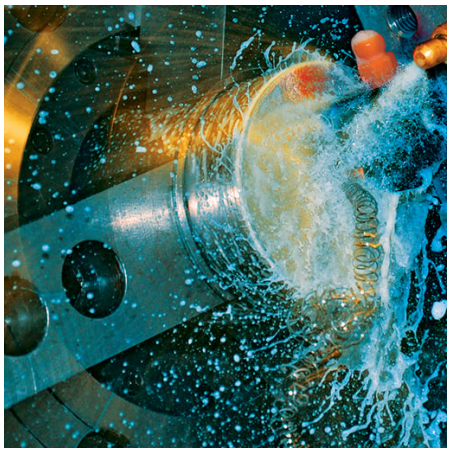
# TRIM® MicroSol® 697XT

***Premium, High-lubricity, Low-foam Microemulsion***

TRIM MicroSol 697XT delivers the same great high-lubricity performance you expect from TRIM MicroSol, now with an improved reduced-residue formulation for even greater machine and part cleanliness. This semisynthetic microemulsion coolant provides extended sump life, excellent biological stability, and superior foam control while offering enhanced non-ferrous metal protection, including improved performance on aluminum alloys such as AL 5083.

Designed for demanding mixed-metal machining environments, TRIM MicroSol 697XT is compatible with a wide range of materials, including titanium, high-nickel alloys, steels, copper, and aluminum alloys. Excellent tramp oil rejection helps keep systems cleaner and production running smoothly. With proven performance, improved cleanliness, and enhanced aluminum protection, TRIM MicroSol 697XT helps increase productivity and profitability.

## *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 697XT:

- Reduced-residue formulation for even greater machine and part cleanliness
- Improved lubricity for longer tool life
- Dramatically extends useful life without the need for tank-side biocides or fungicides
- Halogen free
- Low foaming for todays demanding high-pressure, high-volume applications
- Excellent alternative to chlorinated soluble oils on high-silica aluminum alloys
- Provides superior corrosion inhibition on all ferrous and nonferrous metals
- Keeps machines very clean while leaving a soft fluid film for ease of cleaning and reduced maintenance
- Requires no special disposal or recycling techniques

## MicroSol 697XT especially for:

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

**Metals** — 5083, 6000 series aluminum, aerospace aluminum alloys, aluminum alloys, brass, bronze, cast aluminum, composites, copper, copper alloys, exotic alloys, glass, heat-treated steel, high-carbon steel, high-nickel alloys, high-silica aluminum alloys, nonferrous metals, plastics, stainless steels, steels, titanium, and wrought aluminum

**Industries** — aerospace, automotive, bearing, compressor, diecast, energy, firearms, green, job shop, machine tool, medical, and semiconductor equipment

**MicroSol 697XT is free of —** chlorine, halogens, NPEs, and sulfonates

Master Fluid SOLUTIONS®

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## Application Guidelines

- 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 on cast iron chips.
- Not recommended for use on very reactive metals such as magnesium.
- 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.

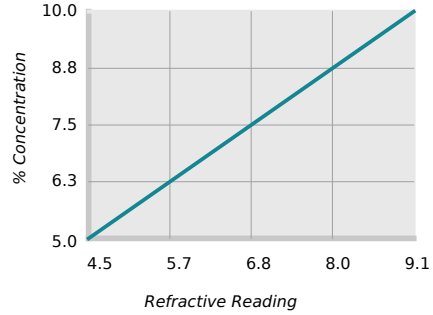
## Physical Properties Typical Data

| | |
|---|---|
| Color (Concentrate) | Light yellow to amber |
| Color (Working Solution) | Opaque white |
| Odor (Concentrate) | Mild amine |
| Form (Concentrate) | Liquid |
| Flash Point (Concentrate) (ASTM D93-08) | > 212°F |
| pH (Concentrate as Range) | 9.6 - 10.0 |
| pH (Typical Operating as Range) | 8.8 - 9.6 |
| Coolant Refractometer Factor | 1.1 |
| Titration Factor (CGF-1 Titration Kit) | 0.62 |
| Digital Titration Factor | 0.0163 |
| V.O.C. Content (ASTM E1868-10) | 93.0 g/l |

## Recommended Metalworking Concentrations

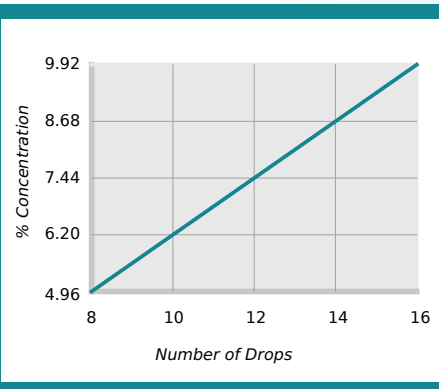
| | |
|---|---|
| Light Duty | 5.0% - 6.5% |
| Moderate Duty | 6.5% - 8.5% |
| Heavy Duty | 8.5% - 10.0% |
| Design Concentration Range | 5.0% - 10.0% |

## Concentration by % Brix




% Concentration = Refractive Reading x Refractive Factor
Coolant Refractometer Factor % Brix = 1.1

## Concentration by Titration




% Concentration = No. of Drops x Titration Factor
Titration Factor = 0.62

## Health and Safety

Request SDS

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## Mixing Instructions

- Recommended usage concentration in water: 5.0% - 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: MS697XT-1G
UPC-12: 641238084013

5-gallon pail
SKU: MS697XT-5G
UPC-12: 641238083993

54-gallon drum
SKU: MS697XT-54G
UPC-12: 641238083986

270-gallon tote
SKU: MS697XT-270G
UPC-12: 641238083979

## 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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