### **COVER STORY**

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#### **PG 6**

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Top trends facing 7 major Dangerous Goods industries.

## PG 8 Results: The First-Ever Global Compliance Survey

DG pros worldwide say compliance is more critical-and challenging-than ever.

# PG 10 The Inspector's Here. How's Your DG Training Documentation?

Show that DOT or OSHA inspector that you have your act together.



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ENERGY TO IGNITE ADJACENT PACKAGES

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A FRAGMENT THAT HAS EXITED THE

PACKAGE WITH INSUFFICIENT ENERGY TO PASS THROUGH OR IGNITE

12MATISSUES





## Welcome to the 9th issue of the **Dangerous Goods Report**

As a student of business and industry, I've always marveled at the way new, unforeseen challenges spur unexpected, innovative solutions.

This issue of the Dangerous Goods Report looks at an innovation that may change how we transport lithium batteries and battery devices, despite all the safety and regulatory hurdles involved. We also assess the unique challenges facing seven industries that ship Dangerous Goods, and take a closer look at the best ways to document hazmat training. We'll recap last month's Dangerous Goods Symposium, revisit our company's 50-year history, and review the eye-opening findings of our first-ever international DG compliance survey.

As always, we at Labelmaster are here to help you make sense of the everchanging hazmat transport landscape. We hope you find the information and solutions in the Dangerous Goods Report to be useful, and we welcome any questions.



Alan Schoen President of Labelmaster

**ONLINE RESOURCES** 

#### **GET CONNECTED** For more information on

handling lithium batteries throughout your DG supply chain, visit labelmaster.com/ lithium-battery-shipping.



#### STAY INFORMED The world of DG is constantly changing. To find updates on a wide range of DG topics, including lithium

battery shipping, visit

labelmaster.com/blog.



#### HEAR FROM OUR EXPERTS

The Master Series is a collection of short videos that provides practical perspectives on current DG issues. For more, visit labelmaster.com/masterseries.



#### MAINTAIN COMPLIANCE

From advanced shipping software to logistics consulting, Labelmaster Services can help keep your business on the right side of DG regulations. Visit labelmaster.com/services to learn more.

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For the last few years, one subject has dominated every conversation about Dangerous Goods transport, from UN subcommittees to the shipping departments of every retailer who handles electronics: The fire risks associated with lithium batteries.

To keep shipments and people safe, regulations on shipping lithium batteries and devices have grown more complex and more burdensome. Bans from commercial aircraft. New labels and classifications. New restrictions on consignments and state-of-charge.

How can lithium battery transport be made safer *and* simpler? That requires a fundamental shift in thinking.

#### MAKE THE BOX PART OF THE SOLUTION

The vast majority of lithium batteries and battery-powered devices get shipped in cardboard boxes. And box technology hadn't changed in decades.

"Most of the attention in the regulatory community has been going to the labels we place on the box, or the way we package materials inside the box," says Labelmaster Senior Packaging Product Manager Bill Barger. "But who says the box has to be just a vessel? What if someone made the box part of the solution?"

Conventional cardboard boxes are flammable. If a box's contents ignite, the box may not just fail to contain the fire—it may actually fuel the fire. That's why most shipments of lithium batteries and devices require gels, heavy liners or other fire-retardant fillers, not to mention precise exterior labeling and marking.

But what if the box doesn't burn so easily? Now the story changes completely.

Barger says, "When your packaging actually enhances the safety of your battery shipment, life gets a lot simpler."

WATCH Obexion contain a 400°C lithium battery fire at labelmaster.com/Obexion.

#### **INTRODUCING OBEXION**

Labelmaster has teamed with an aerospace technology firm to develop an innovative new packaging material, now available as Obexion—a complete line of protective packaging solutions engineered specifically for shipping and storing lithium batteries and devices that contain them.

The Obexion name is derived from *obex*, the Latin word for "barrier," and that's exactly what Obexion packaging provides—a barrier against the fire risks associated with lithium battery transport. Obexion packaging resists burning and contains fire **without gels**, **pellets or heavy liners**.

