



Marine Use Marking and Labeling Certification for Hazardous Chemicals

UL's Recognition Program helps address the safety concerns of the label industry with respect to labeling of hazardous goods for marine transport.

Overview

The Globally Harmonized System of Classification and Labelling of Chemicals (GHS) and the International Maritime Dangerous Goods (IMDG) Code are internationally accepted requirements that address the safe transportation or shipment of dangerous goods or hazardous materials by water on vessel. Under these requirements, containers containing dangerous goods shall be identifiable and withstand immersion in the sea for three months. British Standard (BS) 5609:1986 "Specification for printed pressure-sensitive, adhesive-coated labels for marine use, including requirements for label base material" is the de facto standard used by the labeling industry to show compliance to the IMDG code requirements.

UL's 'Marine Use' Marking and Labeling Certification Program specifically covers labels and label materials that are intended to durably mark dangerous and hazardous goods (such as drums, intermediate bulk containers and tanks) for marine transport in international waters. This helps ensure that chemical containers that are lost at sea and recovered are identifiable through the markings.

Test Program

UL utilizes the BS 5609:1986 specification for printed pressure-sensitive, adhesive coated labels for marine use. The label performance requirements are primarily covered under section 2 and 3. Section 2 relates to the stock material and section 3 to the printing of the label. Section 4 can additionally be used and covers provisions for testing additional substrates (application services) under an abbreviated program.

Section 2 – Base material

Covers requirements for a three month marine performance test and laboratory performance tests that include dimensional stability, adhesion after various exposures, and color fastness.

Section 3 – Printing of the label

Covers requirements for laboratory performance tests of print effectiveness, abrasion resistance, and permanence of print.

Section 4 – Specific substrate

Covers requirements for laboratory performance of adhesion after various exposures.

The tests are intended to help ensure that labels stay adhered to the container and that the printing withstand expected environmental exposures at sea, including abrasion to sand and rocks.



Certification

UL offers testing and certification services to section 2, section 3 and section 4 for both label material suppliers and label converters/printers. Products that meet UL's requirements are certified under the category Marking and Labeling Systems Marine Use (PGDT2) and are authorized to bear UL's Recognized Component Mark (UL) and the statement "Certified to BS 5609." UL certified materials are viewable by searching www.ul.com/database.

UL's Certification Program creates value for label suppliers by providing them with an independent and objective means to demonstrate to the supply chain that their labels meet the applicable requirements. This certification program enables specifiers and buyers quick and easy access to a list of label suppliers that provide compliant marine use labels through UL's online Certifications Directories (ul.com/database). UL's program increases supply chain and product integrity through UL's rigorous follow up surveillance program, a requirement of the UL Certification Program. This follow up program determines that labels and label materials continue to comply with UL's requirements through periodic unannounced factory inspections and sample selection for testing.

Frequently Asked Questions:

Where can I learn more about the test program?

The complete test program is detailed in BS 5609:1986 specification for printed pressure-sensitive, adhesive coated labels for marine use.

What products are covered by this 'Marine Use' Marking and Labeling program?

Label materials, printed labels, and labels intended to receive additional printing by end-users are covered.

Who has responsibility for compliance to these requirements?

Per BS 5609:1986, clause 2, it is the responsibility of the label material and label supplier to show compliance with section 2 and 3 of this standard.

What type of dangerous goods and hazardous materials are covered by these regulations?

Some examples include explosives, gases, flammable liquids and solids, oxidizers and organic peroxides, toxic and infectious substances, radioactive materials, and corrosive substances. Please reference the IMDG Code for a complete list.

What type of containers are covered by these regulations?

Per BS 5609:1986, each container or package containing dangerous goods shall be marked with compliant labels. In cases where the outer covering is not durable enough for immersion at sea (e.g. corrugated boxes), the inner containers shall be marked with compliant labels. IMDG Code identifies the following types of containers that may be used to transport dangerous goods: drums, jerricans, boxes, composite packaging, intermediate bulk containers (IBCs), portable tanks, multiple-element gas containers (MEGCs), road tank vehicles and more.

What is the UL submission process?

The submittal process is easy and can be completed in three simple steps.

1. Submit an order to UL for Marine Use evaluation.
2. Provide UL with label material and printing information along with samples for testing.
3. After successful completion of the test, UL will issue a Certification report and update UL's online Certification database.

Can I test and certify different substrates?

BS 5609:1986 section 2 and 3 calls out for testing on aluminum plates but there are provisions under Section 4 to evaluate alternate substrates (e.g., polypropylene, painted surfaces) under an abbreviated test program

Does UL have testing capability for BS 5609?

UL has testing capability for section 2, section 3, and section 4. Clients can also submit their own externally generated test data under UL's Data Acceptance Program (DAP).

Can I certify a label to both UL 969 and BS 5609?

Yes, UL allows clients to submit and test a single product to multiple standards (e.g. UL 969 and BS 5609) if desired.

How do I find or verify suppliers that have met the requirements of BS 5609?

UL's Online Certifications Directory (ul.com/database) provides the most up to date information on which suppliers have met UL's requirements and are allowed to bear the UL Mark to show compliance to BS 5609 Certifications. Please visit www.ul.com/database and search under UL Category Code "PGDT2" to verify suppliers, substrates covered and acceptable end-user printing inks.

To get started, please contact our sales team at PMSales@ul.com or 877.854.3577.