



# Technical Information

## Asphalt Applications

### REDICOTE® E-2199

**Application** Emulsifier for cationic slow-setting asphalt emulsions.

**Advantages**

- *Solvent-Free Dense-Graded Mixes:* Emulsions prepared with Redicote E-2199 provide extended workability time to dense mixes based on crushed aggregate, reclaimed asphalt pavement or soils. Emulsions can be combined with cement or lime for improved strength and water resistance.
- *Slurry Seal:* Emulsions prepared using Redicote E-2199 allow adequate mix time with the most difficult aggregates and at high temperatures, without the need for additives.
- *Handling and Storage:* Redicote E-2199 does not contain flammable solvent, has little tendency to separate during storage and dissolves easily in the soap phase without a tendency to cause odors.

**Typical Emulsion Formulation**

|                    |                |
|--------------------|----------------|
|                    | <i>CSS -1h</i> |
| Asphalt            | 57+            |
| Redicote E-2199    | 0.8 - 1.2      |
| Hydrochloric acid* | 0.1 - 0.25     |
| pH soap            | 1.7 - 2.5      |
| Calcium chloride   | 0 - 0.1        |
| Water              | to 100         |

\*22°Baume or 35% wt %  
Alternative acids such as sulfuric or phosphoric may be used.

**Physical Properties**

|                    |                     |
|--------------------|---------------------|
| Appearance at 25°C | dark viscous liquid |
| Pour point, °C     | <5 (<41°F)          |
| Flash point, °C    | >100 (>212°F)       |

|                       |      |      |      |      |    |
|-----------------------|------|------|------|------|----|
|                       | 10   | 20   | 30   | 40   | °C |
|                       | 50   | 68   | 86   | 104  | °F |
| Viscosity, mPa.s (cP) | 4810 | 1900 | 1100 | 600  |    |
| Density, g/cc         | 1.12 | 1.10 | 1.08 | 1.06 |    |
| Density, lbs./gal     | 9.31 | 9.15 | 8.99 | 8.85 |    |

See reverse for additional data

**Storage and Handling**

Redicote E-2199 may be stored in carbon or stainless steel tanks. Bulk storage should be maintained at 20-40°C (68-104°F).

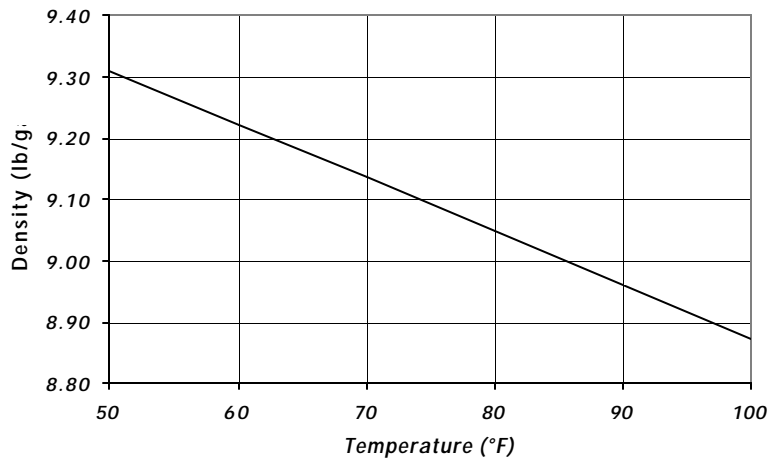
Redicote E-2199 is alkaline and may cause severe irritation or burns to skin and eyes. Protective goggles and gloves must be worn when handling this product. For further information consult the Material

Safety Data Sheet.

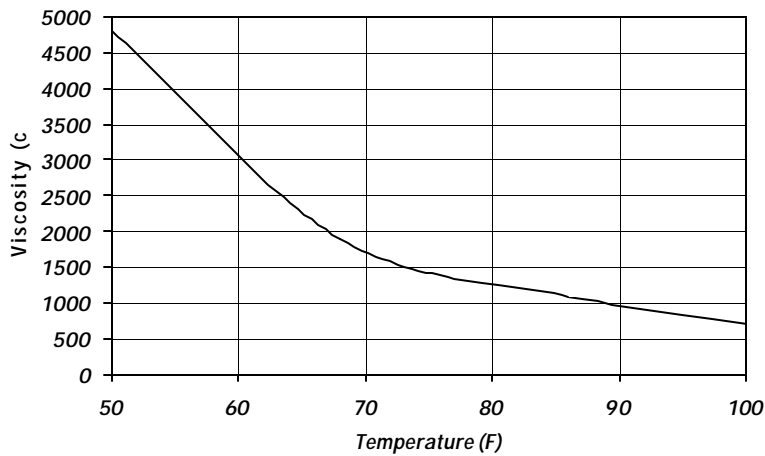
**Packaging  
Information**

Redicote E-2199 is available in bulk shipments or in 55-gallon tight head drums of 450 lbs. (205kg) net weight.

*Density vs Temperature*



*Viscosity vs. Temperature*



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