That's why Obexion represents such a fundamental shift in thinking. Rather than simply providing a container, Obexion packaging contributes directly to safer shipments. Lightweight, simple and cost-effective, Obexion technology defines a new standard in how you ship lithium batteries. It is:

- Easy to use
- · Scalable, making it effective for transporting most lithium batteries
- · Customizable, with many off-the-shelf sizes for common applications
- Passive, for reduced training time
- · Environmentally safe, requiring no special handling

#### **CHANGE HOW YOU SHIP LITHIUM BATTERIES**

With multiple sizes, configurations and protection levels, Obexion packaging will make many battery-shipping applications easier and safer. A few examples:

- **Battery recycling:** No more sorting batteries! The Obexion Pro drop-off box reduces the risk that a battery fire will spread to other boxes, so you can transport mixed loads of lithium batteries in a single box by ground.
- **Damaged batteries and devices:** DOT-SP 20432 allows you to ship up to 20 damaged, defective or recalled phones by ground or ocean in a single Obexion Max box.
- **Standalone lithium ion batteries by air:** Since April 2016, standalone lithium ion battery shipments (UN 3480) have been banned from commercial aircraft. But Obexion Max packaging complies with ICAO G-27 draft standards. Once those standards are adopted, you may once again be able to ship lithium ion batteries by commercial airliner.

Barger says, "Obexion is the most advanced new packaging technology the Dangerous Goods industry has seen in years. It's going to make lithium battery shipping easier and safer. And it's about time."

# TWO LEVELS OF OBEXION PROTECTION

Obexion packaging comes in a variety of sizes and configurations, and can be customized for specific applications. It is also available with two protection levels:





Flame-resistant cardboard packaging for recycled batteries and individual devices.



OBEXION

Maximum thermal runaway protection for damaged batteries and devices, in single-use cardboard or multiple-use metal.

Learn more about Obexion on page 17, visit labelmaster.com/Obexion or call 800.621.5808.

# NEW CHALLENGES, NNOVATIONS AND IDEAS

### TOP TRENDS FACING 7 MAJOR DANGEROUS GOODS INDUSTRIES

They say the only constant in business is change, and that's certainly true in Dangerous Goods. But there isn't one unified Dangerous Goods industry—in fact, most people who work with DG are actually in another business entirely.

Here are some of the biggest change agents—and their DGrelated implications—affecting the biggest industries that use or ship Dangerous Goods.



#### TRANSPORTATION AND LOGISTICS

**Autonomous vehicles.** Autonomous trucks are already hauling beer from Missouri to Colorado. Someday, maybe in the next 5 to 10 years, they'll be hauling everything from coast to coast, only picking up drivers when they get off the highway.

**DG implications:** In theory, autonomous vehicles can drive better than human drivers, and react more quickly and accurately to unexpected conditions. But no one has figured out how an autonomous vehicle would be able to meet the security provisions for vehicles carrying significant hazardous materials. That's a huge question that needs answering before driverless trucks are allowed to carry hazmat.



**Supply chain visibility and robotics.** From blockchain digital ledgers to robotic warehouses, retail operations are increasingly relying on data and automation to meet the demands of the want-it-perfect-and-want-it-now customer.

**DG implications:** No matter how advanced the technology, no system is better than the data at its heart. Tomorrow's smarter supply chain operations will need continuously updated, fully integrated hazmat software to ensure efficiency doesn't come at the expense of safety.



**Packaging innovations.** Lithium battery-powered devices aren't going away. If anything, they'll become even more pervasive. Packaging innovations like Obexion (see page 4) will make it easier to ship batteries and battery products compliantly, even as the inevitable recalls and returns grow in number and scope.

**DG implications:** By meeting ICAO's G-27 draft standards created earlier this year to provide a test method to demonstrate and document the control of the potential hazards of transporting lithium batteries—Obexion may make it possible to once again ship standalone lithium ion batteries by commercial aircraft.



**Adapting to the new TSCA.** The updated Toxic Substances Control Act, passed in 2016, authorized the EPA to reassess the entire inventory of chemicals manufactured during the last 10 years. Chemical manufacturers and distributors, obviously, will have their hands full adjusting to the EPA's findings for the foreseeable future.

**DG implications:** As the EPA determines new risks for chemicals, the hazard communications standards for those materials may need to be updated. The agency's findings may also change hazmat transport requirements, including significant revisions to what is classified as a marine pollutant.



# AUTOMOTIVE

**European bans on combustion engine vehicles.** France and the UK are the two most prominent nations to ban new fossil fuel-powered vehicles by 2040. Whether these bans become permanent or include other countries, it's clear that the current trend toward electric vehicles will only become more prevalent.

**DG implications:** One word: batteries. As electric vehicles become the norm, shipments of batteries and battery-powered components will grow exponentially. Keeping those shipments safe and compliant will require greater innovation along with deeper collaboration between regulators and industry.



## PAINTS AND COATINGS

**Environmental impact transparency.** The demand for low-VOC paints is by now a well-established trend. The industry should expect consumers to continue their vigilance about the health and environmental impacts of the coatings that they touch every day.

**DG implications:** If consumer demand prompts significant reformulations, transport and hazard communication standards may need to be updated. Stay tuned.



