



# TRIM<sup>®</sup> MicroSol<sup>®</sup> 685

*High-lubricity Semisynthetic Metalworking Fluid*

## GENERAL DESCRIPTION

TRIM<sup>®</sup> MicroSol<sup>®</sup> 685 is a high-lubricity, semisynthetic microemulsion coolant. The formula offers the performance of a heavy-duty soluble oil with the cleanliness of a semisynthetic. It provides excellent cooling and mechanical lubricity, along with the machine friendly characteristics you expect from a premium TRIM<sup>®</sup> coolant.

## ADVANTAGES

- Excellent alternative to chlorinated soluble oils on high-silica aluminum alloys
- Reduces oil mist and residues often associated with high-lubricity alternatives
- Contains no nitrites, triazines, phenols, or sulfurized EP additives
- Provides superior corrosion inhibition on all ferrous and nonferrous metals
- Forms stable microemulsion in hard water environments
- Compatible with a very wide range of material including aluminum, magnesium and copper alloys, cast iron, steels, stainless steels, and many plastics and composites
- Keeps machines very clean while leaving a soft fluid film for ease of cleaning and reduced maintenance
- Has exceptional sump life without the use of tank side additives
- Requires no special disposal or recycling techniques

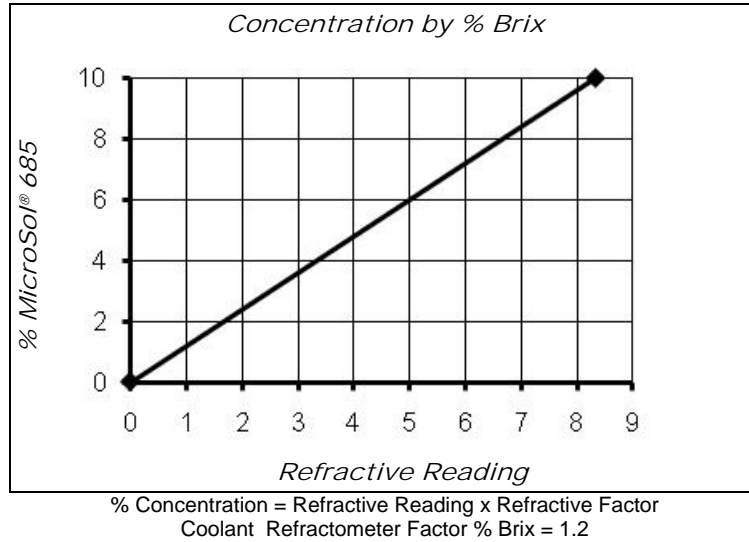
## APPLICATION GUIDELINES

- MicroSol<sup>®</sup> 685 performs well where traditional soluble oils may not cool sufficiently.
- In mixed-metal situations, concentration control is critical to fight galvanic corrosion (7.5% plus).
- Running at or above 7.5% offers the best sump life and corrosion inhibition.
- For additional product applications information including performance optimization, please contact your Master Chemical Authorized Distributor at [2trim.us/distributors.php](http://2trim.us/distributors.php), your District Sales Manager, the Tech Line at 1-800-537-3365, or visit our web site at [www.masterchemical.com](http://www.masterchemical.com).

## PHYSICAL PROPERTIES (TYPICAL DATA)

Color (Concentrate) .....	Amber	Flash Point .....	>200°F (93°C) (ASTM D93-08)
Color (Working Solution) .....	Light yellow	pH (Typical Operating as a Range) .....	9.5-10.0
Odor .....	Mild amine	Coolant Refractometer Factor % Brix .....	1.2
Form .....	Liquid	Titration Factor (CGF-1 Titration Kit) .....	N/A

## TRIM® MicroSol® 685



### RECOMMENDED METALWORKING CONCENTRATIONS

Light-duty machining and grinding.....5%-7%  
Moderate-duty machining.....7%-10%  
Design concentration range.....4%-10%

### MIXING INSTRUCTIONS

- Using premixed coolant as makeup will improve coolant performance and reduce coolant purchases. The makeup you select should balance the water evaporation rate with the coolant carryout rate. Adding makeup coolant at one-third to one-half of the desired working concentration will generally maintain the proper concentration in the sump.
- Using DI or mineral-free water will improve sump life, reduce concentrate usage, reduce carryoff, and improve corrosion inhibition.
- Microemulsion products like MicroSol® 685 work best if they are mixed by adding the coolant concentrate to the water (never the reverse) to help insure that the best possible microemulsion is formed.

### HEALTH AND SAFETY

See the most recent MSDS at [2trim.us/ms/?i=486](http://2trim.us/ms/?i=486).



### NOTES

- Use Master STAGES™ Whamex™ for a quick and thorough pre-cleaning of your machine tool and coolant system.
- Before using on any metals or applications not specifically recommended, consult Master Chemical.
- This product should not be mixed with other metalworking fluids or metalworking fluid additives, except as recommended by Master Chemical Corporation, as this may reduce overall performance, result in adverse health effects, or damage the machine tool and parts. If contamination occurs, please contact Master Chemical Corporation for recommended action.
- MicroSol® 685 working solution is a light yellow microemulsion and is not available with dye.
- Packaging: North America – 1-gallon jug, 5-gallon pail, 54-gallon drum, and 270-gallon tote bin.
- Packaging: Europe/Asia – 20-litre pail, 204-litre drum, and 1000-litre IBC.

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URL: [2trim.us/di/?i=181](http://2trim.us/di/?i=181)

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