



## SURE-CRAFT UNIVERSAL Antifreeze/Coolant

**SURE-CRAFT Universal Antifreeze/Coolant** is a superior quality ethylene glycol based engine coolant with a low silicate corrosion inhibitor package. This product protects coolant system metals, including heat-rejecting aluminum, against pitting caused by cavitation and corrosion. It provides exceptional cooling in summer and excellent protection against freezing in the winter. It is recommended for use in older model domestic and foreign cars and light duty trucks and will provide up to 80,000 km or 2 years service life when installed as initial fill, or after a complete flush and cleaning of a cooling system in reasonable condition. It is compatible with supplemental coolant additives (SCA) and coolant filters and thus can be used in heavy duty diesel coolant systems when pre-charged with SCA.

### SURE-CRAFT Universal Antifreeze/Coolant offers the following advantages:

- Low silicate
- Aluminum compatible
- For domestic and foreign cars and light duty trucks
- Year round protection: prevents winter freezing and summer boil over

### SURE-CRAFT Universal Antifreeze/Coolant meets the performance requirements of the following engine antifreeze/coolant specifications:

ASTM D3306, D4985  
Chrysler MS7170  
Ford ESE-M97B44-A

GM 1825M, 1899M  
TMC RP 302B

Coolant concentrate must be diluted with water prior to use. SURE-CRAFT Universal Antifreeze/Coolant should not be used in concentrated form. A 50% dilution is generally recommended for the best balance of protection against freezing, corrosion and summer boil over. For increased freeze protection in extremely cold areas, a 60% volume concentration can be used. Concentrations of greater than 70% by volume are not recommended. High quality soft, de-ionized or distilled water should always be used to dilute coolant concentrate. For added value and convenience, this product is available in a ready to use format, pre-diluted to 50% volume using deionized water.

### Typical Product Properties

Characteristic	Performance	Test Method
pH <sup>a</sup>	10 – 11	ASTM D1287
Specific gravity <sup>b</sup>	1.110 - 1.140	ASTM D1122
Freeze point <sup>a</sup> , °C/°F	-37/-34	ASTM D1177
Foam volume, ml	150 max.	ASTM D1881
Foam break time, second	5 max.	ASTM D1881
Reserve Alkalinity, ml	6.0 min.	ASTM D1121
Chloride, ppm	25 max.	ASTM D3634
Silicon (from silicate), ppm	250 max.	ASTM D6130
Colour	Green	
Glycol Content (wgt.%)	95 min.	
Inhibitors and Water Content (wgt.%)	5 max.	

<sup>a</sup> 50% volume aqueous solution

<sup>b</sup> Measured at 15.6°C/60°F



**SURE-CRAFT UNIVERSAL Antifreeze/Coolant**

**Typical Coolant Performance Testing Results**

Metal Type	ASTM D 1384 GLASSWARE CORROSION		ASTM D 2570 SIMULATED SERVICE	
	Test Results <sup>1</sup>	Max. Spec.	Test Results <sup>1</sup>	Max. Spec.
Copper	1	10	2	20
Solder	4	30	0	60
Brass	2	10	1	20
Steel	2	10	1	20
Cast Iron	3	10	0	20
Aluminum	3	30	-1	60

<sup>1</sup> Weight loss, except negative sign which indicate weight gain, per coupon in milligrams. Values are for coolant made from virgin ethylene glycol.

	Test Results <sup>1</sup>	Specification
<b>ASTM D4340 Heat Rejecting Aluminum Corrosion (mg/cm<sup>2</sup>/week)</b>	0.2	1.0 maximum
<b>ASTM D2809 Aluminum Water Pump Cavitation- Erosion Corrosion Rating</b>	9	8 minimum

<sup>1</sup> Weight loss per coupon in milligrams (average for 2 tests). Values are for coolant made from virgin ethylene glycol.

**NOTICE:** This product is shipped in compliance with applicable laws and regulations regarding classification, packaging, shipping and handling. The performance and physical property data described for this product are typical results not sale specifications, except where maximum or minimum is indicated. Refer to Material Safety Data Sheets for further information.

Because use conditions and applicable laws may differ from one location to another and may change with time, the customer is responsible for determining whether product and the information in this document are appropriate for their use and for ensuring that their workplace and disposal practices are in compliance with applicable laws and other governmental enactments. The manufacturer's warranty is limited to the claims of product meeting stated performance specifications. It is the responsibility of the end-user to determine product suitability as recommended in the owner's manual and to follow engine manufacturer's instructions.