Safe Handling of Flammable Liquids Stats and Facts



FACTS

1. Flammable liquids are defined by their ability to emit enough flammable vapours to ignite at temperatures below 60 °C. In the presence of an ignition source, these vapours can quickly ignite and cause a fierce, fast burning fire.
2. When working with Class 3 Dangerous Goods, it’s vital that all personnel who handle these substances are made aware of the risks. To stay safe and compliant, staff, supervisors and even contractors must all be educated in flammable liquids safety so they can maintain the correct handling and storage procedures.
3. Due to the low flash point of flammable liquids, they can ignite at low temperatures – including room temperature. This means that flammable chemicals pose a serious risk that must be controlled whenever workers are delivering, transferring, handling, dispensing, and storing these flammable liquids.
4. Hazards that flammable liquids present on the workplace include:

- Environmental damage from spills
- Asphyxiation from inhalation of flammable vapours
- Fires from the ignition of flammable vapours
- Violent chemical reactions from the mixing of incompatible chemicals

STATS

- Ignorance and complacency are the cause of most flammable chemical accidents. A study conducted by the National Fire and Protection Association that linked 454 deaths and 3,910 injuries to flammable and combustible liquid fires.
- Flammable or combustible liquids cause more than 51,000 home fires each year, resulting in 168 deaths, 1,029 injuries and $644 million in property damage, according to estimates by the National Fire Protection Association.
- Gasoline was responsible for an average of 7,960 fires at homes per year—the third-largest category of flammable liquids. However, it accounts for relatively few (6%) of all home structural fires. This is because gasoline tends to cause a large number of outdoor and vehicle fires. 30% of home gasoline fires were structural, 33% were vehicle fires, and 37% were outdoor fires.
- Of the 94,735 burns identified in its burn registry data base, 17,507 injuries originated from flammable liquid fires. The review showed that 53,000 of the burn injuries occurred in the home, approximately 8500 of those involved the ignition of flammable liquids, and more than 2500 of those involved the use of a flammable liquid as a cleaning or repair agent.

- The tragedy of flammable liquid and vapor fires is due to the severity of burn injuries. The NBIE study found that 65 percent of the fires were preceded by an explosion causing greater burn injury and damage. Survivors had burns to 25 % of their body, and 11 % had full thickness burns.