

TRIM[®] MicroSol[®] 590XT

Advanced Technology Aerospace Semisynthetic



TRIM MicroSol 590XT is an environmentally-friendly semisynthetic, microemulsion coolant formulated to pass aerospace approval test requirements. It utilizes the newest technology to provide long life and excellent protection of sensitive alloys. MicroSol 590XT improves on the proven performance of previous generations with a robust stability package using the most environmentally-safe ingredients. The formula is a favorite of environmental advocates, safety professionals, and demanding production managers.

MicroSol



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MicroSol 590XT In Action:

A Pacific Northwest aerospace manufacturer machines aluminum, titanium, stainless, and Inconel[®] for Tier 1 and Prime OEM customers. Their previous coolant had the necessary aerospace approvals, but still caused odor, residue, and foaming issues. With a switch to MicroSol 590XT, foam, foul odor, and residue problems are gone, and they record excellent tool life, surface finish, and overall cost savings.

Choose MicroSol 590XT:

- Meets the most stringent aerospace specifications and has received many aerospace approvals
- Protects and prevents corrosion on sensitive alloys, including aerospace and nuclear materials
- Free of chlorine, triazine, formaldehyde releasers, phenols, boron, and secondary amines
- Dramatically extends useful life without the need for tank-side biocides or fungicides
- Low foaming for today's demanding high-pressure, high-volume applications
- Optimized combination of cooling and lubricity for titanium, aluminum, steel, stainless steel, and Inconel[®] machining applications
- Excellent alternative to chlorinated soluble oils on high-silica aluminum alloys
- Provides superior corrosion inhibition on all ferrous and nonferrous metals
- Keeps parts and machines very clean to reduce maintenance and production time

MicroSol 590XT especially for:

Applications — band sawing, belt grinding, Blanchard grinding, corrosion inhibition, cutting, cylindrical form grinding, double disc grinding, drilling, grinding, high-pressure, high-volume, in-feed centerless grinding, internal grinding, plain grinding, reaming, roll threading, surface grinding, surface milling, tapping, thread forming, through-feed centerless grinding, and turning

Metals — 6000 series aluminum, aerospace aluminum alloys, aluminum, brass, bronze, cast aluminum, cast iron, composites, copper, exotic alloys, glass, heat-treated steel, high-carbon steel, high-nickel alloys, Inconel[®], nonferrous metals, stainless steels, steels, titanium, and wrought aluminum

Industries — aerospace

MicroSol 590XT is free of — boron, chlorine, DCHA, phenols, secondary amines, and triazine

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Application Guidelines

- MicroSol 590XT 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 590XT is 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.2trim.us/distributors.php>, your District Sales Manager, or call our Tech Line at 1-800-537-3365.

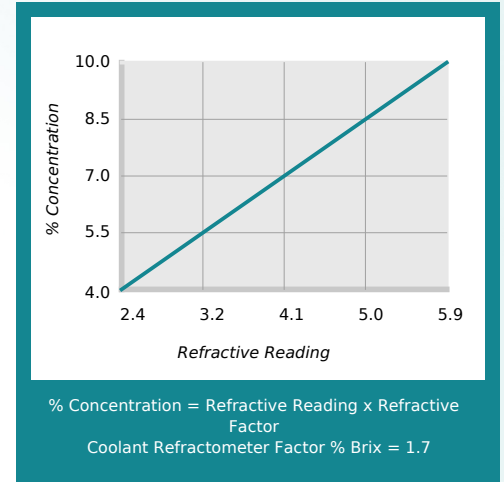
Physical Properties Typical Data

Color (Concentrate)	Amber
Color (Working Solution)	Clear to white microemulsion
Odor (Concentrate)	Mild amine
Form (Concentrate)	Liquid
Flash Point (Concentrate) (ASTM D93-08)	> 212°F
pH (Concentrate as Range)	9.5 - 9.7
pH (Typical Operating as Range)	8.8 - 9.7
Coolant Refractometer Factor	1.7
Titration Factor (CGF-1 Titration Kit)	0.75
Digital Titration Factor	0.0202
V.O.C. Content (ASTM E1868-10)	99 g/l

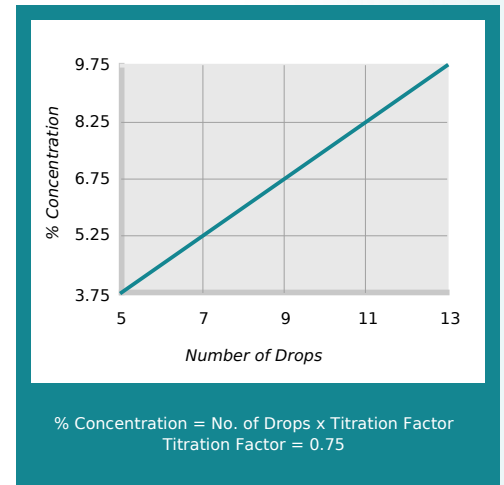
Recommended Metalworking Concentrations

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: MS590XT/1
UPC-12: 641238074458



5-gallon pail
SKU: MS590XT/5
UPC-12: 641238074441



54-gallon drum
SKU: MS590XT/54
UPC-12: 641238074434



270-gallon tote
SKU: MS590XT/NR270P
UPC-12: 641238074472

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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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