

UCON™ MWL-2 *Metal Working Lubricant*

Product Description

UCON™ MWL-2 is a high performance polyalkylene glycol base fluid that is especially recommended as a component for formulating semi-synthetic and synthetic water-based metalworking fluids. Formulations containing UCON™ MWL-2 can offer the unique property of inverse solubility in which the high temperatures generated at the interface of the tool piece and metal substrate leads to the polymer momentarily coming out of solution and forming a lubricating coating at the interface. Lubricating performance synergies are also known with PAG metalworking fluids that also contain extreme pressure additives.

Application

UCON™ MWL-2 is especially recommended for formulating synthetic metalworking fluids for difficult to machine alloys such as heavy duty machining of stainless steel where cooling and lubrication performance are critical. Formulations containing UCON MWL-2 can provide excellent tramp oil rejection and offer much longer service life than soluble oils.

Typical Physical Properties* of UCON™ MWL-2

Form	Liquid
Cloud Point, °C, 1% aq., DOWM 101476	33 - 38
Viscosity, cSt @ 40 °C, ASTM D 445	155 - 190
Water Content, wt%, ASTM E 203	0.2 max
Color, Pt-Co, ASTM D 5386	100 max
Specific Gravity, 25 °C /25 °C, ASTM D 4052	1.028
Flash Point, Open Cup, °C, ASTM D92	>200
Pour Point, °C, ASTM D 97	-43
pH, (1 H ₂ O+10MeOH), DOWM 101495	5.0 – 8.0

* Typical properties, not to be construed as specifications

Product Stewardship

Dow encourages its customers and potential users to review their applications from the standpoint of human health and environmental aspects. To help ensure that Dow products are not used in ways for which they are not intended or tested, Dow personnel will assist customers in dealing with environmental and product safety considerations. Dow literature, including material Safety Data Sheets, should be consulted prior to the use of Dow products.

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