

# TRIM® SC520

## General-purpose Semisynthetic

TRIM SC520 is a low-odor, value-priced semisynthetic. SC520 is a general-purpose, cutting and grinding fluid concentrate for the multi-material, multi-operational shop. SC520 uses a proven EP-additive package to control built-up edge, improve tool life, and has the wetting and cooling characteristics necessary for superior machining results on high-speed milling and turning operations. It also controls chip welding on soft, gummy materials like aluminum.

### 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 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 SC520:**

- Good sump life in "stand-alone" machines
- Low odor and mist
- Effective in most grinding, sawing, drilling, and CNC turning and milling operations by varying concentrations
- Provides sufficient lubricity to do down-the-hole operations in aluminum, cast iron, and most steels, including many stainless steels
- Compatible with a very wide range of materials including cast iron, steels, copper, and aluminum alloys, as well as, most plastics and composites
- Low-to-moderate foam with normal "flood" coolant application
- Rejects tramp oils rapidly for easy recycling with good sump life
- Easily recycled or disposed of using conventional techniques and equipment

#### **SC520 especially for:**

**Applications** — band sawing, belt grinding, cutting, cylindrical grinding, deep hole drilling, double disc grinding, drilling, form cylindrical grinding, grinding, high-speed milling, high-speed turning, internal grinding, milling, reaming, roll threading, surface grinding, surface milling, tapping, thread forming, and through-feed centerless grinding

**Metals** — aerospace aluminum alloys, aluminum, aluminum alloys, cast aluminum, cast iron, copper alloys, exotic alloys, high-carbon steel, nonferrous metals, plastics, stainless steels, steels, tool steels, and wrought aluminum

**Industries** — job shop

**SC520 is free of** — copper, formaldehyde releasers, NPEs, phenolic compounds, and phenols

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### Application Guidelines

- SC520 is a superior product for surface and cylindrical grinding as well as through feed centerless grinding.
- High-torque operations or operations on soft material often benefit from higher concentrations.
- Concentrations in excess of 7% typically offer the best sump life and tool life. However, the optimum concentration for your operations is best determined by on-site testing.
- The minimum recommended concentration is 5% on cast iron and 4% on steel.
- Not recommended on materials that chemically react with water (i.e., magnesium and zirconium).
- 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.

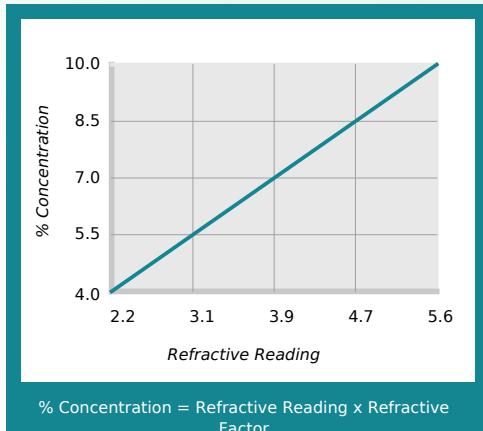
### Physical Properties Typical Data

Color (Concentrate)	Blue
Color (Working Solution)	Light blue
Odor (Concentrate)	Mild amine
Form (Concentrate)	Liquid
Flash Point (Concentrate) (ASTM D93-08)	> 199°F
pH (Concentrate as Range)	10.2 - 10.6
pH (Typical Operating as Range)	9.6 - 10.0
Coolant Refractometer Factor	1.8
Titration Factor (CGF-1 Titration Kit)	0.59
Digital Titration Factor	0.0177
V.O.C. Content (ASTM E1868-10)	131 g/l

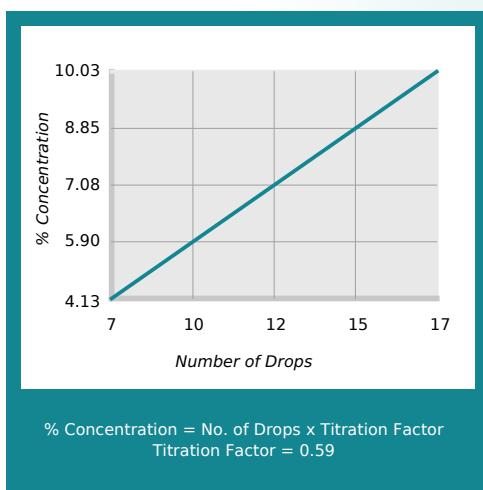
### Recommended Metalworking Concentrations

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 by Titration



### Health and Safety

Request SDS



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### Mixing Instructions

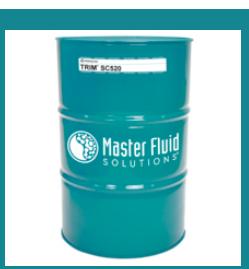
- Recommended usage concentration in water: 4.0% - 10.0%.
- To help ensure the best possible working solution, add the required amount of concentrate to the required amount of water (never the reverse) and stir until uniformly mixed.
- Use premixed coolant as makeup to improve coolant performance and 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/](https://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: SC520-1G  
UPC-12: 641238066019



5-gallon pail  
SKU: SC520-5G  
UPC-12: 641238066002



54-gallon drum  
SKU: SC520-54G  
UPC-12: 641238065999



270-gallon tote  
SKU: SC520-270G  
UPC-12: 641238066033

### 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 registered 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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