



Advanced Lubricants Technology

## PRODUCT INFORMATION

### PERENNIAL SYNKOOL-P68F ( ADVANCED BIOSTABLE MULTI PURPOSE SYNTHETIC BLENDED CUTTING FLUID )

#### DESCRIPTION

PERENNIAL SYNKOOL-P68F is a newly developed advanced biostable multi-purpose synthetic blended water emulsifiable cutting and grinding fluids designed to give long life and effective cutting performance. It is a very low mineral oil and low odor, containing special selected emulsifiers, corrosion inhibitors, buffer solutions, Synthetic lubricity agents, metal deactivator, biocides/fungicides and EP additives. It produces a stable and finely dispersed beige opalescent to translucent micro-emulsion when mixed with hard/soft water, thus giving good visibility of machining process. It is also specially formulated for application in machine shop cutting all type of ferrous metals include high tensile carbon steels.

#### APPLICATIONS

PERENNIAL SYNKOOL-P68F is a multi-purpose synthetic Blended low oil fluid recommended for light to moderate duty of machining applications, including cutting, milling, drilling, turning, sawing, tapping, threading, reaming and general machining as well as grinding for both ferrous and non ferrous metals where these operations require close tolerances and optimal surface finished. Typical applications include cylinder grinding of high speed steel, surface grinding and centreless grinding of steel and high nickel alloys, and general light machining of cast iron, mild steel, carbon steel, aluminium and other easy to medium machinability materials.

Depending on the severity of the operation, the following general guidelines may be used :

Machining Operation :	Recommended Dilution
Moderate Difficult machining operations	> 10 %
Milling and threading	5 – 7 %
Sawing, drilling and turning	4 – 6 %
Grinding, cylindrical, centreless, surface	3 - 5 %

The correct method of mixing is to add the recommended amount of concentrate to clean water, stir thoroughly, then add the mixture to the machine coolant system.

#### PERFORMANCE

- PERENNIAL SYNKOOL-P68F is free from phenol, sodium nitrite, cresol, sulphur, triazines and other harmful additives
- High emulsion stability ( semi translucent fluorescent green ) / High microbiological resistance to bacterial and fungal
- Exceptional long sump life / Excellent tramp oil rejection / Extraordinary pH stability
- Emulsion provides excellent corrosion protection to both the machine tool surface and components being machined
- Having selected lubricity additives which is suitable for ferrous metals
- Working solutions have an extremely low odor of toxicity and good skin compatibility
- Stable in hard and soft water/ Does not attack machine finishes
- Low foaming tendency / Transparent appearance giving good workplace visibility
- Low misting – semi-synthetic blend leave less oil in air

#### TECHNICAL DATA

Type	: Synthetic Blended with oil content < 20 %		
Appearance	: Orange amber opaque fluid – Fluorescent Green		
Odor	: Bland / mild		
Density, g/ml	: 1.02	PH concentrate	: 9.8
pH of 3% dilution	: 9.5	Emulsion appearance	: Fluorescent Green
Mineral oil	: Low	Animal Fat	: Nil
EP Agents	: Low	Lubricity Agents	: Yes
Corrosion test IP 287	: 0 at 1:40	Emulsion stability IP 263	: No oil at 1:25
Foam Test ASTM D3519	: 1:20 at 11 seconds		

#### COOLANT MAINTENANCE

To obtain maximum cutting performance, freedom from corrosion and control of bacteria, it is essential that tramp oil does not completely cover the surface of the coolant and that the concentration of coolant be maintained at the correct level. This may simply be determined on day to day basis by use of hand-held refractometer on the plant.

The above details is typical and does not constitute a contract in terms of properties