

FIRE AND FURY: Recovery Opportunities Arising from Spontaneous Combustion Losses

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Fact or Fiction?

- A pile of dirty rags spontaneously catches fire in someone's garage
- Round bale bales stored in a farmer's field go up in flames
- Smoke can be seen coming from a city's large compost pile
- Recently laundered hotel linens ignite on shelving

Spontaneous Combustion

- **NFPA 921 Definition:** Ignition of a material by an internal chemical or biological reaction that has produced sufficient heat to ignite the material
- Oftentimes associated with different types of chemical products:
 - Oil based stains, coatings, finishes
 - Especially containing linseed oil

Materials Capable of Spontaneously Combusting

- Alfalfa meal
- Animal hides
- Castor oil
- Charcoal
- Coal
- Compost piles
- Cottonseed oil
- Fertilizers
- Fish meal
- Fish oil
- Hay
- Lanolin
- Lard oil
- Linens and towels
- Linseed oil
- Manure
- Metal powders
- Olive oil
- Peanut oil
- Pistachio nuts
- Powdered eggs
- Rags
- Soybean oil
- Used burlap
- Whale oil

2011 NFPA Statistics

- Lack of consumer knowledge about risk is documented.
- Average of 14,040 fires per year between 2005-2009 in the United States due to spontaneous combustion.
- The most common item first ignited in residential fires is oily rags.

How Combustion Occurs

- A substance with relatively low ignition temperature begins to release heat
- The heat is unable to escape and the temperature of the material rises
- The temperature of the material rises above its ignition point
- Combustion begins if sufficient oxygen and a fuel load are present to maintain the reaction into thermal runaway

How is it Prevented?

- Wash rags thoroughly to prevent excess product
- Flatten and spread out rinsed rags for at least 24 hours until completely dry to allow heat to dissipate in air until oil is fully cured
- Soak contaminated rags in a sealed water filled metal container (inhibits oxidation)
- Store piles of hay, compost or mulch away from buildings and keep piles small to allow air to circulate
- Completely dry hay before baling and storing
- Put linens through a cooling cycle or spread in single layers

Common Loss Scenario

- Relates to wood stain type products containing linseed oil
- Product user is typically unaware of spontaneous combustion fire potential associated with the product
- Unintentionally leaves the contaminated material in a condition where they self-heat to ignition

Potential Liability: Manufacturers

- Failure to warn:
 - Must warn of fire hazard potential
 - Must warn of steps necessary to prevent a fire from occurring
 - The probable consequences of failing to comply
 - Should allow a user to make an informed decision with regard to the product's use and associated risks

Canadian Legislation

- Canada's *Consumer Chemical and Container Regulations* (Sor/2001-269):

