UCON

FLUIDS & LUBRICANTS

UCONO METALWORKING LUBRICANT EPML-483

UCON Metalworking Lubricant EPMLr483 is an anionic modified polyalkylene glycol which provides both hydrodynamic and extreme pressure lubrication EPMLr483 is completely water soluble at ambient temperatures. At elevated temperatures it exhibits inverse solubility and is thus able to provide excellent lubricity at low concentrations in water. When EPML-483 is compounded with alkanolamines, nonnitrite corrosion inhibitors, and biocides, synthetic coolants of exceptional performance and versatility can be produced

EMPLr483 is stable in hard water and is naturally low foaming. It is hydrolitically stable and resists bacterial attack EPMLr483 remains fluid to prevent the buildup of tacky or gummy residues. Unlike many synthetic extreme pressure additives, EPMLr483 is not selectively depleted from coolant systems. Thus, when used in a fully formulated product and properly maintained, EPML-483 is capable of providing long-term trouble-free service in recirculating central coolant systems.

FEATURES

. Provides Excellent Hydrodynamic and Extreme Pressure Lubricity
  . eliminates need for lubricity modifiers such as phosphate esters or fatty acids
  . allows heavy duty machining without the use of chlorine, sulfur, or phosphorous extreme pressure agents
. Compatible with Ethanolamines and most Amine -Based Additives
. Low Foam Tendency
. Unaffected by Hard Water
. Hydrolytically Stable
. Resists Microbial Attack
. Completely Water Soluble at Ambient Temperatures

UNION CARBIDE CORPORATION
Specialty Chemicals Division
39 Old Ridgebury Road
Danbury, CT 06817-0001

TYPICAL PHYSICAL PROPERTIES

Form	Clear Liquid
Color	Straw-light amber
Viscosity	4800 SUS
Acidity, MEQ/g	1.3-1.5
pH, 1% Aqueous Solution	3.2
Flash Point closed cup (ASTM D-93)	215°F
open cup (ASTM D-92)	485° F
Specific Gravity, 20/20°C	1.09
Weight per Gallon, 20°C	9.10 lbs/gal

SUGGESTED STARTING FORMULATIONS

Cutting Fluid

UCON Metalworking Lubricant EPML-483	10-15%
Nonnitrite Corrosion Inhibitor	10-20%
Triethanolamine	20-25%
Biocide	as recommended by manufacturer
Water	balance

dilute 10:1 - 50:1 depending on the severity of the operation

Grinding Fluid

UCON Metalworking Lubricant EPML-483	5-10%
Nonnitrite Corrosion Inhibitor	10-15%
Triethanolamine	15-20a/o
Biocide	as recommended by manufacturer
Water	balance

dilute 10:1 - 50:1 depending on the severity of the operation

ENVIRONMENTAL ACCEPTABILITY

EPML-483 contains no chlorine, sulfur, phosphorous, nitrite, or phenolic compounds. If EPML-483 is neutralized with amines, corrosion protection should be enhanced only with nonnitrite corrosion inhibitors.

FURTHER INFORMATION

For further information on UCONO Metalworking Lubricants, phone or write UCONO Fluids and Lubricants, Specialty Chemicals Division, Union Carbide Corporation, 39 Old Ridgebury Road Danbury, CT 06817-0001, (800-242-7226).

PRODUCT SAFETY

When considering the use of UCON © Metalworking Lubricants for any application, you should review our latest Material Safety Data Sheets and ensure that the use you intend can be accom - plished safely. For Material Safety Data Sheets and other product safety information, contact your Union Carbide representative.

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SC-716
1/87 SM
P6-7692
PRINTED IN USA