

Cobalt Grinder® *(Synthetic Coolant Concentrate)*

FEATURES

- No Cobalt Leaching
- Dye-Free
- Excellent Cleanability
- Excellent Filterability
- Low Odor
- Low pH at In-Use Dilution
- Mild to Operators
- Non-Foaming

GENERAL DESCRIPTION

Hangsterfer's **Cobalt Grinder** is a pure synthetic coolant designed for the grinding of carbide. Cobalt leaching is a concern when grinding carbide materials with water-based coolants, and the **Cobalt Grinder** addresses these issues. Designed with the ability to inhibit cobalt leaching, this product allows for the use of water when grinding carbide materials. Filterability is excellent as is work piece visibility. The **Cobalt Grinder** may be cleaned with any aqueous or solvent-based parts cleaning system.

APPLICATIONS

Primary		Secondary
Centerless Grinding	Plunge Form Grinding	Creep Feed Grinding
Grinding	Surface Grinding	Milling
ID/OD Grinding	Tool & Cutter Grinding	Turning

MATERIALS

Primary		Secondary	
Aluminum	Nickel Alloys	Brass	Glass
Carbide	Titanium	Composites	Plastic
Carbon Steel	Tool Steel	Copper	Refractory Metals
Ceramics	Tungsten	Iron: Cast Iron, Ductile	

INSTRUCTIONS

Always premix coolant before adding to the machine sump. When mixing coolant by hand it is important to always add the concentrate to the water and then agitate. For best results a Hangsterfer's recommended proportioning unit should be used. To maintain recommended concentration, make-up should be added at one-half the desired concentration. To maintain 5%: first charge the machine at 5%, then as needed add make-up at 2.5%. Never add straight water or concentrate directly to machine.

MAINTENANCE

Cobalt Grinder is a bio-stable coolant, designed to control the growth of bacteria. Regular maintenance is required for maximum performance. Concentration should be monitored regularly with a calibrated refractometer. The refractometer reading needs to be multiplied by 4.5 in order to determine the actual concentration (e.g. 1 on refractometer = 4.5 %). Tramp oils should be removed from the coolant surface regularly to prevent unwanted bacterial growth. Keep the coolant system free of cleaners, solvents and other contaminants. Please note that the **Cobalt Grinder** will run clear at design levels of 5%. If it drops below design levels, it will start to turn pink, indicating the presence of cobalt in the solution. Always maintain correct concentrations.

PRODUCT CHARACTERISTICS

Product Name: Cobalt Grinder		Refractive Index Multiplier = 4.5
Form	Liquid	
Color	Golden	
Odor	Mild	
Specific Gravity	1.02 - 1.04	Free Of: Boron Chlorine Diethanolamine (DEA) Nitrite Nitrate Ozonic Depleting Chemicals PCB'S Phosphorous Sulfur
Viscosity: SUS @ 100°F	32 - 40	
cSt @ 40°C	1 - 4	
Flash Point, COC, °F/°C	N/A	
Fire Point, COC, °F/°C	N/A	
Pour Point, °F/°C	N/A	
Solubility in Water	100%	
Boiling Point, °F/°C	199°F/93°C	
Vapor Pressure, mm Hg @ 25°	12.2 psi	
pH @ 10%	9.3 - 9.7	
Chlorine	No	
Sulfur	No	

WASTE TREATMENT

Dispose of in accordance with local, state, federal and international laws. If and when it is necessary to dispose of waste fluids, the amount of waste can be greatly reduced by separating the water from the oil and contaminants which accumulate through normal machining. You can often reduce your waste disposal by more than 80% through conventional methods such as Ultra-Filtration, Chemical Treatment or Evaporation. After approval by your local, state, or federal authorities, the waste water may be sent to the sewer or discharged into waters, and the separated oils may be removed for recycling, sale or disposal.

SHIPPING UNITS

All Hangsterfer's products are available in pails, drums and Intermediate Bulk Containers (275 gallons). All products are distributed worldwide.

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Disclaimer: All reasonable care has been taken to ensure that the information contained in this publication is true and accurate. No warranty is expressed or implied regarding the accuracy of the data. The general description, recommended uses, application data and statements in the product literature are guidelines. Because this product may be used for a variety of applications over which Hangsterfer's Laboratories, Inc. has no control, Hangsterfer's Laboratories, Inc. assumes no liability for incidental, consequential, or direct damages of any kind, regardless of causes, including negligence. Also, seller is not liable for any loss, damage or liability resulting from the use of the product in the buyer's manufacturing processes or in combination with other substances. SDS's are available for all Hangsterfer's products and should be consulted as needed.



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