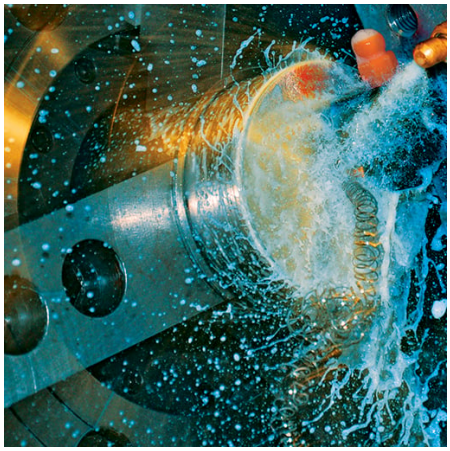
TRIM® MicroSol® 689NXT

Premium, High-lubricity, Ester Microemulsion

TRIM MicroSol 689NXT is a translucent, premium high-lube microemulsion. The product is designed to machine difficult to machine metals, such as stainless steel and Inconel®. It is also good for most aluminum alloys including aerospace grade. The product is low foaming in soft water but is also stable in hard water.

MicroSol



For ultimate performance:

TRIM® MicroSol® semisynthetic microemulsion coolants deliver high-performance lubricity and ultimately lower costs. Achieve precision parts, exceptional tool life, extended sump life, assured regulatory compliance, and greater profitability with the MicroSol product just right for your production.

Designed to meet the rigorous demands of the aerospace, medical, automotive, and high production, precision parts manufacturing industries, there's a MicroSol to answer your concerns, ramp up your production, and boost your bottom line.

Choose MicroSol 689NXT:

- Strong hard water stability
- Provides superior corrosion inhibition on all ferrous metals
- Uses standard metalworking recycling and disposal techniques
- Low foaming for modern high-pressure, high-volume applications
- Greatly extends useful life without the need for tank side biocides or fungicides
- Keeps machines very clean while leaving a soft fluid film for ease of cleaning and reduced maintenance
- Excellent compatibility with a very wide range of material including stainless steel, nickel alloys, titanium, and aluminum alloys

MicroSol 689NXT especially for:

Applications — general purpose and high-pressure, high-volume

Metals — aluminum alloys, nickel alloys, plastics, steels, and titanium

Industries — aerospace, energy, and general industry

MicroSol 689NXT is free of — boron, chlorinated EP additives, formaldehyde releasers, mineral oils, nitrites, phenols, secondary amines, and sulfurized EP additives

Master Fluid SOLUTIONS®

TRIM® MicroSol® 689NXT

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Application Guidelines

- Performs well where traditional soluble oils may not cool sufficiently.
- Not recommended for use for very reactive metals such as magnesium.
- Running at or above 7.0% offers the best sump life and corrosion inhibition to protect machine tools and parts.
- For additional product application information, including performance optimization, please contact your Master Fluid Solutions' Authorized Distributor at https://www.masterfluids.com/na/en-us/distributors/index.php, your District Sales Manager, or call our Tech Line at 1-800-537-3365.

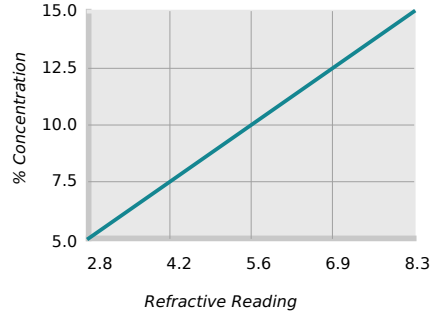
Physical Properties Typical Data

Color (Concentrate)	Light yellow to amber
Color (Working Solution)	White translucent
Odor (Concentrate)	Mild
Form (Concentrate)	Liquid
Flash Point (Concentrate) (ASTM D93-08)	> 212°F
pH (Concentrate as Range)	9.5 - 9.9
pH (Typical Operating as Range)	9.1 - 9.9
Coolant Refractometer Factor	1.8
Titration Factor (CGF-1 Titration Kit)	0.78
Digital Titration Factor	0.0170
V.O.C. Content (ASTM E1868-10)	123 g/l

Recommended Metalworking Concentrations

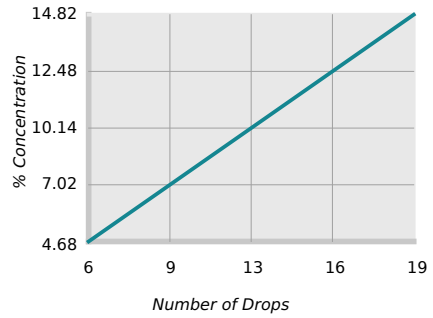
Light Duty	5.0% - 6.5%
Moderate Duty	6.5% - 8.5%
Heavy Duty	8.5% - 15.0%
Design Concentration Range	5.0% - 15.0%

Concentration by % Brix



% Concentration = Refractive Reading x Refractive Factor
Coolant Refractometer Factor % Brix = 1.8

Concentration by Titration



% Concentration = No. of Drops x Titration Factor
Titration Factor = 0.78

Health and Safety

Request SDS

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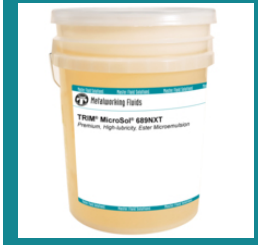
Mixing Instructions

- Recommended usage concentration in water: 5.0% - 15.0%.
- 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: MS689NXT-1G
UPC-12: 641238083214



5-gallon pail
SKU: MS689NXT-5G
UPC-12: 641238083238

54-gallon drum
SKU: MS689NXT-54G
UPC-12: 641238083245

270-gallon tote
SKU: MS689NXT-270G
UPC-12: 641238083252

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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501 West Boundary Street
Perrysburg, OH 43551-1200
United States
+1 419-874-7902

info@masterfluids.com

masterfluids.com/na/en-us/