

EndoChemStore™



Protecting the Staff who Protect the Patients



Height: 1800mm
Width: 950mm
Depth: 450mm

Spills happen in the confined areas where PAA is used, EndoChemStore prevents the spill and the resulting PAA vapour from entering the air and contains the acid in a safe area, alerting staff, so that correct PPE can be adorned before clean up.

Construction:

- Constructed to ensure high chemical resistance
- Designed to prevent rust
- Withstand solvent attack
- Withstand mechanical and thermal shock

Safety Carbon Filter:

- Endo ChemStore can be operated safely should the main filter breach
- Facilitates uninterrupted use until a replacement primary filter is acquired

Internal:

- Features perforated shelving to allow spills to be rapidly directed to the bunded floor
- Door interlock to prevent inadvertent opening during normal use or alarm conditions
- Bunded floor to retain any spill

Alarms:

- Both visual and audible
- 'Door open alarm' can be reset by 'closing the door'
- Spill alarm locks the door, alerting the operator to adorn PPE

Safe storage of Peracetic Acid and reprocessing chemicals in the clinical environment has now arrived.

In the HSE document : An evaluation of chemical disinfecting agents used in endoscopy suites in the NHS (2007), "Peracetic acid is rated as C in the COSHH Essentials hazard group" (medium hazard) and recommends containment in the COSHH Essentials Control Approach.

The properties of PAA that make it an efficient sterilant and environmentally friendly make it potentially dangerous to any employees exposed to it in the workplace. Unfortunately the health risks to workers from PAA exposure are not known by many employers. Hospitals, food handling and processing industries commonly use PAA, in concentrations that can be harmful to workers if they are exposed.

Health Risks of PAA Exposure

As an antimicrobial agent, PAA is broadly effective against a wide range of microorganisms; it disrupts bonds in proteins and enzymes and interferes with cell membrane transportation through the rupture of cell walls, oxidizing essential enzymes and impairing vital biochemical pathways.

The National Institute for Occupational Safety and Health (NIOSH) Registry of Toxic Effects of Chemical Substances identifies PAA as a primary irritant, known tumorigen and mutagen.

The New Jersey Department of Health and Senior Services Occupational Health Service released a study on the the health effects of PAA exposure. The study also found that PAA is very irritating to the skin, eyes, nose, throat, and lungs, with the potential for causing permanent scarring of the skin, cornea, and throat. Higher exposures in the short term can also cause pulmonary oedema as well as liver and kidney effects.

PAA Workplace Guidelines

While there are no Occupational Safety and Health Administration (OSHA) regulations specifically for PAA - most OSHA PELs have not been updated since their initial adoption in 1972 - the Environmental Protection Agency (EPA) has issued Acute Exposure Guideline Levels (AEGs) for PAA, specifically:

- AEG-3 (death/permanent incapacity) 1.3 ppm: the threshold above which mortality and/or irreversible effects could be observed for an exposure of up to 60 minutes. AEG-3 is analogous to the NIOSH Immediately Dangerous to Life or Health (IDLH) chemical listing concentrations and documentation values, which are 75 ppm for hydrogen peroxide and 800 ppm for ethylene oxide.
- AEG-2 (disability) 0.51 ppm: the threshold level above which intense lacrimation, extreme nose discomfort and transient incapacitation (inability of self protection but without residual consequences) could be observed for an exposure of up to 60 minutes.
- AEG-1 (discomfort) 0.17 ppm: the level above which discomfort could be observed for an exposure of up to 8 hours per day. AEG is analogous to the OSHA PEL (1 ppm for both hydrogen and ethylene oxide, calculated as an 8 hour time weighted average. See OSHA Standard 1910.1000, Table Z1 Limits for Hydrogen Air Contaminants and OSHA Standard 1910.1047 for Ethylene Air Contaminants.

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