

Missile Lube[®] 5EH (Coolant Concentrate: Emulsifiable Oil)

FEATURES

- Excellent Boundary Lubrication
- Long Lasting: Bio-Stable
- High Level of Lubricity
- Superior Surface Quality
- Non-Irritating
- Non-Hazardous
- Hybrid Oil Blend
- Chlorine Free

GENERAL DESCRIPTION

Hangsterfer's **Missile Lube 5 EH** is a heavy-duty emulsifiable oil that eliminates the need for multiple coolants. The advanced synthetic and vegetable based extreme pressure additives in **Missile Lube 5 EH** provide superior surface finish requirements on ferrous and non-ferrous metals, and tool life traditionally only attainable with cutting oils. **Missile Lube 5 EH** is bio-stable, offering long sump life, reduced consumption, and minimized waste; it is ideal for continuous use recycling and central systems. **Missile Lube 5 EH** is extremely operator friendly, being non-toxic, non-irritating and non-hazardous. Containing no substances of very high concern: it is Boron, Formaldehyde, and Secondary Amine Free.

APPLICATIONS

Primary		Secondary	
Boring	Milling	Thread Cutting	Fine Blanking
Burnishing	Reaming	Thread Forming	Grinding
Drilling	Sawing	Turning	Stamping

MATERIALS

Primary		Secondary	
Aluminum	Nickel	Steel	Cast iron
Armor Plate	Powdered Metals	Titanium	Copper
Carbon Steel	Stainless Steel	Tool Steel	Magnesium

INSTRUCTIONS

Initial Charge: Always pre-mix coolant before adding to the machine sump. For best results, a Hangsterfer's recommended proportioning unit should be used. When mixing coolant by hand it is important to add the concentrate to the water, and then agitate. Confirm coolant concentration with a calibrated refractometer. Charge the machine at the desired coolant concentration, and check the concentration regularly. **Maintenance:** After the initial charge, add make-up as needed to maintain the desired concentration. Avoid adding straight concentrate or water to the machine. Make-up should be added at one-half the desired concentration (i.e. Initial = 6%, Make-up = 3%). **Concentration In-Use:** For general cutting, grinding, and deformation use 5-10%; heavy duty applications may require 15-20%.

%	Ratio	Refractometer	%	Ratio	Refractometer
	Conc:Water			Conc:Water	
20	1 : 5	20	4	1 : 25	4
15	1 : 7	15	3	1 : 33	3
10	1 : 10	10	2	1 : 50	2
5	1 : 20	5	1	1 : 100	1
Missile Lube 5 EH Refractive Index Multiplier = 1					

MAINTENANCE

Missile Lube 5 EH is a bio-stable coolant designed to control the growth of bacteria and fungus. Regular maintenance is required for maximum performance. Concentration should be monitored regularly with a calibrated refractometer. When adjustments in concentration are required, use quality, potable water. If treated water is required, use reverse osmosis (R/O). Avoid adding straight concentrate or water to the machine. In part, to fight bacterial growth, it is important to keep the coolant moving; additionally, tramp oil and metal debris should be removed from the coolant regularly. The coolant system should be kept free of cleaners, solvents, and other contaminants. When a cleaner is required, Hangsterfer's recommends Res-X® Coolant Compatible Cleaner for cleaning in and around the machine. Hangsterfer's also offers a full line of machine lubricants for optimal coolant compatibility.

PRODUCT CHARACTERISTICS: *Missile Lube 5EH*

Form	Liquid	Flash Point, COC: °F/°C	320 / 160
Color	Amber	pH @ 10%	8.8 - 9.3
Odor	Mild	Chlorine	No
Specific Gravity	0.97 - 0.99	Sulfur	No
Viscosity: SUS @ 100 °F	396 - 530		
Viscosity: cSt @ 40 °C	85 - 115		
Solubility in Water	100%		

WASTE TREATMENT

If and when it is necessary to dispose of the waste coolant, the amount of coolant waste can be greatly reduced by separating the water from the oil and various contaminants which accumulate through normal machining: often reducing waste disposal by more than 80%. Hangsterfer's recommends ultra-filtration, chemical treatment, or evaporation for removal of fats, oils, greases, and heavy metals, prior to disposal of the water phase. After approval by your local, state, or federal authorities, the waste water may be sewerred, and the separated oils removed for recycling 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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