

Oily Rag Fire Prevention

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Consulting on fire hazards in business operations almost always leads to a discussion about the hazard of oily rags starting a fire. While this topic may seem like a self-perpetuating myth, the reality is that these fires do occur. While vehicle service operations are the most commonly thought of businesses with this hazard, many others exist including wood working where painting and staining occurs, spas and fitness centers, and restaurants, to name a few.

While an oily rag on its own is not inherently dangerous, a pile of oily rags can become dangerous quickly. The longer these soaked rags are allowed to sit on top of each other the warmer they become. Without adding an exterior heat source the rags themselves will begin to heat up through the process of oxidation; a chemical reaction. If conditions are right they can combust and quickly destroy equipment or buildings.

What many business owners and their employees don't realize is that clean rags can also spontaneously combust. This is most common for those businesses that clean their own towels and rags used within operations. Rags cleaned on site in what are typically home washers and dryers generally come out with oily residue still on them. If allowed to sit in dryers after their cycle or in piles within the building they can maintain the heat present and create their own. This often results in a fire which can quickly engulf the building. For this reason laundry should never be allowed to sit overnight or unattended for long periods of time within dryers if towels are cleaned on site.

The best way to avoid the hazard present with self-combustion in oily rags is outsourcing the cleaning to commercial cleaners who specialize in the proper cleaning of these items. These cleaners use commercial washers and dryers and detergents that are better able to remove the oily residue left behind by non-commercial cleaners.

Before oily rags can be collected by the cleaning company, they should be stored in approved oily rag cans. These are a cost effective way to contain the risk of spontaneous combustion, they also provide the necessary means to extinguish a fire that does start when in proper working order. They should be equipped with a foot release to open the lid and a self-closing feature so they cannot be left open accidentally. Additionally, multiple cans should be used for separation of different types of hazards; specifically alcohol-soaked rags should not be mixed with acid-soaked rags.



Why is the self-closing lid important? To have a fire you need three items: fuel (the rags), an ignition source (naturally generated heat from the rags) and oxygen, the result is a chemical reaction or fire. The self-closing lid is designed to reduce the oxygen supply so that even if a fire starts it will quickly run out of oxygen and go out on its own while remaining in the container. The cans are also designed with air circulation ports on the bottom to better ensure the escape of heat within the container.

Finally, a laundry policy should be in place for the business to establish best practices for handling oily rags whether dirty or clean. It should clearly state where oily rags are to be stored, what to do if the containers are too full to remain closed and if rags are cleaned on site proper dryer use, removal and subsequent storage of clean rags. Employees should be instructed to always use oily rag containers to prevent fires and maintain good housekeeping practices. Ensuring there are enough containers for the needs of the operation will help prevent overfilling the containers and negating the protective qualities of the self-closing lid. Finally, if the lids are broken or the cans become damaged they should be replaced to ensure the best fire protection possible.

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