Weber's Guide to GHS Labeling

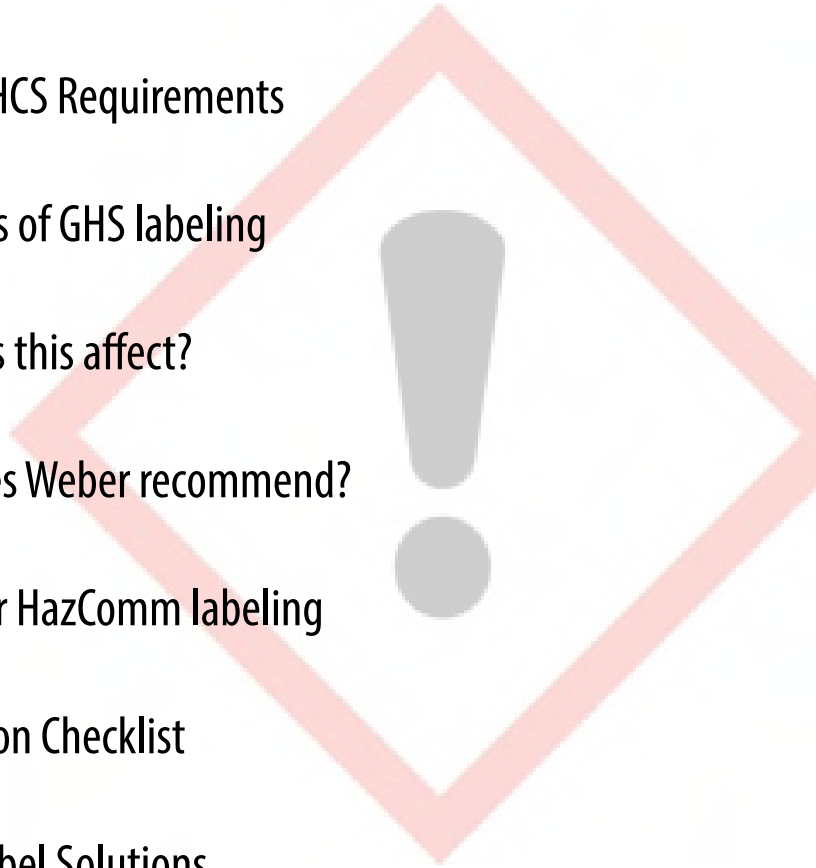
Get the answers to your GHS questions!

Weber®
Packaging Solutions

Chemical labeling requirements are changing.

Make sure your company is ready.

- Thre old HCS Requirements
- The basics of GHS labeling
- Who does this affect?
- What does Weber recommend?
- Advice for HazComm labeling
- Application Checklist
- Weber Label Solutions



Previous HCS requirement.

The old Hazard Communication System (HCS) stipulated you must have 3 items on labels of hazardous chemicals that would be used in the workplace:

1. Chemical Name
2. Hazard Statement
3. Company Information

Additionally, the old law requires manufacturers and distributors to create Material Safety Data Sheets (MSDS).

These provide hazard information in high detail, including the concentration of hazardous chemicals present in the product. These sheets are to be kept on site by the users of the chemicals in case of emergency.

The HCS has been said to give workers the *"right to know."*

The Basics of GHS Labeling

The Globally Harmonized System (GHS) of Classification and Labeling of Chemicals, a communication system used widely around the world, is aligned with the new HCS.

In addition to the 3 previous requirements, there are 3 new requirements:

