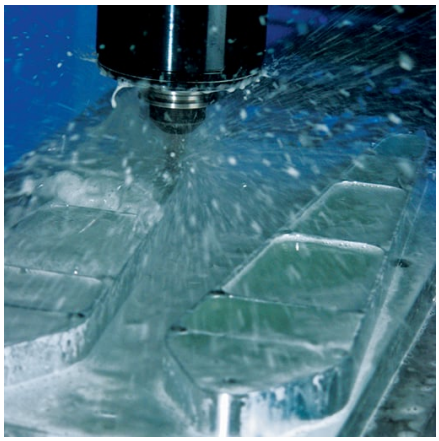
# TRIM™ SC686

## *Semisynthetic*

TRIM SC686 is a semisynthetic coolant and is well suited for general high-speed machining and grinding of all materials. TRIM SC686 combines the cooling, rust inhibition, and wetting of a premium synthetic with the mechanical lubricity and machine "friendliness" of a soluble oil.

## *Semisynthetics*



***Cutting edge solutions:***

*TRIM® semisynthetics offer the cooling and lubricity of a synthetic without the higher oil content of an emulsion. 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 aluminum alloys, 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 SC686:

- Extremely effective EP additive package
- Low odor and mist makes for an operator-friendly product
- Easy recycling or disposal with conventional techniques and equipment
- Provides superior corrosion inhibition on all ferrous and nonferrous metals and eliminates “hot chip” and clinkering problems often seen when machining cast iron
- Has exceptional sump life and very low makeup for extremely low total operating cost
- Keeps machines very clean while leaving a soft fluid film for ease of cleaning and reduced maintenance

## SC686 especially for:

**Applications** — grinding, high-speed milling, and machining

**Materials** — aluminum alloys, cast iron, composites, copper, plastics, and steels

**Industries** — automotive, general fabrication, and job shop

**SC686 is free of —** heavy metals, nitrites, and phenolic compounds

Master Fluid SOLUTIONS™

# TRIM™ SC686

***Semisynthetic***

## Application Guidelines

- Check for and correct mechanical causes of foam before adding antifoams
- Concentrations of 7.0% or more offers both the best sump life and corrosion inhibition
- Not recommended for use on very reactive metals like magnesium and zirconium
- In mixed metal situations, concentration control is critical to fight the effects of galvanic corrosion (7.5% plus)
- Works well in the general machine shops where soluble oil may smoke or not cool sufficiently under heavy cutting loads
- For additional product application information, including performance optimization, please contact your Master Fluid Solutions' Authorized Distributor at https://www.masterfluids.com/ap/en-ap/distributors/index.php, your District Sales Manager, or email us at apac-info@masterfluids.com.

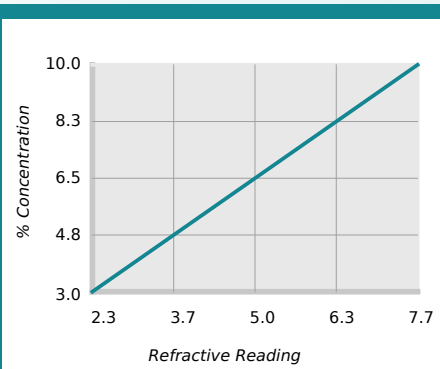
## Physical Properties Typical Data

| | |
|---|---|
| Color (Concentrate) | Clear amber |
| Color (Working Solution) | Opaque white |
| Odor (Concentrate) | Mild amine |
| Form (Concentrate) | Liquid |
| Flash Point (Concentrate) (ASTM D92-90) | > 100°C |
| pH (Typical Operating as Range) | 9.1 - 10.1 |
| Coolant Refractometer Factor | 1.3 |

## Recommended Metalworking Concentrations

| | |
|---|---|
| Light Duty | 3.0% - 6.0% |
| Moderate Duty | 6.0% - 8.0% |
| Heavy Duty | 8.0% - 10.0% |
| Design Concentration Range | 3.0% - 10.0% |

## Concentration by % Brix




% Concentration = Refractive Reading x Refractive Factor
Coolant Refractometer Factor % Brix = 1.3

## Health and Safety

Request SDS

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## Mixing Instructions

- Recommended usage concentration in water: 3.0% - 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-liter tote



## 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.
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https://2trim.us/di/?i=ap_en-ap_SC686

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