

R-100® (Synthetic Coolant Concentrate)

FEATURES

- Low Residue
- Long Lasting: Bio-Stable
- Excellent Filterability
- Superior Lubrication Package
- Colorless
- Low Foam
- Sulfur Free
- Chlorine-free Extreme Pressure Technology

GENERAL DESCRIPTION

Hangsterfer's **R-100** is a Bio-Stable, oil-free synthetic coolant concentrate, designed to control bacterial and fungal growth without tank side additives. **R-100** is free of Boron, Chlorine, Formaldehyde, Secondary Amines, and other Substances of Very High Concern. **R-100** is blended to provide maximum efficiency for grinding and machining a wide variety of ferrous and non-ferrous materials. **R-100** is used successfully in all types of grinding applications including: Blanchard, Centerless, Cylindrical, Creep Feed, and Tool Grinding. **R-100** is an excellent choice for general machining when an oil-free coolant is desired. **R-100** performs exceptionally well when machining various composite materials. **R-100** can also be used in tumble style deburring and as a post-aqueous cleaner rust inhibitor.

APPLICATIONS

Primary		Secondary
Blanchard	Drilling	Rust Inhibitor
Centerless Grinding	Milling	Tumbler Detergent
Creep Feed Grinding	Turning	Tool Grinding

MATERIALS

Primary		Secondary
Molybdenum	Composites	Stainless Steel
Powdered Metals	Steel	Titanium
Ceramic	Carbon	Tungsten

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-half the desired concentration (i.e. Initial = 6%, Make-up = 3%). **Concentration In-Use:** For grinding, 6-8%; for machining, 8-12%. For use as a rust inhibitor or tumbler detergent, 5-6%.

%	Ratio	Refractometer	%	Ratio	Refractometer
	Concentrate:Water			Concentrate:Water	
12	1 : 8.5	2.52	6	1 : 17	1.26
10	1 : 10	2.11	5	1 : 20	1.05
8	1 : 12.5	1.68	4	1 : 25	0.84
7	1 : 14	1.47	2	1 : 50	0.42
R-100 Refractive Index Multiplier = 4.75					

MAINTENANCE

R-100 is a Bio-Stable synthetic coolant concentrate 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: R-100

Form	Liquid
Color	Colorless
Odor	Mild
Flash Point, COC: °F/°C	Non-Flammable
Specific Gravity	1.03 - 1.05
Viscosity: SUS @ 100°F	24 - 32
Viscosity: cSt @ 40°C	1 - 3
pH @ 10%	9.2 - 9.4
Chlorine	No
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.

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