

Toolbox Safety Topic

Flammable Liquid Safety

Flammable liquids are used in many different ways. They present unique hazards to the people that use them. Flammable liquids can cause a fire or explosion, and like many other substances, they can also cause serious health effects from overexposure.

Flammable liquids are liquids with a flash point of less than 100°F. The flash point is the lowest temperature at which a liquid gives off enough vapor to form a flammable mixture with air. On the NFPA diamond label, a fire hazard rating of three or four denotes a flammable liquid. Other labels used to identify flammable liquids are red with appropriate wording and they usually contain a fire symbol.

The vapors of a flammable liquid often present the most serious hazard. The vapors can easily ignite or explode. Flammable liquid vapors are heavier than air and may settle in low spots, or move a significant distance from the liquid itself.

The explosive concentration of vapors in air has a lower and upper limit. The lower explosive limit, or LEL, is the lowest concentration that will ignite. The upper explosive limit, or UEL, is the highest concentration that will ignite. If the vapor concentration is between the LEL and UEL, there is serious risk of fire or explosion.

To minimize the risk of ignition of the flammable liquid or vapors, follow these precautions:

- Always check the MSDS for the material you're using to understand the specific hazards involved.
- Store flammable liquids in cool, well-ventilated areas away from corrosives, oxidizers, and ignition sources.
- Label all containers and cabinets with appropriate "flammable materials" signs.
- Never smoke in an area where flammable liquids are used or stored.
- Minimize the amount of flammable liquids used.
- Use only approved safety cans to store flammable liquids.
- Ground and bond flammable liquid containers to prevent static charge buildup.
- Never pour flammable liquids down a drain or sink.
- Dispose of empty flammable containers in an approved manner.
- Wear appropriate personal protective equipment such as splash aprons and goggles when handling flammable liquids.

Flammable liquids also present health hazards from overexposure. The Material Safety Data Sheet (MSDS) for the material you're using will list the allowable exposures. Overexposures to flammable liquids can cause a variety of effects.

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Inhalation of flammable liquids can cause irritation to the respiratory passages, nausea, headaches, muscle weakness, drowsiness, loss of coordination, disorientation, confusion, unconsciousness, and death.

Skin contact with flammable liquids can cause the skin's oils to be removed, resulting in irritated, cracked, dry skin, rashes, and dermatitis.

Eye contact with flammable liquids can cause burning, irritation, and eye damage.

Ingestion of flammable liquids can irritate the digestive tract, cause poisoning, and death.

Appropriate personal protective equipment (PPE) can help prevent exposure to flammable liquids. Use PPE faithfully to protect your good health.

Flammable liquids are used widely in many workplace and home situations. Careless mistakes and safety shortcuts lead to serious problems when it comes to flammable liquids. Their hazards are deadly. Flammable liquids deserve a healthy respect for their dangers. When you use them, be on guard against the hazards. You can prevent problems from occurring by using your good sense and following the MSDS precautions, and the instructions contained in this week's Tail Gate Safety Topic.

Date: _____

Meeting Conducted By: _____ Title: _____

Attendees

#	NAME	#	NAME
1		10	
2		11	
3		12	
4		13	
5		14	
6		15	
7		16	
8		17	
9		18	