TRIM™ C350

Premium Synthetic Metalworking Fluid

TRIM C350 is a synthetic metalworking fluid optimized for the chemical, environmental, and machining requirements of the North American aerospace industry. C350 uses the best of the new ester technology to yield a very high performance, easy to use and maintain metal removal fluid. The combination of the proven synthetic ester technology and nonchlorinated EP package produces very high levels of usable lubricity at the point-of-cut. C350's unique chemical formula allows superior, nonferrous corrosion prevention particularly on aerospace aluminum alloys.

Precision Parts Manufacturer Reduces Total Cost by 15% with TRIM® C350



Headquartered in Malaysia, a precision parts manufacturer serving over 30 global OEM customers faced challenges with a costly competitor's coolant affecting profitability. Seeking a solution, they turned to Master Fluid Solutions®, which recommended a trial of TRIM® C350, a synthetic metalworking fluid. The results included a 15% reduction in total costs, improved surface finish, and enhanced operational efficiency by addressing excessive foam, leading to increased profitability and competitiveness.

Aerospace Approvals

Company	Specification
Airbus	No specification available
Comac	SOP-QC-201/01
GE Aerospace	ACSC-5438
Raytheon Technologies/Collins Aerospace/Pratt & Whitney	PMC 9378 Rev. B

Choose C350:

- Meets the most stringent nuclear and aerospace chemical content and machining requirements
- Superior resistance to corrosion on both nonferrous and ferrous materials including aerospace aluminums 7075, 2024, 3000, titanium, Inconel®, brass, and high-strength alloy steels
- Water-clear, low foaming, and misting, C350 is a joy to work with and manage
- 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
- PRTR compliant, no SARA 313 reportable chemistry. Product contains no chlorine, phenol, nitrites, copper, triazine, or silicone
- Very low carryoff and long sump life results in low operating cost

C350 especially for:

Applications — band sawing, belt grinding, Blanchard grinding, corrosion inhibition, creep-feed grinding, cutting, cylindrical grinding, double disc grinding, drilling, form cylindrical grinding, form grinding, 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, 5000, 6000, 7075, aerospace aluminum alloys, brass, bronze, cast aluminum, composites, copper, exotic alloys, ferrous metals, glass, heat-treated steel, high-carbon steel, high-nickel alloys, high-strength alloy steels, Inconel®, nonferrous metals, plastics, stainless steels, titanium, wrought aluminum, and yellow metals

Industries — aerospace

C350 is free of — chlorine, formaldehyde releasers, nitrites, phenols, PRTR materials, SARA 313 listed ingredients, silicone, and sulfur

Master Fluid SOLUTIONS™

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Application Guidelines

- Higher concentrations of C350 increase both boundary and EP lubrication.
- Very low foam at working temperatures above 80°F (27°C).
- Maintaining concentration from 7.5% to 10% provides the best sump life and corrosion inhibition.
- C350 is not recommended on cast irons.
- C350 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/th/en-th/distributors/index.php or your District Sales Manager, or email us at thailand-info@masterfluids.com.

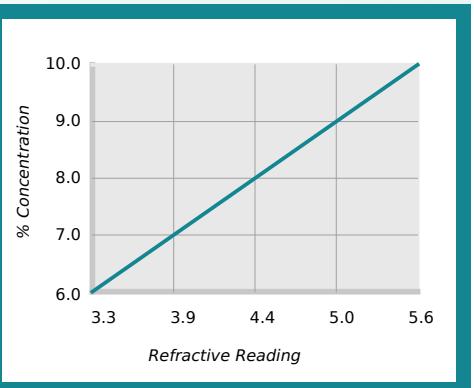
Physical Properties Typical Data

Color (Concentrate)	Colorless to light yellow
Color (Working Solution)	Colorless to light yellow
Odor (Concentrate)	Mild amine
Form (Concentrate)	Liquid
Flash Point (Concentrate) (ASTM D92-90)	> 100°C
pH (Concentrate as Range)	8.1 - 8.5
pH (Typical Operating as Range)	7.8 - 8.2
Coolant Refractometer Factor	1.8
V.O.C. Content (ASTM E1868-10)	45 g/l

Recommended Metalworking Concentrations

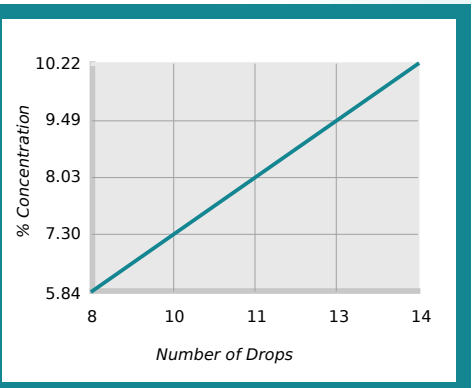
Light Duty	6.0% - 7.0%
Moderate Duty	7.0% - 9.0%
Heavy Duty	9.0% - 10.0%
Design Concentration Range	6.0% - 10.0%

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 = 0.73

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.

Ordering Information

20-liter pail

204-liter drum

1000-litre IBC

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 trademark of Master Chemical Corporation d/b/a Master Fluid Solutions.
- Master STAGES™ and Whamex XT™ are trademarks of Master Chemical Corporation d/b/a Master Fluid Solutions.
- The information herein is given in good faith and believed current as of the date of publication and should apply to the current formula version. Because conditions of use are beyond our control, no guarantee, representation, or warranty expressed or implied is made. Consult Master Fluid Solutions for further information. For the most recent version of this document, please go to this URL:

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