



Industrial
Lubricants



Automotive
Lubricants



Biodegradable
Lubricants



Agricultural
Lubricants



Cleaning &
Maintenance



Greases &
Pastes



Foodsafe
Lubricants



Heritage Oils



Lubrication
Equipment



Metalworking
Fluids



Ultrasol X-535

Boron & Formaldehyde Release Biocide Free High Performance Soluble Oil
Product Code: AWL

Product Description

Pennine Ultrasol X products represent a range of boron and formaldehyde release biocide free new generation soluble metalworking fluids designed to comply with existing and pending REACH regulations offering the highest levels of health, safety and environmental compliance.

Ultrasol X-535 is a high performance, hard water stable semi synthetic water mix metalworking fluid that produces a semi-translucent micro emulsion when mixed with water. The product incorporates a unique combination of chlorine free extreme pressure additives providing outstanding machining performance and exhibits outstanding low foaming properties in high pressure coolant systems. The boron free formulation ensures excellent machine cleanliness and significantly reduces built up sticky residues on hard surfaces.

Applications

Ultrasol X-535 offers high performance machining characteristics on a wide variety of tough ferrous and non-ferrous materials including titanium, aluminium (inc. aero 2000, 6000 & 7000 series) nickel alloys and copper alloys. Typical applications include heavy duty turning, milling, drilling, grinding, reaming and deep hole drilling where increased tool life and outstanding surface finish are desirable. The product is suited for medium to hard make up waters where soap and scum formation may be problematic with conventional coolants.

Features & Benefits

- Formaldehyde release biocide free ~ Improved Health & Safety profile
- Highly biostable & robust emulsion ~ Extended sump life / fewer fluid changes
- Exceptional low foam properties ~ Reduced anti-foam additions
- Boron free ~ Reduced sticky residues & deposits
- Hard water stable ~ Minimal soap/scum formation

Typical Test Data

Characteristic / Test	Data
Appearance (concentrate)	Amber
Appearance (emulsion)	Semi-Translucent
Specific Gravity @ 15°C	1.01
pH @ 5%	9.4
IP 287 Breakpoint Corrosion	2.0 %
Dilution Range (min ~ max)	4 ~ 10 %
Refractometer Conversion Factor	1.3
Make Up Water Range ppm CaCO ₃ (min ~ max)	250 ~ 600

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



Certificate Number: 9480
ISO 9001



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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 Ultrasol X-535 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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