



Industrial Lubricants



Automotive Lubricants



Biodegradable Lubricants



Agricultural Lubricants



Cleaning & Maintenance



Greases & Pastes



Foodsafe Lubricants



Heritage Oils



Lubrication Equipment



Metalworking Fluids



Pencool Ultra S310

Formaldehyde Free Semi Synthetic Soluble Metalworking Fluid

Product Code: AW3

Product Description

Pennine Pencool Ultra products represent a superior range of new generation soluble metalworking fluids free from formaldehyde release biocides offering the highest levels of health, safety and environmental compliance.

Pencool Ultra S310 is a low oil content multifunctional semi synthetic water soluble metalworking fluid suitable for a wide variety of general purpose machining and grinding applications. The product has been developed to be effective in both soft and hard make up water qualities and is extremely low foaming. Pencool Ultra S310 is highly biostable offering extended sump life and excellent operator acceptability.

Applications

Pencool Ultra S310 offers excellent multi metal performance and is suitable for light to moderate machining and grinding applications on materials including cast iron, ferrous alloys, aluminium alloys and yellow metals. The product is highly effective in surface, cylindrical and centerless grinding applications where the translucent emulsion offers excellent workpiece visibility and effective fines flushing. Pencool Ultra S310 is also very well suited to light to moderate duty machining applications including, turning, milling, drilling, tapping and threading making this product an ideal rationalisation grade in machine shops where a wide variety of materials and machining techniques are employed.

Features & Benefits

- | | | |
|--|---|--|
| • Formaldehyde release biocide free | ~ | Improved EHS profile |
| • Biostable emulsion | ~ | Extended sump life / fewer fluid changes |
| • Low foaming | ~ | Reduced anti-foam additions |
| • Chlorine free | ~ | Improved environmental profile |
| • Suitable for soft & hard make up water | ~ | Low foam and soap scum formations |
| • Multifunctional performance | ~ | Ideal rationalisation grade |





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Typical Test Data

Characteristic / Test	Data
Appearance (concentrate)	Amber
Appearance (emulsion)	Translucent
Specific Gravity @ 15°C	0.976
pH @ 5%	9.4
IP 287 Breakpoint Corrosion	2.5 %
IP 125 Herbert Corrosion Test	N/A
Dilution Range (min ~ max)	4 ~ 8 %
Refractometer Conversion Factor	2.0
Water Hardness Range ppm CaCO ₃ (min ~ max)	50 ~ 400

Actual dilution rates may vary depending on application. Please consult with Technical Services to determine the most suitable dilution for your application.

Coolant Care

To promote maximum service life, it is strongly advised that coolant systems are thoroughly sterilised with Bioflush System Cleaner prior to coolant changes (see Bioflush Technical Data Sheet for further information and guidelines).

To maintain the efficiency of the coolant, daily checks for concentration with a hand refractometer is recommended. Maintaining a consistent concentration is paramount to prolonging the fluid sump life. Further tests for bacteria, fungus, pH and tramp oil contamination are available through our PROCARE Fluid Management Service and helps users to comply with current HSE legislative requirements. Please contact us for further details.

Availability & Storage

Pennine Ultra S310 is available in 1000 litre IBC's, 205 litre barrels, 25 litre drums and 5 litre plastic bottles.

Barrels of lubricant should always be stored in such a way that will prevent the ingress of water when stored in the open. Protect from frost.

Health and Safety

Please refer to the relevant Safety Data Sheet, a copy of which is freely available to all our customers.

Data represented is typical of that obtained with normal production tolerances and does not constitute a specification. The policy of Pennine Lubricants is one of continual improvement; we therefore reserve the right to change specifications without notice.



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