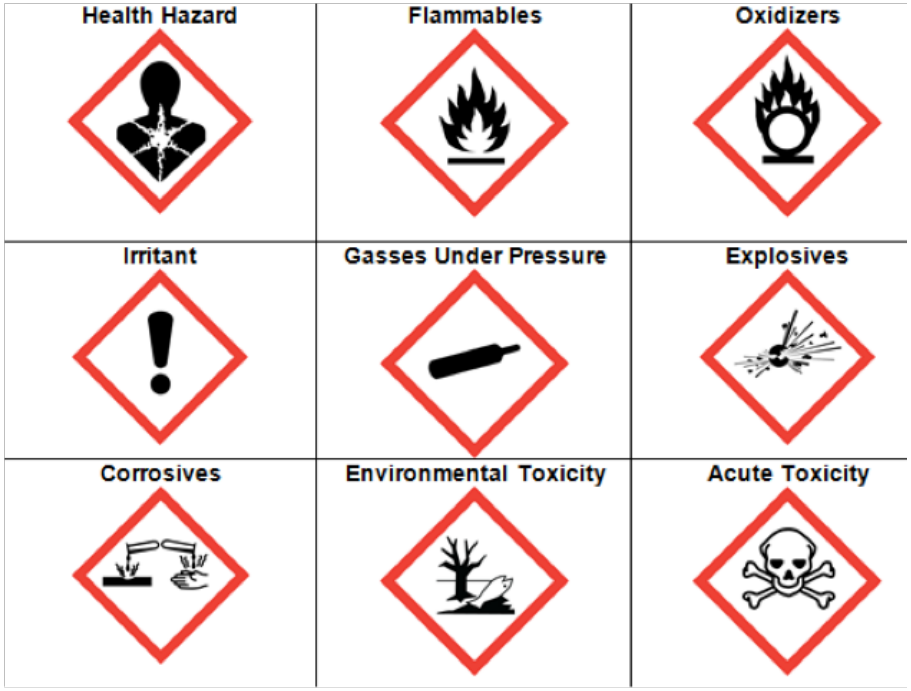
1. Signal Words
2. Precautionary Statements
3. Pictograms

Also, the MSDS is now called the Safety Data Sheet (SDS), and now includes pictograms.

This new version of the HCS is said to give workers the *"right to understand."*

Who does this affect?

All manufacturers, distributors and users of chemicals in the workplace must comply with this new regulation.



There may be a lot of new information that needs to go on the labels; however, since many companies use the HMIS system as a best practice, they are used to lots of info on their labels. Now the precautionary statements and hazard statements will be standardized in every workplace.

The biggest change that affects everyone, though, is that now these pictograms will become part of their variable information. These pictograms will include red diamonds which companies have never needed to print in an on-demand format previously.

Is there a difference if I am a chemical company or just a company that uses chemicals?

Companies that manufacture and distribute chemicals had to begin using the new labeling by June 1st, 2015.

Those companies that use hazardous chemicals in their day-to-day operations, such as a machine shop or a printing company, had until June 1st, 2016 to update their workplace labeling.

Now that these requirements are in place, you need to make sure your company is in compliance.

More information on the rules and regulations of the Globally Harmonized System of Classification and Labeling of Chemicals can be found here at the Department of Labor OSHA site.

Learn more about this printer

What is Weber's solution to help with compliance?

After reviewing our customer base in the petrochemical industry, we really like the label printing technology from Epson and Neuralabel. They are a great fit for a large number of these customers and we encourage them to explore it. There are three print systems, and they all are designed for long-term industrial use.

- **The Epson GP-C831Inkjet Label Printer**

The printer system allows you to variably print in color; and it allows you to do it in an efficient way. You can work from blank label stocks, so it allows you to easily manage label formats with the end product being a very presentable label, which enhances brand image.

Being compliant means only that you have the required information on your labels. But most manufacturers and distributors need some element of durability. The pigmented inks in this system show remarkable durability for the price. They are better than UV flexo inks typically found on chemical drum labels.

Learn more about this printer

The refills for each of the CMY colors are $17.50. The larger black refills, which hold 3 times the amount of ink as the other colors, are only $53.00.

