

MET-L-COOL

Cut Machining Costs. Power Profits.



BIOCOOL-100 P is high performance environment- friendly, long life semi-synthetic metal working fluid, suitable for all moderate machining and grinding operations on all ferrous and its alloy metals. Formulated with high performance extreme pressure additives, corrosion inhibitor package and biocides, BIO COOL -100P is designed with high base oil contents to have good lubricity, residual oil on machine beds and quick separation of tramp oil in coolant tanks.



Features and benefits

- No hazardous materials like Chromates, nitrites, phosphates, sulphates and free chlorine.
- Corrosion inhibitor package protects the job and machine from rusting.
- Reduces wheel loading and dressing frequency
- Reduces machine down time.
- Reduces disposal and labor costs

Directions for use

BIO COOL- 100 P should be diluted with water in the range of 10:1 to 60:1 depending upon the severity of the operation, work piece material and water hardness. The following practices help in achieving the full benefits of the product.

- Always add oil to water and never the other way.
- Usage of low hardness (< 100 PPM), Low chlorides (< 30 PPM) water.
- Never add product directly to the sump. Add in the emulsion form.
- Always clean the sump thoroughly before a fresh charge.

Typical properties

Attributes	Ref. Method	Specifications
Appearance	Visual	Pale yellow thick liquid
Odor		Mild odor
Specific gravity @ 27 Deg C	ASTM D 1298	0.95+/-0.015
Flash Point (PMCC)	ASTM D 93	> 100 Deg C
Emulsion type	Visual	Thin White emulsion
Emulsion stability test 5% in 400 ppm hard water	Internal	To pass
PH of 5% solution Volume in Water	Internal	9.5 – 10.5
Foam depression in secs 5% in D.M Water	IP 312/74	20 secs
Cast iron corrosion test 3% in 200 ppm	IP 287	Less than 1%
Refractometer reading (1: 20)	Internal	4.8 +/- 0.2.0
Oil content		55 % Minimum
HMIS Rating		
Health: 1	Reactivity: 1	Flammability:0

Metal Compatibility

Operation

Concentration

Ferrous	Yes	Drilling	1: 15
Aluminum	Yes	Broaching	1: 10
Brass/Copper	Yes	Grinding	1: 25
Titanium	No	Tapping	1: 10
Magnesium	No	Milling	1: 25
		Boring	1: 15

X-Axis	Y-axis
Concentration	R.I reading
1) 1:10	9.8
2) 1:15	6.0
3) 1:20	4.8
4) 1:30	3.3
5) 1:40	2.5
6) 1:50	1.8
Error : +/-0.2	

Pack size: Available in 20 & 205 liter drums

Note: For more details on storage and disposal please refer to material safety data sheet

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