# IPOL Enhanco Biocut SS 500

Biostatic, micro –emulsion semi-synthetic coolant

## Description:

IPOL Enhanco Biocut SS 500 is a high performance biostatic semi- synthetic product, specially designed for machining as well as grinding operation of Ferrous components. This Product can also be used for machining of cast iron, mild-steel & alloy–steel components. This product contains high end additive chemistries with perfect balance of emulsifiers, coupling agents, biocides and surfactants. The product provides good stability, improved bio-resistance & helps in reducing the over-all operation costs.

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## Salient Features & Benefits:

- Micro-emulsion technology. Gives translucent emulsion.
- Better visibility of the work-piece and tool-piece during machining application.
- Advanced lubricity components ensures good tool life
- Improved corrosion resistance of machine parts and machined components
- Bio-stable product. Long sump life. Reduced maintenance costs.
- Operator Friendly.
- Low Foaming tendency
- Well suited for giving optimum performance on Cast-Iron Components.
- Good tramp-oil rejection property

## Application:

**Recommended Concentration:**

| Operation | Cast iron | Mild Steel | Alloy Steel | Other Steel |
|---|---|---|---|---|
| Grinding & Turning | 3 – 5% | 3 – 5% | 4 – 6% | 4 – 6% |
| Milling, Reaming, Boring | 4 – 6% | 5 – 7% | 5 – 8% | 5 – 8% |
| Drilling, Tapping, Threading | 4 – 6% | 5 – 7% | 5 – 8% | 5 – 8% |

## Concentration Control:

Control on Coolant concentration is important to get optimum performance from Semi-synthetic coolant. This also ensures the chemical & biological stability of the Sump. Proper concentration also helps to keep your total operating cost mainly tooling & chemical at a minimum.

| **If Concentration of Sump is more than the recommended level** | **If Concentration of Sump is less than the recommended level** |
|---|---|
| Do not add Water to the system directly | Do not add Oil to the system directly |
| Addition of Lean Emulsion of 1-3% concentration to sump recommended | Addition of Over-strength Emulsion of 8 to 10% concentration to sump recommended |



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## Physical Properties:

| Properties | Methods | Typical Test Values |
|---|---|---|
| Colour | Visual | Light amber |
| Sp Gravity @ 30 $^{O}$C | ASTM D 1298 | 0.99 |
| pH value 5 % ,100 ppm water | In-house | 9.20 |
| Emulsion appearance | Visual | Translucent |
| Cast Iron Chips test | % DIN 51360-2 | 3% |
| Bio-Stability | Proprietary | Good Bio-stability |
| Foaming tendency | ASTM- D 892 | Passes |
| Refraction Index Factor | %/Brix | 1.45 |

(The above data is typical & does not constitute a specification. The information provided is not to be taken as a warranty or representation for which we assume legal responsibility, nor as permission or recommendation to practice any attended location or otherwise. It is solely offered for your consideration, investigation and verification.)

## Coolant Management Guidelines:

- Ensure that the machines are clean, before charging the Fresh Emulsion
- During preparation of Emulsion, always add Neat Oil (Coolant) to Water.
- Never add Water to the Coolant
- While addition of Coolant to Water, the agitator must be on to ensure proper mixing
- Check & maintain the Emulsion Concentration on daily basis
- Do not allow the Emulsion to stay idle for longer period.
- Top-ups to the Sump should be done in the form of Emulsion.
- Never add only Water or Coolant to the Sump directly
- Maintaining the proper concentration gives satisfactory performance
- If the Coolant is maintained properly, Microbial growth is minimized
- Remove the debris, tramp oil from the system on regular basis to enhance the sump life and keep the fluid healthy

## Storage & Handling:

The product is available in 210 & 26 Ltr HDPE drums. All containers are filled to volume by weight. This product has shelf life of 9 months. Like most chemicals, it should be stored out of direct sunlight in temperature between 4 & 43 °C.

## Safety and Precautions:

IPOL Enhanco Biocut SS 500 is unlikely to present any significant health hazard when proper personal and industrial hygiene are maintained.



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