

WEEKLY SAFETY TIP – 1/10/11 – DOES FLAMMABLE = COMBUSTIBLE?

Recently, one of our online students sent a note to their Remote Instructor™ relating that their school aged child brought home a vocabulary book. This vocabulary book said that the terms flammable and combustible were the same and the terms were interchangeable. For many people, this seems to be true. But is it? Does the term “flammable” mean the same as the term “combustible”?

If you look up the definition of “flammable” on Dictionary.com, it states “easily set on fire; combustible.” (To check it out for yourself, here’s the link: <http://dictionary.reference.com/browse/flammable>).

However, if you go to the definitions of Flammable and Combustible in the Hazard Communication standard, 29 CFR 1910.1200(c) (linked here: http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10099), it says something different. The definition contains temperatures, and breaks the definition down further into gases, liquids and solids. And it does not say that flammable and combustible are the same.

So, which is correct? Are we saying that dictionaries and school textbooks are wrong?

Not exactly. If you don’t need to be concerned about the safety of a material, maybe you don’t need to know if it is flammable or combustible. However, according to OSHA, there’s a difference between the two terms. And to work safely, you need to know what that difference is.

A Flammable Liquid is one that has a flash point below 100 degrees F. A Combustible Liquid has a flash point at or above 100 degrees F. Remember, a flash point is where the liquid gives off vapors in a sufficient quantity to catch on fire in the presence of an ignition source.

Let’s say you are working on a loading dock. The temperature is a nice warm 68 degrees. You are driving a forklift, and are unloading a pallet of gallon-sized containers of Gasoline. You read the Material Safety Data Sheet (MSDS) that comes with the shipment, and see that Gasoline is a Flammable Liquid with a flashpoint of around -45 degrees F (depending on the MSDS). Does that make you want to be very careful to not spill any Gasoline in a warm atmosphere while there’s an ignition source present, like the forklift you are driving? Yes, it does.

On the other hand, what if you had a gallon of Diesel fuel in the above scenario? It’s a Combustible Liquid. The flash point of Diesel is about 125 degrees F (again, depending on the MSDS). While you don’t want to have to spill or clean up any material, would you have the same fire hazard if you spilled a gallon of Diesel? No, it is not the same level of hazard.

Paying attention to the little details of a definition, especially when it relates to hazardous materials and safety makes a big difference. To help you, we have placed our Glossary of Hazardous Materials terms on our Tip of the Week page on our website. You can download it, and a pdf of this safety tip by following this link: http://www.scm-safety.com/weekly_tips.html.