Safety Data Sheets and Pictograms under the Globally Harmonized System of Classification and Labeling of Chemicals

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The Occupational Safety and Health Administration's ("OSHA") Hazard Communication Standard ("HCS") covers over 43 million workers who produce or handle hazardous chemicals in more than five million workplaces in the U.S.[1] In March 2012, OSHA aligned the HCS, which has always given workers the "right to know," with the United Nations' 2003 Globally Harmonized System for Classification and Labelling of Chemicals (the "GHS"), providing workers the "right to understand."[2] The performance oriented original HCS allowed chemical manufacturers and importers to convey information on labels and material safety data sheets in whatever format they choose.[3] The GHS approach is, instead, standardized, including detailed criteria for determining what hazardous effects a chemical poses, as well as standardized label elements assigned by hazard class and category.[4] This standardization is intended to help ensure appropriate handling and safe use of workplace chemicals and the harmonized format of the safety data sheets ("SDS") will enable employers, workers, health professionals, and emergency responders to access the information more efficiently and effectively.[5] The newly aligned HCS includes the following major changes:

- Hazard classification -- Chemical manufacturers and importers must follow specific criteria for classification of health and physical hazards and classification of mixtures.[6]
- Labels -- Chemical manufacturers and importers must provide a label that provides precautionary statements and that includes a harmonized signal word, pictogram, and hazard statement for each hazard class and category.[7]
- Safety Data Sheets("SDS") -- SDSs must include sixteen specific sections:
  - Section 1. Identification
  - Section 2. Hazard(s) identification
  - Section 3. Composition/information on ingredients
  - Section 4. First-Aid measures
  - Section 5. Fire-fighting measures
  - Section 6. Accidental release measures
  - Section 7. Handling and storage
  - Section 8. Exposure controls/personal protection
  - Section 9. Physical and chemical properties
  - Section 10. Stability and reactivity

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[1] *OSHA Fact Sheet: Hazard Communication Standard Final Rule*, https://www.osha.gov/dsg/hazcom/HCSFactsheet.html (last visited July 24, 2014).
[2] *OSHA: Hazard Communication,* https://www.osha.gov/dsg/hazcom/index.html (last visited July 28, 2014).
[3] *Modification of the Hazard Communication Standard (HCS) to conform with the United Nations' (UN) Globally Harmonized System of Classification and Labeling of Chemicals (GHS): Questions and Answers,* https://www.osha.gov/dsg/hazcom/hazcom-faq.html#13 (last visited July 31, 2014).
[4] *Id.*
[5] *Id.*
[6] 29 C.F.R. § 1910.1200(d)(1); *OSHA, supra,* note 2. *See also OSHA, supra,* note 1; *OSHA, supra,* note 3.
[7] 29 C.F.R. § 1910.1200(f)(1); *OSHA, supra,* note 2. *See also OSHA, supra,* note 1; *OSHA, supra,* note 3.

Section 11. Toxicological information
Section 12. Ecological information
Section 13. Disposal considerations
Section 14. Transport information
Section 15. Regulatory information
Section 16. Other information, including date of preparation or last revision[8]

- Information and training -- Employers were required to train workers (by December 1, 2013) on the new label elements and SDS format.[9]

As U.S. employers continue to transition to full compliance with the new HCS by 2015[10], numerous questions have arisen regarding HCS and GHS requirements. For example, in what language must an SDS be written? OSHA requires that "[t]he chemical manufacturer or importer preparing the safety data sheet shall ensure that it is in English (although the employer may maintain copies in other languages as well)…"[11] On the other hand, according to the European Union's Registration, Evaluation, Authorisation and Restriction of Chemicals ("REACH") regulation, "[t]he safety data sheet shall be supplied in an official language of the Member State(s) where the substance or preparation is placed on the market, unless the Member State(s) concerned provide otherwise."[12] Other countries may have different requirements. For example, a

> Canadian supplier must provide a MSDS in the official language or languages requested by the purchaser or, when no preference is stated, in the language used in the course of the business transaction. Suppliers must have prepared MSDSs in both English and French by the time they begin selling the product in Canada. A request for an MSDS in both languages can be met by having information in both languages on a single MSDS or two MSDSs, one in English and one in French.[13]

Other questions involve labeling requirements. For example, must labels on small containers include all the information required to be included on a large container? OSHA specifically requires that the each hazardous chemicals container leaving the workplace be labeled, tagged, or marked.

