



8820 Old Hwy 99 SE, Tumwater, Washington 98501, USA  
360-943-6063 800-562-6184 FAX 360-352-4813 www.ch2o.com

**Product  
Bulletin**

**LIQUI-CIRC 931  
CHLORINATED ALKALINE LIQUID  
"CIP" CLEANER FOR FOOD SOIL REMOVAL**

**TYPICAL APPLICATIONS**

**LIQUI-CIRC 931** is made for use in breweries, wineries, juice & dairy plants, and other food processing operations where CIP or circulation cleaning of tanks, lines, and filling equipment is required. **LIQUI-CIRC 931** is acceptable as a general cleaning agent on all surfaces, or for use with steam or mechanical cleaning devices in all departments of official establishments operating under the federal meat, poultry, shell egg grading, and egg products inspecting programs.

**CONCENTRATED**

**LIQUI-CIRC 931** contains high levels of both caustic and chlorine that allows for low use-cost dilutions.

**FREE-RINSING**

Selected agents in **LIQUI-CIRC 931** help suspend soils without redepositing.

**CHLORINATED**

**LIQUI-CIRC 931** contains chlorine to help peptize protein and avoid "rainbow" films which can harbor bacteria.

**LOW -FOAMING**

**LIQUI-CIRC 931** will not cavitate high-speed pumps or cause a "foam" block in circulation lines and tanks.

**SAFETY**

**LIQUI-CIRC 931** contains strong alkaline materials and chlorine. Do not mix with acid detergents or sanitizers.

**PIPELINE CLEANING**

- 1) Pre-flush lines and equipment until water is clear.
- 2) At a starting temperature of 160°F add 1 ounce of **LIQUI-CIRC 931** per 2 gallons of water and circulate for 10 minutes. This use rate will provide 125 ppm chlorine in solution.

**PIPELINE CLEANING (Continued)**

- 3) Brush-wash all parts of equipment not contacted by circulating solution. Wear rubber gloves and use an appropriate brush.
- 4) Rinse LIQUI-CIRC 931 solution thoroughly from equipment with lukewarm potable water.
- 5) Add 1 ounce of NITRO-CIRC 963 to each 5 gallons of rinse water to provide an acidified rinse which will neutralize alkaline residues and eliminate soap and/or water stone build-ups.
- 6) Just prior to milking or processing, sanitize both pipelines and bulk tanks with sanitizing solution. If an acid cleaning is necessary, use 1 ounce of NITRO-CIRC 963 to each gallon of water and follow the above procedures for cleaning pipelines and bulk tanks.

**Bulk Tank Cleaning**

Follow same procedures as for Pipeline Cleaning, using 1 ounce LIQUI-CIRC 931 to each 1 gallon of 160°F water.

**PHYSICAL PROPERTIES**

Appearance .....	Light Yellow Clear Liquid
Odor .....	Moderate Chlorine
Foam .....	Low Foaming
Rinsing Ability .....	Excellent
pH at 1% Solution .....	12.0-13.0
Available Cl.....	125 ppm @ 1 oz per 2 gal water
Pounds per Gallon .....	10.5-11.0

**PRODUCT pH INDICATOR**

---- acid ---- neutral ---- alkaline ----

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14

↑

**Seller Warranty**

CH<sub>2</sub>O brand test reagent refills are available through your sales representative at no charge. Customers are required to confirm product compatibility via a control test for their specific application. CH<sub>2</sub>O recommends that you perform regular/daily testing to control chemical levels and cycles of concentration within established limits. Additional tests may be performed at your request. Test reports reflect conditions at the point when the analysis was performed. Results will change over time and with varying operating conditions.

Seller warrants that this product conforms to its chemical description and is reasonably fit for the purpose referred to in the product data sheet. Buyer is responsible to ensure that products and product dosages are appropriate for Buyer's particular application. Seller makes no other warranty or representation of any kind, express or implied, concerning the product, including NO IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS OF THE GOODS FOR ANY OTHER PARTICULAR PURPOSE. No such warranties shall be implied by law and no agent of seller is authorized to alter this warranty in any way except in writing with a specific reference to this warranty. The exclusive remedy against seller shall be a claim for damages not to exceed the purchase price of the product, without regard to whether such a claim is based upon breach of warranty or tort. Jurisdiction for any issues arising from or relating to this product shall be in the courts of the State of Washington and the venue shall be Thurston County. Any controversy or claim arising out of or relating to this contract, or breach thereof, shall be settled by arbitration in accordance with the rules and procedures as stated in RCW 7.06 and shall be binding upon both parties without right to appeal, and judgment upon the award rendered by the Arbitrator(s) may be entered in any court having jurisdiction thereof.

Applies to all products sold by CH<sub>2</sub>O, Inc., and is hereby communicated to all of its customers as a condition of sale. Use of CH<sub>2</sub>O products is subject to the Standard Terms and Conditions as listed on CH<sub>2</sub>O, Inc.'s website at: [www.ch2o.com](http://www.ch2o.com).



VERSION DATE: April 1998      REVISION DATE: November 2015

