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NEWSLETTER

OSHA Letters Would Expand OSHA's Reach Over Otherwise Exempt "Articles"

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Product Stewardship & Sustainability Report

In December, the U.S. Occupational Safety and Health Administration (OSHA) disclosed, for the first time, that OSHA does not consider lithium batteries to meet the definition of an "article" under that exemption from OSHA's Hazard Communication Standard. If it stands, this interpretation has major implications for the electronics industry and its customers.

The OSHA position was offered in interpretation letters sent to at least two private parties. As of the date of this publication, OSHA has not yet released the letters publicly. Historically, most companies have considered lithium batteries to be "articles" because of their sealed designs and near-zero risk of exposing individuals to chemicals or related risks. As a result, many—perhaps most—manufacturers do not supply Safety Data Sheets (SDS) or put OSHA labels on their products, although many voluntarily provide substantively similar information.

At a minimum, the new interpretation would mean that shipments of many workplace lithium batteries and lithium battery powered devices could require an SDS and OSHA labeling, and recipients' employees would have to be trained to understand the documentation and labels. Even some products intended for consumers might require an SDS or label in certain circumstances. OSHA's new letter references a 12-year old interpretation letter which answered a similar question with regard to lead-acid batteries:

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As OSHA explained in the 2004 [lead-acid battery] letter . . . lead-acid batteries cannot be considered articles because they have the potential to leak, spill, break, and emit hydrogen, which could result in a fire or explosion upon ignition. Similarly, lithium-ion batteries (or lithium battery-powered devices) on a whole, although sealed, have the potential to leak, spill, or break during normal conditions of use and foreseeable emergencies and expose employees to chemicals which can pose health (e.g., lithium cobalt, graphite) and/or physical (e.g., burns, fire) hazards, and therefore, cannot be considered an article.

OSHA therefore appears to consider the potential for exposure to the chemicals contained in a lithium battery, and/or the potential for a fire, to be similar to the potential for exposure to acid or explosion from lead-acid batteries. However, OSHA's letter provides no substantiation for that conclusion, and it does not say whether OSHA has performed any sort of testing of the panoply of lithium cells and batteries available.

At this point, therefore, industry is left to guess at OSHA's rationale. This is causing significant confusion about the agency's analysis. With regard to the potential for leaks, for example, many lead-acid batteries—such as car starter batteries—are heavy and filled with liquid acid. So the potential for droppage, damage to a plastic case, and human exposure is hard to dispute. But the same cannot be said for small form-factor lithium batteries.

Another potential concern is the potential for gas emission. Older lead-acid battery designs routinely allow venting of small amounts of gas formed during charging, but lithium battery designs only vent gases as an emergency safety measure in extreme circumstances. It is not clear why OSHA sees the risks to be similar.

Some have posited that OSHA's interpretation may be influenced by published news accounts of a limited number of dramatic lithium battery failures in Chinese-made hoverboards. Certainly, those incidents have not encouraged careful analysis.

OSHA's letters are careful to state that they do not create new or additional requirements but rather explain the Agency's view of its existing requirements. This raises important questions as to how those interpretations can be challenged and what potentially-regulated entities should be doing now to respond to them. PRBA-The Rechargeable Battery Association is developing a strategy to address these matters, in consultation with other industry trade associations.

Other industries also should be paying attention. While the direct impact of these letters will be on the lithium battery and electronics industries, OSHA's interpretation could also have wide-reaching importance for other industries manufacturing "sealed" products that today rely on the articles exemption. If OSHA's policy is to now consider even the rarest defect or failure event to be a "normal condition of use," other currently exempt products could also become subject to OSHA's Hazard Communication standards. This would open the door to the regulation of a vast array of products currently beyond OSHA's reach.