

Crystal Cut® 777 *Synthetic Coolant Concentrate*

HIGHLIGHTS

- Extended sump life
- Excellent machinability
- Excellent cleanliness
- Transparent
- Hydro Carbon Free
- High pressure capable, 2000 plus psi
- Safe on ferrous and nonferrous materials
- Excellent corrosion control
- Rapid tramp oil rejection

GENERAL DESCRIPTION

Crystal Cut 777 is the very latest in full synthetic formulations. Crystal Cut 777 utilizes specialized ingredients to achieve outstanding results in a wide variety of applications. The outstanding lubricity characteristics of Crystal Cut 777 allow the tapping and machining of steels and aerospace materials. This capability is very important where manufacturing requirements prohibit the use of oil and or chlorine.

APPLICATION

Primary		Secondary
CNC Turning	CNC Milling and Drilling	Light Stamping
Tapping & Threading	Reaming & Boring	Sawing
Sawing & Cut-off	General Grinding	Blanchard Grinding
High Speed Machining	High Pressure Machining	
Conventional Contract Shop Applications		

MATERIALS

Primary		Secondary	
Aluminum Alloys	Low Carbon Steel	Brass & Bronze	Precious Metals
Nickel Alloys	Powdered Metals	Copper Alloys	Refractory Metals
High Carbon Steel	Stainless Steel	Ductile Iron	Glass
Medium Carbon Steel		Titanium & Ceramics	
Tools Steel & High Speed Steel		Plastics & Composites	

Operation	Concentration		
	Ratio Concentrate: Water	%	Refractometer
General Grinding	1:25-1:17	4%-6%	1.6-2.4
General Machining and Turning	1:20-1:10	5%-10%	2-4
Grinding with aggressive feed rates	1:25-1-10	4%-10%	1.6-4
Drilling, Tapping, Reaming	1:16-1:8	6%-12%	2.4-4.8
Light Stamping and Forming	1:20-1:8	5%-12%	2-4.8

MIXING INSTRUCTIONS & MAINTENANCE

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, 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-half the desired concentration. To maintain 6% in the machine, first charge the machine at 6%, then as needed add make-up at 3%. Never add straight water or concentrate directly to machine.

Crystal Cut 777 is design to control the growth of bacteria. Regular maintenance is required for maximum performance. Concentration should be monitored regularly with a calibrated refractometer. The refractometer reading needs to multiplied by 2.5 in order to determine the actual concentration (e.g. 1 on refract.= 2.5%) Tramp oils should be removed from the coolant surface regularly to prevent unwanted bacterial growth. Keep the coolant system free of cleaners, solvents and other contaminants.

WASTE TREATMENT

All Hangsterfer's metal working fluids are designed for easy waste treatment. By separating the water phase from the oil and various contaminants, which accumulate through normal machining, you can reduce your waste disposal by 80%-90%. Hangsterfer's recommends Ultra Filtration or Chemical Treatment for removal of fats, oils, greases and heavy metals prior to disposal of the water phase. Following approval by your local authorities, your wastewater stream may be properly discharged. The fats, oils and greases, (FOG'S), will need to be hauled away by an approved vendor.

PRODUCT CHARACTERISTICS				
Product	Crystal Cut 777	Concentration Dilution Table		
Form	Liquid	%	Ratio	Refractometer
Color	Colorless	20%	1:5	8
Odor	Mild	15%	1:7	6
Specific Gravity	1:06	10%	1:10	4
Viscosity: SUS @ 100°F	88	7.5%	1:13	3
cSt @ 40°C	17	5%	1.20	2
Flash Point, COC, °F/°C	N/A			
Fire Point, COC, °F/°C	N/A			
Pour Point, °F/°C	32/0			
Solubility in Water	100%			
Boiling Point, °F/°C	212/100			
Vapor Pressure, mm Hg @ 25°	<1.0	Refractive Index Multiplier = 2.5		
pH@ 10%	9.3			

SHIPPING UNITS

Crystal Cut 777 is available in 5 gallon, 55 gallon and Intermediate Bulk Containers (275 or 330 gallons). All products are distributed worldwide.

Revised: January 23, 2009

The general description, recommended uses, application data and statements in the product literature are guidelines. Because this product may be used for a variety of applications over which Hangsterfer's Laboratories, Inc. has no control, Hangsterfer's Laboratories, Inc. assumes no liability for incidental, consequential, or direct damages of any kind, regardless of causes, including negligence.