or deceptive acts or practices.

Overview of U.S. State Regulatory Frameworks

A growing number of areas are covered by both state and federal statutes, including consumer protection, employment, and food and drug regulation. (State laws give way to stricter federal laws that address the same issue.) When a state's Governor signs a bill, it becomes a state law. Once a law has been enacted by a state, it is the responsibility of the appropriate state agency to create the regulations necessary to implement the law.

STATE REGULATORY AUTHORITIES AND TECHNICAL REGULATIONS (MANDATORY)

In the U.S., some state laws and regulations are enacted which are more stringent than the federal laws. These laws include regulations for products, labeling, packaging, chemical restrictions, etc.

Agency/Organization	Scope
State Authorities Responsible for Weights and Measures	Labeling
Toxics in Packaging Clearinghouse (TPCH)	Packaging
California Office of Environmental Health Hazard Assessment (OEHHA)	Toxic Chemicals

Packaging and Labeling

UPLR

The Uniform Laws and Regulations in the areas of Legal Metrology and Engine Fuel Quality (UPLR), *NIST Handbook 130*, *Uniform Packaging and Labeling Regulation* (*UPLR*), have been adopted into law in 45 of the 50 U.S. states. The purpose of these regulations is to provide accurate and adequate information as to the identity and quantity of contents of packages so that purchasers can make price and quantity comparisons.

UPLR requires that non-consumer packaging bear a label specifying the identity of the commodity; the name and place of business of the manufacturer, packer, or distributor; and the net quantity of contents in terms of weight or mass measure, or numerical count in a uniform location upon the outside of the package. All information must be clearly stated in the English language.

Toxics in Packaging Legislation

This legislation was originally drafted by the Source Reduction Council of the Coalition of Northeastern Governors (CONEG) in 1989. It was developed in an effort to reduce the amount of heavy metals in packaging and packaging components that are sold or distributed throughout the United States. The law is designed to phase out the use and presence of mercury, lead, cadmium, and hexavalent chromium in packaging. The legislation has been successfully adopted by nineteen states.

For more detailed information, see** Toxics in Packaging Clearinghouse **white paper:
Toxics in Packaging Fact Sheet

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State of California

Lead and Other Toxic Substances

California regulates lead and numerous other substances and chemicals through their Safe Drinking Water and Toxic Enforcement Act of 1986, more popularly known as **Proposition 65 or Prop 65** (California Health and Safety Code. Section 25249.6, et seq.) These settlements provide guidelines for suggested limits. Prop 65's List of Hazardous Substances is maintained and updated as new chemicals are identified.

The following warning language **is required on products sold in California if they contain chemicals on the Proposition 65 list** and the amount of exposure caused by the product is not within defined safety limits:

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

For more detailed California official information on Proposition 65, see:
Office of Environmental Health Hazard Assessment (OEHHA), Proposition 65 in Plain Language, and Prop 65 News

Overview of the U.S. Voluntary Standards Framework

The U.S. system of standards development is driven by the private sector. The majority of U.S. standards are voluntary and developed through consensus methods that reflect the needs of producers and manufacturers, users and consumers, and the government. The American National Standards Institute (ANSI) (a non-governmental, not-for-profit organization) coordinates the private sector activities of the voluntary standards development community in the U.S. There are hundreds of voluntary standards developing organizations in the United States responsible for standardization in many different industries and business sectors. The National Institute of Standards and Technology (NIST), a part of the U.S. Department of Commerce, is the national metrology laboratory for the United States. NIST provides the technical measurement infrastructure to support global trade and the commercial measurement system. NIST, through its Standards Coordination Office, advises on and coordinates federal participation in standards setting.

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Standards Developing Organizations (SDOs)

ASTM International

100 Barr Harbor Drive
P.O. Box C700
West Conshohocken, PA 19428-2959 USA
Telephone: + 1.610.832.9500
Staff Directory

ASTM International (ASTM) develops and maintains consensus standards and test methods pertaining to rolled-steel products.

