



Technical Data Sheet

UCARSOL™ LE 801 Solvent

Low Energy Refinery Solvent for Total Acid Gas Removal

Introduction

UCARSOL™ LE 801 Solvent, one in a series of high-performance gas treating solvents from Dow, is designed to reduce H₂S, CO₂, and COS to low levels. The product has been specially formulated for applications in primary refinery systems and treating fuel gases, recycled gases and/or cracked LPG feeds. UCARSOL™ LE 801 Solvent can achieve greater H₂S and CO₂ removal capacity than diethanolamine (DEA) and monoethanolamine (MEA). In addition, the solvent allows for the virtual complete removal of COS from liquid hydrocarbon streams. The solvent has a low heat of reaction and is easy to regenerate compared to the commonly used chemical solvents noted previously, resulting in the potential for significant operating cost reductions.

Special Features and Benefits to the Refiner

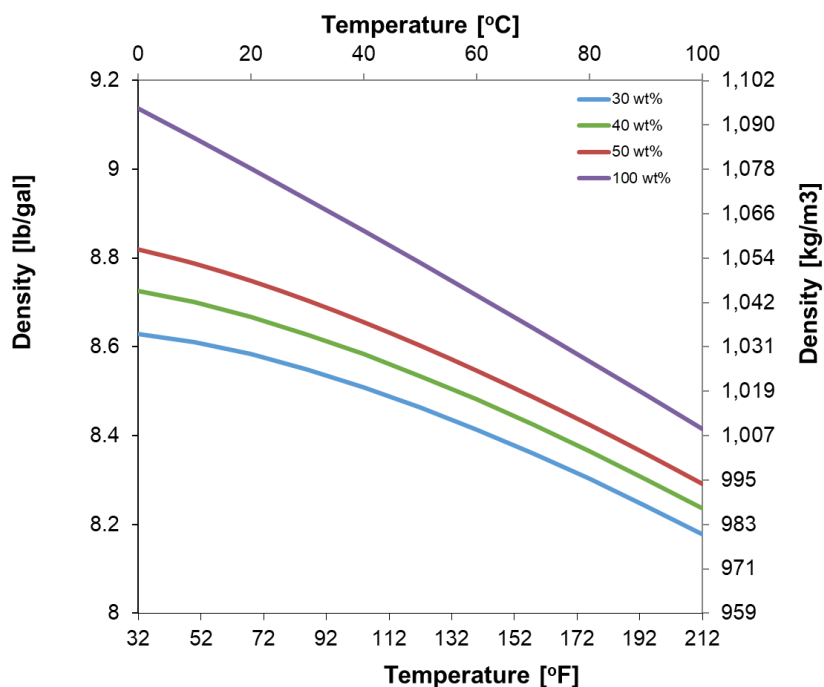
UCARSOL™ LE 801 Solvent offers important special advantages:

- The stable tertiary amine base allows the product to be used at up to 50 percent concentration, yielding significant energy savings through reduced reboiler duty and decreased pumping requirements due to lower solvent circulation rates.
- Increased acid gas processing capacity at existing facilities is possible as a result of improved acid gas removal capability.
- A high H₂S reactivity makes it possible to routinely achieve low H₂S specifications, even under low-pressure gas conditions.
- The product contains components that provide nearly complete removal of COS from cracked LPG feed streams.
- Solvent reclaiming as a result of degradation is not required.
- Local technical support and complete solvent services ensure ongoing trouble-free operation.

