TRIM® C320

High-lubricity Synthetic

TRIM C320 is a high-lubricity, low-foam, synthetic coolant that approaches the "down-the-hole" machining performance of premium soluble oils. This product is exceptionally good on aluminum. Even with its very high performance, C320 meets or exceeds most stringent environmental standards.

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.

Choose C320:

- Excellent extreme pressure (EP) lubricity to do many drilling, tapping, reaming, and form-grinding operations without any chlorine or sulfur-based EP additives
- A very versatile product which works well in mixed-metal situations
- Provides good corrosion inhibition on all common ferrous and nonferrous alloys
- Keeps grinding wheels clean and sharp for higher "G ratios", better surface integrity, and faster stock removal
- Operators like C320's very low odor, low foam, low mist, and light yellow working solution
- Keeps your machines clean while leaving a soft fluid film that protects the bare metal parts
- Machines are easily washed off with coolant working solution to minimize the buildup of residues and chips
- Exceptional sump life, great resistance to fungus and bacteria, and good tramp oil rejection
- C320 is a super product for aluminum wheel machining

C320 especially for:

Applications — aluminum wheel machining, down the hole work, drilling, form grinding, reaming, and tapping

Metals — aluminum, cast iron, copper alloys, ferrous metals, nonferrous metals, and steel alloys

Industries — automotive, diecast, firearms, and job shop

C320 is free of — chlorine, DEA, nitride, phenolic compounds, and triazine

Master Fluid SOLUTIONS®

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Application Guidelines

- C320 has increased tendency to foam as the fluid temperature falls below 80°F (27°C).
- Concentration should be kept at 7.5% or higher for operations at lower SFPM, soft or "gummy" material, or operations where finish is a factor.
- C320 is not recommended in machine tools that rely on splash lubrication from the coolant; e.g., older screw machines or transfer machines.
- C320 is not recommended on magnesium or zirconium without special precautions.
- This product may "wash out" dirt and residues when a machine is first charged. Machines should be thoroughly precleaned with Whamex XT™.
- Concentrations of 7.5% - 10% usually give the best tool life, finish, and sump life; however, the best concentration for your operation should be determined by on-site testing.
- 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.

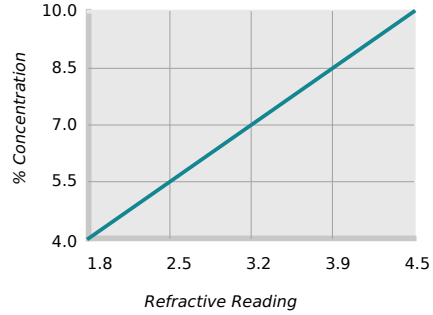
Physical Properties Typical Data

Color (Concentrate)	Yellow
Color (Working Solution)	Light yellow
Odor (Concentrate)	Mild, sweet
Form (Concentrate)	Liquid
Flash Point (Concentrate) (ASTM D92-90)	> 214°F
pH (Concentrate as Range)	9.5 - 9.7
pH (Typical Operating as Range)	8.8 - 9.2
Coolant Refractometer Factor	2.2
Titration Factor (CGF-1 Titration Kit)	0.49
Digital Titration Factor	0.0160
V.O.C. Content (ASTM E1868-10)	121 g/l

Recommended Metalworking Concentrations

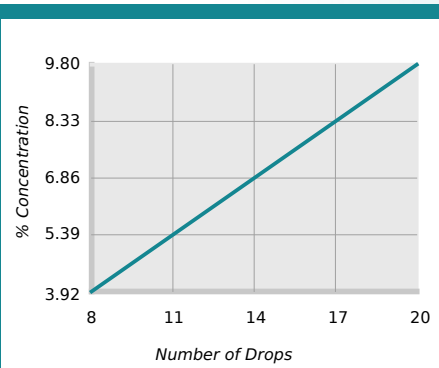
Light Duty	4.0% - 6.5%
Moderate Duty	6.5% - 8.5%
Heavy Duty	8.5% - 10.0%
Design Concentration Range	4.0% - 10.0%

Concentration by % Brix



% Concentration = Refractive Reading x Refractive Factor
Coolant Refractometer Factor % Brix = 2.2

Concentration by Titration



% Concentration = No. of Drops x Titration Factor
Titration Factor = 0.49

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: C320-1G
UPC-12: 641238031635

5-gallon pail
SKU: C320-5G
UPC-12: 641238031659

54-gallon drum
SKU: C320-54G
UPC-12: 641238031666

270-gallon tote
SKU: C320-270G
UPC-12: 641238033851

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.
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