The ASTM Committee responsible for rolled-steel is Committee A01 - Steel, Stainless Steel and Related Alloys

The following ASTM Subcommittees relevant to rolled-steel products include:

A01.06.03	Test Methods and Recommended Practices
A01.17	Flat-Rolled and Wrought Stainless Steel
A01.19	Steel Sheet and Strip

Examples of ASTM standards for rolled-steel products include:

ASTM A6/A6M	Specification For General Requirements For Rolled Structural Steel Bars, Plates, Shapes, And Sheet Piling
ASTM A109/A109M	Specification For Steel, Strip, Carbon (0.25 Maximum Percent), Cold-Rolled
ASTM A480/A480M	Specification For General Requirements For Flat-Rolled Stainless And Heat-Resisting Steel Plate, Sheet, And Strip
ASTM A505	Specification For Steel, Sheet And Strip, Alloy, Hot-Rolled And Cold-Rolled, General Requirements For
ASTM A506	Specification For Alloy And Structural Alloy Steel, Sheet And Strip, Hot-Rolled And Cold-Rolled
ASTM A507	Specification For Drawing Alloy Steel, Sheet And Strip, Hot-Rolled And Cold-Rolled
ASTM A522/A522M	Specification For Forged Or Rolled 8 And 9% Nickel Alloy Steel Flanges, Fittings, Valves, And Parts For Low-Temperature Service
ASTM A564/A564M	Specification For Hot-Rolled And Cold-Finished Age-Hardening Stainless Steel Bars And Shapes
ASTM A568/A568M	Specification For Steel, Sheet, Carbon, Structural, And High-Strength, Low-Alloy, Hot-Rolled And Cold-Rolled, General Requirements For
ASTM A578/A578M	Specification For Straight-Beam Ultrasonic Examination Of Rolled Steel Plates For Special Applications

ASTM A606/A606M	Specification For Steel, Sheet And Strip, High-Strength, Low-Alloy, Hot-Rolled And Cold-Rolled, With Improved Atmospheric Corrosion Resistance

SAE International

400 Commonwealth Drive
Warrendale, PA 15096-0001
Telephone: +1.724.776.4841

SAE International is a global association of more than 128,000 engineers and related technical experts in the aerospace, automotive and commercial-vehicle industries. One of SAE International's core competencies is voluntary consensus standards development. Some of the standards related to rolled-steel include:

SAE AMS 5501	Steel, Corrosion Resistant, Sheet, Strip, And Foil, 19cr - 9.5ni (304), Cold Rolled, 125 Ksi (862 Mpa) Tensile Strength
SAE AMS 5517	Steel, Corrosion Resistant, Sheet And Strip, 18cr - 8ni (SAE 30301) Cold Rolled, 125 Ksi (862 Mpa) Tensile Strength
SAE AMS 5518	Steel, Corrosion Resistant, Sheet And Strip 18cr - 8ni Cold Rolled, 150 Ksi (1034 Mpa) Tensile Strength
SAE AMS 5519	Steel, Corrosion Resistant, Sheet And Strip, 18cr - 8ni (SAE 30301) Cold Rolled, 185 Ksi (1276 Mpa) Tensile Strength
SAE AMS 5529	Steel, Corrosion Resistant, Sheet And Strip, 17cr - 7.1ni - 1.1al, Solution Heat Treated And Cold Rolled, Precipitation Hardenable, 0.0015 To 0.100 Inch (0.038 To 2.54 Mm) Nominal Thickness
SAE AMS 5546	Steel Sheet And Strip, Corrosion And Moderate Heat Resistant 16.5cr - 4.5ni - 2.9mo - 0.10n Cold Rolled, Tempered
SAE AMS 5810	Steel, Corrosion And Heat Resistant, Flat Wire, 15cr - 25.5ni - 1.2mo - 2.1ti - 0.006b - 0.30v, 1800 Degree F (982 Degree C) Solution Treated, Cold Drawn Or Cold Rolled And Aged, Consumable Electrode Melted
SAE AMS 5902	Steel, Corrosion-Resistant, Sheet And Strip, 18cr - 8ni (SAE 30301), Cold Rolled, 3/4 Hard, 175 Ksi (1207 Mpa) Tensile Strength
SAE AMS 5903	Steel, Corrosion-Resistant, Sheet, Strip, And Plate, 18cr - 9.0ni (SAE 30302), Cold Rolled, 1/4 Hard, 125 Ksi (862 Mpa) Tensile Strength
SAE AMS 5904	Steel, Corrosion-Resistant, Sheet And Strip, 18cr - 9.0ni (SAE 30302), Cold Rolled, 1/2 Hard, 150 Ksi (1034 Mpa) Tensile Strength
SAE AMS 5905	Steel, Corrosion-Resistant, Sheet And Strip, 18cr - 9.0ni (SAE 30302), Cold Rolled, 3/4 Hard, 175 Ksi (1207 Mpa) Tensile Strength
SAE AMS 5906	Steel, Corrosion-Resistant, Sheet And Strip, 18cr - 9.0ni (SAE 30302), Cold Rolled, Full Hard, 185 Ksi (1276 Mpa) Tensile Strength

