



Technical Data Sheet

**UCARSOL™ HYBRID-700 Series Solvents**

For High Efficiency H<sub>2</sub>S and Mercaptan removal from gas streams

**Product Description**

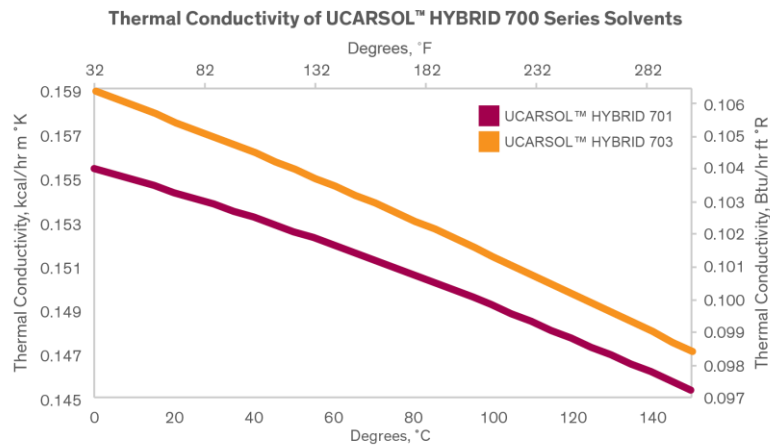
UCARSOL™ HYBRID-700 series of solvents are a high performance series of gas treating solvents from The Dow Chemical Company. These solvents have been specifically designed to treat gas streams containing H<sub>2</sub>S and mercaptans. The solvents are methyldiethanolamine (MDEA) based, using physical and chemical solvents combined in a single solvent system. These hybrid solvents can be used at natural gas processing plants or refineries to reach deep total sulfur removal rates.

**Features & Benefits**

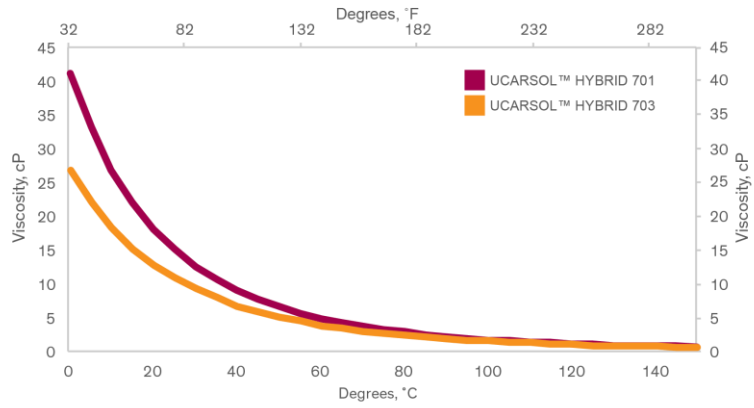
- Reduces H<sub>2</sub>S and mercaptans to low levels
- Designed and simulated to accurately predict hydrocarbon co-absorption
- Formulations designed to enhance mercaptan removal and minimize hydrocarbon co-absorption
- Integrated solvent system is an alternative mercaptan removal strategy compared to chemical solvents and physical solvents in sequential systems
- Ability to upgrade existing solvent systems
- Dow Technical support including local field technical support and global analytical support
- Global references and long-term operating data available

