

MET-L-COOL

Cut Machining Costs. Power Profits.

Metal Working Fluids

BIOCOOL PLUS is heavy duty semi synthetic metal working fluid formulated with severely hydro treated naphthenic oil for high performance. Formulated with high performance emulsifiers, extreme pressure additives, corrosion inhibitor package and biocides, BIOCOOL PLUS is designed to give ideal balance of stability, cooling performance and sump life with better tool life.



FEATURES

- Excellent tool life and surface finish.
- The oily residue keeps machine tools and work piece free of corrosion and staining.
- Resistance to microorganisms.
- Lubricity additives provide good machining and grinding ability.
- Low maintenance.

MATERIALS COMPATIBILITY

- Recommended for ferrous metals
- Limited use for aluminum, titanium, brass, bronze, and copper

APPLICATIONS

- Heavy-duty operations
- General machining, grinding, sawing, turning
- Individual and central systems
- High volume/high pressure coolant systems

Typical properties

| Attributes | Ref. Method | Specifications |
|---|----------------------|----------------------------|
| Appearance | Visual | Pale yellow viscous liquid |
| Odor | | Mild odor |
| Specific gravity @ 27 Deg C | ASTM D 1298 | 0.980 - 1.020 |
| Emulsion type | Visual | Translucent |
| Emulsion stability test 5% in 400 ppm hard water | Internal | No oil separation |
| pH of 5% solution | Internal | 9.0 - 10.0 |
| Foam depression 5% in D.M Water | IP 312 | 20 Sec Max |
| Cast iron corrosion test 5% in 200 ppm | IP 287 | Less than 1% |
| Oil content | | 30% |
| HMIS Rating | | |
| Health: 1 | Reactivity: 1 | Flammability: 0 |

CONCENTRATION:

| Concentration | Refractive Index |
|---------------|------------------|
| 10% | 7.0 |
| 5% | 3.6 |
| 3% | 2.2 |

RECOMMENDED STARTING DILUTIONS:

Grinding 5% - 10% (1:20 to 1:10)

Machining 5% - 10% (1:20 to 1:10)

DIRECTIONS FOR USE

BIOCOOL PLUS should be diluted with water as per the recommendations 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.

STORAGE & HANDLING

Coolant has a tendency to freeze at low temperatures. If frozen, thaw at room temperature completely and stir thoroughly before use. Inside storage is recommended.

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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