**New exploration and pipeline opportunities.** A new U.S. administration has moved to allow two controversial new Midwest pipelines to open, and is open to allowing drilling in the Alaskan wildlife refuge.

**DG implications:** Should these developments become reality, the industry will enjoy massive new sourcing and transport opportunities—but one environmental catastrophe could change the conversation permanently. It will be incumbent on the industry to make sure that doesn't happen.



# **RESULTS:**

### THE FIRST-EVER GLOBAL COMPLIANCE SURVEY

In summer 2017, Labelmaster and Hazardous Cargo Bulletin teamed up to ask more than 400 DG pros in Europe and North America about regulations, enforcement, technology and their own companies' priorities.

Here's what we learned.

### THE CHANGING DANGEROUS GOODS LANDSCAPE

DG pros say compliance is more critical—and challenging than ever. Yet many have **doubts and concerns about the effectiveness of regulations** in making hazmat shipping safer:



But DG pros are not against regulations. Here's how they felt about the level of regulatory requirements ...



... and enforcement.





A company's investment in Dangerous Goods compliance should reflect the impact DG has on the business. However, for many, **there is a serious gap—in infrastructure, technology and training—between investment and impact.** 

While 93% of DG pros said their companies' investment in compliance has stayed the same or increased over the last year, they also believe their companies show a lack of commitment to their roles:



It seems many companies entrust DG compliance to people who may not have institutional support, may not be adequately trained and are doing the job part-time.

Why this lack of commitment to a business-critical function, when failure can mean devastating costs in financial penalties, commercial reputation and public safety?

## THE TECHNOLOGY LAG

DG pros whose companies invest in modern DG technology report fewer problems and more confidence in their ability to achieve compliance.

# Yet more than one-quarter of respondents still do everything manually. Here's how DG pros described the software their companies use:



\*Because many companies use more than one type of software, results add up to more than 100%.

Here's how respondents described their companies' infrastructure:



# Other responses show that those in the "advanced" category feel:

- More confident in their ability to keep up with changing regulations
- → Less likely to have shipments stopped
- → More confident their training provides real business value

# While those who feel their company's infrastructure is "lagging" are more likely to:

- 🔅 Have greater risk
- -> Have supervisors who don't understand their roles
- → Feel their training is solely to meet regulations

Companies in the Dangerous Goods supply chain need to invest in their people, their training and their compliance infrastructure to help their DG professionals do their jobs. Technology and training cannot be viewed as just an added cost of doing business.

#### **OBSERVATIONS**

Overall, this survey spotlights several internal challenges to DG compliance:

- Siloed corporate structure
- Lack of clear "ownership" of DG compliance
- Lack of budget for new technology or resources
- Use of manual processes, printed documents and disparate digital systems
- Resistance to change

Those challenges are significant, but they can be overcome by an organization willing to make compliance a top priority. Labelmaster is ready to be your partner every step of the way.

For a complete look at the results of the Labelmaster/HCB survey, visit labelmaster.com/dgcompliancesurvey.

# **REGULATIONS CHANGED OVERNIGHT?**

### Customized Regulatory Monitoring Services alert you the next morning.

Regulatory amendments, carrier policy changes, guidance from regulating bodies ... critical regulatory changes won't take your operation by surprise when you subscribe to Labelmaster Regulatory Monitoring Services.

With a wide network of regulatory and industry contacts, we stay plugged into the latest changes in Dangerous Goods to notify you about any critical regulatory changes. You can even begin implementing process changes before a change becomes a legal issue.

#### As a subscriber, you'll receive:

- Timely notification of regulatory changes
- Alerts regarding proposed rules
- Industry trends
- Customized monthly or quarterly reports
- Conference calls to review your report
- Access to experts for regulatory interpretations

# To learn more, please contact us at 800.578.4955 or services@labelmaster.com.

# **THE INSPECTOR'S HERE.** How's your DG training documentation?

An inspection from the DOT may be unpredictable. But when that inspector arrives at your facility, one element of the inspection is as predictable as the sun rising in the east.

You're going to be asked to show your Dangerous Goods training records.

"The request to inspect training records doesn't come as a surprise to anyone who trains their employees," says Labelmaster Senior Manager Jim Shimko. "The surprise comes from someone who *isn't* training their employees."

If you're reading this publication, you know your employees need hazmat training. But are the right employees getting the right training, at the right time? And will your training records reflect that?

