

# Advantage<sup>TM</sup>

## Commercial Antifreeze Formulation

Manufactured by Glycol Technologies, Inc. – Warrendale, PA

724-776-3554

### Physical Properties for Advantage (ethylene)

Volume %	Freeze Pt. ° F	Burst Pt. ° F	Boiling Pt. ° F
25	9	-5	217
30	3	-15	218
35	- 4	-30	219
40	- 13	-65	221
45	- 24	- 100	223
50	- 36	<- 100	225
55	- 52	<-100	227
60	- 70	<-100	231

- Longer life means longer coolant change intervals.
- Excellent freeze, burst, and boil-over protection.
- Engineered for hose and seal compatibility.
- Additives prevent cooling system corrosion (does not contain silicates).
- Compatible with other commercial antifreeze brands.
- Will not gel or foul critical heat exchange surfaces.
- Blended with high quality water to minimize scales caused by hard water minerals”



Performance

Quality

Value

**Advantage Antifreeze** is an ethylene glycol based engineered for superior corrosion protection and longer service life. Our **NoPit<sup>TM</sup>** inhibitors will protect your cooling system by stifling the electrical potential that exists between dissimilar metals in an electrolyte. This is accomplished by rapidly passivating all metal surfaces with a micro-thin layer of inhibitors, which mitigates corrosion by creating a barrier between the coolant and metal surfaces.

**Dilution Water** quality should be carefully considered before blending the antifreeze to ensure optimal corrosion protection and heat transfer efficiency. Impurities in tap water can increase the electrical conductivity “hardness” of the water, which makes it more corrosive. High Calcium and Magnesium concentrations will promote scale on critical heat transfer surfaces resulting in reduced heat transfer and increase the potential for under-deposit corrosion. Other impurities typically associated with poor water quality are Chloride and Sulfate. These negatively charged “corrosive” ions interfere with the inhibitors and break down the protective barriers they establish on the metal surface. **Deionized Water** should be used for blending or when system make-up water is required. Deionized Water is chemically pure water, free of any scale or corrosive ions, and will dramatically increase the performance of the Advantage Antifreeze<sup>TM</sup>.

**Inhibitor Testing Procedures:** Test kits and test strips are commercially available to check the coolant for proper inhibitor levels. The coolant should be tested every 3,000 to 5,000 miles or 150 hours to ensure that good corrosion protection is being maintained. Equally important, is regular testing of the glycol concentration. When make-up water is added the glycol concentration decreases as do the inhibitor levels. Therefore, we highly recommend the premixed version of **Advantage<sup>TM</sup>** be added each time that make-up fluid is required. This will ensure that your desired level of freeze, burst, and boil-over protection are achieved, while maintaining the inhibitors at optimum levels. Using **Advantage<sup>TM</sup>** in a premixed version will also prevent unwanted contaminants from being introduced and shortening its normal life cycle.

**System Preparation:** Prior to installing **Advantage Antifreeze**, it is important that the cooling system be properly cleaned and flushed. Typically, newer systems are coated with Oil; Grease, Dirt, or Corrosion products and these potential forms of contamination must be removed from the system to ensure optimal heat transfer efficiency and corrosion protection. Cleaners and Degreasers are available from Glycol Technologies in 5-gallon containers and 55-gallon drums. For more information about these products and our recommended cleaning procedures, please contact us and request the **TechSpec's<sup>TM</sup>** for **PROTOCOL<sup>®</sup> SC-101** and **PROTOCOL<sup>®</sup> SD-102**.

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