

Unisoluble EM

EMULSIFYING METALWORKING FLUID

Unisoluble EM is a general-purpose emulsifying cutting fluid that provides outstanding emulsion stability, lubricity, rust prevention, and foaming prevention. It can be used not only for cutting and other types of metalworking but also as an emulsifying hydraulic fluid (for water-submerged application)

● Special Features

1. Outstanding Emulsification Stability

Unisoluble EM emulsifies easily and maintains a stable emulsion for long periods of time.

2. Excellent Lubricity

The superior oiliness agents in Unisoluble EM provide excellent lubricity in cutting operations such as turning and drilling as well as in drawing, punching, and other deformation processes.

3. Outstanding Foaming Prevention

Unisoluble EM is blended with carefully selected surfactants that ensure outstanding foaming prevention.

● Applications

1. General cutting of steel materials (on lathes, mills, automatic lathes, boring machines, etc.)
2. Drawing, punching, and bending of soft steels.
3. As emulsifying hydraulic fluid (for water-submerged applications) .

● Dilution Rate During Use

Cutting of iron and steel: 10 to 20 times

Polishing of iron and steel: 10 to 30 times

The above dilution rates are intended for typical operating conditions. The rates must be adjusted depending on the cutting conditions and volume.

● Containers

200-liter drums and 20-liter cans.

● Typical Properties of Unisoluble EM

Appearance	(original fluid)		Light yellow fluid
	(diluted fluid)		White emulsion
Density	(15°C)	g/cm ³	0.91
Surface tension*	(25°C)	mN/m	36
pH*			9.2
Corrosivity	Steel sheet (RT, 24 h)		No discoloration

*Measured with 10x diluted fluid (based on JIS K 2241).

Note: The typical properties may be changed without notice. (June 2003)