



Industrial Lubricants



Automotive Lubricants



Biodegradable Lubricants



Agricultural Lubricants



Cleaning & Maintenance



Greases & Pastes



Foodsafe Lubricants



Heritage Oils



Lubrication Equipment



Metalworking Fluids



## Pencool Ultra S325

Formaldehyde Free High Performance Soluble Metalworking Fluid  
Product Code: AW7

### 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 S325 is a high performance, low oil content semi synthetic water mix metalworking fluid primarily suited to medium to heavy duty machining and grinding operations where the complex polymeric ester lubricity package along with improved wetting and detergency properties produce a fluid designed to promote outstanding surface finish, improved tool life and exceptional machine cleanliness. The product forms an extremely robust biostable micro emulsion in moderate to hard make up water qualities offering extended service life compared to many conventional coolants.

### Applications

Pencool Ultra S325 offers high levels of lubricity suitable for a wide range of operations including milling, turning, deep hole drilling, threading, reaming, tapping and grinding on difficult materials such as steel alloys, titanium alloys, Inconel, stainless steel along with copper and aluminium alloys.

Pencool Ultra S325 is also suitable for applications where a low foaming product is required including high pressure through spindle coolant systems employed on modern CNC machines.

### Features & Benefits

- |                                     |   |  |
|-------------------------------------|---|--|
| • Formaldehyde release biocide free | ~ | Improved EHS profile                     |
| • Biostable micro emulsion          | ~ | Extended sump life / fewer fluid changes |
| • Low foaming                       | ~ | Reduced anti-foam additions              |
| • Outstanding lubricity performance | ~ | Improved tool life / surface finish      |
| • Chlorine free                     | ~ | Improved environmental profile           |
| • Multipurpose applications         | ~ | Allows for grade rationalisation         |
| • Hard water stable                 | ~ | Low scum/soap formation                  |



Certificate Number: 9480  
ISO 9001



Pennine Lubricants Limited Company reg no. 3510091



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### Typical Test Data

Characteristic / Test	Data
Appearance (concentrate)	Amber
Appearance (emulsion)	Semi translucent
Specific Gravity @ 15°C	0.975
pH @ 5%	9.4
IP 287 Breakpoint Corrosion	2.0 %
Dilution Range (min ~ max)	4 ~ 10 %
Refractometer Conversion Factor	1.4
Water Hardness Range ppm CaCO3 (min ~ max)	150 ~ 600

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 S325 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 & 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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