#### What training documentation must contain

The 49 CFR (172.704) is perfectly clear on the five pieces of information training records must contain:

- 1. The hazmat employee's name
- **2.** The most recent training completion date of the hazmat employee's training
- **3.** A description, copy or the location of the training materials used to meet the requirements in paragraph (a) of this section
- 4. The name and address of the person providing the training
- Certification that the hazmat employee has been trained and tested, as required by this subpart

The regulations are silent, however, on how those records must be maintained. As long all the above information is present, immaculately cross-indexed digital files and handwritten records are equally acceptable.

Shimko says, "Most companies still keep their records on paper. Outside vendors issue a certificate that covers all five points, so that's what drives paper retention. But I recommend at least scanning the certificate so you have a digital record, too."

#### Who needs what training, and when?

According to the 49 CFR, anyone who performs a function involving hazmat is a hazmat employee, and thus requires hazmat training every three years. This training must include instruction on:

- General awareness/familiarization training
- Function-specific training
- Safety training
- Security awareness training
- In-depth security training if a security plan is required

"The function-specific part is the trickiest," says Shimko. "You have to make sure every employee has the knowledge and skills to do the job they're expected to do."

For large, diverse operations, he recommends a blended solution of customized training for specific roles. "It can cost more upfront, but it's a better long-term solution for liability and cost. You can teach one person to do one task and eliminate the noise of everything else, instead of a public session for your entire staff, where everybody has to hear everything.

"A blend of e-learning and classroom training provides an effective approach to educating your workforce and is a proven long-term cost savings on the initial investment."

#### Have a system in place

"It can be hard for people to get their heads around training requirements when they have lots of employees and high turnover," says Shimko. "But you have to be diligent. Know where your records are, and know who's in charge of maintaining them."

He recommends revisiting training records on an annual basis. "Make them part of an annual internal audit so they are readily available—even though inspections can be much less frequent. You might go 10 or 20 years, and all of a sudden the FAA shows up."

When they do, he says, "Don't waste their time finding records. Show that inspector you have your act together."

Learn more about Labelmaster online hazmat training at labelmaster.com/training.



# **Online training—certified stress-free!**

Online training gives you the flexibility to train anytime, anywhere, with no lost productivity. Online training from Labelmaster means your modules are created by the best trainers in the business, so you'll experience:

- · The confidence of knowing your information is fully up to date
- A fully interactive environment with built-in learning checks and a final exam
- The ability to stop your module at any point and return later to where you left off
- A record of training (certificate) upon completing the final exam, which can be emailed, printed or downloaded
- Easy recordkeeping—your certificate saved in your online account for 3 years

#### Labelmaster training modules are available for:

- General Awareness Hazmat Training
- Shipping Excepted Lithium Batteries
- Fully Regulated Lithium Battery Shipping
- NEW!—ADR Training
- NEW!—Shipping DG by Air (IATA) for Operations Personnel



# A "DANG GOOD" Symposium

# HIGHLIGHTS OF THE 2017 DANGEROUS GOODS SYMPOSIUM

On Day 2 of the 2017 Dangerous Goods Symposium held in Chicago, September 6–8—veteran DG trainer Gene Sanders said, "We abbreviate 'hazardous materials' to 'hazmat.' I say we shorten 'Dangerous Goods training' to 'Dang Good training.'"

"Dang good" could describe the entire Symposium, but it would be an understatement.

With nearly 300 DG trainers, shippers, vendors and regulators in attendance, this year's Symposium set a new standard for insights, analysis, education and lively exchanges of opinion. Here are some of the highlights.

#### THE GLOBAL DG CONFIDENCE OUTLOOK

Labelmaster VP Rob Finn and Peter Mackay, Director of HCB Publishing, presented the results of this first-ever global survey of Dangerous Goods pros. A small sample of the results:

- 34% say their supervisor is unaware of exactly what they do.
- 27% believe their training programs don't adequately prepare people to comply.
- 24% still use manual processes.

Why isn't compliance a higher priority? Mackay said, "Too often compliance seems like a cost. What you need to do is to make your supervisors aware of the value of the compliance function."

#### DAMAGED LITHIUM BATTERIES AND REVERSE LOGISTICS

One panel examined the challenging realities of making sure lithium batteries and battery devices are shipped compliantly when they're damaged or recalled.

Chris Harvey of Stericycle stressed the need to proactively understand packaging requirements and recommended templated communications for both consumers and retailers.

As a retailer who's dealt recently with some huge recalls, Best Buy's Rebecca Sharpe recommended staging a mock recall to better coordinate the various teams and processes involved.

#### LITHIUM BATTERY DAY

Day 3 featured a lithium battery panel with experts from every corner of the battery shipping world: regulators, shippers, carriers and trainers. Shipping these ubiquitous power sources compliantly is the biggest challenge in Dangerous Goods—and it isn't going away.

