

Technical Bulletin

JEFFCOOL[®] E104 INDUSTRIAL COOLANT AND HEAT TRANSFER FLUID

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| GENERIC NAME | Inhibited ethylene glycol |
| DESCRIPTION | JEFFCOOL [®] E104 is a pre-diluted ethylene glycol-based industrial coolant and heat transfer fluid containing corrosion inhibitors, antifoam and dye. JEFFCOOL [®] E104 is a 40% by volume mixture of JEFFCOOL [®] E100 and deionized water. |
| APPLICATIONS | JEFFCOOL [®] E104 can be used in heat transfer applications including line heaters, snow melting systems and runways; as a coolant for ice rinks and air conditioning systems (HVAC); and as a heat transfer agent for solar energy collection systems. The inhibitor package in JEFFCOOL [®] E104 is designed to protect all common metals used in industrial equipment including cast iron, steel, copper and brass up to 300°F and aluminum up to 190°F. JEFFCOOL [®] E104 coolant passes the ASTM D1384 corrosion test per the limits set in ASTM D3306. |

For applications where ingestion of the fluid by mammals is a possibility, select the corresponding JEFFCOOL[®] P150 series propylene glycol-based fluid or, for food processing equipment, select the corresponding JEFFCOOL[®] P200 series propylene glycol-based fluid.

SALES SPECIFICATIONS

| <u>Property</u> | <u>Specifications</u> | <u>Test Method*</u> |
|--|--|---------------------|
| Appearance | Slightly hazy and free of suspended solids | ST-30.1 |
| Freeze point, as is | | ASTM D3321 |
| °C | -21 max. | |
| °F | -6 max. | |
| pH, as is | 9.5 – 10.5 | ASTM D1287 |
| Reserve Alkalinity, mL 0.1 N HCl using a 25 mL sample | 10.0 – 14.0 | ASTM D1121 |
| Specific gravity, 60/60°F | 1.05 – 1.07 | ASTM D1122 |
| Water, wt% | 62 max. | ASTM D1123 |

*Methods of Test are available from Huntsman Corporation upon request.

ADDITIONAL INFORMATION

Regulatory Information

See SDS for all regulatory information.

Typical Properties

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|-----------------------------|------------|
| Flash point, COC, °C (°F) | >93 (>200) |
| Boiling point, °C (°F) | 106 (223) |
| Color | Red |
| Density, lb/US gal, 60°F | 8.8 |
| Viscosity, cSt, 20°C (68°F) | 4 |
| Water solubility, % | >10 |

TOXICITY AND SAFETY

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

HANDLING AND STORAGE

JEFFCOOL[®] E104 coolant may be stored in unlined carbon steel tanks and drums. If storage of concentrated JEFFCOOL[®] E104 coolant for periods over 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.

For detailed information on the storage and handling of JEFFCOOL[®] E104 coolant, see our bulletin on "Storage and Handling of JEFFCOOL[®] Coolants."

AVAILABILITY

JEFFCOOL[®] E104 coolant is available in tank wagons and 55-gallon, non-returnable steel drums. Bulk and drum inventory of JEFFCOOL[®] E104 is available at select locations throughout the United States.

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