

STARCHEM

StarBright™ 440

Semi-Synthetic Machining and Grinding Fluid Concentrate

GENERAL DESCRIPTION

StarBright 440 is a semi-synthetic machining and grinding fluid that has been formulated to provide excellent corrosion inhibition, lubrication, cleaning and cooling properties in light to moderate duty metalworking of ferrous metals and most non-ferrous metals.

APPLICATION

StarBright 440 is recommended for a wide variety of metalworking operations including applications such as milling, drilling, cut tapping, reaming, boring and surface grinding.

StarBright 440 is compatible with a wide range of materials including mild steels, stainless steels, hardened steels and most aluminum alloys. **StarBright 440** is not recommended for use on magnesium or alloyed magnesium.

StarBright 440 can be used in stand-alone machines and central systems.

ADVANTAGES

- Physical and chemical lubricant agents provide excellent machining and grinding ability
- Superior microbial control for long sump life
- Oily residue keeps machine tools and work-piece materials free of corrosion and staining
- Stable in a variety of water conditions

PHYSICAL PROPERTIES

| | | | |
|----------------------------|---------------|--|------|
| Form | Clear Liquid | Specific Gravity (H₂O=1) | 1.02 |
| Boiling Point | 212°F | pH (concentrate) | 9.5 |
| Flash Point (COC) | NA | Typical Operating pH | 8.9 |
| Solubility in Water | 100% Miscible | Refractometer Factor | 2.1 |

AVAILABILITY

StarBright 440 is available in 5-gallon pails, 55-gallon drums, and in bulk.

RECOMMENDED STARTING DILUTIONS

Grinding 5% - 10%
 Machining 5% - 10%

MIXING INSTRUCTIONS

Always add **StarBright 440** concentrate to water. Mix concentration can be determined using a refractometer.

StarBright 451 CONCENTRATION

| Concentration Ratio | 4% 1:25 | 5% 1:20 | 6% 1:17 | 7% 1:14 | 8% 1:13 | 9% 1:11 | 10% 1:10 |
|-----------------------|------------|------------|------------|------------|------------|------------|-------------|
| Refractometer Reading | 1.9 | 2.4 | 2.9 | 3.4 | 3.9 | 4.4 | 4.9 |

Using premixed concentrate as makeup will improve performance and reduce usage. The specific makeup concentration selected for your situation should balance the water evaporation rate with the coolant carry-off rate. Adding makeup concentrate at 30-50% of the desired working concentration will generally maintain the proper concentration in use. The use of deionized or mineral-free water will also improve performance, prolong sump life, and reduce concentrate usage.

HEALTH & SAFETY

The most recent MSDS is available from either **STARCHEM** or your authorized **STARCHEM** Distributor.

NOTES

- Consult **STARCHEM** before using this product on any metals or applications not specifically recommended
- Do not use any metalworking fluid additives except as recommended by **STARCHEM**
- The general description, recommended uses, application data and statements in the product literature are guidelines. Because this product may be used for a variety of applications over which the manufacturer has no control, the manufacturer assumes no liability for incidental, consequential, or direct damages of any kind, regardless of causes, including negligence.

CIMCOOL® FLUID TECHNOLOGY

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