Aquatex® 3180

General Purpose Soluble Oil

Product description

Aquatex®3180 oil is a general-purpose soluble oil formulated with special base oils, coupling agents and a high level of emulsifiers.

Customer benefits and product features

Customer benefits

- **Efficient machining and grinding**
  Level of detergency helps prevent loading of grinding wheel with grit and fines, and also assists in flushing and settling of chips. Low foaming tendency is beneficial in high-speed operations.

- **High precision and surface finish**
  Excellent cooling and lubricity properties of the emulsion allow for effective heat transfer from the cutting zone, to help reduce friction between the tool and workpiece, to provide dimensional accuracy and good surface finish on parts.

- **Low maintenance**
  Level of detergency assists in flushing and settling of grinding dirt, to help promote longer wheel life. The selected base oil component of the emulsion helps provide effective rust protection of machine and parts, and the high level of reserve alkalinity helps reduce acids that develop in emulsion systems with use.

- **Long emulsion life**
  Carefully balanced combination of base oil, emulsifiers and coupling agents helps produce stable, long-lasting emulsions. The high level of reserve alkalinity helps improve the emulsion's resistance to bacterial degradation. The effective biocide component is designed to combat micro-organisms.

Product features

- **Aquatex® 3180** oil has been designed to form very stable emulsions, even with relatively hard water.

- **Aquatex® 3180** oil exhibits high levels of detergency and reserve alkalinity, low foaming tendencies, and contains a biocide designed to combat a wide spectrum of micro-organisms commonly found in sumps and reservoirs.

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Applications

Can include:

- Light machining such as drilling, planing, milling, sawing and turning operations on a variety of carbon and alloy steels ranging from soft to medium hardness, particularly where carbide tip tooling is being used.
- Grinding operations where very clean emulsions are typically required to permit rapid settling of fines.

Note: *Water-containing metalworking fluids such as soluble oil emulsions should never be used for machining operations on magnesium or magnesium-containing alloys as a fire or explosion hazard may exist. Chevron's recommended product for machining these metals is* ***Almag Oil.***

AQUATEX® 3180 DILUTION	
Type of Machining	
General	5-10%
Grinding	5%

- Aquatex®3180 forms a milky white emulsion when mixed with water.
- Always add oil to water (not water to oil).
- Designed for use in water with total hardness up to 200 mg/L.
- Refractometer factor is 1.1 (i.e., a refractometer reading of 1°Brix represents an emulsion strength of 1.1%).

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Typical test data

AQUATEX® 3180	RESULTS
Product Code	**530710**
Appearance (in neat form)	Dark Red
Density, kg/L @ 20°C	0.89
pH @ 5% dilution	9.4
Corrosion Protection,	
IP287 Break Point, %	4

ENVIRONMENT, HEALTH, and SAFETY. Information is available on this product in the Material Safety Data Sheet (MSDS) and Customer Safety Guide. Customers are encouraged to review this information, follow precautions, and comply with laws and regulations concerning product use and disposal. To obtain a MSDS for this product, visit the Product Information Center.

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