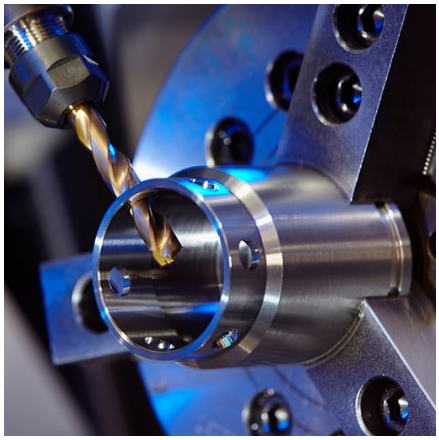
TRIM™ GRIND WCS

Boron Free - Carbide Grinding Synthetic

TRIM GRIND WCS minimizes cobalt leaching in the grinding of tungsten carbide (WC) and other high cobalt materials. Minimal cobalt leaching means increased piece part integrity, while improving "G RATIOS" and reducing grinding forces. GRIND WCS is specifically designed for the carbide grinding industry; it will also perform very well in grinding ceramics, cermets, and tool steels.

Specialty



Specially suited to your operation:

TRIM™ specialty fluids are specifically tailored to unique needs, such as very high-pressure or high-volume applications, or to address specific code or approval requirements.

Whatever your problem or unique requirement, there is always a TRIM solution for you.

Choose GRIND WCS:

- PRTR compliant
- Keeps super-abrasive wheels clean while not attacking super-abrasive wheel bonding systems
- Carries grinding swarf to the filter, but will release swarf in properly designed settling tanks
- Is not stripped out by conventional filtration systems
- Operators like GRIND WCS's clear working solution for superior visibility while grinding
- Exceptional sump life and good tramp oil rejection for easy skimming
- Resists oxidation and varnishing
- Resists cobalt leaching for improved operator safety, stronger parts, and cleaner machines
- Very low carryoff equals low fluid makeup costs
- Easy recycling or disposal with conventional techniques and equipment

GRIND WCS especially for:

Applications — carbide grinding

Metals — ceramic and tool steels

Industries — aerospace and tool

GRIND WCS is free of — boron, chlorinated EP additives, nitrites, phenols, and silicone

Master Fluid SOLUTIONS™

TRIM™ GRIND WCS

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Application Guidelines

- Concentration must always be kept above 3.0% to insure minimum cobalt leaching.
- Best overall results are obtained when the working concentration is between 4.0% - 6.0%.
- Grinding swarf will drop out more rapidly at higher coolant concentrations.
- Cobalt leaching is potentially a major problem when grinding carbides that have cobalt binders. While GRIND WCS is designed to minimize this problem, regular machine cleaning and high quality filtration to reduce the time that the carbide swarf spends in contact with the coolant will greatly assist in this process.
- 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.

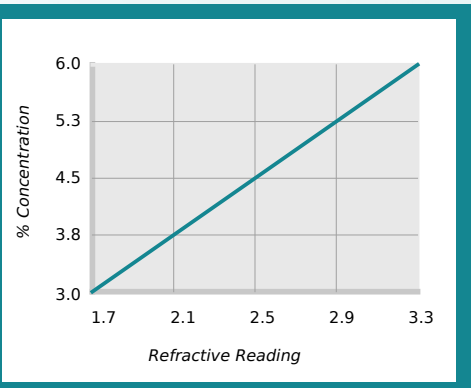
Physical Properties Typical Data

Color (Concentrate)	Light yellow
Odor (Concentrate)	Mild, pleasant
Form (Concentrate)	Liquid
Flash Point (Concentrate) (ASTM D92-90)	> 100°C
pH (Concentrate as Range)	9.5 - 10.5
pH (Typical Operating as Range)	9.2 - 10.0
Coolant Refractometer Factor	1.8
Titration Factor (CGF-1 Titration Kit)	0.33

Recommended Metalworking Concentrations

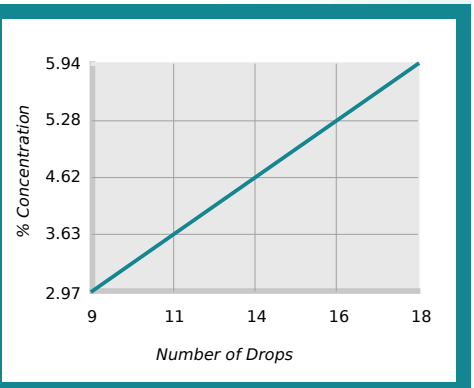
Light Duty	3.0% - 4.0%
Moderate Duty	4.0% - 6.0%
Heavy Duty	6.0% - 6.0%
Design Concentration Range	3.0% - 6.0%

Concentration by % Brix



% Concentration = Refractive Reading x Refractive Factor
Coolant Refractometer Factor % Brix = 1.8

Concentration by Titration



% Concentration = No. of Drops x Titration Factor
Titration Factor = 0.33

Health and Safety

Request SDS

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Mixing Instructions

- Recommended usage concentration in water: 3.0% - 6.0%.
- 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

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.
- 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=ap_en-ap_GRINDWCS

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