5070 (*Vegetable-Based Micro-Emulsion)*

FEATURES

- Chlorine Free Extreme Pressure Technology
- Excellent Cleanliness
- Excellent Corrosion Control
- Excellent Machinability
- Extended Sump Life
- High Pressure Capable to 2,000 psi
- Hydrocarbon Free
- Very Low Consumption

Approved by Lockheed Martin and Conforms to Boeing BAC 5008 12.1, 12.3, 12.5

GENERAL DESCRIPTION

5070 is the very latest in vegetable-based technologies from Hangsterfer's laboratories. The hydrocarbon free formula utilizes special ingredients to achieve outstanding results in a wide variety of applications. The unique lubricity characteristics of **5070** allow for tapping and machining of steel and aerospace materials. **5070** is a chlorine free vegetable based micro emulsion that provides excellent cleanliness, clarity, and low tramp oil absorption. The unique micro emulsion formula provides outstanding performance that rivals petroleum oil containing competitive products.

APPLICATIONS

Primary		**Secondary**
Grinding	Surface Grinding	Sawing
ID / OD Grinding	Tapping	Stamping
Milling	Turning	

MATERIALS

Primary		**Secondary**
Carbon Steel	Plastics	Aluminum
Composites	Powdered Metals	Iron, Cast Iron, Ductile
Glass	Stainless Steel	Precious Metals
Nickel Alloys	Titanium	Refractory Metals

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-forth 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 1.5%. Avoid adding straight water or concentrate directly to the machine.

OPERATION	*CONCENTRATION*		
	%	*Ratio* Concentrate: Water	*Refractometer*
General Grinding	5	1:20	2
General Machining and Turning	7.5	1:13	3
Grinding with aggressive feed rates	10	1:10	4
Drilling, Tapping, Reaming	10	1:10	4
Light Stamping and Forming	10	1:10	4

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MAINTENANCE

5070 is a bio-resistant emulsion 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 2.5 in order to determine the actual concentration (e.g. 3 on a refractometer = 7.5%). 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: 5070	
Form	Liquid
Color	Amber
Odor	Mild
Specific Gravity	1.01 - 1.04
Viscosity: SUS @ 100°F	58 - 82
cSt @ 40°C	10 - 16
Flash Point, COC, °F/°C	Non Flammable
Fire Point, COC, °F/°C	Non Flammable
Pour Point, °F/°C	32/0
Solubility in Water	100%
Boiling Point, °F/°C	212/100
Vapor Pressure, mm Hg @ 25°	<1
pH @ 10%	9.0 - 9.8
Chlorine	None

Concentration Dilution Table

%	*Ratio* Concentrate: Water	Refractometer
20%	1:5	8
15%	1:7	6
10%	1:10	4
7.5%	1:13	3
5%	1:20	2

Refractive Index Multiplier = 2.5

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.

Date: 21 December 2009 Revised: 12 July 2023

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