



Improperly Stored Oily Rags Can Spontaneously Combust

Some people do not realize that oily rags can instantaneously combust if improperly stored. How does that happen?

Oily rags left in an open container can become a safety nightmare. Many people do not believe it can happen. For no apparent reason, fire erupts, usually during off hours – as the materials have had time to react. It is called spontaneous ignition or combustion. The three essentials a fire needs to ignite are heat, fuel, and an oxidizing agent or source (usually oxygen from the air around us).

Spontaneous combustion or spontaneous ignition is a type of combustion which occurs by self-heating (increase in temperature due to exothermic internal reactions), followed by thermal runaway (self-heating which rapidly accelerates to high temperatures), and finally, auto-ignition.

It's important to remember spontaneous ignition/combustion can not only happen in industrial accounts, but anywhere oily/solvent rags are used and stored improperly. In simpler terms, spontaneous ignition/combustion occurs when a combustible object is heated to its ignition temperature by a chemical reaction involving the oxygen in the air around us. This "oxidation" process creates heat that, if not dissipated, will build up until ignition occurs. Generally, this can happen when the materials are left in piles and the heat being generated in the pile cannot be released into the air.

The most common occurrences happen when oily rags (meaning solvents, cleaning oils, even vegetable oils) are not put in oily waste cans. OSHA recommends oily or solvent soaked rags be stored in a covered metal or

polyethylene oily waste can. The lids stay closed to help prevent the spontaneous ignition/combustion. To be OSHA compliant (General Industry), it is recommended that these cans should be emptied daily. In our observations from site walk-throughs, most of our customers do not comply with this regulation. Here are some of the OSHA references:

General Industry

OSHA 29 CFR 1910.106(e)(9)(iii): Waste and residue. Combustible waste material and residue in a building or unit operating area shall be kept to a minimum, stored in covered metal receptacles and disposed of daily.

OSHA 29 CFR 1910.125(e)(4)(ii & iii): Rags and other material contaminated with liquids from dipping or coating operations are placed in approved waste cans immediately after use; and waste can contents are properly disposed of at the end of each shift.

Construction

OSHA 29 CFR 1926.252(e): All solvent waste, oil rags, and flammable liquids shall be kept in fire resistant covered containers until removed from worksite. *(NOTE: This does not make mention of removing the oily rags daily like it does in General Industry)

We offer a variety of options of oily waste cans for our customers to use. You can check out these options on our website:

<https://www.conney.com/search/oily%20wast%20can>



They vary in style for both foot operated or tabletop models. If you are not using them or emptying them daily, under General Industry OSHA rules, you are not OSHA compliant.

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