

# WEEKLY SAFETY MEETING

FOR THE CONSTRUCTION INDUSTRY



SAFETY MEETING OUTLINES

Box 700, Frankfort, IL 60423

815-464-0200

No. 34

Vol. 21

Week of 8/21/2023

Company Name \_\_\_\_\_ Job Name \_\_\_\_\_ Date \_\_\_\_\_

## FLAMMABLE LIQUIDS

Flammable liquids are used on most construction sites. Functionally, a flammable material is one that will catch fire easily and burn fast. Inflammable, although it may sound like it means the opposite, means essentially the same thing. These materials present very serious fire and injury hazards. When you see either word on a can, tank, or drum, you must keep fire, sparks, and other sources of ignition away from that container.

A fact that may surprise many people is that flammable liquids themselves do not burn; their vapors burn. In particular, this means that even an apparently empty container could catch fire or explode if it still contains flammable vapors. Note too that since it's the vapors that ignite, the spark or flame doesn't need to touch the liquid to start a fire. For example, a construction worker needed to do a small welding job on a nearly empty 55-gallon drum. He rolled it outside, disposed of the remaining contents, and left it there to air out. The next morning when he began welding, the vapors remaining in the drum ignited and the drum exploded. The worker was seriously injured and had to be hospitalized.

All liquids evaporate. Whenever you have a container of any kind of liquid, you can be sure that there are some vapors in the air just above the surface of the liquid. If it's a flammable liquid, then these vapors will burn violently if ignited. The vapor-air mixture is what would catch fire if you lit a match near an open can of gasoline. The leanest vapor-air mixture that will burn is called the lower explosive limit of a substance. The richest mixture is called the upper explosive limit. The spread between the two is called the explosive range. If ignited in the open, vapor-air mixtures in the explosive range will likely produce a big puff and a sheet of flame. While there is no explosion, the heat and flame can cause burns and damage equipment. Inside a building or tank however, the pressure builds in a fraction of a second, resulting in an explosion.

Remember, your safety depends on using flammable materials with caution. Read the appropriate material safety data sheets. Never smoke around any flammable materials. Store them only in approved, labeled containers. Keep container lids closed. Clean up spills promptly. Know the locations of fire extinguishers, how to use them, and how to report a fire. Using flammable materials is an everyday occurrence — avoid fires, explosions, and injuries by handling them safely.

## SAFETY REMINDER

**Your best defense against accidents is  
your knowledge and use of safe practices.**

Special Topics For Your Project \_\_\_\_\_

Employee Safety Recommendations \_\_\_\_\_

Reviewed MSDS # \_\_\_\_\_ Subject \_\_\_\_\_

Meeting Attended By \_\_\_\_\_

Supervisor's Signature \_\_\_\_\_

These instructions do not supersede local, state, or federal regulations.