



SURE-CRAFT EXTENDED LIFE HEAVY DUTY DIESEL 50/50 PREMIXED Antifreeze/Coolant

SURE-CRAFT Extended Life Heavy Duty Diesel 50/50 Premixed Antifreeze/Coolant is a hybrid technology product that does not require an initial charge of SCA or coolant extender at initial fill. This OEM approved product is specially formulated to protect all coolant system metals and provides excellent wet sleeve liner cavitation protection. It provides protection against radiator freeze-up down to -37°C and boil over to 129°C (with a 100 kilopascal {15 psi} radiator cap in good condition). It is designed for use in light duty diesel applications where an extended service interval is required. It is recommended for use in on-road truck, off-road, farm, marine and stationary applications including, but not limited to, Caterpillar, Cummins, Detroit Diesel/MTU, GM Heavy Truck, Freightliner, PACCAR and Volvo Mack.

This aluminum compatible product, when added as an initial fill and properly maintained in accordance with engine manufacturer's maintenance recommendation, will provide an in-service life of up to 960,000 km, 12,000 hours or 6 years, or whichever comes first.

SURE-CRAFT Extended Life Heavy Duty Diesel 50/50 Premixed Antifreeze/Coolant offers the following advantages:

- OEM approved; and provides excellent wet sleeve liner cavitation protection
- Fully formulated; DOES NOT require initial charge of SCA
- Low silicate, phosphate and amine free
- Extended service life coolant

SURE-CRAFT Extended Life Heavy Duty Diesel 50/50 Premixed Antifreeze/Coolant meets the performance requirements of the following coolant specifications:

ASTM D3306, D6210
TMC RP 329B
CAT EC-1
CID-A-A-52624

Japanese Standard JIS K2234
Detroit Diesel 7SE298, 93K217
MTU MTL 5048
Cummins

Typical Product Properties

| Characteristic | Performance | Test Method |
|--------------------------------------|--------------------|--------------------|
| pH | 7.5 - 8.6 | ASTM D1287 |
| Specific gravity ^b | 1.075 - 1.090 | ASTM D1122 |
| Freeze point, °C/°F | -37/ -34 | ASTM D1177 |
| Foam volume, ml | 150 max. | ASTM D1881 |
| Foam break time, second | 5 max. | ASTM D1881 |
| Reserve Alkalinity, ml | 3.0 min. | ASTM D1121 |
| Chloride, ppm | 25 max. | ASTM D3634 |
| Silicon, ppm | 250 max. | ASTM D6130 |
| Colour | Red | |
| Glycol Content (wgt.%). | 47 min. | |
| Inhibitors and Water Content (wgt.%) | 53 max. | |

^b Measured at 15.6°C/60°F



**SURE-CRAFT EXTENDED LIFE HEAVY DUTY DIESEL
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Typical Coolant Performance Testing Results

| Metal Type | ASTM D 1384 GLASSWARE CORROSION | | ASTM D 2570 SIMULATED SERVICE | |
|------------|------------------------------------|------------|----------------------------------|------------|
| | Test Results ¹ | Max. Spec. | Test Results ¹ | Max. Spec. |
| Copper | 2 | 10 | 8 | 20 |
| Solder | 4 | 30 | 4 | 60 |
| Brass | 1 | 10 | 7 | 20 |
| Steel | 0 | 10 | 1 | 20 |
| Cast Iron | -1 | 10 | 9 | 20 |
| Aluminum | 0 | 30 | 0 | 60 |

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

| | Test Results ¹ | Specification |
|--|---------------------------|---------------|
| ASTM D4340 Heat Rejecting Aluminum Corrosion (mg/cm²/week) | 0.2 | 1.0 maximum |
| ASTM D2809 Aluminum Water Pump Cavitation- Erosion Corrosion Rating | 8 | 8 minimum |

¹ 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.