James Jones—whose company developed Obexion (see page 4) reminded us why: projected double-digit growth in lithium ion battery production, with costs dropping by half.

Abbott's Jane Amelotte stressed the importance of being able to ship batteries by air. "You can't find replacement batteries for our products at Walmart. Imagine you're in heart failure and you can't get a replacement battery for your pump. You will die."

While the members disagreed on regulatory details, they agreed strongly on the need for tougher enforcement. IATA's David Brennan said, "IATA has called on the states to penalize willful noncompliance very severely. If people willfully violate, we have to hit them very hard.

"We all need to be talking about this."

#### MAKING COMPLIANCE A HIGHER PRIORITY

Adrian Gonzalez—the host of *Talking Logistics* and an 18-year logistics veteran—suggested a way to awaken your organization to the need to make compliance a higher priority.

Change your answer to the question, "What business are you in?"

If you can demonstrate that DG compliance is actually "supply chain risk management" or "e-commerce enablement," you'll start bridging the chasm between your role being viewed as a cost center and recognized as growth engine.

# Review all the presentations from #DGS17 at labelmaster.com/symposium/2017-dgs-presentations

"I've met more people in DG in the last 48 hours than in my entire career. I'm the only DG trainer at a small consulting firm, and now I will always have someone I can call."

-Jacqueline Hardt, Zoubek Consulting

"Thank you for helping keep regulators in touch with the pulse of the DG community." —Shane Kelley, PHMSA

"I appreciate the focus on ways to improve training and keep students engaged. There are so many industry pros here, it's great networking, a chance to learn from each other." —*Alec MacAdam, Arcadis* 

"The information is awesome!" —*Dianne Pridgen, UP*S



# **MORE THAN JUST AN ELD** TRUXTRAX KEEPS YOU COMPLIANT, IN TOUCH AND ON TIME

Meet the FMCSA ELD mandate—and gain a tracking and communications edge with the TruxTrax Electronic Log Device (ELD). Its web-based dashboard and mobile application offer you a complete range of essential features:

- An e-logbook
- IFTA tracking and reporting
- Expense tracking and reporting
- Fuel tracking and reporting
- State mileage tracking and reporting
- GPS tracking
- 2-way messaging
- Web-dashboard access

Just plug the device into your engine diagnostic port, sync via Bluetooth to your mobile device, launch the app and you're good to go!



#### **AN ILLUSTRATED HISTORY OF LABELMASTER**

Ah, 1967 ... an innocent time, when young people wove flowers in their hair and businesses shipped hazardous materials with only the slightest regulatory oversight.



Much has changed since Labelmaster was founded 50 years ago. Here's a look at how our company and our industry have grown.



The company markets its first hazmat product-the Spacemaster 100-and introduces the trade name Labelmaster



Occupational Safety and Health Administration (OSHA) established



Labelmaster's first product mailing-a 4-page sell sheet



Labelmaster hires Abe Samuels. who creates the **Spacemaster** design still in use today



The first Labelmaster general catalog



1980

1967

Harry Fund establishes **Modular Products** 



1971 Federal Express founded

**Environmental Protection** Agency (EPA) established



Future Vice President of Research and Development Jeanne Zmich joins the company



1978

New regulations require hazardous waste to be labeled, and Labelmaster's design becomes the industry standard



1979 Labelmaster rolls out its first packaging line

#### DANGEROUS GOODS REPORT 14

First use of the word "hazmat"





# LABEL MASTER

#### 2000

TEXT-Trieve becomes Labelmaster Software



Pipeline and Hazardous Materials Safety Administration (**PHMSA**) established



Broken water heater **floods** 60% of Labelmaster HQ



OSHA's Hazard Communications Standard (HCS 2012) aligns U.S. regulations with the UN Globally Harmonized System (GHS)



Labelmaster obtains ISO 9001:2008 Registration



- 2017 Labelmaster launches fire-resistant Obexion lithium battery packaging

#### **ONLINE TRAINING COURSES**



Take your course anytime and anywhere you have an Internet connection. No lost productivity—you choose how and when to fit it into your work day. Labelmaster's engaging training modules help your business stay in compliance, while you experience:

- A fully interactive environment with built-in learning checks and a final exam.
- A convenient online platform, allowing you to stop at any point and return later to where you left off.
- A record of training (certificate) upon completing the final exam, which can be emailed, printed or downloaded.
- · Easy recordkeeping: Your certificate will be saved in your online account for three years from the completion date.