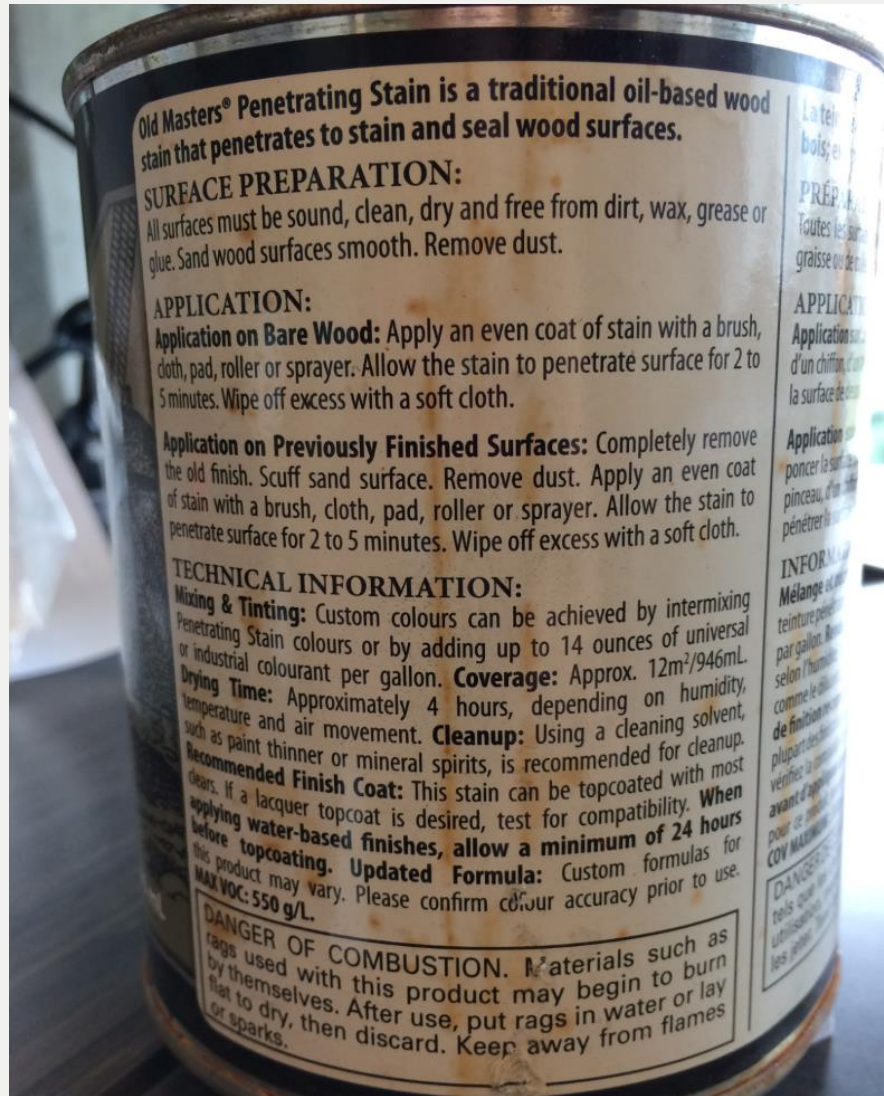
DANGER OF COMBUSTION

Materials such as rags used with this product may begin to burn by themselves. After use, put rags in water or lay flat to dry.

Compliance with Legislation

- Canada: mandated notice requirements for hazardous products are considered *minimum* standards. Depending on the circumstances of a particular case, more may be required.
- US: law on the point is mixed, with some courts finding that labels following legislative guidelines are adequate as a matter of law; others disagree.

Issues



- For how long?
- What to do after?
- How to store for re-use?
- How to safely discard?
- Case example.

Common Defense

- Compliance with legislation is the most common defence
- But consider
 - Supplemental language / Additional instructions
 - How conspicuous is the warning
 - Is the warning consistent
 - Formatted to appear as a warning
 - Is spontaneous combustion defined
 - How is the product sold

Exemplar On-Product Warning

|  WARNING | |
|---|---|
|  | <p>Spontaneous Combustion Fire Hazard!</p> <ul style="list-style-type: none">• Rags, steel wool, clothing, mops, and waste used to apply or clean up Old Masters Penetrating Stain can self heat causing a fire without an ignition source such as a spark or a flame.• Immediately after use:<ul style="list-style-type: none">➤ Wash all items thoroughly in water. Spread out materials outside to dry. Flatten the material to its full size for at least 24 hours at temperatures above 4° C. Ensure items are completely dry before disposing. <p>or</p> <ul style="list-style-type: none">➤ Soak soiled rags and waste in a water-filled, closed metal container. Dispose of container in accordance with local regulations. |

Potential Liability: Retailers

- Did retailer provide adequate instructions and warnings
- Opportunity for direct verbal communication
- Ensure the customer:
 - receives the warning
 - understands the warning
 - answer questions the customer may have
 - has an opportunity to obtain any necessary safety equipment/features before leaving store

Avenues of Investigation

- Photos of the product and exemplars
- How was the product used?
- How was the product sold?
- Consumer vs. professional user?
- Witness statements are crucial

Common Loss Scenario

- Relates to linens containing residual oils
- Product user may be aware of potential fire combustion based on product's label
- Product user may also be aware of potential fire hazard based on training
- User leaves linens in a manner such that they self-heat to ignition

Spontaneous Combustion Progression



Potential Liability: Other Third Parties

- Contractors or subcontractors
- Tenants
 - Laundry Facilities
 - Home Improvements
 - Day Spas
- Adjacent landowners
- Cart Manufacturers

Legal Considerations

- Legal effect of compliance with legislation in applicable jurisdiction
- Human factors/warning label experts
- Prior claims search through PACER
- Label research/development

Contact Information

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