



Peracetic Acid

Overview

Peracetic acid (PAA) is mostly used in brewing as a sanitizer and/or disinfectant. It is listed within OSHA's 29 CFR 1910.119 Appendix A: List of Highly Hazardous Chemicals, Toxics and Reactives as well as a registered antimicrobial pesticide with the U.S. Environmental Protection Agency (EPA).

According to OSHA, peracetic acid can cause burns and respiratory illness if not handled safely and in a well-ventilated area.

Storage Requirements

- Store in a well-ventilated area.
- Keep at temperatures not exceeding 86°F.
- Protect from direct sunlight.
- Keep away from heat and sources of ignition such as steam pipes, radiant heaters, hot air vents, or welding sparks.
- Do not store on wooden pallets.
- Keep containers tightly closed.
- Avoid damage to containers. There is a risk of container decomposition by heat or by contact with incompatible materials. In case of decomposition, isolate the container, douse with cool water and dilute with large volumes of water.
- Store containers of peracetic acid at least 5 meters (16 feet 5 inches) or by a 4-hour fire-resistant wall from oxidizing agents or corrosives.
- Do not store containers of peracetic acid in the same space (i.e., within 10 meters or 32 ft 10 in.) as explosives, flammable gases, liquids or solids, compressed or poisonous gases, spontaneous combustibles, dangerous when wet materials, poisons, or radioactive materials.
- Empty drums as thoroughly as possible and triple rinse drums before disposal.

Protecting Employees

If peracetic acid is used in your workplace, it is important that all workers are protected from exposure.

- Attempt to segregate employees from operations that use peracetic acid.
- Provide sufficient local exhaust ventilation.
- Use a non-sparking ground ventilation system separate from other exhaust ventilation systems.
- Exhaust directly to the outside.
- Ensure enough "clean"/replacement air is supplied.
- Have showers and eyewash fountains readily available in the immediate work area.
- Ensure that workers are wearing suitable PPE, including:
 - Chemical safety goggles and face shield.
 - Rubber or neoprene boots.
 - Chemical-resistant gloves.
 - Impervious coveralls; *and*
 - Appropriate respirators.

Handling a Spill

- Isolate the spill area.
- Remove all sources of ignition.
- Provide adequate PPE and ventilation.
- Notify authorities if necessary.
- Do not touch the spilled material.
- In case of small spills:
 - Soak up with inert, damp, noncombustible material
 - Move the container from the spill area
- In case of a large spill, wet down with water and dike for later disposal.
- In case of a fire:
 - Cool the container with flooding quantities of water until well after the fire is out.
 - Do not use chemical-type fire extinguishers as they are not effective with peracetic acid.

First Aid

Peracetic acid is a strong oxidizer and must be treated with caution. All affected staff should review an updated Safety Data Sheet (SDS) for first aid measures in the event of skin or eye contact, inhalation, or ingestion.

Atmospheric Levels

The National Institute for Occupational Safety and Health (NIOSH) has issued a draft Immediately Dangerous to Life or Health (IDLH) value of 1.7 milligrams per cubic meter (mg/m³) for PAA, which converts to approximately 0.55 parts per million (ppm). Note: An IDLH value is the maximum airborne concentration above which only a highly reliable breathing apparatus (such as a supplied air respirator) is permitted. Maximum worker protection is required because an IDLH environment:

- poses an immediate threat to life,
- could cause irreversible (including delayed) adverse health effects, or
- would interfere with an employee's ability to escape from a dangerous atmosphere.

Note: Consult with your chemical supplier, and an updated Safety Data Sheet (SDS), for site-specific dilutions, ventilation, and storage/handling. Different chemical suppliers may use their own formula of various chemical concentrations to makeup the Peracetic Acid used in your facility.

If you have any questions regarding this, please see your supervisor/manager or a member of the Safety Committee.

FOR MORE INFORMATION ON BREWERY SAFETY, PLEASE VISIT THE MBAA BREWERY SAFETY WEBSITE AT:
<http://www.mbaa.com/brewresources/brewsafety>