

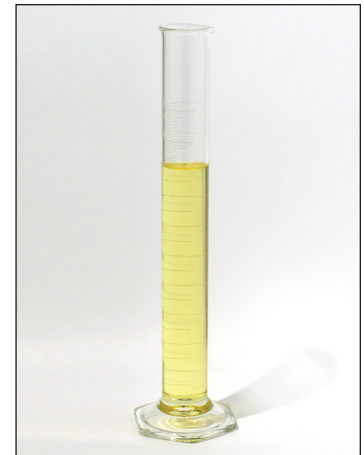


CITGO AUTOKUT® AS SERIES

Date 10/12

DESCRIPTION: CITGO Autokut AS Series of transparent metal removal oils are highly active fluids designed for the most severe machining operations. Citgo Autokut AS series is available in four different viscosity grades to meet the requirements of a modern engineering facility.

- FEATURES:**
- Contains active sulfur and other anti-weld components
 - High levels of lubricity
 - Low odor
 - Chlorinated paraffin free
 - Light in color
 - Contains a stable oil mist suppressant



- BENEFITS:**
- Improved productivity and lower costs of operation
 - Excellent surface finish at high feeds and speeds
 - Improved worker acceptability
 - Reduction in disposal costs and reduced risk of rust
 - Aids visibility of operation
 - Improves working environment and worker safety by minimizing mist formation

NOTE: Not recommended for yellow or non-ferrous metals

APPLICATIONS: CITGO Autokut AS Series are formulated for machining operations involving alloyed, stainless and chrome steels. These products are intended for the most severe machining operations such as broaching, tapping and cold-heading. Lower viscosity grades are used for higher speed lighter duty applications and higher viscosity is used for slower speed heavier duty operations.



Material Compatibility

	Recommended	Highly Recommended
P - Steels	P - Steels	
M - Stainless Steel	M - Stainless Steel	
K - Cast Iron	K - Cast Iron	

(Continued)



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Date 10/12 - (Continued)

TYPICAL PROPERTIES - CITGO AUTOKUT® AS SERIES

Grade	AS 15	AS 32	AS 46	AS 68
Material Code	639430001	639432001	639433001	639434001
Gravity, ASTM D 4052, °API	33.6	31.1	29.7	28.2
Gravity, Specific, ASTM D 1298, 60/60 °F	0.857	0.870	0.878	0.886
Density, lb/gal	7.2	7.3	7.3	7.4
Flash Point, COC, ASTM D 92, °F (°C)	349 (176)	363 (184)	356 (180)	356 (180)
Viscosity, cSt at 40°C	16.6	30.7	45.5	65.4
cSt at 100°C	3.8	5.6	7.1	8.9
SUS at 100°F	89	158	245	338
SUS at 210°F	39	45	50	56
Color, ASTM D 1500	1.0	1.5	1.5	1.5
Pour Point, ASTM D 97, °F (°C)	-45.4 (-43)	-22 (-30)	-14.8 (-26)	-14.8 (-26)
Copper Corrosion, ASTM D 130, 3 hrs at 212°F	4	4	4	4
Active Sulfur	Yes	Yes	Yes	Yes
Phosphorus	No	No	No	No
Lubricity Additive	Yes	Yes	Yes	Yes