Ωmega®
The Ultimate Lubricant

658

OMEGA 658 Emulsifiable Cutting & Cooling Oil

Emulsifiable Cutting & Cooling Fluid

TRUST *Save Money*
OMEGA *Enhance Performance*
TO *Extend Service Life*

- *Super efficiency – extends cutting tool life by up to 100%.*
- *Super economy – still effective when diluted down to 1:40.*
- *Super versatility – ideal for wide range of metals & alloys.*

ITW PERFORMANCE POLYMERS & FLUIDS®
KOREA

ITW

SPECIAL FEATURES

Omega 658 Emulsifiable Cutting & Cooling Fluid is the emulsifiable cutting and cooling fluid that penetrates rapidly deep into the shear zone of machining operations to minimize friction.

- **Omega 658** offers super efficiency – extends cutting tool life by up to 100%.
- **Omega 658** offers super economy – remains effective even when diluted with water to as low as 1:40.
- **Omega 658** offers super versatility – it's ideal for wide range of metals and alloys so you don't have to stock different types for different jobs.

OUTSTANDING PROPERTIES

Omega 658 is the emulsifiable cutting and cooling fluid that:

- Instantly soaks up heat generated by both internal and external friction and carries it away from the cutting tool.
- Aids the surface finish of the work to further increase production rates between 50% to more than 100%.
- Is non-flammable and will not generate nauseating fumes or odors – contains no sulfur, chlorine, nitrates or lead compounds.
- Is reusable – reduces operating costs dramatically.

USE FOR

Omega 658 is quality formulated to prevent metal-to-metal bonding that is inherent in metalworking. **Omega 658** improves surface finishing performance by between 50% to more than 100% and increases tool life and metalworking efficiency by as much as 100%.

Omega 658 is ideal for use with a wide range of metals and alloys.

Use **Omega 658** for all manual and re-circulating cutting/metalworking systems.

658

Ωmega
The Ultimate Lubricant

ITW PPFK reserves the right to modify or change this product for purposes of improving its performance characteristics.
© 2016 ITW PP & F Korea Limited

The Omega Trade Mark is the property of ITW Inc., and is used under licence by ITW PP & F Korea Limited.

ITW PERFORMANCE POLYMERS & FLUIDS KOREA

The information contained in this publication is to the best of our knowledge and accurate at the time of issue in October, 2016

658

Omega®
The Ultimate Lubricant

DESCRIPTION:

Omega 658 is a revolutionary, emulsifiable, cutting and cooling fluid that penetrates rapidly deep into the shear zone of machining operations to minimize the internal friction between the cutting tool and work piece. It is excellent in preventing metal-to-metal bonding which, in turn, leads to increased tool life and metalworking efficiency.

SUPER SAFE:

Omega 658 is super safe as it is non-flammable and will not generate nauseating fumes or odors in normal use. It is non-hazardous by current definition as outlined by The Occupational Safety and Health (OSHA) ACT.

In addition, it contains no sulphur, chlorine, nitrites or lead compounds.

Omega 658 is non-irritating to skin as it has a very low toxicity. However, the use of protection gloves and barrier cream is recommended when highly concentrated Omega 658 is used over long periods.

SUPER ECONOMY:

Omega 658 can be diluted with 10 to 40 parts of water, depending on the severity of the metalworking process. It can be used on a wide variety of metals and alloys. It contains proprietary and highly effective inhibitors to prevent rust and corrosion of equipment and tools as well as finished products.

OUTSTANDING HIGH LUBRICITY FEATURES:

Omega 658 instantly removes the heat generated by both internal and external friction away from the cutting tool and work piece. In addition, Omega 658 provides enhanced high lubricity that prevents heat buildup and lowers the temperature in the shear zone thereby prolonging tool life by at least 100%. It also aids the surface finish of the work and further increases production rates. In development testing, performance is improved between 50% to more than 100%.

SERVICE CONSIDERATIONS:

Omega 658 is designed to be used with water with hardness not exceeding 400mg/kg as calcium. For water with hardness exceeding 400mg/kg, a water softener is recommended.

Omega 658 should be mixed with water by adding the oil to the total volume of water while stirring. This forms an oil-in-water mixture. Adding the water to the oil may result in a water-in-oil emulsion that can be thick and oily and unsuitable for machining and grinding.

TYPICAL DATA:

TEST	SOLUBLE OIL
Flash Point, COC, °C	174
Pour Point, °C	-12
Viscosity, Kinematic cSt @40°C	43.6

The characteristics given above are typical of current production only and slight batch to batch variations should be expected.

ITW PERFORMANCE POLYMERS & FLUIDS

Copyright, All rights reserved.
ITW PP & F Korea Limited reserves the right to modify or change this product for purposes of improving its performance characteristics.