**Typical Properties**

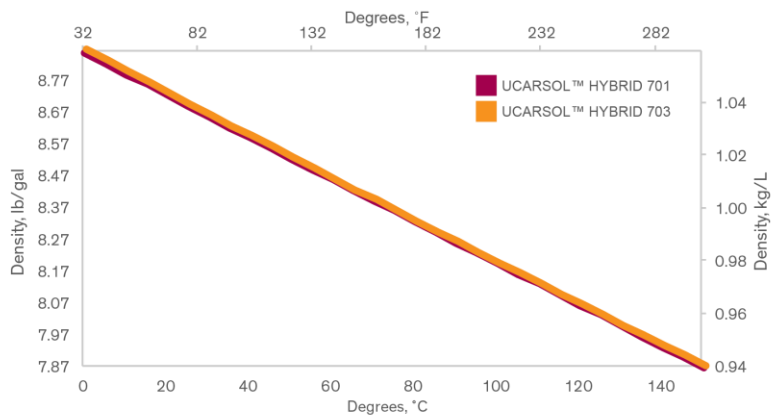
Physical Properties	UCARSOL™ HYBRID 701	UCARSOL™ HYBRID 702	UCARSOL™ HYBRID 703
Pour Point °C (°F)	-66 (-87)	-57 (-71)	< -59 (< -74)
Boiling Point @ 760 mmHG °C (°F)	246.5 (475.7)	224.5 (436.1)	288.8 (551.8)
Solubility in Water @ 20 °C	Complete	Complete	Complete
Specific Gravity @ 20 °C	1.059	1.059	1.046
Flash Point °C (°F)	121 (250)	118 (244)	135 (275)



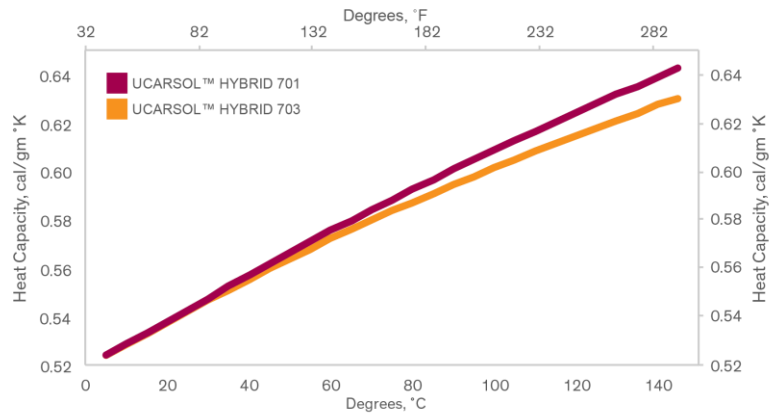
**Viscosity of UCARSOL™ HYBRID 700 Series Solvents**



**Density of UCARSOL™ HYBRID 700 Series Solvents**



**Heat Capacity of UCARSOL™ HYBRID 700 Series Solvents**



## Storage and Handling

The UCARSOL™ HYBRID-700 Series solvents are usually stored and handled in steel equipment. They are also compatible with tinned steel and stainless steel. Aluminum, zinc or galvanized steel, copper and its alloys should not be used.

These solvents become viscous at outside winter temperatures. Therefore storage inside a warm building or in a heated, insulated tank may be desirable. A centrifugal pump is suitable for transfer service, assuming the temperature of the product is sufficiently above its pour point. A rotary or gear pump is suggested for lower temperature transfers.

Piping should be of adequate size to handle the maximum viscosity expected to be encountered. Valves, piping, etc. are usually of steel construction. Type 304 stainless steel, spiral-wound Grafoil gaskets for flanges and Grafoil packing for valves is recommended.

Aqueous solutions of UCARSOL HYBRID-700 series can be handled in steel equipment. They should not be handled or stored in contact with aluminum, zinc or galvanized iron, or copper and its alloys.

## Product Stewardship

When considering the use of any Dow products in a particular application, you should review the latest Material Safety Data Sheets from Dow and ensure that they are intended for safe use. For Material Safety Data Sheets and other product safety information, contact Dow. Before handling any other products mentioned in the text, you should obtain available product safety information and take necessary steps to ensure safety of use.

No chemical should be used as or in a food, drug, medical device or cosmetic, or in a product or process in which it may contact a food, drug, medical device or cosmetic until the user has determined the suitability and legality of the use. Since government regulations and use conditions are subject to change, it is the user's responsibility to determine that this information is appropriate and suitable under current, applicable laws and regulations.

Dow requests that the customer read, understand and comply with the information contained in this publication and the current Material Safety Data Sheet(s). The customer should furnish the information in this publication to its employees, contractors and customers or any other users of the product(s), and request that they do the same.

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

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