



Position Statement Surfactant Storage Tanks

The term *surfactant* is a blend of **surface acting agent**. Surfactants reduce the surface tension of water by absorbing at the liquid-gas interface. They also reduce the interfacial tension between oil and water by absorbing at the liquid-liquid interface. Common examples of surfactants include soaps, detergents, emulsifiers, dispersants, foaming agents and wetting agents.

Tank:

HDXLPE, 1.5 SpGr rating (ASTM D-1998 - 600 psi hoop stress design)

** Note: a higher SpGr rating may be required if the chemical weight is more than 12 lbs per gallon.*

Full Drain Option:

SUMO™ (Snyder Unitized Molded Outlet):

- Available on single wall vertical tanks 2000 to 12,500 gallons.
- Encapsulated 316SS threaded ring with PVC adapter.

Double Wall Tanks:

Mini-Captor™ and CAPTOR™ Containment Systems (CCS) – 35 to 10,000 gallons

- Primary Tank
 - HDXLPE, 1.5 SpGr rating (ASTM D-1998 - 600 psi hoop stress design)
- * Note: a higher SpGr rating may be required if the chemical weight is more than 12 lbs per gallon.*
- Secondary Containment Tank
 - HDLPE, 1.5 SpGr, Natural color

Fittings:

Material of Construction:

- Fitting: PVC or CPVC (schedule 80)
- Gasket: EPDM
- Bolt: 316SS

Plumbing to the tank:

Required use of **flexible connections** with fittings

- Allows for 4% lateral and vertical expansion and contraction of the tank
- Reduces pump and piping vibration stress on the tank, fittings, and gaskets
- Flexible connections, piping, and valves must have structural support independent of tank sidewall and dome

Venting:

Tanks are designed for use at atmospheric pressure. Pressure or vacuum situation can cause excessive deformation or damage to the tanks and void warranty. Venting equipment should be sized to limit pressure or vacuum in the tank to a maximum of ½" water column (0.018 PSI). If the tank will be pneumatically filled (through tanker discharge) additional pressure relief may be required.

Foundation and Restraints:

Tanks should be positioned on a smooth concrete or asphalt pad providing adequate support. The pad should be clean, smooth and level so it fully supports the entire tank bottom with no deflection. If a seismic restraint system is used the pad must be adequate in size for anchor plate attachments per the seismic code.

Temperature:

Product should not exceed 100 degrees F at delivery or during storage.