

## 5040 (Vegetable-Based Micro-Emulsion)

### FEATURES

- Excellent Tool Life
- Long Lasting and Bio-Resistant
- Very Clean and Low Residue
- Low Hydrocarbon Content
- High-Pressure Capable with Low Foam
- Chlorine-Free Extreme Pressure Technology
- Excellent Corrosion Control
- Very Low Consumption

***Approved by Safran Messier-Bugatti-Dowty***

### GENERAL DESCRIPTION

**5040** is a time tested and proven vegetable-based technology from Hangsterfer's Laboratories. The low hydrocarbon formula utilizes special vegetable derived ingredients to achieve outstanding results in a wide variety of applications. The unique lubricity characteristics of **5040** allow for manufacturing of ferrous to non-ferrous material including exotic to medical alloys. **5040** is a chlorine-free, vegetable-based micro-emulsion that provides excellent cleanliness and tramp oil rejection, especially for high pressure coolant systems that are over 1500 psi and for companies that run lights out. The natural translucent formula provides good workpiece visibility, very low consumption, and often reduces coolant consumption by more than 20%!

### APPLICATIONS

Primary		Secondary	
Boring	Reaming	Blanking	Sawing
Cutting	Thread Cutting	Centerless Grinding	Stamping
Drilling	Turning	Creep Feed Grinding	Surface Grinding
Milling		Punching	

### MATERIALS

Primary		Secondary	
Aluminum	Nickel	Brass	Magnesium
Ceramics	Powdered Metals	Bronze	Plastic
Chromium	Stainless Steel	Carbide	Precious Metals
Composites	Steel	Copper	Titanium
Molybdenum	Cast Iron		

### 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-fourth 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 machine.

**Hangsterfer's Laboratories, Inc.**

175 Ogden Road  
Mantua, New Jersey 08051  
United States of America

**www.hangsterfers.com**

tel: +1-856-468-0216  
fax: +1-856-468-0200  
toll free North America: +1-800-433-LUBE

OPERATION	CONCENTRATION		
	%	Ratio Concentrate: Water	Refractometer
General Machining	4 - 10	1:25 - 1:10	1.3 - 3.3
Heavy Duty Machining	8 - 12	1:12.5 - 1:8.3	2.7 - 4.0
General Grinding	6 - 8	1:16.5 - 1:12.5	2.0 - 2.7
Heavy Duty Grinding	8 - 10	1:12.5 - 1:10	2.7 - 3.3
Stamping and Forming	6 - 12	1:16.5 - 1:8.3	2.0 - 4.0

## MAINTENANCE

**5040** is a bio-resistant emulsion 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. The refractometer reading needs to be multiplied by 3.0 in order to determine the actual concentration (e.g. 2 on the Refractometer = 6%). Tramp oils should be removed from the coolant surface regularly to help reduce bacterial growth. Keep the coolant system free of cleaners, solvents, and other contaminants.

## PRODUCT CHARACTERISTICS

Product: <b>5040</b>		Concentration Dilution Table		
Form	Liquid	%	Ratio Concentrate: Water	Refractometer
Color	Amber	10%	1:10	3.3
Odor	Mild	9%	1:11	3.0
Specific Gravity	1.01 - 1.03	8%	1:12.5	2.7
Viscosity: SUS @ 100°F	42 - 53	7%	1:14	2.3
cSt @ 40°C	5 - 8	6%	1:16.5	2.0
Flash Point, COC, °F/°C	Non-Flammable	5%	1:20	1.7
Fire Point, COC, °F/°C	Non-Flammable	4%	1:25	1.3
Solubility in Water	100%	3%	1:33	1.0
pH @ 10%	9.3 - 9.5	2%	1:50	0.7
Chlorine	0%	1%	1:100	0.3

**Refractive Index Multiplier = 3**

## 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. You can often reduce your 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 authorities, the split water may be sewered and waste 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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