

STARCHEM

StarBright 415

Semisynthetic Cutting and Grinding Fluid Concentrate

GENERAL DESCRIPTION

StarBright 415 is a BIORESISTANT, premium semisynthetic, cutting and grinding fluid for light to moderate duty metalworking applications. This product has been specifically formulated to significantly extend fluid life without relying on sump-side additions of expensive additives. **StarBright 415** contains a unique combination of high quality mineral and vegetable oils to provide excellent lubricating, cooling, and corrosion inhibition properties in both ferrous and non-ferrous applications.

APPLICATION

StarBright 415 is recommended for a wide variety of light to moderate duty metalworking operations including CNC milling, turning, drilling, boring and grinding.

It is compatible with a wide range of materials including most aluminum alloys, steels, cast irons, and copper alloys. **StarBright 415** is a true, multi-purpose product that is ideally suited for those customers that prefer to use one metalworking fluid throughout the shop. It can be used in “stand-alone” machines and central systems.

ADVANTAGES

- Wide application range
- Superior rancidity control for long sump life
- Excellent lubricity and corrosion control for ferrous and non-ferrous metals
- Low odor and mist
- Extremely clean
- Easy recycling or disposal

StarBright 415 does not contain nitrite, sulfur, dicyclohexylamine or phenolic biocides.

PHYSICAL PROPERTIES

Form	Clear Liquid	Specific Gravity (H₂O=1)	1.02
Boiling Point	212°F	pH (concentrate)	9.6
Flash Point (COC)	NA	Typical Operating pH Range	8.9 – 9.2
Solubility in Water	100% Miscible	Refractometer Factor	2.5

AVAILABILITY

StarBright 415 is available in 5-gallon pails, 55-gallon drums, and in bulk.

RECOMMENDED STARTING DILUTIONS

Milling, Turning 5% - 7%
 Drilling, Boring 6% - 8%
 Centerless, ID, OD, Surface Grinding 5% - 6%

MIXING INSTRUCTIONS

Always add **StarBright 415** concentrate to water. Mix concentration can be determined using a refractometer.

StarBright 415 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	1.6	2.0	2.4	2.8	3.2	3.6	4.0

StarBright 415 is not recommended for use on magnesium or alloyed magnesium.

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.
- StarBright 415 Concentrate should be used within 9 months of manufacture date.

CIMCOOL® FLUID TECHNOLOGY

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