

Mobilcut Series

Aqueous Metal Working Fluids

Product Description

Mobilcut is the trademark for ExxonMobil's line of high performance water miscible metal removal fluids. Formulated with leading edge base oils, additives, and emulsifiers, the Mobilcut series of non-chlorinated products provides dependable performance in a wide array of metal removal processes. The products are designed to work in a variety of hard and soft water qualities and offer low foam potential and long-term corrosion protection for machine and components. Low maintenance and inherently stable, Mobilcut products are designed for the modern machine shop where long service life, excellent machining performance and health and environmental concerns are important factors for increased productivity. These products are supplied in concentrated form and require mixing with water at the point of use.

Mobilcut 100 is a conventional milky soluble that readily mixes with water to form stable emulsions. Its versatile performance makes it suitable for a wide range of metal cutting and grinding operations for both ferrous and non ferrous materials where economical performance is the main consideration.

Mobilcut 140 is a long life water soluble fluid enhanced with lubricity agents making it an ideal choice for moderate to heavy duty machining applications. It is formulated to provide long service life and resist bacterial growth while helping to increase tool life and surface finish, even in difficult machining operations. Mobilcut 140 is an ideal choice where excellent machining performance is required for a wide variety of materials and applications while maintaining long service life.

Mobilcut 210 is a high quality semi synthetic water miscible metalworking fluid designed to form a translucent emulsion over a wide water hardness range. It has good detergent, coolant and cutting properties, making it suitable for a light to moderate duty cutting and grinding applications. Mobilcut 210's formulation makes it particularly suited to the machining and grinding of cast iron and while helping to maintain machine cleanliness.

Mobilcut 230 is a high performance semi-synthetic fluid that readily emulsifies in water to form a stable micro-emulsion. The product is engineered to be suitable for a wide range of water qualities and is resistant to foaming, even in high pressure systems. Mobilcut 230 is suitable on a range of range of applications on both ferrous and non ferrous alloys making it an ideal choice when consolidating metal working fluids. Mobilcut 230 offers extended coolant life relative to conventional soluble oils when properly maintained while maintaining a high degree of machining performance.

Mobilcut 250 is a high performance semi-synthetic fluid formulated to enhance performance when machining aluminum and aluminum alloys and where low staining potential is important. Containing high levels of lubricity agents, it also provides high machining performance of carbon and alloy steels and yellow metals.

Mobilcut 320 is a bio stable, mineral oil free metalworking fluid. Mobilcut 320 is designed for general grinding operations where high surface finish, cooling and low foaming potential are the primary requirements. It will help maintain free and open grinding wheels for maximum performance and is highly resistant to bacterial infection for a long service life .

Features and Benefits

The Mobilcut series of products are designed to help increase the productivity of modern machine shops by providing high performance features

Features	Advantages and Potential Benefits
Form stable emulsions and solutions	Ease of use and maintenance
Resistant to biological growth	Helps increase batch life and reduces unpleasant odors
Low foaming potential	Helps improve performance even in high pressure systems
High degree of corrosion protection	Helps reduce machine maintenance and rework of materials
Good separability from fines	Helps improve filterability and surface finish
Wide Range of applicability	Potential to consolidate products and reduce inventories

Applications

Mobilcut 100: General machining of easy to machine steels and copper alloys in light to moderate duty machining operations such as milling, turning, sawing, boring, drilling and reaming.

Mobilcut 140: Machining of aluminum and high machinability steels in moderate to heavy duty operations such as milling, turning, sawing, boring, drilling and reaming where the lubricity of a soluble oil is desired.

Mobilcut 210: Machining of ferrous/non ferrous metals in centralized or individual machines. Lower oil content for extra wettability and corrosion protection. Well suited for cast iron machining and grinding.

Mobilcut 230: High performance, semi synthetic cutting fluid, primarily recommended for machining steels, easier to machine stainless steels, and cast iron in milling, tuning, sawing, boring, drilling and reaming.

Mobilcut 250: Semi synthetic cutting fluid primarily intended for the machining of aluminum and aluminum alloys. It may also be used on a wide variety of ferrous materials where a more versatile fluid is required.

Mobilcut 320: Synthetic (mineral oil-free) grinding fluid, primarily recommended for grinding of steels and cast iron.

Typical Properties

Mobilcut	100	140	210	230	250	320
Concentrate Appearance	Amber Liquid	Orange /Amber Liquid				
Diluted Appearance	Milky	Milky	Translucent	Translucent	Translucent	Clear, Fluorescent Green
Mineral Oil Content	85	55	15	50	40	None
pH @ 5% Emulsion	9.3	8.8	9.5	9.4	9.0	9.4
Refractometer Correction Factor	1.0	1.1	2.0	1.0	1.0	2.2

Health and Safety

Based on available information, this product is not expected to produce adverse effects on health when used for the intended application and the recommendations provided in the Material Safety Data Sheet (MSDS) are followed. MSDS's are available upon request through your sales contact office, or via the Internet. This product should not be used for purposes other than its intended use. If disposing of used product, take care to protect the environment.

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Typical Properties are typical of those obtained with normal production tolerance and do not constitute a specification. Variations that do not affect product performance are to be expected during normal manufacture and at different blending locations. The information contained herein is subject to change without notice. All products may not be available locally. For more information, contact your local ExxonMobil contact or visit www.exxonmobil.com

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