#### **GENERAL AWARENESS HAZMAT TRAINING**

PRODUCT NUMBER	DESCRIPTION	QUANTITY PRICE 1-9	QUANTITY PRICE 10+
SHPGA	The U.S. Department of Transportation requires the general awareness training specified in 49 CFR Part 172.704 be taken every three years. This 90-minute interactive online course meets the general awareness training requirements.	\$99.00	\$75.00

#### SHIPPING EXCEPTED LITHIUM BATTERIES

PRODUCT NUMBER	DESCRIPTION	QUANTITY PRICE 1-9	QUANTITY PRICE 10+
SHPEXLB	A 60-minute course for individuals who perform or direct the functions of packaging, marking, labeling or loading packages containing excepted lithium batteries for shipment by highway, rail, air or vessel.	\$129.00	\$100.00

#### SHIPPING FULLY REGULATED AND EXCEPTED LITHIUM BATTERIES

PRODUCT NUMBER	DESCRIPTION	QUANTITY PRICE 1-9	QUANTITY PRICE 10+
SHPLB	Meets the USDOT training requirements for individuals who perform or direct the functions of packaging, marking, labeling or loading packages containing lithium batteries for shipment by highway, rail, air or vessel.	\$199.00	\$150.00

#### ADR ONLINE TRAINING

PRODUCT N	NUMBER	DESCRIPTION	QUANTITY PRICE 1-9	QUANTITY PRICE 10+
SHPAD	R	This interactive three-hour online course meets the minimum training requirements specified in ADR 1.3 for employees shipping and handling Dangerous Goods.	\$395.00	\$370.00

#### SHIPPING DG BY AIR (IATA) ONLINE TRAINING FOR OPERATIONS PERSONNEL

PRODUCT NUMBER	DESCRIPTION	QUANTITY PRICE 1-9	QUANTITY PRICE 10+
SHPAIROPS	This approximately three- to four-hour interactive online course meets the minimum training requirements specified in the IATA DGR for employees shipping and handling Dangerous Goods. The course is ideal for operations-level employees who package, mark, label and document air shipments.	\$225.00	\$199.00

Learn more about Labelmaster's "stress-free" online training at labelmaster.com/training.

#### **REGULATORY PUBLICATIONS**







EARLY0034





#### **IATA DGR 59TH EDITION**

PRODUCT NUMBER	DESCRIPTION	PRICE
IATA0065	Standard Bound, English	\$328.00
IATA0066	Spiral Bound, English	\$339.00
IATA0070	English E-Book Download	\$328.00

#### EARLY 49 CFR - REVISED OCTOBER 2017

PRODUCT NUMBER	DESCRIPTION	PRICE
EARLY0033	Standard Bound	\$42.50
EARLY0034	Spiral Bound	\$53.00

#### **MASTERREGS 49 CFR - REVISED NOVEMBER 2017**

PRODUCT NUMBER	DESCRIPTION	PRICE
490027	Standard Bound	\$47.75
490028	Spiral Bound	\$57.00

#### **38TH AMENDMENT IMDG CODE**

PRODUCT NUMBER	DESCRIPTION	PRICE
IM00027	2-Vol. Set, English	\$242.50
IM00028	2-Vol. Set, Spanish	\$242.50
IM38N1SS	CD-ROM	\$350.50

#### LITHIUM BATTERY SHIPPING PRODUCTS





**OBEXION LITHIUM BATTERY PACKAGING** 

**Obexion Packaging Reduces the Risks of Lithium Battery Fires** 

#### **Advanced Technology Simplifies** Safer Battery Transport

New Obexion packaging-exclusively from Labelmaster-is a complete line of protective packaging solutions engineered specifically for mitigating the fire-related risks of lithium batteries and devices that contain them.

Lightweight, easy to use and cost-effective, Obexion's innovative technology defines a new standard in how to ship lithium batteries. This battery packaging is:

- Easy to use-No gels, pellets or heavy liners
- · Scalable—Works for most lithium batteries that must be transported
- · Customizable—Off-the-shelf sizes for common applications or this packaging can be sized to your requirements
- Passive—Reduces training time
- · Environmentally Safe-No toxic or hazardous chemicals means no special handling

PRODUCT NUMBER	DESCRIPTION	FORMAT	UNITS	PRICE
OBEXP0001	Obexion Pro Cell Phone Box	Bundle	15	\$117.75
OBEXP0002	Obexion Pro Laptop Box	Bundle	15	\$204.00

#### LITHIUM BATTERY MARKS

**CARGO AIRCRAFT ONLY MARKINGS** 

With the recent changes in lithium battery shipping regulations, these marks can now be used on all packages carrying lithium ion or metal batteries. Available as 120mm x 110mm or 105mm x 74mm markings in paper or PVC-free film, these handling marks have space to designate the UN number of the lithium battery being shipped as well as a telephone number for additional information required by the regulations.

