

## PRODUCT DATA SHEET

### **Royal 504 Soluble Oil** *EP Soluble Oil*



#### **PRODUCT DESCRIPTION:**

**Royal 504 Soluble Oil** is a high performance, oil-based, emulsifiable coolant designed for use in a wide variety of heavy duty machining and cutting operations.

**Royal 504 Soluble** contains a high level of extreme pressure additives in its formulation, enabling it to handle the most severe operations for which oils of this type are recommended. In many cases, it can serve as the only cutting fluid in the shop.

**Royal 504 Soluble** is an economical, highly effective, versatile product providing excellent performance in cooling and lubricating the tool and work in even the most demanding high speed applications. This product mixes readily with water to form stable emulsions and is formulated to provide outstanding rust preventive properties. It is enhanced with a bactericide to prevent coolant souring during use.

Suggested dilution ratios:

| Operation   | Water: Oil Dilution |
|-------------|---------------------|
| Cutting     | Grinding            |
| 5:1 to 30:1 | 7:1 to 60:1         |

#### **KEY FEATURES:**

- Readily mixes with water to form stable emulsions
- Bactericide prevents the buildup of fungi and bacteria
- Use one fluid for both ferrous and non-ferrous metals

#### **CUSTOMER BENEFITS:**

- Heavy Duty - Contains a high level of extreme pressure additives. Suitable for the most severe machining operations
- Long Lasting - Forms stable emulsions that resist separation under adverse conditions. Bactericide prevents the buildup of fungi and bacteria, minimizing objectionable odors
- Versatile - Use one fluid for both ferrous and non-ferrous metals.

#### **APPLICATIONS:**

For use as a coolant in machining and cutting operations.

#### **PACKAGING:**

Totes and Drum

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### Typical Properties

| Royal 504 Soluble Oil |         |             |
|-----------------------|---------|-------------|
| Product Number        | 504     | Test Method |
| API                   | 11.32   |             |
| Specific Gravity      | 0.99077 | ASTM 4052   |
| Lbs/Gal               | 8.251   |             |
| Density               | 0.99022 |             |
| Flash Point °C        | 181     | ASTM D92    |
| Pour Point °C         | -12     | ASTM D97    |
| Color                 | Red     | ASTM D1500  |
| Viscosity@100°C cSt   | 8.887   | ASTM D445   |
| Viscosity@40°C cSt    | 49      | ASTM D445   |
| Viscosity Index (VI)  | 38      | ASTM D2270  |

*Typical Properties are typical of those obtained with normal production tolerance and do not constitute essentially a specification. Variations that do not affect product performance are to be expected during normal manufacture and at different blending locations. The information contained herein is subject to change without notice.*

### Health and Safety:

*When used for its intended application, this product is not expected to have any adverse health implications. For complete information on safe handling, as well as physical and chemical characteristics please refer to the Material Safety Data Sheet (MSDS) found on our website, [www.royalmfg.com](http://www.royalmfg.com), or call 918-584-2671. Do not use this product for purposes other than its intended use. Please be responsible to the environment when disposing of used product.*