

OSHA's "HazCom" Overhaul

New product labeling and safety training requirements go into effect with major revisions to OSHA's HazCom standard to be consistent with the United Nations' Globally Harmonized System of Classification and Labeling of Chemicals (GHS)

by Stephanie Samulski, Project Manager of the Tile Council of North America, and Eric Astrachan, Executive Director of the Tile Council of North America

Tile installers, distributor warehouse staff and others who handle tile installation materials will soon notice new hazard and safety labels on buckets and bags. This change reflects the decision by the U.S. Occupational Safety and Health Administration (OSHA) to revise the U.S. Hazard Communication Standard (HCS), commonly known as "HazCom," to be consistent with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS). The GHS is a chemical labeling system developed over the course of more than a decade by a United Nations (UN) committee of international experts in diverse fields, including chemicals, worker safety and regulatory affairs. In the context of GHS, the word "chemical" refers broadly to all types of substances, products and mixtures, including tile installation materials such as mortars, grouts, sealers, mastics and any other chemical-containing products.

Resulting from this action by OSHA, tile installation materials manufacturers must now label their chemical-containing products — those for use in the U.S. — according to new HazCom labeling requirements derived from the GHS, or according to the labeling requirements of the Consumer Product Safety Commission (CPSC). Products sold to consumers, including through Big Box stores and the Internet, as many tile installation materials are, fall under the regulatory standards of the Consumer Product Safety Act, and a CPSC-compliant label must be used. Conversely, products that are not sold at all to consumers must incorporate the new GHS-based HazCom chemical warning labels on their packaging.

HazCom revisions also require employers of workers who handle chemical-containing products, including mortars and grouts, to implement a chemical hazard communication and safety training program for all products with GHS labels and most products with CPSC-compliant labels.

<p>Health Hazard</p> <ul style="list-style-type: none"> • Carcinogen • Mutagenicity • Reproductive Toxicity • Respiratory Sensitizer • Target Organ Toxicity • Aspiration Toxicity 	<p>Flame</p> <ul style="list-style-type: none"> • Flammables • Pyrophorics • Self-Heating • Emits Flammable Gas • Self-Reactives • Organic Peroxides 	<p>Exclamation Mark</p> <ul style="list-style-type: none"> • Irritant (skin and eye) • Skin Sensitizer • Acute Toxicity (harmful) • Narcotic Effects • Respiratory Tract Irritant • Hazardous to Ozone Layer (Non-Mandatory)
<p>Gas Cylinder</p> <ul style="list-style-type: none"> • Gases Under Pressure 	<p>Corrosion</p> <ul style="list-style-type: none"> • Skin Corrosion/ Burns • Eye Damage • Corrosive to Metals 	<p>Exploding Bomb</p> <ul style="list-style-type: none"> • Explosives • Self-Reactives • Organic Peroxides
<p>Flame Over Circle</p> <ul style="list-style-type: none"> • Oxidizers 	<p>Environment (Non-Mandatory)</p> <ul style="list-style-type: none"> • Aquatic Toxicity 	<p>Skull and Crossbones</p> <ul style="list-style-type: none"> • Acute Toxicity (fatal or toxic)

OSHA-compliant hazard pictograms (derived from the GHS)
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PRODUCTS WITH GHS LABELS

Whereas, according to OSHA, the 1985 HazCom standard “allowed chemical manufacturers and importers to convey hazard information on labels and material safety data sheets in whatever format they chose,” HazCom now provides specific criteria that manufacturers must use to determine hazards and classify chemical mixtures, as well as the exact words and images that must be used to communicate certain portions of that information, for products subject to HazCom labeling. Each chemical-containing product must bear a label that includes the requisite pictogram for the hazard, signal word(s), hazard statement(s), precautionary statement(s), such as proper material handling and first aid instructions, product identifier information and supplier identification.

For these products, manufacturers are also now required to provide revised material safety data sheets (MSDSs), which are now to be called “safety data sheets,” or SDSs. The new format for SDSs requires the inclusion of information in 16 categories, with some categories focused on human hazards like carcinogenicity, while others address environmental hazards such as aquatic toxicity.

