



Toolbox Talk: Flammable Storage at Home

Introduction/Overview:

Most of us would be surprised by the amount of flammable material found in most homes, and most of these materials are usually not stored as outlined on the labels.

We are aware of common flammable materials such as gas and oil. But have you given thought to what other flammable materials are in your home? Have you given thought to combustible material that is left near flammable materials? How about sources and conditions that may ignite these materials?

This toolbox is designed to highlight these often-neglected questions and help you create a safer home environment.

Statistics:

Most people may think that fires mainly occur in business, but the truth is most fires and fire-related fatalities occur at home. According to the Nation Fire Protection Administration (NFPA), [80%](#) of all fire deaths occur at home.

Another misconception is how people die in fires. Most people [die by smoke inhalation](#) and not burns. Different materials, when burning, give off gases that can cause death in very short time frames.

Talking Points:

Common ways to ensure flammable materials do not ignite include:

- Remove all ignition sources.
- Keep matches from children.
- Secure flammable materials from children.
- Provide ventilation.
- Store in approved containers.
- Never store in glass containers.
- Separate incompatible materials.
- Never store in large quantities.

Gasoline storage

- The composition of the container should be made of metal or hard plastic.
- Never store gasoline in plastic bags, glass, or other non-approved containers.
- The container should be made for gasoline storage and have “gasoline” printed on the side.

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- Metal safety cans should have a flame arrester and spring-loaded lid.
- Containers should contain no more than five gallons of gas.
- Most residential fire codes do not allow for storage of over [25 gallons](#) at a residential home.
- All ignition sources, including smoking, should be from gasoline storage.
- Never store gasoline inside the home or in a basement.
- Never store or mix with [bleach](#).

Some other common flammable materials that are stored in garages include:

- WD-40
- Oils and lubricants
- Paint
- Wood stains

Remember that all of these chemicals should be stored in the original containers.

The chemicals listed below are usually stored in the home. Special care should be given to the use and storage of these materials. Keep all ignition sources away from these materials. Burning candles, incense, lit smoking products, matches, pilot lights, and other ignition sources may ignite these materials:

- Furniture polish
- All aerosols
- Rubbing alcohol
- Hair sprays
- Non-dairy creamers (Made mostly from flammable fat, in the powdered form, it has a [high surface to oxygen ratio](#), never throw on fire)
- Flour ([explosive](#), it has a high surface to oxygen ratio, never throw on fire)
- [Fabric softeners](#) (HMIS and NFPA flammability of 2 or moderate flammability)
- Bleach ([Never store near gasoline](#))

Additional Discussion Notes:

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Final Thoughts:

Improper flammable material storage may result in property loss and injuries, including the loss of life. Always ensure flammable liquids are stored in the proper containers and the appropriate amounts. Ensure adequate ventilation, remove ignition sources, and ensure these materials are secured from children.

NOTE: Always promote discussion with the attendees. If a question comes up that no one in attendance can answer, please contact DHRM/WCS/Loss Control Consultants for assistance.

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References:

Fire inhalation deaths; 80% of fire deaths at home in the United States; distances from ignition sources

<https://www.nfpa.org/News-and-Research/Publications-and-media/Press-Room/Reporters-Guide-to-Fire-and-NFPA/Consequences-of-fire>

Gas storage tanks and amounts stored in residential areas

<https://www.gsctanks.com/residential-gasoline-storage-tanks/>

Non-dairy creamer combustible/flammable

<https://firefighterinsider.com/non-dairy-creamer-flammable/>

Flour explosive

<https://awesci.com/harmless-flour-is-an-incredibly-explosive-substance/>

Bleach and gasoline storage

<https://www.gizmoplans.com/bleach-and-gasoline/>

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HMIS and NFPA fire ratings

https://pgproductsafety.com/productsafety/sds/SDS_2018/SDS_Oct_2018/Downy_Professional_Unscented_Fabric_Softener.pdf

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