

# TRIM<sup>®</sup> SC417

**General Purpose, Ferrous Cutting and Grinding Fluid**

TRIM SC417 is a cost effective, semisynthetic coolant specifically formulated for machining and grinding of cast iron and steel. This formulation achieves the highest levels of ferrous rust protection whilst also maintaining low levels of foam even in soft water areas. This clean running formulation also prevents the loading of grinding wheels, ensuring good surface finishes and minimal burning.

## Semisynthetics



### Cutting edge solutions:

TRIM<sup>®</sup> semisynthetics offer the cooling and lubricity of a synthetic without the higher oil content of an soluble oil. Designed to operate at higher SFPM, semisynthetics perform well on many operations including face milling, cut-off turning, grinding, tapping and drilling — depending on the specific product.

Semisynthetics are compatible with alloy steels, tool steels, cast irons, copper alloys, as well as plastics and composites. With less carryoff, semisynthetics use less material — it all adds up to lower costs.



### Choose SC417:

- Extremely good product for cast iron and steel machining and grinding
- A very versatile product that works well in a wide range of operations such as grinding, milling, turning, drilling and tapping
- Extremely fine emulsion reduces carry-off for low total operating cost
- Fast wetting to get the fluid to the point of cut and fully coat the work piece and chips for superior corrosion prevention
- Extremely hard water tolerant
- Easily recycled or disposed of without special handling or equipment

### SC417 especially for:

**Applications** — centreless grinding, cylindrical grinding, drilling, high volume centreless grinding, high-speed milling, high-speed turning, internal grinding, milling, moderate-duty machining, sawing, surface grinding, tapping, turning

**Metals** — brass, cast iron, copper and steels

**Industries** — automotive and bearing

SC417 is free of — chlorine, DEA, formaldehyde releasers, nitrites and phenolic compounds

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## Application Guidelines

- TRIM SC417 will run effectively for long periods without the need for costly additives.
- It can run at lower concentrations for higher speed operations (where heat removal is the key issue).
- Higher concentrations are recommended on soft, gummy materials and for lower speed operations where friction reduction and control of built-up edge are critical.
- Concentrations above 6.0% provide the best sump life.
- 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.

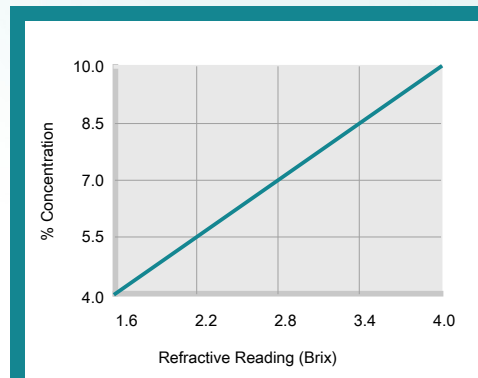
## Physical Properties Typical Data

Colour (Concentrate)	Light yellow to amber
Colour (Working Solution)	Translucent
Odour (Concentrate)	Mild, pleasant
Form (Concentrate)	Liquid
Flash Point (Concentrate) (ASTM D92-90)	> 100°C
pH (Typical Operating as Range)	9.0 - 9.9
Coolant Refractometer Factor	2.5
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 = 2.5

## 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 carryoff rate. Use our Coolant Makeup Calculator to find the best ratio for your machine: [apps.masterfluids.com/makeup/](https://apps.masterfluids.com/makeup/).
- Use mineral-free water to improve sump life and corrosion inhibition while reducing carryoff and concentrate usage.

## Ordering Information

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## 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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- 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:

[https://2trim.us/di/?i=eu\\_en\\_SC417](https://2trim.us/di/?i=eu_en_SC417)



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