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SAE AMS 5907	Steel, Corrosion And Heat-Resistant, Sheet, Strip, And Plate, 17cr - 12ni - 2.5mo (SAE 30316), Cold Rolled, 1/4 Hard, 125 Ksi (862 Mpa) Tensile Strength
SAE AMS 5910	Steel, Corrosion-Resistant, Sheet, Strip, And Plate, 19cr - 9.2ni (SAE 30304) Cold Rolled, 125 Ksi (862 Mpa) Tensile Strength
SAE AMS 5911	Steel, Corrosion Resistant, Sheet And Strip, 19cr - 9.2ni (SAE 30304) Cold Rolled, 1/2 Hard, 150 Ksi (1034 Mpa) Tensile Strength
SAE AMS 5912	Steel, Corrosion-Resistant, Sheet And Strip, 19cr - 9.2ni (SAE 30304), Cold Rolled, 3/4 Hard, 175 Ksi (1207 Mpa) Tensile Strength
SAE AMS 5913	Steel, Corrosion-Resistant, Sheet And Strip, 19cr - 9.2ni (SAE 30304), Cold Rolled, Full Hard, 185 Ksi (1276 Mpa) Tensile Strength
SAE J 126	Selecting And Specifying Hot And Cold Rolled Steel Sheet And Strip
SAE J 402	New Steel Designation System For Wrought Or Rolled Steel
SAE J 911	Surface Roughness And Peak Count Measurement Of Cold-Rolled Steel Sheet
SAE J 1392	Steel, High Strength, Hot Rolled Sheet And Strip, Cold Rolled Sheet, And Coated Sheet
SAE J 1442	High-Strength, Hot-Rolled Steel Bars
SAE J 2281	Selecting And Specifying Hot-Rolled Steel Bar Products

TESTING AND CERTIFICATION BODIES

Testing

Numerous laboratories test steel and other metals to recognized industry standards; some may be accredited. A listing of accredited testing laboratories can be found at A2LA Listing of Accredited Labs by Test. Listings of other testing laboratories can be found at ASTM Directory of Testing Laboratories. Search on the keyword 'steel' or on a specific ASTM standard.

Certification

No certification programs were identified for rolled steel. All U.S. imports of basic steel mill products are subject to import licensing requirements per 19 CFR 360 Steel Import Monitoring and Analysis System through the internet-based Steel Import Monitoring and Analysis (SIMA) system.

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RELEVANT U.S. GOVERNMENT AGENCIES

Federal Trade Commission

600 Pennsylvania Avenue, NW
Washington, DC 20580
Telephone: +1.202.326.2222
List of Contacts

U.S. Customs and Border Protection (CBP)

1300 Pennsylvania Avenue, NW
Washington, D.C. 20229 USA
Telephone: +1.703.526.4200
List of Contacts

U.S. Department of Commerce

1401 Constitution Ave., NW
Washington, D.C. 20230
Telephone: +1.202.482.2000
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Steel Industry and Market Data

Industry Trade Associations

American Iron and Steel Institute (AISI)
25 Massachusetts Avenue, NW Suite 800
Washington, DC 20001
Telephone: +1.202.452.7100

AISI is comprised of 25 member companies, including integrated and electric furnace steelmakers, and 124 associate and affiliate members who are suppliers to or customers of the steel industry. AISI's member companies represent over three quarters of both U.S. and North American steel capacity.

Steel Manufacturers Association
150 Connecticut Avenue, NW Suite 715
Washington, D.C. 20036
Telephone: +1.202.296.1515

The Steel Manufacturers Association consists of 36 North American steel producers who account for over 75 percent of domestic steel production.

Rolled-Steel Market Data

American Iron and Steel Institute
2015 Profile of the American Iron and Steel Institute

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