

**Technical Bulletin**

**JEFFCOOL<sup>®</sup> E-300**  
**INDUSTRIAL COOLANT AND HEAT TRANSFER FLUID**

|                      |  |
|----------------------|--|
| <b>GENERIC NAMES</b> | Inhibited ethylene glycol  |
| <b>DESCRIPTION</b>   | An inhibited ethylene glycol based industrial coolant and heat transfer fluid.   |
| <b>APPLICATIONS</b>  | Boiler systems containing a variety of metals. Heat exchangers made of aluminum, cast iron, steel or copper. Hydronic heating systems containing heat exchangers made of aluminum, cast iron, steel or copper. |

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Modern boilers with aluminum heat exchangers require a heat transfer fluid with a high quality corrosion inhibitor package. JEFFCOOL<sup>®</sup> E300 contains a corrosion inhibitor package proven to provide corrosion protection of high temperature aluminum under heat transfer conditions. The formulation also provides protection of standard metals, including cast iron, steel, copper and brass.

Hard water compatibility is an issue for boiler fluids. JEFFCOOL<sup>®</sup> E300 is phosphate free and provides superior compatibility with hard water compared to many heat transfer fluids on the market. This assists in preventing precipitation and deposit formation.

JEFFCOOL<sup>®</sup> E300 is an ethylene glycol based product that diluted as recommended can provide freeze and burst protection down to temperatures as low as -60°F. It can be used in closed loop systems that are not in direct contact with potable water supplies. For assistance in selecting this product for your application, please contact your local JEFFCOOL<sup>®</sup> product sales representative, Third Coast Chemicals or Huntsman Corporation technical service department.

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**Typical Properties**

|                             |       |
|-----------------------------|-------|
| pH, 50 vol%                 | 8.6   |
| Reserve Alkalinity, 10 mL s | 7     |
| Freezing Point, 50 vol%     | -35 F |
| Chloride, ppm max           | < 25  |
| Silicon, ppm                | < 250 |

**PRODUCT SAFETY POLICY**

It is the product safety policy of Huntsman Corporation to provide our customers with information on the safe handling and use of our products. The Material Safety Data Sheet (MSDS) should always be read and understood thoroughly before handling the product, and adequate safety procedures should be followed. Information on the toxicity, environmental and industrial hygiene aspects of our products may be found in the MSDS.

**TOXICITY AND SAFETY**

For additional information on the toxicity and safe handling of this product, consult the Material Safety Data Sheet (Safety Data Sheet in Europe) prior to use of this product.

**HANDLING AND STORAGE**

JEFFCOOL<sup>®</sup> E-300 coolant may be stored in unlined carbon steel tanks and drums. If storage of undiluted JEFFCOOL E-300 coolant for periods exceeding 12 months is desired, it is recommended that the storage vessels be constructed from aluminum, stainless steel, or lined carbon steel. Vinyl, epoxy, and phenolic linings are suitable. Stocks of JEFFCOOL E-300 coolant should be rotated every two to three years, if possible. The normal precautions associated with any chemical should be observed in handling JEFFCOOL E-300 coolant, although it is neither explosive nor flammable under normal storage conditions. The ethylene glycol in JEFFCOOL E-300 coolant is toxic if taken internally. Splashes onto eyes or skin must be washed away quickly and medical treatment is advised for eye exposure. Breathing of the vapors or mists should be avoided. For additional information, see the MSDS.

**AVAILABILITY**

JEFFCOOL E-300 coolant is available in tank wagons and 55-gallon, non-returnable steel or poly drums. Bulk and drum inventory is available at select locations throughout the United States. Samples are available by contacting our sample department at 1-800-662-0924.

**Performance Characteristics**

**D-1384 Multi-Metal Corrosion Performance Data**  
**mg/coupon weight loss**

| D-1384    | spec (max) | Results |
|-----------|------------|---------|
| copper    | 10         | 1       |
| solder    | 30         | 1       |
| brass     | 10         | 1       |
| steel     | 10         | 2       |
| cast iron | 10         | 5       |
| aluminum  | 30         | -2      |

**D-2570 Long-Term Multi-Metal Corrosion Performance Data**  
**mg/coupon weight loss**

| D-2570    | spec (max) | Results |
|-----------|------------|---------|
| copper    | 20         | 3       |
| solder    | 60         | 3       |
| brass     | 20         | 3       |
| steel     | 20         | 2       |
| cast iron | 20         | 1       |
| aluminum  | 60         | 0       |

**D-4340 High Temperature Aluminum Performance Data**  
**mg/cm<sup>2</sup>-week**

| D-4340   | spec (max) | Results |
|----------|------------|---------|
| aluminum | 1.0        | 0.16    |

**Antifoam Performance**

| D-1881           | spec (max) | Results |
|------------------|------------|---------|
| foam volume (mL) | 150        | 60      |
| break time (sec) | 5          | 1.6     |

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