

HCC Holdings, Inc.

4700 West 160th
Cleveland, Ohio 44135

Phone: 800-321-9532
Website: www.Oatey.com



CRYO-TEK™-100/AL

Date: August 2017

Anti-Freeze for Aluminum Heat Exchanger Heating and Cooling Systems

A new generation of very efficient boilers utilizing ALUMINUM HEAT EXCHANGERS are becoming more popular in today's marketplace. These new boilers typically heat three times faster than traditional boilers and require a specific, unique blend of anti-freeze specific to protecting against acid corrosion.

Cryo-Tek -100/AL is a blend of virgin (not recycled) propylene glycol and **Hercules** exclusive Triple Protection additives designed for use in hydronic heating and cooling closed loop piping systems (including PEX and radiant tube heating systems), ice melt and general heating systems where aluminum heat exchangers are installed. **Hercules** Triple Protection additives provide outstanding protection against acid corrosion, scale and sedimentation formation in properly maintained systems containing recommended concentrations of **Cryo-Tek Anti-Freeze**.

- Acid neutralizing agent protects by neutralizing corrosive acids.
- Mineral Deposition Preventative eliminates scale formation on critical heat transfer surfaces, piping systems and equipment.
- Mineral Sediment Preventative keeps minerals in solution, resisting formation of clusters of mineral salts and preventing particles from precipitating out of solution.

Used at recommended levels, all three agents work together to prevent bio film (slime) build-up. **Cryo-Tek -100/AL** may be used in systems fabricated with metal, plastics (except CPVC) and rubber piping, fittings, seals, and other parts. Corrosion inhibitors in all **Cryo-Tek** products protect against corrosive build-up within the piping loop and are effective with most metals including steel, aluminum* and copper. **Cryo-Tek** solutions have a high specific heat and are efficient at transferring heat.

As packaged, **Cryo-Tek** is non-flammable, odorless, non-irritating, and compatible with **Hercules** boiler stop leaks. Formulated for the maximum propylene glycol protection directly out of the container. Certified Performance: Freeze Protection Down to -60°F / -51°C, Pumpable down** to -70°F / -57°C, and Burst Protection Down to -100°F / -73°C.

Cryo-Tek -100/AL can be diluted with water for less severe conditions. (See Chart.)



* Please check with equipment manufacturer of system to determine compatibility with this product.

**Minimum flow protection levels are estimated and are dependent on system and equipment.

Test Kits and Accessories

Freeze protection levels and corrosion protection levels should be checked annually. Use **Hercules Refractometer** (35290) and **pH Test Meter** (35272). Add additional **Cryo-Tek** product if freeze protection is inadequate. Add **Cryo-Tek -100/AL Inhibitor** (35274) if pH is below 7.0. (see Maintenance)

APPROVALS & LISTINGS

The virgin propylene glycol used in **Cryo-Tek -100/AL** and all **Cryo-Tek** products is "GRAS" (Generally Recognized As Safe) for incidental contact with food.

SPECIFIC USES

Use any **Cryo-Tek** Anti-Freeze in hydronic closed loop heating and cooling systems, chillers, ice melt, solar heating systems, and general plumbing systems that require freeze protection. **Cryo-Tek -100/AL** is specifically formulated for aluminum based heat exchangers.

SPECIFIC APPLICATIONS*

Add **Cryo-Tek** product to protect pipes from freezing and bursting. Although **Cryo-Tek -100/AL** is specifically designed for use in boilers with aluminum heat exchangers, it can be used in more traditional applications, such as chiller systems, recreational vehicles, seasonal homes, mobile homes, trailers, boats, sprinkler systems, and industrial use.

*For special applications which may not be covered on this or other Oatey literature, please contact Oatey Technical Services Department by phone 1-800-321-9532, or fax 1-800-321-9535, or visit our technical database web-site at www.Oatey.com.

PHYSICAL PROPERTIES

pH	7.0 - 8.5
Density lb/gal. 60°F - 65°F	8.74 lb./ gallon
Specific Gravity 60°F - 65°F	1.050
Specific Heat BTU/lb°F @ 160° F	.806
Boiling Point	230°F / 110°C
Appearance and color	Orange liquid. Odorless.

WARNINGS OR CAUTIONS

- Read all cautions and directions carefully before using this product.
- Not for use in steam systems.
- Not for use with CPVC pipe and fittings.
- Use **Hercules Boiler Liquid** or **Base Hit II** to stop leaks on system containing **Cryo-Tek** products.
- Do not use in internal combustion engines as a coolant.
- Do not use in water softeners. Disconnect all water softeners from system or provide back flow protection to prevent contamination of brine or resin bed.
- **Cryo-Tek** Products are not recommended:
 1. For use in systems containing galvanized components.
 2. For open solar systems and systems where operating stagnation temperatures are regularly over 300°F/150°C.
 3. For systems with concentrating solar collectors or evacuated tube solar collectors. **(Please check with equipment manufacturer of system to determine compatibility with this product).**

CAUTION REGARDING COMPETITIVE PRODUCTS:

Hercules Cryo-Tek products are formulated using virgin propylene glycol and high purity Triple Protection Additives for assurance of materials compatibility and non-toxicity characteristics. Dilution or mixing of **Cryo-Tek** products with other manufacturers' products may compromise these critical requirements and is not recommended.

MATERIAL SAFETY INFORMATION

FOR MORE INFORMATION ON THIS PRODUCT, REQUEST SAFETY DATA SHEET (SDS) #7313E

For Delivery By Fax	Call 1-800-321-9535
Internet	See SDS section of www.Oatey.com

HMIS® ratings Health: 0
 Flammability: 0
 Physical hazard: 0

SIZE & PACKING

STOCK NUMBER	SIZE	PACKING	WEIGHT/CASE
Cryo-Tek 100/AL			
35283	5 gal.	1	49.6 lbs
35291	55gal.	1	518.0 lbs
ALSO AVAILABLE			
35290 Refractometer	-	1	0.25 lbs
35272 pH Meter	-	1	0.3 lbs