



OPUS LUBRICANTS PRODUCT DATA

COOLCUT HOC

Description

Opus Coolcut HOC is a High Oil Content Metalworking Fluid. Opus Coolcut HOC is a boron free metal process fluid which produces a milky white emulsion when diluted in water. The product is compounded to form a stable emulsion in both hard and soft water and is highly inhibited against bacterial growth.

Opus Coolcut HOC has been developed to exhibit full multi-metal compatibility and is suitable for economical use on a wide variety of machining applications.

Opus Coolcut HOC exhibits excellent lubricity characteristics, making the product suitable for a whole variety of machining applications whilst maintaining machine cleanliness and operator acceptability.

Applications

- Reaming
- Tapping & Threading
- Deep hole drilling & boring
- Turning
- Milling
- Centreless grinding
- Rolling & forming

Features & Benefits

- Excellent performance characteristics
- Free of Chlorine, sulphur & phosphorous EP additives
- Boron free
- Suitable on Steel, Aluminium, Titanium & Nickel
- Suitable for use in hard & soft water
- High performance in arduous operations

Dilution Rates for Typical Operations

- | | | | |
|----------------------|-----------|-----------------------|-----------|
| • Drilling & Boring | 8% to 12% | • General Machining | 4% to 6% |
| • Reaming | 8% to 12% | • Centreless Grinding | 3% to 10% |
| • Threading, tapping | 5% to 10% | • Metal forming | 4% to 12% |
| • Broaching, sawing | 8% to 10% | • Turning, milling | 4% to 6% |

Typical Data

Appearance:	Amber liquid
Odour:	Bland
Emulsion Appearance:	Milky White
pH @ 5% concentration:	9.5
IP287 corrosion breakpoint:	3% (v/v)
Specific Gravity @ 20°C:	0.90
Loadbearing capacity (kg mm ²):	1.050



Additional Technical Information

Opus Coolcut HOC is free of boron; boric acid has been given the status of a SVHC (substance of very high concern). Boric acid derivatives are used in a number of water-mix metal working fluids. Although there has been a lot of work to prove that the boric acid derivatives do not contain free boric acid there has been a move in the market to move away from boric acid derivatives in water-mix metal working fluids.

Bio-stability - these products give excellent bio-control maintaining bacteria levels well within the HSE (Health and Safety Executive) guidelines.

Corrosion inhibition - These products give equivalent corrosion protection, or better than boron containing products.

For maximum service life, coolant systems should be cleaned and sterilised by treatment with **Opus System Cleaner**. This high performance system cleaner can be used whilst production is continued for up to 24 hours prior to exchange of fluids. Please refer to the **Opus System Cleaner** data sheet for detailed application information or contact your Ferguson & Menzies sales representative.

Operational Recommendations

Opus Coolcut HOC is designed to be mixed with water; it has been developed to exhibit full multi-metal compatibility and is suitable for use in soft and hard water types.

Mix emulsions of Opus Coolcut HOC with water by adding concentrate to water and then mixing or use a suitable proportioning mixer unit, these are available on request. The use of an airline to mix the solution is not recommended. Machine top up may require a weaker dilution than the initial machine charge concentration. Recommended concentrations can vary depending on operations, materials, tooling, coolant pressure, coolant flow. The above information is given for guidance. Please contact your representative for further advice.

Opus Coolcut HOC should always be stored indoors and protected from frost. Good standards of hygiene and housekeeping should always be adopted when using any metalworking fluid. A separate MSDS is available for this product.

As with all modern cutting fluids, concentration control is of paramount importance, therefore regular check by use of a refractometer is recommended for this product. It should be noted that the individual product refractometer correction factor should always be used to ensure accuracy.

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