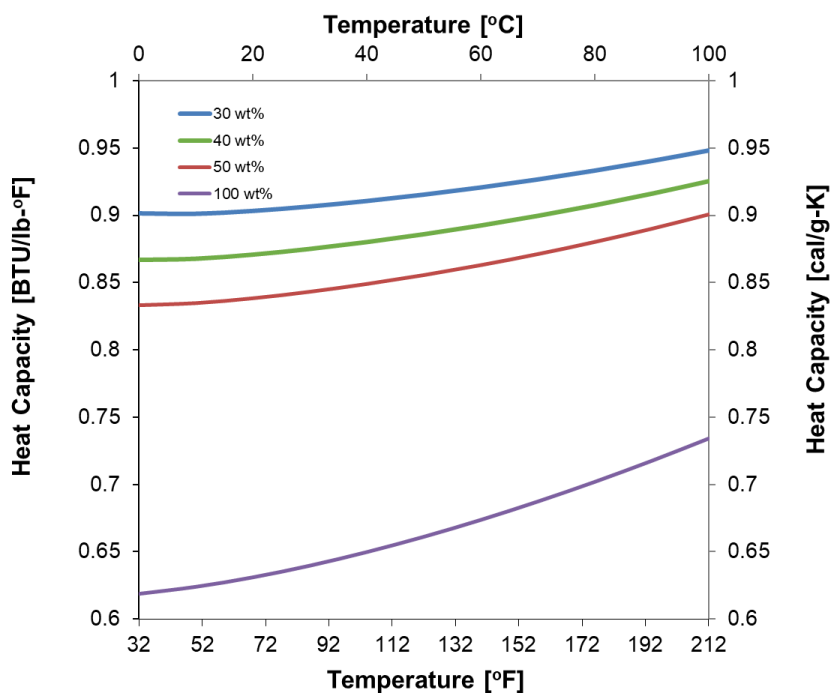
Physical Properties

UCARSOL™ LE 801 Solvent can be used as an aqueous solution in various concentrations. However, a 50 percent aqueous solution has been found to provide optimal performance.

