



Gulf EMULSYN CA ***Premium Semi-Synthetic Metalworking Fluid***

Product Description

Gulf Emulsyn CA is a premium semi-synthetic water miscible metalworking fluid. It offers both lubrication and cooling required for grinding and machining applications. The emulsion is translucent and homogeneous micro emulsion, which offers a high degree of emulsion stability, corrosion protection, and resistance to microbial growth. It is free from nitrite, phenol, nonyl-phenol, chlorine and heavy metals; as a result, it is not susceptible to health hazard and easier for disposal.

Features & Associated Benefits

| Features | Associated Benefits |
|---|--|
| Excellent emulsion stability up to 800 ppm water hardness | Longer sump life, less disposals, less top-ups |
| Selected lubricity and anti-wear additives | Excellent surface finish, enhanced tool life |
| Excellent rust protection | Longer life of machine-tools, reduced rejections of work-pieces |
| Environmental friendly | Ease of disposal |
| Operator friendly | No skin / eye irritation , No objectionable or strong odour and pleasant work area |

Applications & Recommended Concentrations

| Applications | Concentrations |
|---|-----------------------|
| Finishing Operations (Internal & External Grinding) | 3-4 % |
| General Machining (Turning, Milling , Drilling ,) | 5-7 % |
| Heavy duty machining (Reaming, Tapping, Boring) | 6-8% |

Specifications & Typical Properties

| Specification | | |
|--|---------------------|-----------------------|
| Typical Properties | | |
| Test Parameters | ASTM Method | Typical Values |
| Emulsion Type | | Translucent Fluid |
| Density @ 29.5 °C Kg/l | D 1298 | 0.97 |
| pH of 3% emulsion with 200 ppm Synthetic hard water | CTM | 9.5 |
| Refractometer Factor | | 1.25 |
| Frothing test with 20:1 in 200 ppm Synthetic hard water, mins | IS: 1448, P-99 | Passes |
| Cast Iron Corrosion test (5% emulsion in 400 ppm Synthetic hard Water) | IS :1115 Annexure A | Passes |



Additional Information

To get the optimum results

- Always add oil to the water in specified concentration. Never add water to the oil.
- Use a non-galvanized clean container for preparation of emulsion.
- Check the emulsion concentration regularly and do the emulsion top up as required to maintain the suggested concentration
- Thoroughly clean and flush the tank and machine before fresh charging
- Follow the routine maintenance practices for getting the optimum performance and life of the emulsion
- For detailed guidelines regarding charging and emulsion maintenance please contact regional sales representative

Metal Compatibility

| | | | |
|----------------|-----|-----------|----|
| Ferrous Metals | Yes | Titanium | No |
| Yellow Metals | *** | Magnesium | No |
| Aluminum | *** | | |

Note - *** - after evaluation

Water quality for optimum life of cutting fluid

| | |
|----------------|---|
| Water Hardness | Should range between 80 to 125 ppm of CaCO ₃ |
| Sulfate Ions | 50 ppm maximum |
| Chloride Ions | 50 ppm maximum |
| Phosphate Ions | 30 ppm maximum |

Handling & Storage guidelines

- Refer Safety Data Sheets for Health and Safety related information.
- Used product to be disposed by referring to applicable statutory guidelines.
- Store preferably in in-door condition.
- Under normal storage conditions, the product should be consumed within 6 months for optimum performance.