

# TRIM<sup>®</sup> MicroSol<sup>™</sup> 690XT

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



TRIM MicroSol 690XT is a high-lubricity, semisynthetic, microemulsion coolant. The formula delivers extended sump life and better foam control versus previous generation semisynthetics. It provides excellent cooling and mechanical lubricity, along with the machine friendly characteristics you expect from a premium TRIM coolant. It does very well in mixed metal situations.

## MicroSol



*Hy-Speed Machining in Oregon, USA produces parts for the aerospace industry*

### **A case for MicroSol 690XT:**

*Hy-Speed Machining in Oregon, USA produces parts for the aerospace industry. After using a full synthetic, they switched to MicroSol 690XT with astonishing results. Their cutting time for Inconel<sup>®</sup> went from 12 minutes per piece to less than 4 1/2 minutes, and the \$450 drill lasted SIX times longer! Formerly, when tapping parts, they had to line them up, start the taps, put in a machine override to add tapping oil, then resume. Now, with MicroSol 690XT, they just start it up, walk away, and "come back to beautiful parts." Having dramatically cut both coolant and tool costs and increased production, Hy-Speed Machining is sold on MicroSol 690XT.*

### **Choose MicroSol 690XT:**

- Dramatically extends useful life without the need for tank side biocides or fungicides
- Boron and formaldehyde free
- Low foaming for demanding high-pressure, high-volume applications
- Compatible with a very wide range of materials including titanium, high nickel alloys, steels, copper and aluminium alloys
- Excellent alternative to high mineral oil soluble oils on high-silica aluminium alloys
- Contains no nitrites, phenols, chlorinated or sulphurised EP additives
- 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
- Uses standard metalworking recycling and disposal techniques

### **MicroSol 690XT especially for:**

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

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

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

**MicroSol 690XT is free of** — boron, chlorinated EP additives, formaldehyde releasers, halogens, nitrites, phenols and sulphurised EP additives

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## Application Guidelines

- MicroSol 690XT 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.
- MicroSol 690XT is not recommended for use on very reactive metals such as magnesium.
- For additional product application information, including performance optimisation, please contact your Master Fluid Solutions' Authorised Distributor at <https://www.2trim.us/distributors.php>, your District Sales Manager, or call our Tech Line at +49 211 77 92 85 - 13.

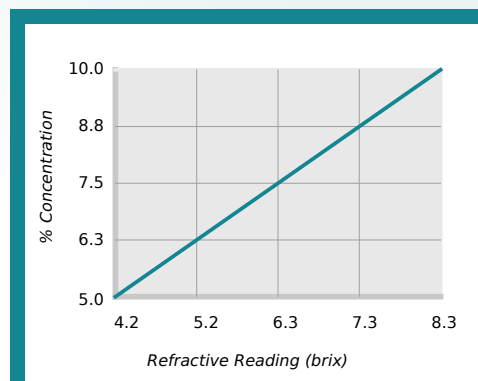
## Physical Properties Typical Data

Colour (Concentrate)	Straw
Colour (Working Solution)	White Microemulsion
Odour (Concentrate)	Mild amine
Form (Concentrate)	Liquid
Flash Point (Concentrate) (ASTM D93-08)	> 160°C
pH (Concentrate as Range)	9.6 - 10.6
pH (Typical Operating as Range)	9.4 - 10.4
Coolant Refractometer Factor	1.2
Titration Factor (CGF-1 Titration Kit)	0.64

## Recommended Metalworking Concentrations

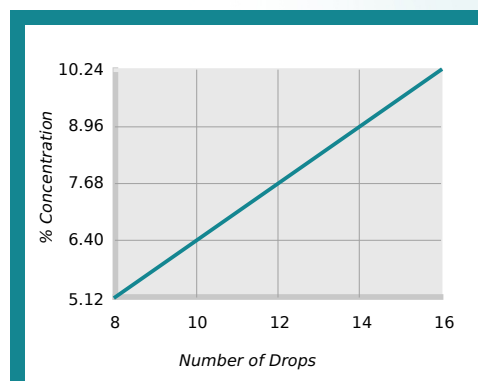
Light duty	5.0% - 6.5%
Moderate duty	6.5% - 8.5%
Heavy duty	8.5% - 10.0%
Design Concentration Range	5.0% - 10.0%

## Concentration by % Brix



$\% \text{ Concentration} = \text{Refractive Reading} \times \text{Refractive Factor}$   
Coolant Refractometer Factor % Brix = 1.2

## Concentration by Titration



$\% \text{ Concentration} = \text{No. of Drops} \times \text{Titration Factor}$   
Titration Factor = 0.64

## Health and Safety

For further information, see the most recent SDS which is available directly from Master Fluid Solutions or from your Master Fluid Solutions' Authorised Distributor.

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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.masterfluidsolutions.com/makeup/](https://apps.masterfluidsolutions.com/makeup/).
- Use mineral-free water to improve sump life and corrosion inhibition while reducing carryoff and concentrate usage.

## Ordering Information

20-litre pail

204-litre drum

1000-litre IBC


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## Additional Information

- Use Master STAGES<sup>™</sup> Whamex<sup>™</sup> 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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[https://2trim.us/di/?i=eu\\_en\\_MS690XT](https://2trim.us/di/?i=eu_en_MS690XT)



 Hasselsstraße 6-14  
Düsseldorf, 40597  
Germany

 +49 211 77 92 85 - 0

 [info-eu@masterfluidsolutions.com](mailto:info-eu@masterfluidsolutions.com)

 [masterfluidsolutions.com/eu/en/](https://masterfluidsolutions.com/eu/en/)

