GreenCut Fluid is not designed to resist severe cold. GreenCut in undiluted form is good to -10°C (15°F). As GreenCut gets diluted with water to 20:1 all freeze point protection basically disappears. Now what? Do NOT add ethylene glycol under any circumstances, it is toxic and NOT compatible with GreenCut.

1. If the undiluted GreenCut Fluid freezes, thaw it out and stir it, there will be no adverse product effect.

2. If the GreenCut Fluid mixture freezes thaw it out, stir it, and add Propylene glycol to suit to prevent further freeze-up. Remember that you may be diluting past the recommended 20:1 water/GreenCut ratio.

3. To keep GreenCut from freezing to start with, keep it circulating and add propylene glycol to suit, with an appropriate reduction of water to bring mixture back to 20:1.

Propylene Glycol Mixture recommendation for freeze-up.

At -5°C (23°F) freeze point add 15% propylene glycol to give freeze protection.
At -10°C (15°F) freeze point add 25% propylene glycol to give freeze protection.
At -20°C (-4°F) freeze point add 35% propylene glycol to give freeze protection.
At -35°C (-30°F) freeze point add 50% propylene glycol to give freeze protection.

REMEMBER: As you add Propylene Glycol you are changing the GreenCut to Water Blend ratio from a recommended 20:1 to whatever you add in Propylene Glycol. So treat accordingly with the GreenCut. i.e. Consider the propylene glycol you add as part of the water mixture on a one-for-one basis.

The proper mix ratio is 20:1 Water/GreenCut Fluid.
The mix ratio for anti-freeze is trickier. It depends on the weather conditions. GreenCut Fluid Undiluted is good to -10°C (15°F) which puts you at about the water freeze point when mixed at 20:1 water/GreenCut.

To mix your tank with propylene glycol: use undiluted GreenCut Fluid and mix with propylene glycol and water to required strength, adding water to balance the propylene glycol at 20:1 overall ratio, testing as you go. The propylene glycol can be substituted for water on a one for one basis by weight or volume.

Do NOT substitute with other anti-freeze mixtures like car anti-freeze, etc. which are all ethylene glycol, toxic and NOT compatible with GreenCut Fluid. Also, the Plasma torches will combust the ethylene glycol, and the same for alcohol based anti-freeze.

We get these inquiries occasionally, and can sell you propylene glycol by the pail or drum. We offer this because you will have a challenge to get hold of it in bulk. The ratio will have to be 'field determined' based on the data given above.

FOR EXAMPLE: To get above a freeze point of -10°C (15°F) add up to 25% propylene glycol to give full protection. Remember that this is for the whole 3600 gal bath. So doing the math: 3,600 US gallons tank needs 25% or 900 gal. of Propylene glycol, 5% or 180 gal. of GreenCut Fluid, remainder is water. 3,600 - 900 - 180 = 2,520 US gallons tap water. Maintaining this bath as per LubeCorp instructions in our literature: using the pH strips for checking the strength of the GreenCut, and keeping an eye on the freeze point in winter, you should be good-to-go.