



Product Data Sheet



506 Cutting OIL – Staining

Light Duty Staining Cutting Fluid

506 Cutting Oil – Staining are light-duty, general purpose cutting fluids for ferrous metals. Formulated with high levels of extreme pressure additives, making these fluids exceptional in the most severe metalworking applications. Along with the additive packages, these superior fluids use a combination of active sulfurized fat and chlorine providing excellent EP properties for increased cutting efficiency and improving the surface finish compared to conventional cutting fluids.

Cutting Fluids – Staining are intended to be used with ferrous metals, but they are also more than acceptable to be used with non-ferrous metals, where staining is not a concern.

Product Features:

- The translucency of these fluids allow visual inspection of both tool and parts during machining process
- Sulfurized fat content helps increase lubricity and protects from premature tooling failure

Customer Benefits:

- Light-Duty - Formulated with high concentrations of active ingredients, these fluids provide excellent performance in the most severe applications
- Using these cutting fluids will help safeguard equipment and extend tool life
- Available in four different grades

Applications:

- Metalworking, drill pressing, turning, milling and grinding operations





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Typical Properties

506 Cutting Oil – Staining

Product Number	506	508	516	520	Test Method
API	23.24	21.86	22.63	18.92	-
Specific Gravity	0.9145	0.9227	0.9181	0.9407	ASTM 4052
Lbs/Gal	7.616	7.684	7.646	7.834	-
Density	0.9140	0.9222	0.9175	0.9401	-
Flash Point °C (°F)	159 (318.2)	157 (314.6)	153 (307.4)	161 (321.8)	ASTM D92
Pour Point °C (°F)	-18 (-0.4)	-18 (-0.4)	N/A	-18 (-0.4)	ASTM D97
Color	<1.0	<1.0	<1.0	<1.0	ASTM D1500
Color Visual	Medium	Medium	Dark	Dark	-
Viscosity@100°C cSt	5.339	5.336	4.233	6.35	ASTM D445
Viscosity@40°C cSt	30.85	32.41	22.13	41.34	ASTM D445
Viscosity Index (VI)	102	95	90	101	ASTM D2270
Chlorine %	0.0	1.1	0.4	2.6	-
Sulfur Tot, %	2.1	2.2	2.8	4.3	-
Sulfur Act, %	2.1	2.2	2.1	2.3	-
Fat %	5.0	0.0	4.0	10.7	-

These properties are typical of the current production. Variations that do not affect product performance are to be expected depending on blending and manufacturing locations. The information contained herein is subject to change without notice.

Health and Safety:

This product is unlikely to have any adverse health implications or safety hazards when used for its intended application. Avoid contact with skin, use resistant gloves when handling used oil. If skin comes in contact wash immediately with soap and water. For complete information on safe handling and product characteristics please refer to the Material Safety Data Sheet (MSDS) found on our website. www.royalmfg.com or call (918)-584-2671.

Packaging options:



55 Gal. Drums



275/330 Gal. Totes



>2,000 Gal. Bulk

