

5080 (Vegetable-Based Micro-Emulsion)

FEATURES

- Excellent Tool Life
- Long Lasting: Bio-Hard®
- Very Low Consumption
- Excellent Corrosion Protection
- Low to No Foam in High Pressure Systems
- Low Residue
- Low Hydrocarbon Content
- Chlorine-free Extreme Pressure Technology

Approved, Certified and Conforms to: Airbus, American Airlines, Boeing, Bombardier, Safran Messier-Buggati-Dowty, Pratt & Whitney, United Technologies, Rolls Royce

GENERAL DESCRIPTION

Hangsterfer's **5080** is an advanced Vegetable-Based Micro-Emulsion approved by leading Aerospace and Medical companies. Free of Boron, Chlorine, Formaldehyde, Secondary Amines, and other Substances of Very High Concern: **5080** is sustainable and does not contain any additives that hold the risk of becoming obsolete. **5080** is Bio-Hard, so it does not grow bacteria or fungus, and subsequently does not require biocides, yet it is bio-degradable.

With low hydrocarbon content, **5080** reduces drag-out, and considerably lowers coolant consumption. Low oil content also reduces the likelihood of slippery work conditions, oil mist in the air, and increases metal chip value. The natural translucency of **5080** provides good work-piece visibility: low-to-no foam and clean windows; it's subsequently excellent for high-pressure coolant systems and can be filtered below 5 microns without additive depletion.

5080 significantly increases tool life and surface finish, especially on Aluminum, Nickel and Titanium alloys through surface-active ingredients, efficient heat dissipation and chip evacuation. This allows the metal to flow under plastic deformation and not adhere to the tools: favoring increased speed, feed, and depth of cut, resulting in improved productivity.

5080 is non-hazardous, non-toxic, and contains no noxious chemicals. **5080** is low-odor, mild to the skin, does not damage paint, and is compatible with machine elastomers.

APPLICATIONS

Primary			Secondary
Boring	Honing	Shaving	Broaching
Deep Hole Drilling	Milling	Thread Cutting	Punching
Gear Cutting	Reaming	Thread Forming	Stamping
Grinding	Sawing	Turning	Wire Drawing

MATERIALS

Primary			Secondary
Aluminum	Molybdenum	Steel	Cast Iron
Chromium	Nickel	Titanium	Copper
Composites	Powdered Metal	Tungsten	Plastic
Magnesium	Stainless Steel	Zirconium	Precious Metals

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-fourth the desired concentration (i.e. Initial = 6%, Make-up = 1.5%). **Concentration In-Use:** For general machining and grinding, 4-8%; for heavy duty applications, 6-12% may be required.

%	Ratio	Refractometer	%	Ratio	Refractometer
	Conc. : Water			Conc. : Water	
12	1:8.5	6	6	1:16.5	3
10	1:10	5	5	1:20	2.5
9	1:11	4.5	4	1:25	2
8	1:12.5	4	2	1:50	1
7	1:14	3.5	1	1:100	0.5

5080 Refractive Index Multiplier = 2

MAINTENANCE

5080 is a Bio-Hard micro-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. 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: 5080

Form	Liquid	Specific Gravity	1.01 - 1.02
Color	Amber	Viscosity: SUS @ 100°F	102 - 133
Odor	Mild	Viscosity: cSt @ 40°C	21 - 28
Flash Point, COC: °F/°C	Non-Flammable	pH @ 10%	9.4 - 9.5
Fire Point, COC: °F/°C	Non-Flammable	Chlorine	No
Pour Point: °F/°C	32 °F/ 0 °C	Sulfur	No

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 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 gallons). All products are distributed worldwide.

Date: 30 October 2008; Rev 20 June 2023

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