In addition, for products subject to HazCom labeling, employers of workers handling those products must implement a chemical hazard communication program and related safety training. OSHA mandates that the program must incorporate information about the new labels on containers of chemical-containing products and the new SDSs for those products. And, employers must document how they will meet the new HazCom requirements in each of these areas.

PRODUCTS WITH CPSC-COMPLIANT LABELS

For chemical-containing products that are sold to consumers (not exclusively to industry professionals) and therefore bear a CPSC-compliant label, the same training and SDS rules apply as for products with GHS labels. The only exception to this would be for the limited instances in which a consumer product is used in the workplace “where the employer can show that it is used in the workplace for the purpose intended by the chemical manufacturer or importer of the product, and the use results in a duration and frequency of exposure which is not greater than the range of exposures that could reasonably be experienced by consumers when used for the purpose intended,” as given in the HazCom 2012 Final Rule (29 CFR 1910.1200 (b)(6)(ix)). Hand soap in the bathroom would be a common example.

Nevertheless, simply because a chemical-containing product is commonly used by consumers does not mean a SDS and worker training would not be required. For example, mineral spirits are sold to the public and are used by various construction trades. A training program related to mineral spirits and its potential hazards *may* not be required for a crew of tile installers who use it occasionally to touch up urethane caulk; but such a training program would be required for painters using it regularly to clean their brushes.



Electrical floor heating system

The Made in Italy alternative

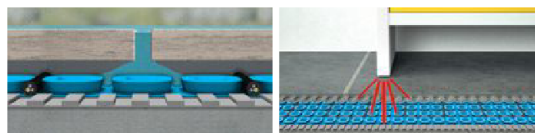
PRODESO HEAT SYSTEM by Progress Profiles combines the benefit of an underlayment membrane with the comfort and convenience of electrical radiant floor heating. The Prodeso Heat Membrane can be installed directly over the entire subfloor as an uncoupling, crack isolating and waterproofing membrane, making it possible to install underfloor electric heating even on problematic substrates such as wood and cracked screeds. The Prodeso Heat Cable is installed in the areas where heat is desired and tiling can begin immediately after the heating cable is in place. No additional steps are required.

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SAMPLE LABEL

<p>CODE _____ Product Name _____</p> <p>Company Name _____ Street Address _____ City _____ State _____ Postal Code _____ Country _____ Emergency Phone Number _____</p>	} Product Identifier	<p>Hazard Pictograms</p>  <p>Signal Word Danger</p>	
<p>Keep container tightly closed. Store in a cool, well-ventilated place that is locked. Keep away from heat/sparks/open flame. No smoking. Only use non-sparking tools. Use explosion-proof electrical equipment. Take precautionary measures against static discharge. Ground and bond container and receiving equipment. Do not breathe vapors. Wear protective gloves. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Dispose of in accordance with local, regional, national, international regulations as specified.</p> <p>In Case of Fire: use dry chemical (BC) or Carbon Dioxide (CO₂) fire extinguisher to extinguish.</p> <p>First Aid If exposed call Poison Center. If on skin (or hair): Take off immediately any contaminated clothing. Rinse skin with water.</p>	} Precautionary Statements	<p>Hazard Statements</p> <p>Highly flammable liquid and vapor. May cause liver and kidney damage.</p>	
		<p>Supplemental Information</p> <p>Directions for Use</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>Fill weight: _____ Lot Number: _____ Gross weight: _____ Fill Date: _____ Expiration Date: _____</p>	

A sample OSHA-compliant label
Courtesy of OSHA

tections in terms that everyone, worldwide, can understand, whether you are working with chemicals, manufacturing them, transporting them or supervising employees exposed to them,” stated Assistant Secretary of Labor David Michaels in a video on the OSHA website. The updated labeling “provides warnings that are clearer, necessary action more obvious and protections readily apparent.”

Similar intentions are behind the migration away from MSDSs. By providing more complete, easier-to-understand hazard information, the new SDSs are intended to serve as a more useful resource for general purposes and as a safety training aid.

