# TRIM™ C270

## *High-performance Synthetic*

TRIM C270 is a state-of-the-art synthetic coolant. C270 provides excellent cooling and chip settling, good tramp oil rejection, machine cleanliness and meets the needs of the modern job shop for a single premium synthetic coolant for virtually all machining operations.

### *TRIM™ Coolant Speeds Up Production of Valuable Compressors Needed to Fight COVID-19 Pandemic*



*Due to the COVID-19 pandemic, medical centres and pharmacies have had an unprecedented need for refrigeration units to help store lab specimens, medications and vaccines. Therefore, refrigerator manufacturers have required a high volume of compressors on extremely short notice.*

*The demand has become so high that several companies - including plants based in Asia producing bearings and rollers for rotary compressors -have seen their lead time increase from two to eight weeks, significantly slowing down the production of these life-saving components.*

## *Aerospace Approvals*

| Company | Specification |
|---|---|
| GE Aerospace | No specification available |
| Raytheon Technologies/Collins Aerospace/Pratt & Whitney | PMC 9392 |
| Rolls-Royce | CSS 130 |
| Safran Group | PR6300 |

## Choose C270:

- Provides excellent corrosion inhibition on all common ferrous alloys
- Does a great job in form grinding, drilling, tapping and reaming operations without chlorine or sulphur-based EP additives
- Extremely low carryoff for very low total operation costs
- Very low foam and mist
- Keeps your machines clean while leaving a soft, fluid film that protects the bare metal parts. This residual film is easily resoluble in coolant working solution to facilitate easy machine cleaning and minimise the buildup of sticky residues that can hold machine-destroying chips
- Exceptional sump life and very good tramp oil rejection
- Low initial charge odour which dissipates further after one or two days

## C270 especially for:

**Applications** — band sawing, belt grinding, Blanchard grinding, cooling, corrosion inhibition, creep-feed grinding, cutting, cylindrical grinding, double disc grinding, drilling, form cylindrical grinding, form grinding, grinding, internal grinding, plain grinding, reaming, surface grinding, surface milling, tapping and turning

**Metals** — cast iron, composites, exotic alloys, nickel alloys, plastics, stainless steels, steels, titanium and tool steels

**Industries** — aerospace, automotive, compressor, energy, machine tool and medical

**C270 is free of —** animal derived materials, chlorinated EP additives, DCHA, nitrites, phosphorous, siloxane and sulphurised EP additives

Master Fluid SOLUTIONS™

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## Application Guidelines

- The harder you work this product the better the results will be.
- C270 is not recommended in machine tools that rely on the splash of the coolant to lubricate the mechanical portions of the machine tool, e.g. older screw machines, etc.
- C270 is not recommended on materials like magnesium or zirconium without special precautions.
- This product is a superior cleaning agent so it may "wash out" dirt and residues when a machine is first charged; a thorough cleaning of older machines is required when installing this product the first time.
- The minimum recommended concentration is 5% on cast iron and 4% on steel.
- Concentrations above 7.5% provide excellent corrosion inhibition, tool life and sump life; however, the best concentration for your operation should be determined by on-site experience.
- For additional product application information, including performance optimisation, please contact your Master Fluid Solutions' Authorised Distributor at https://www.masterfluids.com/eu/en/distributors/index.php, your District Sales Manager, or call our Tech Line at +49 211 41 72 8 -900.

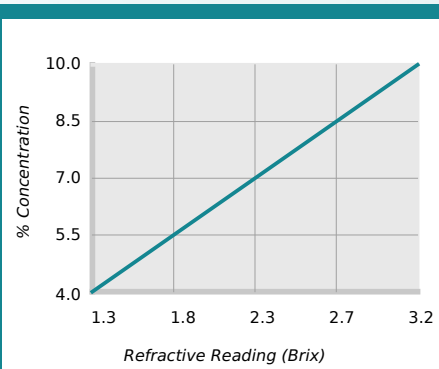
## Physical Properties Typical Data

| | |
|---|---|
| Colour (Concentrate) | Clear, light yellow |
| Colour (Working Solution) | Colorless |
| Odour (Concentrate) | Amine |
| Form (Concentrate) | Liquid |
| Flash Point (Concentrate) (ASTM D93-08) | > 100°C |
| pH (Concentrate as Range) | 9.0 - 9.3 |
| pH (Typical Operating as Range) | 8.7 - 9.2 |
| Coolant Refractometer Factor | 3.1 |
| Digital Titration Factor | 0.0200 |

## 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 = 3.1

## 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.

## Ordering Information

20-litre pail

204-litre 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.
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https://2trim.us/di/?i=eu_en_C270

Hasselsstraße 6-14
Düsseldorf, 40597
Germany
+49 211 41 72 82 00

info-eu@masterfluids.com

masterfluids.com/eu/en/