- · Choose personalized labels and we'll imprint your information for you
- Also available preprinted with CHEMTREC<sup>®</sup> emergency contact information and UN numbers (only companies registered with CHEMTREC® are authorized to use these labels)

Also available with an included tab attached below the mark with space to provide additional information (e.g., ICAO/ IATA Section II Packing Instruction number, proper shipping name, etc.).

PRODUCT NUMBER	DESCRIPTION	FORMAT	UNITS	PRICE
LB735	Blank, 105mm x 74mm, Paper	Roll	500	\$40.98
LB435C-3481	Preprinted with UN3481 and CHEMTREC® Contact Information, 126mm x 121mm, Paper	Roll	500	\$73.43
LB435C-3480	Preprinted with UN3480 and CHEMTREC® Contact Information, 126mm x 121mm, Paper	Roll	500	\$73.43
LB435C-3090	CHEMTREC <sup>®</sup> UN3090 Lithium Battery Handling Marking, 126mm x 121mm, Paper	Roll	500	\$73.43
LB435C-3091	Preprinted with UN3091 and CHEMTREC <sup>®</sup> Contact Information, 126mm x 121mm, Paper	Roll	500	\$73.43
LB435P	Personalized with Tab, with Your UN Number and Contact Information, 126mm x 121mm, Paper	Roll	500	\$77.30
LB435T	Blank with Tab, 126mm x 140mm, Paper	Roll	500	\$39.00
LB435TP	Personalized, 126mm x 140mm, Paper	Roll	500	\$48.85

# 120R

LB735

1 B435P

Your UN Number(s) Here Your Telephone Number Here

Space for additional info (Ex. PSN, P.I., etc.) LB435T



Line Manufacture Version Contraction
SL20R

UN3480 emergensies cols Call CHENTR 1-800-824-9282 MORTH AMERICA 1-200-925-3007 ECTEMATION

LB435C-3480

**UN3090** er emergencies only. Call: CHEMITE 1-580-424-5580 HONTH AMERICA LB435C-3090

**UN3091** 

LB435C-3091

#### PRODUCT NUMBER DESCRIPTION FORMAT UNITS L20R 500 \$46.00 100mm x 120mm Paper Roll SL20R 100mm x 120mm, PVC-Free Film Roll 500 \$86.60

PRICE

#### PAINT AND COATINGS SHIPPING PRODUCTS

PRODUCT NUMBER

ORM-D

L22

L305

L71

SW47000K

SW48000K

SF30R

SF31R

SF15R

K997005YEL

DESCRIPTION



PRODUCT NUMBER	DESCRIPTION	FORMAT	UNITS	PRICE
UA1PC1U	1 Gal. Paint Can Packaging, Unassembled, Foam Insert	Each	1	\$11.02
KURL1PC-LM	Locking Rings, Universal, Fits 1 Gallon, 5 Qt & 5.5 Liter Cans	Each	1	\$0.63
ZEZ21263	Flammable Liquid Placard, UN 1263, E-Z Removable Vinyl	Pack	25	\$52.50
Z-EZ2	Flammable Liquid Placard, Worded, E-Z Removable Vinyl	Pack	25	\$18.75
L370	Overpack Label, Paper	Roll	500	\$50.00
LQL40	Limited Quantity Labels, Blank, 100mm x 100mm, Paper	Roll	500	\$41.90
LQMM	Limited Quantity Labels, Blank, 50mm x 50mm, Paper	Roll	500	\$35.00
CM25132F	ColdMark™ Freeze Indicator, 32°F/0°C	Pack	100	\$323.75

FORMAT

Roll

Roll

Roll

Roll

Pack

Pack

Each

Each

Each

Each

UNITS

1,000

500

500

500

100

100

1

1

1

1

PRICE

\$35.06

\$50.00

\$50.00

\$38.00

\$195.00

\$195.00

\$2.85

\$2.85

\$2.85

\$10.20

See more essential products for chemical shipping and storage at labelmaster.com/industry/paint.

