

Beryllium in Grinding Wheels

A DOE site has recently encountered beryllium as an unexpected additive in grinding wheels, hones and sticks. The problem was recognized during a review of manufacturer's material safety data sheets (MSDS) as part of the site's hazard communication program. The MSDSs indicated the presence of 0-2 percent beryllium in these products.

Five out of fifty grinding machines surface tested had a contamination greater than the analytical laboratory limit of quantification of 0.05 ug/100cm² with two samples exceeding 0.2 ug/100cm². According to the product distributor, only certain vitrified-bond grinding wheels, sticks, or hones contain beryllium. Lot numbers can also be used to determine the presence of beryllium.

Concentration of beryllium in these products varies. For example, one manufacturer's beryllium percentage ranges from 0.02 percent to a high of 0.14 percent depending on the product in question and the year of manufacture. In view of this, it is recommended that MSDSs for grinding wheels, hones and sticks be reviewed to determine whether they contain beryllium.

Additional information is available on DOE's Lessons Learned web site <http://www.tis.eh.doe.gov/ll/>. Click on the Lessons Learned link, enter R-2000-OR-LMESY12-0701 in the Lessons Identifier box, then click on Search.