



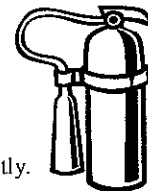
Company Name: \_\_\_\_\_ Job Site Location: \_\_\_\_\_  
 Date: \_\_\_\_\_ Start Time: \_\_\_\_\_ Finish Time: \_\_\_\_\_ Foreman/Supervisor: \_\_\_\_\_

**Topic 37: Flammable and Combustible Materials**

**Introduction:** On any given workday, at any typical worksite, many types of flammable or combustible liquid materials may be encountered. Many people are killed or injured on the job each year due to fires or explosions caused by unsafe handling and storage of volatile liquids. Fuel for generators, compressors, and other powered equipment along with solvents, spray sealants, and preservatives are extremely hazardous when used in an unsafe manner. OSHA defines flammable, combustible, and flashpoint as follows:

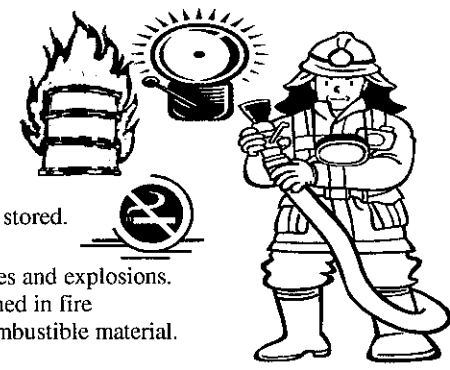


- **Flammable** means capable of being easily ignited, burning intensely, or having a rapid rate of flame spread.
- **Flammable liquids** means any liquid having a flash point below 140° F. and having a vapor pressure not exceeding 40 psi (absolute) at 100° F.
- **Combustion** means any chemical process that involves oxidation sufficient to produce light or heat.
- **Combustible liquids** mean any liquid having a flash point at or above 140° F. and below 200° F.
- **Flash point** of the liquid means the temperature at which it gives off vapor sufficient to form an ignitable mixture with the air.



Follow these safe work practices when handling or storing flammable and combustible materials:

- All spills of flammable or combustible liquids must be promptly cleaned up.
- Combustible scrap, debris, and waste materials must be stored in covered metal receptacles and removed from the worksite promptly.
- Proper storage methods must be used to minimize the risk of fire and spontaneous combustion.
- Approved containers and tanks shall be utilized for the storage and handling of flammable and combustible liquids.
- All seals and connections on drums and combustible liquid piping (vapor and liquid) must be tight.
- Flammable liquids shall be kept in closed containers when not in use.
- Storage lockers and cabinets must be of the approved type and shall be labeled in conspicuous lettering, "Flammable - Keep Fire Away".
- Storage rooms for flammable and combustible liquids must have explosion-proof lights and have mechanical or gravity ventilation.
- Withdrawal and transfer of flammable or combustible liquids must be performed by trained personnel.
- Approved "safety cans" must be used for dispensing flammable or combustible liquids. ("Safety can" means an approved closed container, of not more than 5 gallons capacity, having a flash-arresting screen, spring-closing lid, and designed to safely relieve pressure when subjected to heat.)
- Safe work practices must be followed when liquid petroleum gas is stored, handled, and used.
- Liquefied petroleum storage tanks shall be guarded to prevent damage from vehicles or equipment.
- All solvent wastes and flammable liquids must be kept in fire-resistant, covered containers until they are removed from the worksite.
- Fuel-gas cylinders and oxygen cylinders must be separated by distance, fire-resistant barriers, or other means while in storage.
- Fire extinguishers must be provided for the type of materials they extinguish, and placed in areas where they may be used.
- All fire extinguishers must be fully charged, in their designated places, and free from obstruction or blockage.
- Fire extinguishers must be mounted so that employees do not have to travel more than 75 feet for a Class A fire or 50 feet for a Class B fire.
- Appropriate fire extinguishers shall be mounted within 75 feet of outside areas containing flammable liquids, and within 10 feet of any inside storage area for such materials.
- All fire extinguishers shall be serviced, maintained, and tagged at intervals not to exceed one year. A record of required monthly checks of extinguishers must be maintained.
- All employees must be trained in the use of fire extinguishers.
- Where sprinkler systems are permanently installed, the nozzle heads must be directed or arranged so that water will not be sprayed into operating electrical switchboards and equipment.
- NO SMOKING signs must be posted in areas where flammable or combustible materials are used or stored.
- NO SMOKING rules shall be enforced in areas involving storage and use of flammable materials.



**Conclusion:** Proper handling and storage practices for flammables and combustibles reduce the risk of fires and explosions. For their own safety and that of others, all workmen exposed to volatile material should be thoroughly trained in fire prevention and fire protection. Follow these guidelines for safe storage and handling of flammable and combustible material.

**Work Site Review**

Work-Site Hazards and Safety Suggestions: \_\_\_\_\_  
 Personnel Safety Violations: \_\_\_\_\_

**Employee Signatures:** \_\_\_\_\_ (My signature attests and verifies my understanding of and agreement to comply with, all company safety policies and regulations, and that I have not suffered, experienced, or sustained any recent job-related injury or illness.)

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Foreman/Supervisor's Signature:** \_\_\_\_\_  
 These guidelines do not supercede local, state, or federal regulations and must not be construed as a substitute for, or legal interpretation of, any OSHA regulations.