

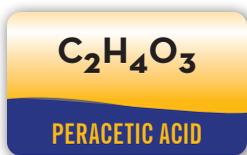
PERACETIC ACID

One of the top oxidizing chemicals used today



PERACETIC ACID

- Peracetic Acid also known as PAA is an organic chemical compound that is formed by blending hydrogen peroxide and acetic acid (the primary component in vinegar). It is colorless and has a pungent vinegar odor. PAA is a highly reactive antimicrobial agent that breaks down to acetic acid, oxygen, and water leaving no harmful residue. PAA also removes surface contaminants, such as bacteria, fungi, and viruses.
- PAA is a widely used chemical in healthcare, produce processing, beef and poultry processing, aseptic packaging & filling and water treatment because it is a highly effective antimicrobial agent that decreases the incidents of pathogenic organisms in or on food and helps reduce the number of decay or food spoilage organisms normally present in the processing of meat, dairy, poultry, seafood and vegetable food items.
- The most effective ways to prevent over-exposure to PAA is to minimize the amount of vapor, mist or droplets that come into direct contact with employees by providing adequate storage, containment, ventilation, and process controls.
- Poly Processing's tanks and fitting systems can be combined specifically to safely contain PAA, reducing the risks presented by this highly oxidizing chemical.



The Poly Processing Peracetic Acid System

Working with our chemical manufacturing partners over the past few decades, Poly Processing has developed the ideal system for peracetic acid storage. Our **Vertical Tanks with IMFO® (Integrally Molded Flanged Outlet)** or our **Sloped Bottom Tanks with IMFO®** combined with our state of the art **crosslinked polyethylene** and our **OR-1000™ an-oxidant system**, these PAA tank systems are second to none.

If secondary containment is not present, the **Poly Processing SAFE-Tank®** is a smart choice. Along with containing the chemical from its surrounding environment, this double-walled tank greatly lowers the risk of employees contacting the PAA.

SAFE-Tank® systems are designed with OR-1000™.

If secondary containment* is present, the IMFO® tank or Sloped Bottom IMFO® tank are recommended. With the use of an IMFO® system instead of mechanical fittings, the tank's **structural integrity is maximized**. Combine this tank design with the OR-1000™ system, and **oxidation is reduced dramatically**.

All of these features lead to a safer tank - designed to **reduce safety risks** and **improve the longevity of the system**.

*Containment is highly recommended with this chemical in all applications.



PERACETIC ACID

Peracetic Acid Storage Tanks

Tank Specifications



- **High-density cross-linked polyethylene (XLPE)** ensures maximum corrosion protection through molecular bonding and greater useful life of the tank system
- **OR-1000™** bonds the XLPE with an industry leading antioxidant system inner surface, minimizing oxidation, reducing the potential for fault and maximizing life span
- **IMFO® tank** is molded as a single unit. This maintains hoop stress rating, adding to the strength of the tank. (Recommended for situations with existing secondary containment.)
- **SAFE-Tank® design** produces a tank-within-a-tank, ensuring that water will not enter the containment area and allows the operator to decide when they tank the tank out of service for repair. (Recommended where secondary containment is not available.)
- **B.O.S.S. Fitting®** provides bolted one-piece sure-seal design, limiting the seal point to a single gasket for major leak prevention

Recommended System Components



Venting:

SAFE-Surge® manway cover is recommended on pneumatically loaded systems to support tank longevity



Full Drain Fittings:

Recommend Integrally Molded Flanged Outlet (IMFO)



Fittings:

B.O.S.S. Fitting® recommended to prevent leaks and over tightening

NOTE: 316 SS bulkhead fittings are also recommended for PAA storage. Wetted 316 SS fittings need to be passivated.



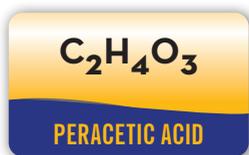
Scrubbers:

PolyScrub is available in a passive model which the operator checks manually (PolyScrub) or an actively monitored system which automates PH to ensure maximum performance and ease of use (PolyScrub Plus).



POLYPROCESSING
SOLUTIONS, SIMPLIFIED.

PERACETIC ACID SYSTEM REQUIREMENTS



TANKS

Vertical Tanks with IMFO® or Sloped Bottom Tanks with IMFO® of XLPE with OR-1000™:

- 200-15,500 gallons (Vert IMFO®)
- 3,950 -15,000 gallons (Sloped IMFO®)
- 1.65 spg rating

Non-IMFO® alternative*:

Standard Vertical Flat Bottom XLPE with OR-1000™:

- 30-15,500 gallons
- 1.65 spg rating

*Three-year warranty offered on Non-IMFO® tank alternatives.

SAFE-Tank® XLPE with OR-1000™:

- 55-8,700 gallons
- 1.65 spg rating for primary tank with OR-1000™
- Spg ratings for secondary tanks ≥ 3,000 gallons may be equal to or 1 less spg than primary tank
- All other tank sizes must equal primary tank spg rating

SECONDARY CONTAINMENT

Recommend **SAFE-Tank®** secondary XLPE as shown above.

Non-SAFE-Tank® Alternatives:

- PPC secondary containment basin
- Other secondary containment suitable for peracetic acid, of adequate size for use

FITTINGS

Sidewall and Dome: Recommend 3" maximum B.O.S.S. Fitting® or 316 SS bulkhead fittings or flanges.

IMFO - 316 SS Flange with 316 SS Bolts

Note: 316 SS wetted fittings need to be passivated.

PLUMBING TO THE TANK

- Required use of **flexible connections** with fittings on lower one-third of sidewall
 - » Allows for lateral and vertical expansion and contraction of the tank
 - » Reduces pump and piping vibration stress on the tank
- Expansion joints must meet the following minimum requirements:
 - » Axial Compression ≥ 0.67"
 - » Axial Extension ≥ 0.67"
 - » Lateral Deflection ≥ 0.51"
 - » Angular Deflection ≥ 14°
 - » Torsional Rotation ≥ 4°

VENTING

Go to www.polyprocessing.com/venting for venting information.

FOUNDATION AND RESTRAINTS

- PPC IMFO® tank pad or smooth concrete foundation designed to accommodate IMFO®, SAFE-Tank® or vertical tank
- No restraint or ladder attachment bands circumscribing the tank are allowed. Cable restraint systems must pass cables over the top of the tank.

TEMPERATURE

Product should not exceed 100°F at delivery or during storage to reduce the decomposition of the chemical.

LID

SAFE-Surge® manway cover for pneumatically loaded tanks; bolted manway cover for all other applications.

OPTIONS

Restraint systems for wind and seismic, scrubbers, level gauges, ladders, heating pads, insulation, fume-tight manway cover, NSF-61 certification and engineering stamp.

CHEMICAL	RESIN TYPE	SPECIFIC GRAVITY RATING	FITTING MATERIAL	GASKET MATERIAL	BOLT MATERIAL
Peracetic Acid	XLPE with OR-1000™	1.65	316 SS	EPDM / PTFE	316SS

» See our website for a complete Chemical Resistance Chart

NOTE: To meet NSF-61 certification, use EPDM