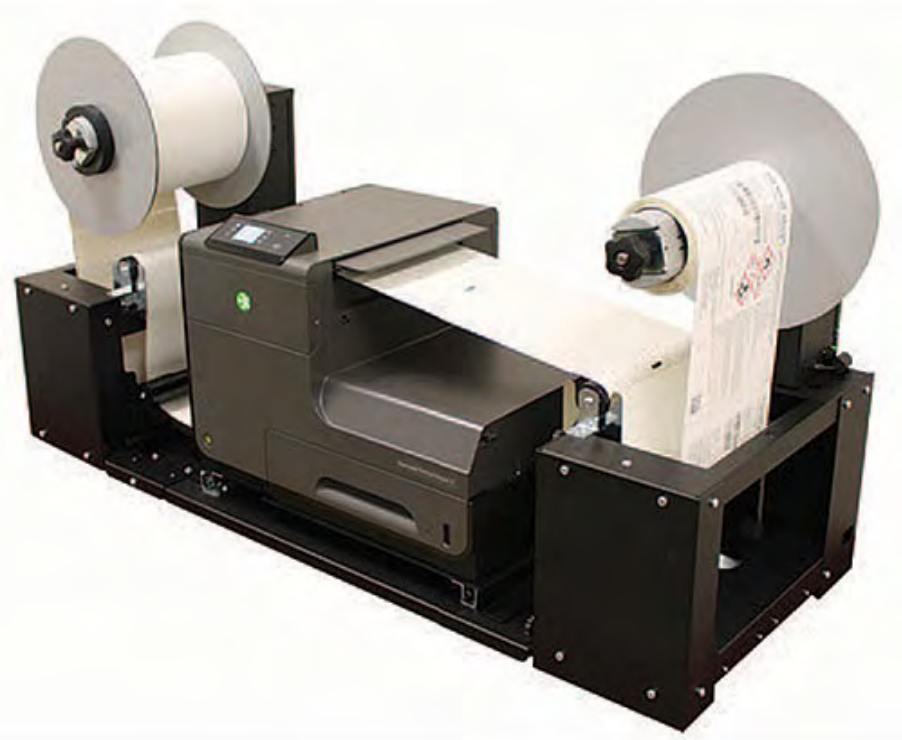
The printer itself is very affordable; less than half the cost of a wide-web thermal transfer printer (under $2,000 vs. $5,000). It comes with an optional SITA (Spare In The Air) program to ensure downtime is minimized.

- **Epson C3500 Inkjet Label Printer**

The C3500 printer uses the same type of print technology and ink as the C831, but it comes in a smaller package. This has a maximum media width of only 4.125" so it lends itself ideally to small container labeling. We see this as a great fit for workplace labeling.

Like the C831, it gives you flexibility to design and print multiple label formats, all from blank labels. It has a compartment to print from 4.0" OD roll, but it can also accept externally placed media through a slot in the back.

The 3500 uses similar ink cartridges as the 831, but the black cartridge is the same size as the other three colors, in this case.



Learn more about this printer

• Neuralabel 300x Inkjet Label Printer

The Neuralabel 300x is a high-speed, high resolution printer for on-demand GHS compliant, color label printing. Built on advanced HP PageWide technology, the Neuralabel 300x is capable of print speeds up to 20 inches per second (that's over 100 letter size labels per minute).

With print resolution up to 2400 x 1200 dpi, colors pop and graphics look sharp on your finished labels. The Neuralabel 300x prints labels from 3 to 8.5 inches in width, on sheeted, fan-folded and rolled label media.

- Print full color GHS compliant labels on-demand
- Continuous, fan-fold, roll-to-roll and cut sheet labeling
- BS5609 compliant for resistance to abrasion, saltwater immersion, and UV exposure
- Uses water-resistant pigment inks making labels more durable

Color Inkjet Printing Vs. Laser Printing

Inkjet technology has greatly improved over the last several years. Inkjet printing is making its way into businesses by giving them color on demand at increasingly greater print resolutions, higher speeds and lower costs.

Color Inkjet now offers the same flexibility as Color Laser in label design, lead-time and savings on blank label consumables. And the labels that use pigmented ink are much more durable than laser toner.

A majority of standard inkjet systems use dye-based inks, which are not durable enough for chemical labeling, given the industry's typical outdoor storage/transportation and exposure to harsh chemicals. For chemical applications, look for pigmented inks, which have much better durability than dye-based inks. Additionally, there are few systems that will handle 8" wide drum labels, but they are available and should be of great interest to labelers of large containers like steel and plastic drums and intermediate bulk containers.

