

STARCHEM

StarBright 405

Semisynthetic Cutting and Grinding Fluid Concentrate

GENERAL DESCRIPTION

StarBright 405 is a BIORESISTANT, semisynthetic, general-purpose cutting and grinding fluid for shops working multiple metals in a variety of operations. This product has been formulated to provide excellent lubricating, cooling, and corrosion inhibition properties in light to moderate duty machining and grinding of ferrous metals and aluminum alloys.

APPLICATION

StarBright 405 is recommended for a wide variety of light to moderate duty metalworking operations including CNC milling, turning, drilling, boring, tapping, threading, and grinding. It is compatible with a wide range of materials including carbon and cast steels, stainless steels, cast irons, and aluminum alloys. **StarBright 405** 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 microbial control for long sump life
- Excellent lubricity and corrosion control
- Low foam, odor, and mist
- Extremely clean
- Easy recycling or disposal

StarBright 405 does not contain nitrite, chlorine, sulfur, dicyclohexylamine or phenolic biocides.

PHYSICAL PROPERTIES

Form	Clear Liquid	Specific Gravity (H₂O=1)	1.03
Boiling Point	212°F	pH (concentrate)	9.5
Flash Point (COC)	NA	Typical Operating pH Range	8.8 – 9.2
Solubility in Water	100% Miscible	Refractometer Factor	3.0

AVAILABILITY

StarBright 405 is available in 5-gallon pails, 55-gallon drums, and in bulk.

RECOMMENDED STARTING DILUTIONS

Centerless, ID, OD, Surface Grinding	5% - 6%
Milling, Drilling, Turning)	5% - 7%
Medium Duty Tapping, Reaming	6% - 8%

MIXING INSTRUCTIONS

Always add **StarBright 405** concentrate to water. Mix concentration can be determined using a refractometer.

StarBright 405 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	1.3	1.7	2.0	2.3	2.7	3.0	3.3

StarBright 405 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 MSDS should be consulted for specific information and information on Health, Safety and Environment when handling this product. 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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