There are also possible economic and trade-related benefits associated with harmonizing chemical-related standards across agencies, industry sectors and countries rather than maintaining numerous similar but independent regulations. “While the existing laws and regulations are similar, they are different enough to require multiple labels for the same product both within the U.S. and in international trade and to require multiple safety data sheets for the same product in international trade,” OSHA stated. Additionally, “several U.S. regulatory agencies and various countries have different requirements for hazard definitions as well as for information to be included on labels or material safety data sheets. For example, a product may be considered flammable or toxic by one agency or country, but not by another.”

OSHA optimistically estimates “savings of \$475.2 million from productivity improvements for health and safety managers and logistics personnel, \$32.2 million during periodic updating of SDSs and labels and \$285.3 million from simplified hazard communication training,” and another \$250 million a year for reduced fatalities and injury/illness.

But for now and the next few years, the costs of implementation to the tile industry, and other affected industries, will be significant. OSHA identifies four major implementation costs: classifying chemical hazards in accordance with the GHS criteria and revising SDSs and labels to meet new format and content requirements, train-

COMPLIANCE DEADLINES

Manufacturers are already changing their product packaging to conform to the new classification criteria and labeling requirements and are transitioning from providing MSDSs to SDSs in the new OSHA-specified format. Full conversion is expected in the coming months, with the June 1, 2015, deadline for new SDSs and labeling already passed; and a December 1, 2015, deadline approaching, after which, shipment of products in the U.S. labeled under the old system will be prohibited by OSHA. This deadline applies to any entity shipping a chemical-containing product, so it affects tile distributors, dealers, contractors and others in the industry, not just manufacturers.

Tile contractors, distributors, manufacturers and other employers that must implement chemical hazard communication and safety programs are required to update their product safety information continuously as new SDSs are made available by manufacturers. By June 1, 2016, employers are required to update their workplace labeling and hazard communication programs (such as posted signage in warehouses and shops), and to provide the applicable employee training, including newly identified physical or health hazards resulting from the new labeling, according to OSHA.

INTENDED BENEFITS

The updated OSHA HazCom regulations are not specific to the tile industry. Rather, the products used in the tile industry are among the thousands of chemical-containing products and mixtures that are subject to the new requirements, and tile industry workers are among the 43 million workers that OSHA estimates are involved in producing or handling hazardous chemicals in more than five million workplaces across the country.

Altogether, the new HazCom requirements form a strategy to prevent chemical exposure and chemical-related injury to humans and the environment by heightening worker awareness of the presence of chemicals in the products they use, the hazards associated with those chemicals and related precautions and first aid measures. According to OSHA, implementation of specific and standardized criteria for classifying chemicals according to their hazards, coupled with standardized labeling and new SDS formatting, will greatly improve worker safety by increasing worker awareness of chemicals associated with their jobs, especially for low and limited-literacy workers.

“Behind every image are uniform organization and classification systems that spell out the potential hazards and pro-

ing for employees to become familiar with new warning symbols and the revised SDSs, management familiarization with the new GHS system and engagement in related activities and higher printing costs for required color printing of HazCom labels. The agency estimates costs of about \$201 million a year to U.S. businesses for these types of expenses.

FOR MORE INFORMATION

The updated HazCom regulations are far-reaching and complex; companies should consult with legal or industry professionals for advice specific to their situation and consult the specific text of laws, statutes and regulations relevant to the issues discussed herein. This discussion is not intended to provide legal advice, nor, due to its general infor-

mational nature, should you rely on it as applying to any particular factual situation you may face. To learn more about the labeling, SDSs and safety training requirements, visit the OSHA website (www.osha.gov/dsg/hazcom/index.html), where several fact sheets and employer compliance guides are available, as well as links to the full text of HazCom and the GHS. **TILE**

ABOUT THE AUTHOR



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tile career began in 1999 as a tile layer apprentice with BAC Local 32 in Detroit, where she worked mainly on commercial installations for Shores Tile Co. Now with TCNA and CTEF, Stephanie works on industry standards as well as knowledge and installation curricula for training and certification programs.

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Astrachan is a recognized industry consultant and keynote speaker regarding the ceramic tile industry on issues relating to tile standards, tile installation, international tile trade and slip/fall litigation. He is a graduate of the Massachusetts Institute of Technology with a degree in Chemical Engineering.