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[8] 29 C.F.R. § 1910.1200(g)(2); *OSHA, supra,* note 2. *See also OSHA, supra,* note 1; *OSHA, supra,* note 3.
[9] 29 C.F.R. § 1910.1200(j)(1); *OSHA, supra,* note 2. *See also OSHA, supra,* note 1; *OSHA, supra,* note 3.
[10] With certain exceptions, "[c]hemical manufacturers, importers, distributors, and employers shall be in compliance with all modified provisions of this section no later than June 1, 2015…." 29 C.F.R. § 1910.1200(j)(2).
[11] 29 C.F.R. § 1910.1200(g)(2). Moreover, Haz Com "training must be comprehensible. If the employees receive job instructions in a language other than English, then the training and information to be conveyed under the HCS will also need to be conducted in a foreign language." *OSHA Frequently Asked Questions: Hazard Communication (HAZCOM),* https://www.osha.gov/html/faq-hazcom.html (last visited July 31, 2014).
[12] REACH Tit. IV (Information in the Supply Chain), Art. 31 (Requirements for safety data sheets), § 5 (Dec. 8, 2008), http://www.reachonline.eu/REACH/EN/REACH_EN/article31.html. To comply with REACH, companies must demonstrate to the European Chemicals Agency ("ECHA") how substance can be safely used, and they must communicate risk management measures to users. *ECHA: Understanding REACH*, http://echa.europa.eu/web/guest/regulations/reach/understanding-reach.
[13] *Health Canada: Material Safety Data Sheets,* (Aug. 28, 2009) http://www.hc-sc.gc.ca/ewh-semt/occup-travail/whmis-simdut/msds-fs-eng.php.

> Hazards not otherwise classified do not have to be addressed on the container. Where the chemical manufacturer or importer is required to label, tag or mark the following information shall be provided: (i) Product identifier; (ii) Signal word; (iii) Hazard statement(s); (iv) Pictogram(s); (v) Precautionary statement(s); and, (vi) Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party.[14]

Despite the extensive amount of information that is required to be included on labels, OSHA does not usually exempt small containers from the labeling requirement, relying instead on a "practical accommodation approach":

> In Revision 3 of the GHS … [t]he competent authority is given the discretion to implement changes that allow label preparers to reduce the required information to accommodate a small package size. OSHA did not propose to adopt such a provision, and has retained its current approach regarding small packages in the final rule… The practical accommodation approach OSHA has been utilizing addresses those situations where there is a valid issue, and ensures that workers receive all of the required information.
> …
> Ensuring that workers receive the required information may be accomplished in ways other than simply attaching it directly to each small container. OSHA will examine the situation to make sure that the information is associated with the proper containers, and that it is complete.[15]

OSHA confirmed this approach in a June 4, 2013 standard interpretation letter (sent to the National Institute of Standards and Technology):

- A key or numbering system linking each individual 5 mL vial or 50 mL bottle to an accompanying sheet(s) containing the required label information would not comply with the HCS labeling requirements and thus cannot be used on labels in place of required hazard information for shipped containers.

- A label cannot be affixed to a box containing ampoules/bottle of hazardous materials if the ampoules/bottles are too small for a label, because labels must be attached to a hazardous chemical's immediate container.

- Because labeling small shipped containers may be difficult, it can be accomplished with pull-out labels, fold back labels, tags, or other methods. While these may be more expensive than traditional glued on labels, increased cost is an unacceptable reason to avoid these labeling methods. As a practical accommodation, where it is not feasible to use such labeling methods containing all the required information, the shipped small container (i.e., the actual container holding the hazardous chemical) must contain the following at a minimum:

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[14] 29 C.F.R. § 1910.1200(f)(1). **The** (ii) through (iv) information must be located together on the label, tag, or mark. 29 C.F.R. § 1910.1200(f)(3). Labels also must be in English (other languages may also be included if appropriate). 29 C.F.R. § 1910.1200(f)(2).

[15] Hazard Communication, 77 Fed. Reg. 17727 (Mar. 26, 2012).

- Product identifier;
- Appropriate pictograms;
- Manufacturer's name and phone number;
- Signal word; and,
- Statement indicating the chemical's full label information is provided on the outside package.[16]

As the 2015 dates for full compliance with OSHA's GHS-aligned HCS approaches, additional question are likely to arise. We will continue to provide updates and insights on both the HCS and the GHS.

[16] OSHA Standard Interpretation Letter No. 1910.1200, https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=INTERPRETATIONS&p_id=28805 (June 4, 2013).