Density of UCARSOL™ LE 801



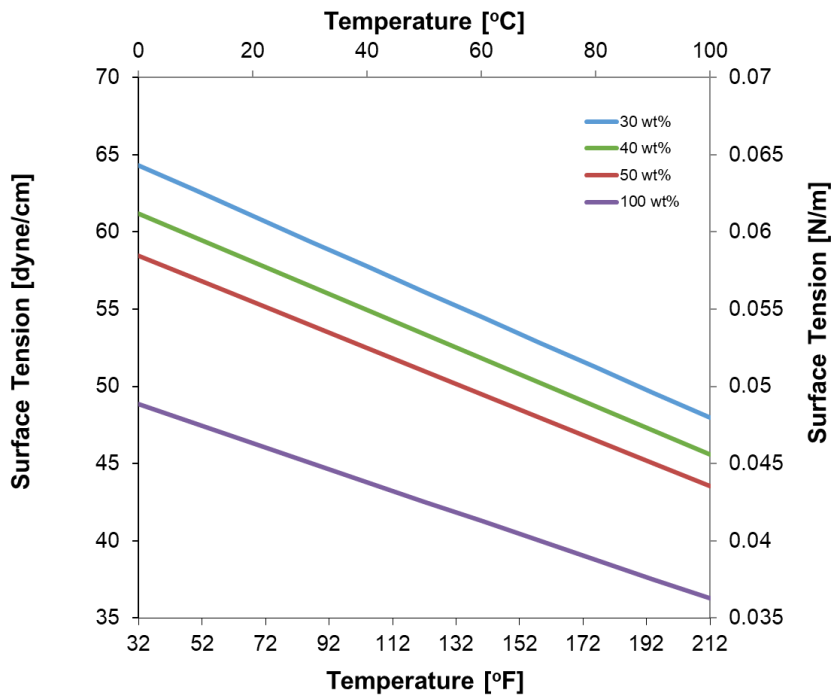
Heat Capacity of UCARSOL™ LE 801



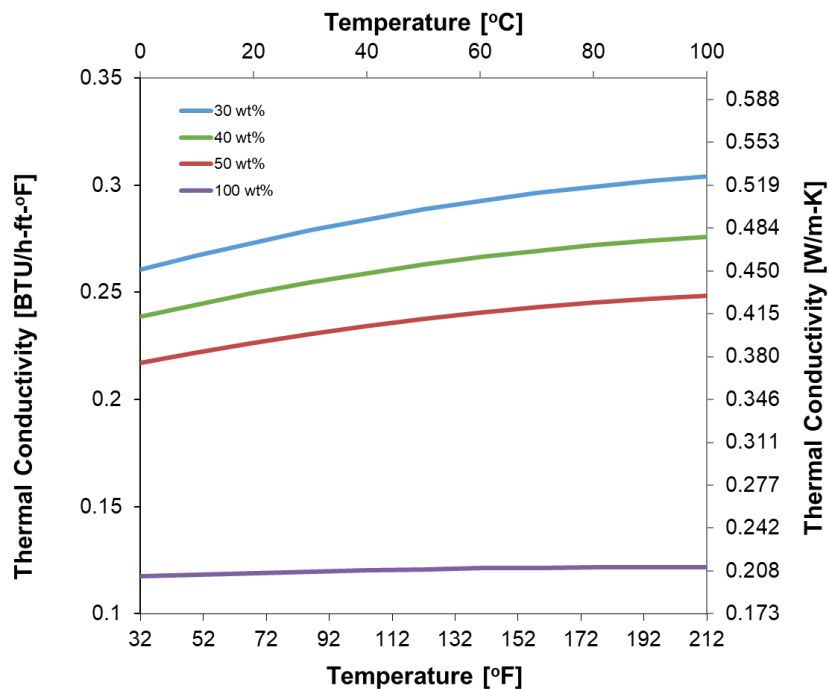
*Predicted Properties

**Physical
Properties
(Cont.)**

Surface Tension of UCARSOL™ LE 801

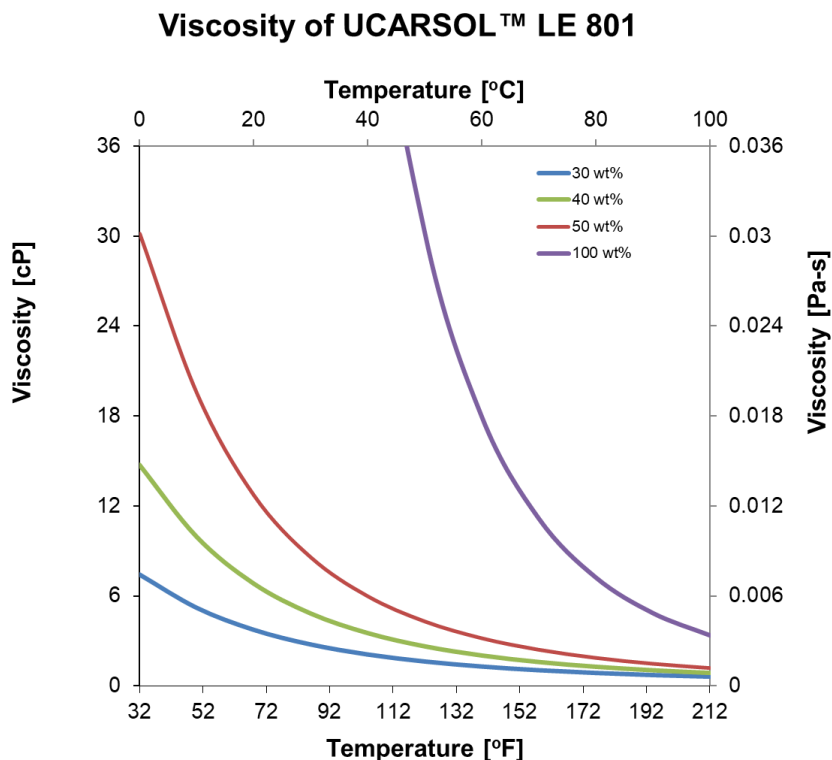


Thermal Conductivity of UCARSOL™ LE 801



*Predicted Properties

Physical Properties (Cont.)



*Predicted Properties

Additional information on UCARSOL™ LE 801 Solvent and its properties and advantages is available upon request. To explore how UCARSOL™ LE 801 solvent can improve performance in your existing or proposed gas treating unit, contact Dow.

Gas Treating Services

Dow offers a unique sample kit. Completely self-contained, the kit provides everything necessary — from containers to labels — to obtain lean and rich amine samples, and seal and safely ship them for routine analysis.

Dow is a worldwide leader in providing gas treating processors with specialized technology and services. To aid in both plant design and operation, UCARSOL™ Solvents are supported by advanced simulation capabilities, state-of-the-art laboratories, field test equipment, analytical procedures and an optimization program. The services Dow provides encompass preliminary assessments, start-up services, continual monitoring, and follow-up services. Included in this total support program are the training for people in the field, regular sample testing and performance evaluation. To ensure complete customer protection and satisfaction, Dow is there every step of the way – before, during, and after installation.

Note: This guide is designed as a general product overview. Please contact your local Dow Oil & Gas representative for up-to-date, detailed technical information including registrations and use limitations and to discuss individual applications or requirements.

Contact:

www.dow.com/contact

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