

SHE: Working with Peroxides



Organic peroxides (ADR class 5.2) are used as initiators for the curing of unsaturated polyester resins. Organic peroxides are, in principle, thermally unstable compounds. That means they are reasonably stable at ambient temperature, but can start to decompose at elevated temperatures and depending on the circumstances, can even result in a runaway reaction and in worst case scenario in a violent explosion. It is therefore necessary to always be aware of their potential hazards and of the importance to take great care in handling and storing these substances.

Do's

- Store in cool room away from direct sunlight and in a separate compartment
- Make sure the maximum temperature always remains at least 10°C below SADT
- Always read and communicate the Material Safety Data Sheet (MSDS) of every individual peroxide in the native language to the relevant users
- Leave in the original packaging and close packaging after use
- Minimize the quantity at the workplace and empty and clean equipment in which peroxides have been used
- Samples to be treated the same as regular peroxides
- Disposal of empty packing should be done by qualified partners
- Wear safety goggles
- Wear appropriate gloves and clothing
- People who handle peroxides are properly trained and retrained every defined period
- Only use compatible materials when handling (glass, porcelain, non-pigmented PE, PP, PTFE, PVDF)
- Use explosion proof materials
- Remove spillages immediately to safe place and arrange disposal as soon as possible
- Spilled liquid organic peroxide should be absorbed in an inert, non-combustible material such as vermiculite or perlite and water should be added subsequently
- A solid organic peroxide or paste should be removed with a PE or PP scrapper/shovel. To avoid any risk the solid organic peroxide should first be soaked with water.



Don'ts

- Do not store or handle together with or close to accelerators or other chemicals
- Do not mix peroxides with accelerators
- Avoid contact with dust, metal or other chemicals
- Do not repack peroxides
- Do not heat peroxides, avoid heat sources
- Never remove labels from packaging
- Rough handling should be avoided at all times
- Do not use combustible materials (paper, cloths, wood chips, sawdust) to remove organic peroxides.
- If combustible materials are (accidentally) contaminated with the organic peroxide, place them in water immediately
- The peroxide-soaked absorbent should be removed to a safe place and not be confined in a container or a bin

