

Missile Lube® 5 EH *Coolant Concentrate: Bio-based Emulsifiable Oil, Chlorine-free*

GENERAL DESCRIPTION

- Free of Chlorine, Sulfur, Amines, Phosphates and Nitrites
- Advanced Synthetic and Vegetable based Extreme Pressure Additives
- Extend sump life, reduce consumption
- Ideal for continuous use recycling systems and central systems
- Bio-Stable formulation for extended life and minimized waste
- Outstanding performance on aluminum machining including small drills, small taps and sawing
- Reduce inventories; multi-purpose formulation eliminates need for multiple coolants
- Compatible with common machine tool components
- Excellent rejection of foreign contamination, including tramp oils
- Non Toxic – Non Corrosive – Non Irritating

APPLICATIONS

Primary		Secondary	
CNC Turning	CNC Milling and Drilling	Grinding	Forming
Tapping & Threading	Reaming & Boring	Stamping	Piercing
Sawing & Cut-off	High Speed Machining	Drawing	
	High Pressure Machining		

MATERIALS

Primary		Secondary	
Aluminum Alloys	Steel, all forms	Nickel Alloys	Precious Metals
Brass, Bronze & Copper Alloys	Powdered Metals	Alloy Steels and Tool Steels	Stainless Steel
Magnesium	Titanium	Ceramics	Refractory Metals
		Glass	

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:

- 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

Recommended Maintenance Equipment:

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

Missile Lube 5 EH 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. Missile Lube 5 EH 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	Missile Lube 5 EH	Concentration Dilution Table		
Form	Liquid			
Color	Amber			
Odor	Mild	%	Ratio	Refractometer
Specific Gravity	0.96	20%	1:5	20
Viscosity: SUS @ 100°F	530	15%	1:7	15
cSt @ 40°C	115	10%	1:10	10
Flash Point, COC, °F/°C	320 / 160	7.5%	1:13	7.5
Fire Point, COC, °F/°C	360 / 182	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	290 / 143	2.5%	1:40	2.5
Vapor Pressure, mm Hg @ 25°	<0.01	2%	1:50	2
pH @ 10%	8.9	1%	1:100	1

SHIPPING UNITS

Missile Lube 5 EH is available in 5 gallon, 55 gallon and Intermediate Bulk Containers (275 or 330 gallons). All products are distributed worldwide.

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