

Keycool[®] 106

Vulsol K106 S

Synthetic Cutting and Grinding Coolant

Description

Keycool 106 (Vulsol K106 S) is a synthetic cutting and grinding concentrate that offers numerous benefits. When mixed with hard or soft water it forms a clear green solution that provides protection against corrosion at dilutions of 30:1. Unlike conventional soluble oils, Keycool 106 (Vulsol K106 S) provides anti-weld and extreme pressure properties without the use of sulfur or chlorine. It is formulated to resist bacterial growth and provides protection against rust. Excellent metal wetting properties speed the removal of heat from parts and tools. This provides the cooling necessary to insure good surface finishes and extended tool life. Keycool 106 is odorless and its transparency provides operators with a clear view of the machined part. **Not recommended for magnesium or magnesium alloys. For use on all other metals. Non-ferrous metals should be rinsed with water immediately after machining to prevent staining.**

Features

- Synthetic
- Extreme Pressure
- Anti-Wear Additives
- Foam Control
- Corrosion Control
- Sulfur and Chlorine-Free
- Transparent Green Solution
- Biodegradable

Benefits

- Longer Coolant Sump Life
- Improved Finish and Extended Tool Life
- Provides Protection Against Rust of Tools and Parts
- Good Work Piece Visibility

Applications

Types of Metals

- All Ferrous and Non-Ferrous Metals and Alloys
- Not Recommended for Magnesium or Its Alloys

Type of Operation

Keycool 106 (Vulsol K 106) is designed for use in general machining operations to replace straight or emulsifiable cutting oils. Some uses include:

- Machining
- Grinding
- High Speed/Low Depth of Cut Operations
- Cutting

Method of Application

- Recirculation – Reservoir
- Flood
- Mist System

Cleaning of Parts

Softer metals such as copper and aluminum should be rinsed free of coolant to prevent staining.

Parts cleaning can be accomplished with a hot, mild alkaline wash, or hot water wash immediately after machining.

TOTAL Lubricants USA, Inc.

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Recommended Starting Dilutions*

Operation	Parts Water	Parts Keycool 106
Cutting	5 to 20	1
Grinding	20 to 30	1

* Exact concentrations depend upon the severity of the operation.

Concentration

Use the American Optical Refractometer Fluid Tester, Model 10440, or the Atago Refractometer, Model SPR-N to confirm Keycool 106 (Vulsol K106 S) concentration.

Keycool[®] 106 (Vulsol K106 S) Typical Properties

Nature	Synthetic Fluid
Appearance	Green
Specific Gravity, @ 60°F	1.0
Density, lbs./gal., @ 60°F	8.34
Freezing Point, °F	15
Freeze/Thaw Cycle	Returns to Original Form
Flash/Fire Point, C.O.C., °F	None
Sulfur, Chlorine	Nil
Anti-Foam Characteristics	Quick Break
Hard Water Stability, (300 ppm)	Excellent
pH Value -Concentrate	9.5
pH Value - 5% Solution	9.2
Residue After Water Evaporation	Fluid, Non-Tacky
Rust Test, Cast Iron Chips: 20:1 dilution	Pass
Biodegradable	Yes

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