

S-500® CF *Coolant Concentrate: Water Soluble Oil, Chlorine-free*

GENERAL DESCRIPTION

- **Chlorine-Free**, Non-Toxic, Non-Irritating and Non-Corrosive.
- **Bio-stable** formulation for extended life and minimized waste.
- **Excellent rejection** of foreign contamination, including tramp oils.
- **Compatible** with all common machine tool components, including paint and seals.
- **Reduce inventories**; multi-purpose formulation eliminates need for multiple coolants.
- **Amine-free**, Phosphate-free and Nitrite-free.
- **Ideal for** continuous use recycling systems and central systems.
- **Advanced** Synthetic Extreme Pressure Additives.
- **Outstanding performance** on aluminum machining, including small drills and small taps.
- **Approved** for use in the Semi-Conductor Industry.

Approved by Boeing, Bombardier Aerospace, Lord Aerospace and Lockheed Martin.

APPLICATIONS

Primary		Secondary	
CNC Turning	CNC Milling and Drilling	Broaching, Shaping & Slotting	Gear Cutting & Finishing
Tapping & Threading	Reaming & Boring	Drawing	Forming
Sawing & Cut-off	Light Stamping	Heavy Stamping	Fine Blanking
High Speed Machining	High Pressure Machining	Grinding, including:	
Conventional Contract Shop Applications		Centerless, Creepfeed, Surface, ID/OD and Rotary.	

MATERIALS

Primary		Secondary	
Aluminum Alloys	Tungston & Titanium	Brass & Bronze	Copper & Copper Alloys
High Temperature Alloys	Powdered Metals	Ductile Iron & Cast Iron	Refractory Metals
Nickel Alloys	Plastics & Composites	Plastics	Ceramics
Precious Metals	Molybdenum	Stainless Steels: Bhn 250 to 350	Stainless Steels: Bhn 350-450
Steels & Stainless Steels: Bhn up to 250		Steels-Bhn 250- 350	Steels- Bhn 350- 450

INSTRUCTIONS

Pre-mixing Procedures:	Recommended Concentrations:			
<ul style="list-style-type: none"> • <u>Always</u> premix coolant before adding to the machine sump. • <u>Never</u> add straight water or straight concentrate directly to the machine's sump. • For best results a Hangsterfer's recommended proportioning device should be used. • If mixing by hand, always add concentrate to water, and then agitate. 	Application	Ratio <small>Concentrate: Water</small>	%	Refractometer
	General Cutting	1:20 - 1:10	5% - 10%	5 - 10
	Severe Cutting	1:10 - 1:5	10% - 20%	10 - 20
	General Grinding	1:40 - 1:20	2.5% - 5%	2.5 - 5
	General Deformation	1:40 - 1:10	2.5% - 10%	2.5 - 10
	Severe Deformation	1:10 - 1:5	10% - 20%	10 - 20

Make-up Procedures:	Recommended Maintenance Equipment:
<ul style="list-style-type: none"> • It is important to remember that as water evaporates from the coolant, the concentration will increase. • To maintain the recommended concentration in the machine, make-up coolant should be pre-mixed at half the % concentration as the initial fill. • To maintain 6% in the machine, first charge the machine at 6%, then add make-up at 3% to keep the machine full. This will keep the machine at 6%. • Never add just straight water to reduce the concentration, always add a light pre-mixed coolant 	Hangsterfer's Accumix 14100 is a premium piston-style proportioning device that insures proper proportioning and mixing of the water and concentrate. A tight, stable emulsion is the result.
	Hangsterfer's Basic Refractometer measures concentrations from 0% to 18% and is one of the most important tools a shop can have in regards to coolant maintenance.
	Hangsterfer's Basic Belt Skimmer removes tramp oil from the machine sump as it accumulates. Take advantage of the tramp oil rejecting properties of the coolant and maximize sump life.

MAINTENANCE

S-500 CF is a biostable 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-500CF gives a direct read on the refractometer (e.g. 5=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.

PRODUCT CHARACTERISTICS				
Product	S-500 CF	Concentration Dilution Table		
Form	Liquid			
Color	Green			
Odor	Mild	%	Ratio	Refractometer
Specific Gravity	0.94	20%	1:5	20
Viscosity: SUS @ 100°F	220	15%	1:7	15
cSt @ 40°C	48	10%	1:10	10
Flash Point, COC, °F/°C	325 / 162	7.5%	1:13	7.5
Fire Point, COC, °F/°C	345 / 173	5%	1:20	5
Pour Point, °F/°C	<0 / -18	4%	1:25	4
Solubility in Water	100%	3%	1:33	3
Boiling Point, °F/°C	289 / 143	2.5%	1:40	2.5
Vapor Pressure, mm Hg @ 25°	<0.01	2%	1:50	2
pH @ 10%	9.1	1%	1:100	1

SHIPPING UNITS

S-500 CF is available in 5 gallon, 55 gallon and Intermediate Bulk Containers (275 or 330 gallons). All products are distributed worldwide.

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