



## Koolkut® HD NC

Phillips 66® Koolkut HD NC is a chlorine-free active cutting oil developed for medium-duty machining of cast iron, steel and high-speed steel. It is specially formulated with high quality base oils and fortified with oiliness additives and sulfur-containing extreme-pressure additives that provide excellent lubricity and anti-weld properties at the chip-tool interface, resulting in extended cutting tool life and good surface finishes on the machined parts.

Koolkut HD NC is transparent, allowing good observation of the machining operation. It is corrosive to non-ferrous metals such as copper and copper alloys, and is not recommended for machining non-ferrous metals if staining of the workpiece must be avoided.

### Applications

Koolkut HD NC is recommended for light- to medium-duty machining of ferrous metals. Typical applications include:

- Boring
- Broaching
- Drilling
- Reaming
- Sawing
- Tapping
- Threading

### Features/Benefits

- Excellent performance in most difficult machining operations
- Helps extend cutting tool life
- Good surface finish
- Chlorine-free for reduced environmental impact
- Transparent for good visibility of the machining operation

## Chlorine-Free, Medium-Duty Cutting Oil





## Koolkut® HD NC

Typical Properties	
ISO Grade	32
Specific Gravity @ 60°F	0.883
Density, lbs/gal @ 60°F	7.35
Color, ASTM D1500	6.0
Flash Point (COC), °C (°F)	235 (455)
Pour Point, °C (°F)	-15 (5)
Viscosity	
cSt @ 40°C	30.0
cSt @ 100°C	5.0
SUS @ 100°F	155
SUS @ 210°F	43.0
Viscosity Index	87
Copper Corrosion, ASTM D130	1b
Chlorine, wt %	Nil
Fatty Oil, wt %	5.0
Sulfur, Total, wt %	2.20
Sulfur, Active, wt %	2.05

## Health & Safety Information

For recommendations on safe handling and use of this product, please refer to the Safety Data Sheet via <http://www.phillips66.com/EN/products/Pages/MSDS.aspx>.

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Typical properties are average values only and do not constitute a specification. Minor variations that do not affect product performance are to be expected during normal manufacture, and at different blending locations. Product formulations are subject to change without notification.

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