

## PRODUCT DESCRIPTION

**Oscar Soluble Cutting Fluid** has been formulated to meet the requirements for the preparation of water soluble oils which will give stable milky emulsions in all types of water.

It is using an additive which is a blend of emulsifying agents, wetting agents, and rust inhibitors, together with solvent refined mineral oils. It also contains biocides and fungicide additives to give the finished soluble oils and long service life, prevent emulsion breakdown and spoilage.

It is an extremely versatile product for medium-cutting operations, provides all the lubrication and cooling properties necessary to ensure good work piece finish, and extended tool life. It is suitable on ferrous and non-ferrous metals in turning, milling, drilling, tapping, threading and cold sawing operations.

## APPLICATION

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**A dilution of 4% to 8% is suitable for the majority of application. It is advised to start with 4% and adjust as necessary. The emulsion is prepared by adding oil to water and not vice versa.**

## TYPICAL PROPERTIES

| PARAMETERS        | TEST METHOD | UNIT | OSCAR SOLUBLE CUTTING FLUID |
|-------------------|-------------|------|-----------------------------|
| pH                | ASTM D1287  |      | 9.50                        |
| Density @ 15°C    | ASTM D1298  | kg/l | 0.8912                      |
| Flash Point (COC) | ASTM D92    | °C   | 210                         |
| Viscosity @ 40°C  | ASTM D445   | cSt  | 47.0                        |

| Material                   | Milling  | Drilling                             | Tapping                                     | Turning   |
|----------------------------|--|--------------------------------------|---|---|
| Aluminium                  | Soluble Cutting Fluid (96% water) or mineral oil | Soluble Cutting Fluid (70-90% water) | 25% sulfur-based oil mixed with mineral oil | Mineral oil with 10% fat (or) Soluble Cutting Fluid |
| Brass                      | Soluble Cutting Fluid (96% water)                | Soluble Cutting Fluid                | 10-20% lard oil with mineral oil            | Mineral oil with 10% fat                            |
| Bronze                     | Soluble Cutting Fluid                            | Soluble Cutting Fluid                | 30% lard with mineral oil                   | Soluble Cutting Fluid                               |
| Alloy Steels               | 10% lard oil with 90% mineral oil                | Soluble Cutting Fluid                | 30% lard oil with 70% mineral oil           | 25% sulfur base oil with 75% mineral oil            |
| Cast Iron                  | Dry  | Dry                                  | Dry or 25% lard oil with 80% mineral oil    | Dry   |
| Malleable Iron             | Soluble Cutting Fluid                            | Soluble Cutting Fluid                | Soluble Cutting Fluid                       | Soluble Cutting Fluid                               |
| Copper                     | Soluble Cutting Fluid                            | Soluble Cutting Fluid                | Soluble Cutting Fluid                       | Soluble Cutting Fluid                               |
| Low Carbon and Tool Steels | Soluble Cutting Fluid                            | Soluble Cutting Fluid                | 25-40% lard oil with mineral oil            | 25% lard oil with 75% mineral oil                   |

Prolonged and repeated contact with oil may cause skin disorders. Avoid contact. Wash immediately with soap and water. Do not discharge used oil in to drains or the environment. Dispose to an authorized used oil collection point. For further Information on Safety Guidelines please refer to MSDS available on our website [www.oscarlubricants.com](http://www.oscarlubricants.com)

**STORAGE AND HANDLING:**

Oscar Soluble Cutting Fluid concentrates can generally be stored for up to 2 years in sealed, original containers.

These storage conditions include, among others, dry, frost-free and in covered spaces, protection against exposure to direct sunlight and heat as well as temperature fluctuations and a maximum storage temperature of 40 °C. After containers have been opened, adequate safeguards must be taken to protect against the ingress of dust, dirt, water, etc. and the contents should be used up as quickly as possible.