

## Application Brief

# REACH and GHS Chemical Container Labeling



### Industry

Chemical  
Oil  
Food  
Cosmetic

### Products

- Duratran II 2 mil gloss white polyester high performance
- Duratran II Kimdura permanent
- Duratran S permanent
- TMX2000 series ribbons
- TMX3000 series ribbons

### Region

North America

### Typical Applications

Chemical container labeling

### Customer Benefits

- Printed label solution set is certified to the highest level of IMDG compliance (BS5609 sections 2 and 3) as required by UN treaty
- Durable labels and printing survive ocean immersion, harsh UV exposure, and severe sand abrasion.
- In house prepress enables custom printing with GHS compliant formatting
- Extended product set addresses the full range of chemical labeling applications
- Free print head replacement program when Intermec media and printers are used together

### Industry Need

Because of the potentially hazardous nature of chemical products, comprehensive regulations have recently been implemented to improve the margin of safety for human health and the environment. Increasingly global in scope, this drive is intended to replace a patchwork of inconsistent practices around the world, ensuring clear communication of potential hazards and recommended handling procedures regardless of geography and borders. Intermec's chemical container labeling solution set enables this critical messaging function while satisfying international regulations for marking durability and design consistency.

REACH (Registration, Evaluation, Authorisation and restriction of Chemical substances, EC 1907/2006) addresses both new and existing chemicals, significantly expanding the scope of prior requirements and replacing 40 prior EU regulations. European manufacturers and chemical importers to the EU must gather and register information on those products (properties, hazards, handling requirements) in the ECHA (European Chemicals Agency) database. Companies must replace SVHCs (substances of very high concern) or must have ongoing investigations to replace them with less hazardous products.

Labels used to mark dangerous goods for overseas transport must comply with the IMDG (International Maritime Dangerous Goods) Code in accordance with international treaty (United Nations International Convention for Safety of Life at Sea (SOLAS)). IMDG specifies British Standard 5609 for performance criteria. This testing is designed to ensure labels and print survive the harsh conditions experienced by a container lost at sea (such as extended marine immersion, UV exposure, and abrasion if washed ashore). Compliance is mandatory for section 2 (standards for the base label) and section 3 (performance requirements for the printed image on qualified label material).

Clear and consistent product labeling is an essential component of a comprehensive hazard communication system. REACH legislation addresses this issue via cross-reference to another international standard. In paragraph 109, EC 1907/2006 recommends the UN GHS (Globally Harmonised System of Classification and Labelling of Chemicals) for labeling chemical products. GHS provides a uniform framework of hazard classification and promotes a set of common pictograms.

### Reference Links

#### REACH background information and supporting links:

[http://ec.europa.eu/environment/chemicals/reach/reach\\_intro.htm](http://ec.europa.eu/environment/chemicals/reach/reach_intro.htm)

#### IMDG Code background information and supporting links:

[http://www.imo.org/TCD/mainframe.asp?topic\\_id=158](http://www.imo.org/TCD/mainframe.asp?topic_id=158)

#### GHS background information and supporting links:

[http://www.unepce.org/trans/danger/publi/ghs/ghs\\_welcome\\_e.html](http://www.unepce.org/trans/danger/publi/ghs/ghs_welcome_e.html)

### Intermec Solution

Intermec's IMDG solution is fully certified to BS5609 (both section 2 for the base label and section 3 for thermal transfer printing and preprint) by an independent outside laboratory, ensuring that on-demand printed labels satisfy international mandates for durable product marking. (Many labels marketed as IMDG compliant are certified only to section 2 and may fail section 3 testing, placing users in violation of UN treaty.) Fully certified Intermec labels survived testing for adhesion during extended

## Intermec Media Products for Chemical Container Labeling

Product	Moisture Resistance	Outdoor Durability	Abrasion Resistance	Chemical Resistance	Notes
DuraTran II 2 Mil Gloss White Polyester High Performance	Excellent	8 years +	Excellent	Excellent	Aggressive adhesive for textured container surfaces; high durability face sheet and printing. Complete IMDG certified solution (BS5609 sections 2 and 3.)
DuraTran II Kimdura Permanent <a href="#">Profile</a> <a href="#">Stock Items</a>	Excellent	1 year +	Good	Good	Extended outdoor durability mid-range product. Wrinkle-resistant face simplifies application of large labels.
DuraTran S Permanent	Excellent	6 months	Good	Good	Economical product; good performance for basic container labeling.

immersion in salt water, print fade resistance to harsh UV exposure, and image durability during severe wet sand abrasion. Intermec media can be used with confidence that the label stock and printed images are secure in the rugged marine environment and certified to meet international regulations.

In-house prepress capabilities enable design of color preprinted labels compliant with GHS formatting standards. With artwork and plates completed on-site, quick turnaround for custom artwork is assured. Using Intermec thermal transfer printers, durable hazard symbols, text and graphics can be printed on-demand to meet application requirements.

For less stringent applications, our product set and expertise covers projects from benign indoor storage to mid-duration outdoor exposure. Intermec's range of label materials for chemical container labeling enables optimized product selection, tailoring durability to the requirements of applications throughout the industry.

### Ribbon Recommendation

TMX2000 series mid-range  
TMX3000 series resin

### Printer Recommendation

PX4/6i High Performance Printer [Profile](#)  
PM4i Mid Range Printer [Profile](#)

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### The Intermec Advantage

Intermec printers and media are optimized to deliver superior performance when used together. Our rigorous testing and co-engineering ensures maximum print head service life, consistently high print quality, and proven label and tag performance in demanding real-world environments. Intermec printers and media are complemented by our complete line of integrated solutions and services, including rugged mobile computers, RFID systems and advanced scanning technology. Intermec products and services are used by customers worldwide to improve the productivity, quality and responsiveness of their business operations.



### For more information

Contact Intermec for solutions to chemical container tracking applications across your enterprise.

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