#### **RETAIL SHIPPING PRODUCTS**

L305

BeackWarch

SW48000K

SF15R

#### ORM-D ORM-D





SF30R

K997005YEL

KWBUB516ABA

KLICK10-H-GN

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Consumer Commodity, ORM-D Label, Paper, 2 1/4" x 1 3/8"

Shockwatch 2<sup>®</sup> Damage Indicator, 15G, Field Armable

Shockwatch 2® Damage Indicator, 25G, Field Armable

Black Orientation Marking, Paper, 3 1/4" x 4 1/2"

Red Orientation Marking, Paper, 2 15/16" x 4 1/8"

Fragile Label, Paper, 4" x 4"

Fine Point, Smudge-Proof Marker

Medium Point, Smudge-Proof Marker

Heavy Point, Smudge-Proof Marker

Easy Cut<sup>™</sup> 2000 Utility Knife, Yellow

#### AUTOMOTIVE SHIPPING PRODUCTS



HSN8500

SF31R

PRODUCT NUMBER	DESCRIPTION	FORMAT	UNITS	PRICE
UA1DABSM	Air Bag Shipper, 14" x 11" x 7"	Each	1	\$5.88
UA1PAB	Air Bag Shipper, 16" x 11 1/4" x 9"	Each	1	\$7.81
UA1PABLG	Air Bag Shipper, 24" x 12" x 10"	Each	1	\$8.95
KWBUB516ABA	Anti-Static Bubble Wrap <sup>®</sup> , Medium Duty Roll, 24" x 375'	Roll	1	\$182.00
HSN8500	UN3268 Safety Devices Label, Paper, 100mm x 120mm, 6mm Text	Roll	500	\$41.50
HSN8500ET	UN3268 Safety Devices Label, Paper, 100mm x 150mm, 12mm Text	Roll	500	\$66.50
KLICK10-H-GN	Klicker Bolt Seal, Stock, Green	Case	250	\$374.53

Find more essential automotive resources at labelmaster.com/industry/automotive.

#### **OIL AND GAS SHIPPING PRODUCTS**

HSN8500ET



PRODUCT NUMBER	DESCRIPTION	FORMAT	UNITS	PRICE
ZT8-1075	Flammable Gas Placard, UN 1075, Tagboard	Pack	25	\$15.99
ZRV81075	Flammable Gas Placard, UN 1075, Rigid Vinyl	Pack	25	\$120.00
ZOPEZ1993	UN1993 Orange Panel, E-Z Removable Vinyl	Pack	25	\$89.75
126CT-0X	Duo-Flip Placard System: Flammable, Combustible, Oxidizer, Poison, Corrosive Legends	Each	1	\$47.75
80SM97	Slidemaster Placard Holder, Full Holder, Anodized Aluminum	Each	1	\$14.35
TS-8	Metal Security Seals, 8 1/2" x 5/16"	Case	1,000	\$185.00
MC1-14-H	C-TPAT 14" Steel Cable Locks	Case	100	\$309.00
KM5080	5-Gallon Closed Head Pail	Each	1	\$26.04
MCA10	Chemical Emergency Phone Number Marking, Vinyl, 30" x 11 1/2"	Each	1	\$4.19

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#### TRANSPORTATION AND LOGISTICS SHIPPING PRODUCTS



PRODUCT NUMBER	DESCRIPTION	FORMAT	UNITS	PRICE
P-20-RD	Plastic Strap Seal Stock, Red	Case	1,000	\$210.00
K954844B	Easy Cut™ Utility Knife, Blue	Each	1	\$8.20
K9548460R	Easy Cut™ Utility Knife, Orange	Each	1	\$8.20
ERG0024	2016 Emergency Response Guidebook, Standard Bound Pocket Size	Each	1	\$3.74
ERG0025	2016 Emergency Response Guidebook, Spiral Bound Pocket Size	Each	1	\$4.28
F375-4P	Straight Bill of Lading Form, Snap-Out, 4-Part, Personalized	Pack	100	\$50.40
LT196U	Hazmat Shipping Paper Tabs, Paper, 2" x ¾"	Roll	500	\$34.02
TNTR	Tip-N-Tell Damage Indicator	Case	100	\$135.71
BT332	QA Approved Label, Paper, 2" x 1 1/2"	Roll	500	\$43.10
TTELD	TruxTrax Electronic Log Device (ELD), 1-Year Subscription	Each	1	\$240.00

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#### **CHEMICAL SHIPPING PRODUCTS**



ZEZ19-82

ZEZ91993



PRODUCT NUMBER	DESCRIPTION	FORMAT	UNITS	PRICE
MCL-250-RD	14" Cable Lock Seals	Box	500	\$842.70
KM1020EL	1-Gallon Closed Head Pails	Each	1	\$39.91
UN32FAPS	Glass/Foam Pack w/32 Oz. Amber Bottle, 33mm Cap, Assembled	Each	1	\$18.01
ZEZ91993	Combustible Liquid Placard, UN 1993, E-Z Removable Vinyl	Pack	25	\$52.50
ZEZ19-82	Miscellaneous Dangerous Goods Placard, UN 3082, E-Z Removable Vinyl	Pack	25	\$52.50
F07LB	Shipper's Declaration for Dangerous Goods Form, Laser, Blank	Pack	100	\$26.68

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F07LB

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