HANGSTERFER'S®

Research, Development & Manufacturing of Metalworking Lubricants

S-502® CF (*Coolant Concentrate: Water Soluble Oil)*

FEATURES

- Chlorine Free Extreme Pressure Technology
- Excellent Sump Life
- General Purpose
- Long Lasting, Bio-Stable
- Maximizes Tool Life
- Non-Hazardous, Non-Toxic
- Non-Irritating
- Dye and Perfume Free

GENERAL DESCRIPTION

S-502 CF is an excellent choice for general machining of all metals and non-traditional materials. The EP properties produce exceptional results over a broad range of manufacturing conditions. This dye and perfume free general-purpose product, satisfies some of the most demanding manufacturing operations from stamping, to milling and turning processes. **S-502 CF's** dye and perfume free formula allows for easy recycling and is extremely operator friendly. **S-502 CF** is safe on all materials while providing the best finishes and tool life.

APPLICATIONS

Primary		**Secondary**	
Blanchard	Reaming	Burnishing	Forming
Drilling	Stamping	Broaching	Surface Grinding
Milling	Turning	Creep Feed Grinding	

MATERIALS

Primary		**Secondary**	
Aluminum	Plastics	Brass	Glass
Chromium Alloys	Powdered Metals	Bronze	Graphite
High Temp Alloys	Precious Metals	Ceramics	Refractory Metals
Molybdenum	Steel	Copper	Stainless Steel
Nickel Alloys	Titanium		

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. Always check concentration with a refractometer. To maintain 6%: first charge the machine at 6%, then, as needed, add make-up as much as 3%. Avoid adding straight water or concentrate directly to the machine.

OPERATION	*CONCENTRATION*		
	%	*Ratio* Concentrate: Water	*Refractometer*
General Grinding	5	1:20	5
General Machining and Turning	7.5	1:13	7.5
Grinding with aggressive feed rates	10	1:10	10
Drilling, Tapping, Reaming	10	1:10	10
Light Stamping and Forming	10	1:10	10

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MAINTENANCE

S-502 CF 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. **S-502 CF** gives a direct read on the refractometer (E.G. 5 = 5%).

PRODUCT CHARACTERISTICS

Product Name: S-502 CF	
Form	Liquid
Color	Amber
Odor	Mild
Specific Gravity	0.91 - 0.94
Viscosity: SUS @ 100°F	186 - 224
cSt @ 40°C	40 - 48
Flash Point, COC, °F/°C	325 / 162
Solubility in Water	100%
Vapor Pressure, mm Hg @ 25°	<0.01
pH @ 10%	9.0 - 9.3
Chlorine	0%

Concentration Dilution Table

%	***Ratio*** Concentrate: Water	Refractometer
20%	1:5	20
15%	1:7	15
10%	1:10	10
7.5%	1:13	7.5
5%	1:20	5
4%	1:25	4
3%	1:33	3
2.5%	1:40	2.5
2%	1:50	2
1%	1:10	1

Refractive Index Multiplier = 1

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 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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