

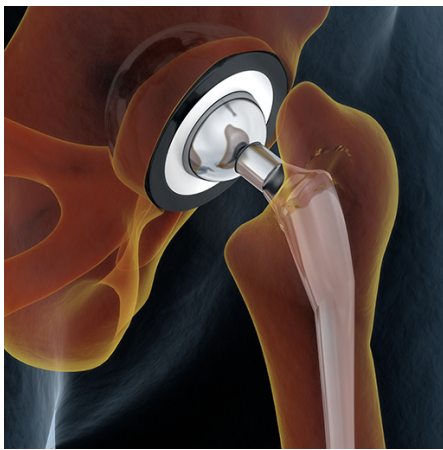
TRIM[®] MicroSol[®] 685

High-lubricity Semisynthetic Metalworking Fluid



TRIM MicroSol 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 coolant.

MicroSol



Joint replacement manufacturer

MicroSol 685 saved 24.4% annually

A manufacturer of joint replacement systems and medical tools was using four coolants in their operation. They wanted to reduce the number of coolants and possibly achieve cost savings without sacrificing part quality. Backed with test results, MicroSol 685 has been used as the single coolant, and results show a 24.4% cost savings per year with less product used, longer fluid life, and reduced disposal costs.

Choose MicroSol 685:

- Excellent alternative to chlorinated soluble oils on high-silica aluminum alloys
- Reduces oil mist and residues often associated with high-lubricity alternatives
- Provides superior corrosion inhibition on all ferrous and nonferrous metals
- Forms stable microemulsion in hard water environments
- 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
- Uses standard metalworking recycling and disposal techniques
- Performs well where traditional soluble oils may not cool sufficiently

MicroSol 685 especially for:

Applications — band sawing, cooling, cylindrical grinding, drilling, form cylindrical grinding, internal grinding, plain grinding, reaming, roll threading, surface grinding, surface milling, tapping, thread forming, through-feed centerless grinding, and turning

Metals — aluminum, cast aluminum, cast iron, composites, copper alloys, exotic alloys, ferrous metals, magnesium alloys, nonferrous metals, plastics, stainless steels, steels, and wrought aluminum

Industries — aerospace and medical

MicroSol 685 is free of — nitrites, phenols, sulfurized EP additives, and triazine

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Application Guidelines

- 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 application information, including performance optimization, please contact your Master Fluid Solutions' Authorized Distributor at <https://www.2trim.us/distributors.php>, your District Sales Manager, or call our Tech Line at 1-800-537-3365.

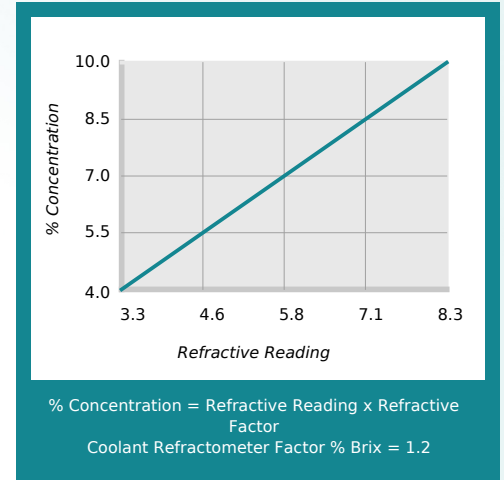
Physical Properties Typical Data

Color (Concentrate)	Amber
Color (Working Solution)	Light yellow
Odor (Concentrate)	Mild amine
Form (Concentrate)	Liquid
Flash Point (Concentrate) (ASTM D93-08)	> 199°F
pH (Concentrate as Range)	9.5 - 10.5
pH (Typical Operating as Range)	9.5 - 10.0
Coolant Refractometer Factor	1.2
Titration Factor (CGF-1 Titration Kit)	1.00
Digital Titration Factor	0.0213
V.O.C. Content (ASTM E1868-10)	175 g/l

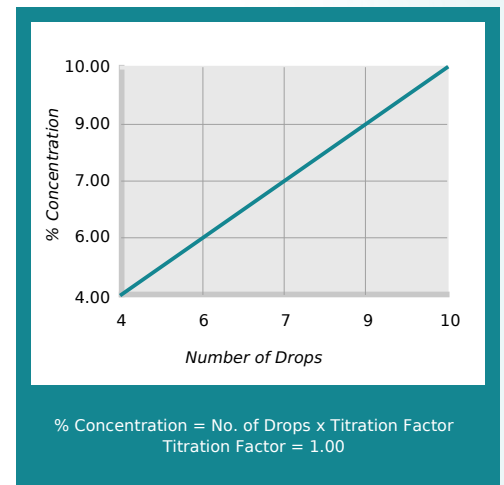
Recommended Metalworking Concentrations

Light duty	4.0% - 6.5%
Moderate duty	6.5% - 8.5%
Heavy duty	8.5% - 10.0%
Design Concentration Range	4.0% - 10.0%

Concentration by % Brix



Concentration by Titration



Health and Safety

Request SDS



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Mixing Instructions

- Recommended usage concentration in water: 4.0% - 10.0%.
- To help ensure the best possible working solution, add the required amount of concentrate to the required amount of water (never the reverse) and stir until uniformly mixed.
- Use premixed coolant as makeup to improve coolant performance and reduce coolant purchases. The makeup you select should balance the water evaporation rate with the coolant carryout rate. Use our Coolant Makeup Calculator to find the best ratio for your machine: apps.masterfluids.com/makeup/.
- Use mineral-free water to improve sump life and corrosion inhibition while reducing carryoff and concentrate usage.



1-gallon jug
SKU: MS685/1
UPC-12: 641238047056



5-gallon pail
SKU: MS685/5
UPC-12: 641238047070



54-gallon drum
SKU: MS685/54
UPC-12: 641238047087



270-gallon tote
SKU: MS685/NR270P
UPC-12: 641238047094

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Additional Information

- Use Master STAGES[™] Whamex[™] for a quick and thorough precleaning of your machine tool and coolant system.
- Consult Master Fluid Solutions before using on any metals or applications not specifically recommended.
- This product should not be mixed with other metalworking fluids or metalworking fluid additives, except as recommended by Master Fluid Solutions, as this may reduce overall performance, result in adverse health effects, or damage the machine tool and parts. If contamination occurs, please contact Master Fluid Solutions for recommended action.
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