



**OFFICE OF THE FIRE MARSHAL (BFP)**

**Oil Soaked Rags**

**Subject: Spontaneous Combustion Fires**

**18-06**

**Approved:**

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Oily rags disposed of in household garbage or left in open containers can present a serious risk of fire. Unfortunately, a large majority of people do not believe that oily rags left undisturbed can ignite all by themselves without the presence of an ignition source, such as a spark or lighted match. Oily rags stored in a waste can or discarded in a pile on the floor, can ignite without any assistance from a separate ignition source. This is known as spontaneous combustion.

The dictionary defines spontaneous combustion as the ignition of organic matter (e.g., hay or coal) without apparent cause, typically through heat generated internally by rapid oxidation. Most people become familiar with this when they stain their wood floors or wood cabinets with oil based stains and then forget to dispose of them in a proper way to prevent their ignition. When the rags are disposed of in an improper manner such as throwing them into the garbage or leaving them in a pile, they can ignite and spread fire throughout the structure. Please see the attached flyer from the NFPA for proper safety practices concerning safety with oily rags. Remember to read the safety labels on all stains, varnishes, boiled linseed oils and other materials that are prone to spontaneous combustion when you undertake any home renovation project.

# Safety with Oily Rags

wet with flammable or combustible liquid

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**Oil based paints, stains and varnishes are often used for home improvement projects. It is common to use rags to wipe up spills or clean brushes. But wet rags can ignite on their own. They can start a fire if not handled carefully. The same is true of the liquids themselves.**

## **How can rags start a fire?**

The oils commonly used in oil-based paints and stains release heat as they dry. If the heat is not released in the air, it builds up. That is why a pile of oily rags can be dangerous. As the rags dry, the heat is trapped. The heat builds up and finally causes a fire. Be aware that this does not happen with water-based finishes.

## **How can liquids start a fire?**

Vapors from flammable and combustible liquids can ignite, causing a fire. There are many commonly used flammable liquids. Gasoline, lacquers, and nail polish are just a few examples. There are many commonly used combustible liquids. Paint thinner, kerosene, and oil-based paints and stains are some examples.

## **RAGS WET WITH PAINT AND STAIN**

- Never leave cleaning rags in a pile. At the end of the day, take the rags outside to dry.
- Hang the rags outside or spread them on the ground. Weigh them down. Do this so they do not blow away. Make sure they are not in a pile. Keep them away from buildings.
- Put dried rags in a metal container. Make sure the cover is tight. Fill the container with a water and detergent solution. This will break down the oils.
- Keep containers of oily rags in a cool place. Keep them out of direct sunlight. Keep them away from other heat sources. Check with your town for information on disposing of them.

## **LIQUIDS THAT CAN CATCH FIRE**

- Flammable and combustible liquids should not be used near an open flame. Do not smoke when working with these liquids.
- If you spill liquids on your clothing, remove your clothing and place it outside to dry. Once dry, clothing can be laundered.
- Keep liquids in their original containers. Keep them tightly capped or sealed. Never store the liquids in glass containers.

## **GASOLINE**

- Use gasoline only as motor fuel. Never use it as a cleaner. Never use it to break down grease. Never bring gasoline indoors, even in small amounts.
- Store gasoline ONLY in a container that is sold for that purpose. Make sure the container is tightly capped when not in use. NEVER store gasoline containers in a basement or in the occupied space of a building. Keep them in an outbuilding, a detached garage, or a shed outdoors.

## FACTS

**A**n average of 1,600 home fires per year are caused by instances of spontaneous combustion or chemical reaction

**A**n average of 800 home fires per year are started when oily rags catch fire or are ignited.

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**NATIONAL FIRE**

**PROTECTION ASSOCIATION**

The leading information and knowledge resource  
on fire, electrical and related hazards

Respectfully,



**J.A. Abbruzzese**

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