Advice about HazComm compliance

Start with the SDS

Likely, the most difficult part of this process will be to get chemicals reclassified under the new system, and revise the MSDS to SDS. Most will go through a 3rd party to get this done. However, once that part is completed, you have all the information you need to create compliant labels.

To get started with labels, look at the SDS's involved. Here you'll have an understanding of the variability of pictograms required. This will help you narrow down the type of print system you'll need. For instance, if your labels will only require one pictogram, you can easily handle that with revised preprinted labels to be used with your existing thermal transfer print system.

What is a BS:5609 label?
It is the internationally recognized standard for the durability of a label used on containers that are shipped by sea. This is especially important for labels applied to drums of chemicals that require IMDG certification, the international guideline to the safe shipment of dangerous goods or hazardous materials by water vessel.

Look at your application requirements

✔ **How many label sizes do you need?**
This will ultimately affect the overall media costs for the printer.

✔ **What are the label sizes?**
Some printers that are great for GHS compliance may only print up to a certain width, such as 4" or 6.5". These will not be options when printing 8.5" x 14" labels.

✔ **What level of durability is required?**
Make sure that both the label material and printer ink are durable enough for the lifetime of the label, and meet any applicable standards, such as BS5609 for IMDG labeling.

✔ **Will labels be hand-applied or auto-applied?**
Going to auto-apply may require roll-to-roll unwind systems for some printers.

✔ **Do you need your labels printed fast??**
Fast-paced production lines will require a printer that can keep up with demand. The Epson C831 prints at 1.3"/sec. and the Neuralabel prints at 20"/sec.

Which inkjet printer will work best to print labels for my chemical container?

Container Type		Recommended Printer
Intermediate Bulk Container		Epson C831 Neuralabel
HDPE Drum		Epson C831 Neuralabel
Steel Drum		Epson C831 Neuralabel
Fiber Drum		Epson C831 Neuralabel
HDPE Pails		Epson C831 Neuralabel

Container Type		Recommended Printer
Steel Pails		Epson C831 Neuralabel
HDPE Jugs		Epson C831 Neuralabel
HDPE Jars		Epson C831, Epson C3500
LDPE Wash Bottles		Epson C3500
LDPE Dispensing Bottles		Epson C3500
Glass Bottles & Vials		Epson C3500

What software will I need?

There are several GHS labeling software options available but not all will cover the features you need.

If you're just labeling a few products here and there, you should be able to do just fine with ***Legitronic Labeling Software***. Included in the latest version are the GHS Pictograms you'll need to design your label. This type of software is good for chemical users who are just relabeling.

But if you're a chemical manufacturer, you should look for an enterprise system that does more than just create the labels.

Weber's GHS Labeling Software has the features and power you need to handle a large-scale chemical labeling operation safely and efficiently. Features include:

- ✔ All in one GHS labeling software – create both your SDS and GHS labels
- ✔ User-friendly label design tool
- ✔ An enterprise class database
- ✔ GHS Pictograms are automatically added based on the GHS requirements
- ✔ Other graphics and logos may be used directly on a label or tied to a database field
- ✔ User specific languages and terminology
- ✔ User specific access to functionality to ensure workflow accountability
- ✔ Step-by-step guide to compliance as you design your label

Need help with a GHS label compliance requirement?

Talk to a Weber GHS Label Expert to find the best solution for your chemical labeling needs.

Contact a GHS Label Expert

Look at the big picture

✔ **What will the total system cost?**
Look at the costs of the printer(s), labels and inks

✔ **Maintenance**
How much time will employees spend making repairs? How much does a service call for the new system compare to the old one?

✔ **Changeover Time & Ease of Operation**
How long does it take to get the system up and running and replacing the media? What setup, if any, needs to be done in between print jobs?

✔ **Print Speeds**
The max speeds vary greatly between print systems. It affects throughput (labor overhead), image clarity, and image durability. Which speed do you need to print at to optimize all three?

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