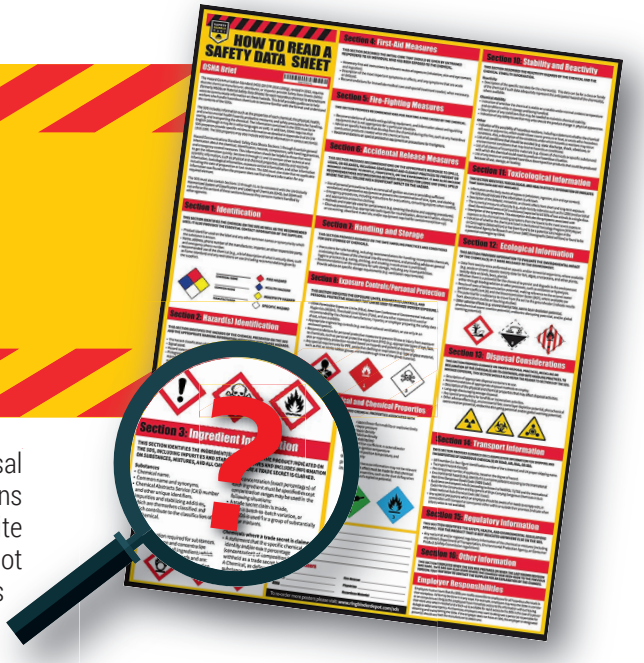
GDS Associates, Inc.
ENGINEERS & CONSULTANTS

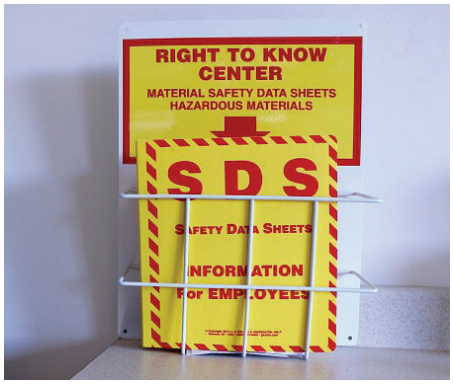
# Something Your SAFETY DATA SHEET Is NOT Telling You...




**Consider this scenario...** A generator sends waste off-site for disposal and is surcharged by the receiving facility due to hazardous concentrations of lead not disclosed on the waste profile. Regulatory agencies later cite the company for generating and shipping hazardous waste that was not correctly characterized, registered, labeled or manifested. The profile was based on generator knowledge and relevant **Safety Data Sheets (SDS)** to identify ingredients, so ***how did lead get into waste from a process thought to be lead-free?***

An investigation finds lead in one raw material at a concentration high enough to cause a **toxicity characteristic leaching procedure (TCLP) test failure** (EPA hazardous at 5.0 ppm for lead). When contacted, the manufacturer discloses that they knew of the lead content but were not required by OSHA to include it on the Safety Data Sheet. ***How can this be true when OSHA requires disclosure of hazardous ingredients?***

The OSHA Hazard Communication standard, in 29 CFR 1910.1200(g)(2)(iii), requires **"composition/information"** on ingredients classified as health hazards to be provided in **Section 3** of the SDS. Percentages must be exact unless a trade secret claim is made, there is batch-to-batch production variability or when representing a group of similar hazards and composition. The intent of this requirement is to allow workers and EHS and healthcare professionals to make informed evaluations of workplace hazards and exposures, but it turns out that disclosure of hazardous ingredients does not mean ***full*** disclosure.




Mandatory **Appendix A (Health Hazard Criteria)** of the Rule refers to **"relevant ingredients"** of a mixture as those present in concentrations of one percent (1%) or greater. That may seem insignificant until we understand that 1% equals 10,000 parts per million, which opens the door for a lot of unexpected TCLP failures and employee exposures. Imagine routinely controlling mineral or nuisance dust (no lead ingredients listed) in the workplace, with a relatively high exposure limit, and coincidentally discovering actionable lead results in workers in that department. Not only have you violated the OSHA requirements to develop and implement a lead exposure program, because you were not aware you needed one, workers have endured uncontrolled exposures for months or years.

Mandatory **Appendix D** (SDS) of the Rule states that the identification requirement for hazardous ingredients applies when ingredients **"are present above their cut-off/concentration limits or present a health risk below the cut-off/concentration limits."** With these values commonly set at 0.1% for carcinogens, even components known to cause cancer are not disclosed at up to 1,000 ppm, if not construed by the manufacturer as a hazard at some lesser concentration.

The lesson here is that while Safety Data Sheets serve many useful purposes, they are not a substitute for detailed analysis. Even a Certificate of Analysis (COA) from the manufacturer might not include all constituents of concern since COAs are focused on product quality and specifications (i.e., what we told you is in there really is in there).

**The best option is to sample materials yourself when trying to anticipate or resolve exposures or detections of a mysterious nature as in these real-world examples.**

When in doubt...always ask a trusted subject matter expert for assistance. ■

**Scott Harris, PhD**
Associate Director
of EHS Services

For more information, contact Dr. **Scott Harris** at **512.494.0369** or email: **scott.harris@gdsassociates.com**
GDS Associates, Inc. • 919 Congress Avenue • Suite 1110 • Austin, Texas 78701 • 512.494.0369 • **www.gdsassociates.com**