

# Safety and health alert

# 01/99 Spontaneous combustion

---

## Incident

A fire in an automotive exhaust distribution premises in Bentley destroyed a spray booth and other equipment.

The fire, which was discovered at 11.00pm on 31 August 1998, was caused by the spontaneous combustion of thinners soaked cleaning rags, which were being stored in a plastic container.

The rags were used to clean a protective oil coating off exhaust components prior to the components being spray painted.

As each component was cleaned the oil/thinners impregnated rags were placed inside a plastic container for storage.

Unfortunately, the plastic storage container prevented the dissipation of heat which was generated over a period of hours. Once the ignition temperature for the solvent (thinners) was reached, flammable vapour emitted from the rags was ignited and the spray booth set alight.

## Contributing factors

1. The use of flammable solvents for cleaning purposes.
2. The storage of solvent soaked rags in an enclosed container.
3. The storage of flammable materials inside the spray booth.

## Recommendation

1. Where practicable, substitute the cleaning solvent for a non-flammable type.
2. Prohibit the storage of flammable materials inside spray booths.
3. To prevent an exothermic reaction any solvent or chemically impregnated cleaning rags must be placed in containers which allow the circulation of air to prevent a build up of heat. The alternative is to store such rags in containers of water.

A413292

4 February 1999

