HANGSTERFER'S®

Research, Development & Manufacturing of Metalworking Lubricants

# S-737® *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-737 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-737 allow for excellent results in environments where steels and cast iron materials are predominant. S-737 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** | |
|---|---|---|---|
| Cutting / Sawing | Milling | Blanking | Punching |
| Drilling | Thread Cutting | Blanchard Grinding | Shaving |
| Forming | Turning | Centerless Grinding | Stamping |
| Gun Drilling | | Creep Feed Grinding | Surface Grinding |

## MATERIALS

| **Primary** | | **Secondary** | |
|---|---|---|---|
| Aluminum<br>Cast Iron / all forms | Powdered Metals / Ferrous | Brass / Bronze | Plastic |
| Ceramics | Stainless Steel / Martensetic | Copper | Precious Metals |
| Composites | Steel Low / High Carbon | | |

## 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.

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| OPERATION | CONCENTRATION | | |
|---|---|---|---|
| | % | *Ratio* Concentrate: Water | *Refractometer* |
| General Machining | 4 - 8 | 1:25 - 1:13 | 1.0 - 1.9 |
| Heavy Duty Machining | 6 - 12 | 1:17 - 1:8 | 1.4 - 2.9 |
| General Grinding | 4 - 6 | 1:25 - 1:17 | 1.0 - 1.4 |
| Heavy Duty Grinding | 6 - 8 | 1:17 - 1:13 | 1.4 - 1.9 |
| Stamping and Forming | 4 - 12 | 1:25 - 1:8 | 1.0 - 2.9 |

## MAINTENANCE

S-737 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 4.2 in order to determine the actual concentration (e.g. 1.4 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-737** | |
|---|---|
| Form | Liquid |
| Color | Amber |
| Odor | Mild |
| Specific Gravity | 1.01 |
| Viscosity: SUS @ 100°F | 35 |
| cSt @ 40°C | 2.8 |
| Flash Point, COC, °F/°C | Non-Flammable |
| Fire Point, COC, °F/°C | Non-Flammable |
| Solubility in Water | 100% |
| pH @ 10% | 9.5 |
| Chlorine | 0% |

**Concentration Dilution Table**

| % | *Ratio* Concentrate: Water | Refractometer |
|---|---|---|
| 10% | 1:10 | 2.4 |
| 9% | 1:11 | 2.1 |
| 8% | 1:13 | 1.9 |
| 7% | 1:14 | 1.7 |
| 6% | 1:17 | 1.4 |
| 5% | 1:20 | 1.2 |
| 4% | 1:25 | 1.0 |
| 3% | 1:33 | 0.7 |
| 2% | 1:50 | 0.5 |
| 1% | 1:100 | 0.2 |

**Refractive Index Multiplier = 4.2**

## 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, state, or federal authorities, the waste water may be sewered, 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 or 330 gallons). This product is REACH compliant and is distributed worldwide.

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