



TEXACO SOLUBLE OIL D

CUSTOMER BENEFITS

Texaco Soluble Oil D delivers value through:

- **No separation** — Excellent emulsion even with hard water.
- **Rust protection** for steel work and machined parts even when water-oil emulsion ratios are eighty to one.
- **Ability to control bacterial growth and rancid odors.**
- **Cooling** improved by metal wetting. Also good chip settling.
- **Reduced foaming** — Possibility of sump overflow minimized.
- **Stability in storage** — Will not turn rancid.

FEATURES

Texaco Soluble Oil D is an emulsifying oil which readily mixes with water, forming a homogeneous and exceptionally stable emulsion. It provides rust and corrosion inhibition and foam inhibition. It is used in the machining of both ferrous and nonferrous metals, particularly when cutting with carbon or high speed steel or tungsten carbide tools. It also combats bacterial growth in machine sumps.

FUNCTIONS

Texaco Soluble Oil D is used broadly in machine shop operations as a multifunctional cutting fluid. It is designed primarily to cool and lubricate the contact point of the tool and the work piece. It also prevents rusting or corrosion of the metals being machined as well as controls growth of bacteria, which is a constant problem in soluble oil circulating systems due to outside contamination.

Texaco Soluble Oil D minimizes surface foam and speeds the release of entrained air which could cause pump cavitation. This is a versatile fluid designed to meet many of the situations encountered in the metalworking industry.

APPLICATIONS

Texaco Soluble Oil D is recommended for all metals (except magnesium) where maximum cooling is desired, particularly when cutting with carbon, high speed steel, or tungsten carbide tools.

Texaco Soluble Oil D is used extensively in milling, drilling, gear cutting, turning, planing, shaping, sawing, and grinding operations.

One gallon of Texaco Soluble Oil D for each 20 gallons of water satisfies most cutting operations; however, the mixture can vary from 10 to 50 parts of water. Always add oil to water to avoid forming sticky invert emulsions which do not emulsify properly in water. See the Soluble Oil Mixing Recommendations chart for the proper ratio for the application.

Texaco Soluble Oil D is suitable for use in automotive cooling systems to prevent rust and corrosion. A mixture of forty to one is most often used. However, always follow engine manufacturers' recommendations. It is preferable to mix radiator water and oil in a separate container. Additions to the radiator should be made from this container. As with any other "additives", the radiator should be drained and flushed occasionally, since evaporation and leakage cause proportions to change.

Do not recommend Texaco Soluble Oil D emulsions for magnesium. Hot magnesium is a fire hazard when it contacts water. The preferred recommendation is Texaco Alcaid® 19 (ISO 22).

TYPICAL TEST DATA

Product Number	220786
MSDS Number	8625
API Gravity	20.4
Viscosity, Kinematic cSt at 40°C cSt at 100°C	38.0 5.2
Viscosity, Saybolt SUS at 100°F SUS at 210°F	198 43.7
Flash Point, °C(°F)	160(320)
Pour Point, °C(°F)	-30(-22)
Total Sulfur, wt %	0.30
Active Sulfur, wt %	—

Typical test data are average values only. Minor variations which do not affect product performance are to be expected in normal manufacturing.

TEXACO SOLUBLE OIL D MIXING RECOMMENDATIONS

First figure indicates parts of water. Second figure indicates parts of Texaco Soluble Oil D.

Material	Turning, Shaping, Planing, Drilling	Milling	Pipe and Plain Threading	Automatic Screw Machines	Grinding	Thread Grinding	Deep Drilling	Gear Shaving or Cutting
Plain, medium, and high carbon steels	20:1	20:1	◆	20:1	50:1	20:1	◆	20:1
Alloy steels	15:1	15:1	◆	15:1	50:1	15:1	◆	15:1
Ingot iron, wrought iron, low carbon steels	15:1	15:1	◆	15:1	50:1	15:1	◆	15:1
Stainless steels, tool and die steels	10:1	10:1	◆	10:1	50:1	10:1	◆	10:1
Aluminum and aluminum alloys	25:1	25:1	30:1	30:1	50:1	30:1	20:1	30:1
Copper and brass	25:1	25:1	30:1	30:1	◆	◆	20:1	30:1
Zinc and zinc alloys	25:1	30:1	30:1	30:1	◆	◆	20:1	◆
Bronze and high strength copper alloys	10:1	10:1	10:1	10:1	50:1	10:1	◆	10:1
Magnesium and magnesium alloys	FIRE HAZARD							
Titanium and titanium alloys	10:1	10:1	◆	◆	◆	◆	◆	◆
Nickel and nickel alloys	10:1	10:1	◆	10:1	50:1	10:1	◆	10:1
Cast iron	Dry	Dry	Dry	◆	Dry	Dry	Dry	Dry

◆ Seldom used