HANGSTERFER'S®

Research, Development & Manufacturing of Metalworking Lubricants

S-787® *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

GENERAL DESCRIPTION

S-787 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 S-787 allow for excellent results tapping and deep-hole drilling of exotic aerospace and medical alloys. S-787 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	Milling	Blanking	Punching
Broaching	Reaming	Centerless Grinding	Sawing
Cutting	Thread Cutting	Creep Feed Grinding	Shaving
Drilling	Thread Forming	Gear Cutting	Stamping
Gun Drilling	Turning	Honing	Surface Grinding

MATERIALS

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

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 machine.

Hangsterfer's Laboratories, Inc.
175 Ogden Road
Mantua, New Jersey 08051
United States of America

www.hangsterfers.com
tel: 856-468-0216
fax: 856-468-0200
toll free North America: 800-433-LUBE

OPERATION	CONCENTRATION		
	%	*Ratio* Concentrate: Water	*Refractometer*
General Machining	4 - 8	1:25 -1:13	2 - 4
Heavy Duty Machining	6 - 12	1:17 – 1:8	3 - 6
General Grinding	4 - 6	1:25 – 1:17	2 - 3
Heavy Duty Grinding	6 - 8	1:17 – 1:13	3 - 4
Stamping and Forming	4 - 12	1:25 – 1:8	2 - 6

MAINTENANCE

S-787 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 2.0 in order to determine the actual concentration (e.g. 3 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 Name: S-787

Form	Liquid
Color	Amber
Odor	Mild
Specific Gravity	1.01
Viscosity: SUS @ 100°F	134
cSt @ 40°C	28
Flash Point, COC, °F/°C	Non-Flammable
Fire Point, COC, °F/°C	Non-Flammable
Solubility in Water	100%
pH @ 10%	9.2
Chlorine	0%

Concentration Dilution Table

%	*Ratio* Concentrate: Water	Refractometer
10%	1:10	5.0
9%	1:11	4.5
8%	1:13	4.0
7%	1:14	3.5
6%	1:17	3
5%	1:20	2.5
4%	1:25	2.0
3%	1:33	1.5
2%	1:50	1.0
1%	1:100	0.5

Refractive Index Multiplier = 2

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 (Totes).

All products are distributed worldwide.

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