TRIM® C390

High Performance Aerospace Synthetic

TRIM C390 is a high performance aerospace synthetic coolant customized for the machining of composites for the global aerospace industry. C390 uses a proprietary synthetic lubricant technology to provide the lubricity of soluble oil without the oily residue. This formula is extremely low foaming in all types of environments including chilled systems with a minimum temperature of 60˚F.

Synthetics



Peak your performance:

TRIM® clean-running synthetics contain little to no oil. They are typically hard-water tolerant with good corrosion protection. Plus, synthetics leave very low residue for easy cleaning. Paired with extremely low carryoff, synthetics translate to less maintenance and lower operational costs, saving you time and money.

Run clean and long with TRIM synthetics.

Aerospace Approvals

Company	Specification
Raytheon Technologies/Collins Aerospace/Pratt & Whitney	PMC 9326 Rev. B
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Rolls-Royce	CSS 130

Choose C390:

- Optimized combination of cooling and lubricity
- Superior resistance to corrosion on both nonferrous and ferrous materials
- Extremely low foaming in chilled environments
- Meets the most stringent nuclear and aerospace chemical content and machining requirements
- Provides superior results in a wide range of operations from general grinding to spar milling and turbine blade manufacture
- Easily removed from parts for easy cleanup before assembly, painting, or plating operations
- Very low carryoff and long sump life results in low operating cost

C390 especially for:

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

Materials — 2024, 3000, 7075, aerospace aluminum alloys, aluminum, brass, cast iron, composites, exotic alloys, high-strength alloy steels, Inconel®, nickel alloys, stainless steels, steels, and titanium

Industries — aerospace

C390 is free of — boron, chlorine, copper, formaldehyde releasers, nitrites, phenols, SARA 313 listed ingredients, and silicone

Master Fluid SOLUTIONS®

TRIM® C390

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Application Guidelines

- Higher concentrations of C390 increase both boundary and EP lubrication.
- Very low foam at working temperatures above 60˚F (16˚C).
- Maintaining concentration from 7.5% to 10% provides the best sump life and corrosion inhibition.
- C390 is not recommended on cast irons.
- C390 should not be used on magnesium or other reactive metals without special precautions.
- 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.

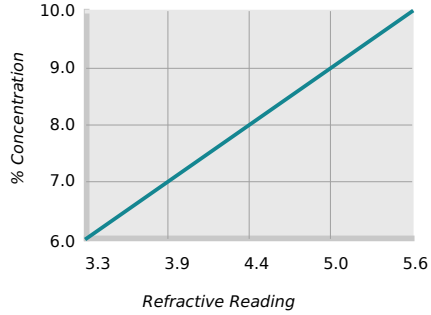
Physical Properties Typical Data

Color (Concentrate)	Yellow
Color (Working Solution)	Colorless to light yellow
Odor (Concentrate)	Mild amine
Form (Concentrate)	Liquid
Flash Point (Concentrate) (ASTM D93-08)	> 221°F
pH (Concentrate as Range)	8.3 - 8.9
pH (Typical Operating as Range)	8.0 - 8.6
Coolant Refractometer Factor	1.8
V.O.C. Content (ASTM E1868-10)	47 g/l

Recommended Metalworking Concentrations

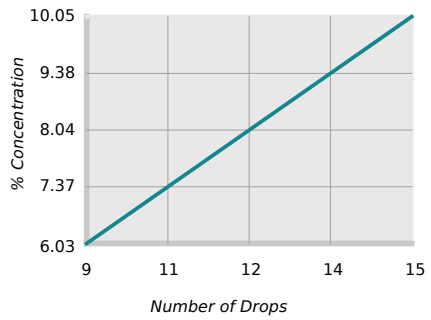
Light Duty	6.0% - 7.0%
Moderate Duty	7.0% - 9.0%
Heavy Duty	9.0% - 10.0%
Design Concentration Range	6.0% - 10.0%

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 = 0.67

Request SDS

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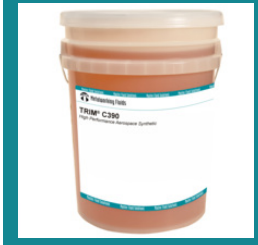
Mixing Instructions

- Recommended usage concentration in water: 6.0% - 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: C390-1G
UPC-12: 641238075783



5-gallon pail
SKU: C390-5G
UPC-12: 641238075745



54-gallon drum
SKU: C390-54G
UPC-12: 641238075738



270-gallon tote
SKU: C390-270G
UPC-12: 641238075752

Additional Information

- Use Master STAGES™ Whamex XT™ 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.
- TRIM® is a registered trademark of Master Chemical Corporation d/b/a Master Fluid Solutions.
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https://2trim.us/di/?i=na_en-us_C390

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