Technical data **MSO**



Mulit-Purpose Mineral Soluble Oil

Description

Molyslip MSO is a multi-purpose water-mix cutting fluid design for a wide variety of machining operations on ferrous and non-ferrous metals. The high mineral oil content and carefully selected lubricity additives provide highly effective lubrication to the cutting zone resulting in extended tool life and superior surface finish on machined components.

Molyslip MSO incorporates an advanced biostability package that resists bacterial and fungal attack and stabilises emulsion pH to provide a long and predictable in-sump life. The unique emulsifier system keeps machines clean and resists destabilisation by water hardness salts whilst minimising foam generation — particularly important in modern high-pressure coolant delivery systems.

Dilution ratio: 10:1 Broaching/Reaming/Threading

20:1 Turning/Milling/Sawing

30:1 Grinding

Features and benefits

- Low odour Pleasant to use
- Compatible with both ferrous and non-ferrous materials
- Highly effective protection against corrosion
- Versatile Suitable for all machining operations
- Wide dilution ratio

Packaging

5ltr, 20ltr, 60ltr, 205ltr

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Instructions for use

Molyslip MSO emulsions can be prepared in most water types with up to 400ppm CaCO3 hardness, however optimum performance will be achieved using water with a hardness of less than 250ppm CaCO3. In very hard water area's it is preferable to use tap water to prepare a fresh emulsion with deionised water being used for subsequent top-up of evaporation losses, drag out etc. To ensure correct mixing and emulsion formation always add the required amount of concentrate to the volume of water whilst stirring continuously.

Prior to the introduction of Molyslip MSO emulsion it is always advisable to clean the system using a proprietary machine tool system cleaner such as Troyshield FF5 to ensure that any previous biological contamination is eliminated.

Technical data (typical values)

Property	Test method	Result
Appearance (Concentrate)	MSTM 1	Amber fluid
Emulsion appearance (5% in deionised water)	MSTM 9	White
Density @ 20°C	MSTM 23	0.94 g/cm ³
pH (5% in deionised water)	MSTM 18	9.6
Corrosion breakpoint	IP287	1.5%

Correction factor

Emulsion concentration is generally measured using a refractometer measuring on the Brix scale. To obtain the actual concentration multiply the refractometer reading by the correction factor 1.07

e.g. Refractometer reading = 6.0

Correction factor X 1.07

Actual dilution = 6.42%

Storage

Store Molyslip MSO out of direct sunlight. Storage temperature should be controlled to between 5°C and 35°C.

The product information in this publication is based on knowledge and experience at the time of printing. There are many factors outside our control or knowledge which affect the use and performance of our products, for which reason it is given without responsibility. Issue date 05-22