



Currently only Rhomar glycols meet the Minnesota plumbing code standard to have a Gosselin Toxicity Class Rating to be used with a single wall heat exchanger.

Verbal allegations such as “You can use ANY water - including that out of the CANAL if necessary - with our product” by some of our competitors, do not seem to be in the best interest of the customer, but their own.

We have evaluated the effects of most of the chemical contaminants found in water against the optimum performance of **RhoGard™ Ultra** versus leading competitors.

RhoGard™ Ultra and Competitor fluid, both diluted with well water (with resultant total hardness at 450 ppm), were subjected to ASTM D1384 testing (fluids diluted to 30 % PG with well water, 100 ppm each of chlorides and sulfates added, experiment run at 188 - 190 °F for 336 hours with air bubbling).



FIGURE 1: This is the image of a cast iron coupon immediately after it had been removed from Competitor glycol fluid diluted with well water (final total hardness at 450 ppm) and prior to its cleaning.

TABLE 1:

Corrosion rates (mpy) of metals in **RhoGard™ Ultra** and Competitors Fluid both diluted with very hard water (described above).

	AL6063	AL3003	AL43000	CDA110	GCCL30
RhoGard™ Ultra	0.17	0.10	0.24	0.22	0.15
Competitor Fluids	0.46	0.50	0.32	0.33	5.33



FIGURE 2: These images are for aluminium (AL6063, AL3003, 4300CASTAL), copper (CDA110) and cast iron (GCCL30) coupons after procedural cleaning, drying and weighing according to the ASTM standards.

- It is quite clear that **RhoGard™ Ultra** does maintain the aesthetics of the metals while still protecting them against corrosion. The aluminum coupons are like NEW. Competitor's are CHARRED!
- There is significant pitting/crevice corrosion observed on cast iron with the competitor's fluid (GCCL30-03). That out of **RhoGard™ Ultra** is fair.
- Even with that very hard and corrosive water, **RhoGard™ Ultra** does outperform competition in its ability to protect metals from corrosion (see the **Table 1** above). The numbers represent the corrosion rates in mils per year (mpy).

Some manufacturers tout jar test results for their products. While jar test results may be used for product screening and marketing purposes, no heat is applied nor is there inclusion of other material such as fittings, washers, gaskets and O-rings that may be in contact with the system metal being tested! We strive to give our customers information that gives a true impression of product interaction with the components of the system in which it is used.



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INHIBITED GLYCOL-BASED HEAT TRANSFER FLUIDS COMPARISON CHART

RHOMAR WATER	DOW CHEMICALS	OATEY-HARVEY	OATEY-HERCULES	NOBLE CO.	FERNOX
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ALUMINUM SAFE INHIBITED PROPYLENE GLYCOL

RhoGard™ Ultra	-	Harvey Heat Arctic Grade	Universal Cryo-Tek	-	Fernox Alphi-11
RhoGard™	-	Harvey Heat-100A	Cryo-Tek-100/AL	NOBURST AL	-
RhoGard™ RTU 20 - 60	-	-	-	-	-

NOTE:

RhoGard™ inhibited propylene glycols can be used in any system not requiring incidental food contact safe glycol.

INCIDENTAL FOOD CONTACT SAFE INHIBITED PROPYLENE GLYCOL

EnviroGard™ Ultra HD		-	Cryo-Tek AG	NOBURST HD	-
EnviroGard™ Ultra	DowFrost	-	Cryo-Tek FG	Super NOBURST	-
EnviroGard™	-	-	Cryo-Tek-100	NOBURST LC	-
EnviroGard™ RTU 20 - 60	DowFrost premix (Other)	-	-	-	-

RhoGard™ - Blue Dye, EnviroGard™ Green Dye - different dye's available with quantity order

Every order of Rhomar Water Glycol-Based Heat Transfer Fluids is custom-blended with virgin glycols, deionized water and an excellent package of industrial corrosion inhibitors/performance additives to meet individual customers' project needs – glycol % (at increments of 1%), desired delivery container and time.

NOTE: The information provided hereinabove is deemed accurate as at the time of its publication. Manufacturers may change names of products, their components, discontinue or replace these products at any time. As such, Rhomar Water will attempt to update this chart when any change occurs. This information should be used for comparison purposes only.