

SARCOOL ECO 4648

Last Updated: 15.04.2026
Product Code: IC0468



SARCOOL ECO 4648 is an extremely adaptable high performance, chlorine free, biostable semi- synthetic water mix cutting fluid offering truly universal multi-metal compatibility and has been specifically developed for its versatility across a wide range of materials and applications. It is a biocide-free, formaldehyde free, medium to hard water, high lubricity micro-emulsion coolant.

APPLICATION

SARCOOL ECO 4648 forms a micro emulsion when mixed and is highly resistant to bacteria formation with excellent corrosion resistance whilst maintaining machine cleanliness and operator acceptability. Suitable on most ferrous and non-ferrous materials including cast iron and carbon steel, through to aluminium alloys and stainless steel. Machining applications range from light duty grinding to high speed CNC milling, turning, drilling, tapping and threading operations in medium to hard water qualities.

BENEFITS

- Biocide free technology
- Excellent in medium to hard water
- Low foam
- Outstanding sump life
- Suitable for most aluminium alloys
- Clean running on cast iron
- Excellent tramp oil rejection
- Superior corrosion protection

PERFORMANCE PROFILE

Recommended Metalworking Concentrations

Light Duty	3.0% - 5.0%
Moderate Duty	5.0% - 7.0%
Heavy Duty	8.0% - 10.0%
Design Concentration Range	3.0% - 10.0%

TYPICAL PROPERTIES

Appearance (Concentrate)	Amber liquid
Appearance (Emulsion)	Semi translucent
pH (5% emulsion)	9.2 - 9.4
IP 287 Breakpoint	2.0%
Mineral Oil Content	Medium
Refractometer Conversion Factor	1.4
Make Up Water Hardness	200 - 450 ppm

FLUID MAINTENANCE

To check and maintain fluid concentration a refractometer is recommended, the resulting reading multiplied by the refractometer conversion factor will give the actual concentration strength. Maintaining a consistent concentration is paramount to prolonging the fluid sump life. To promote long service life, it is strongly advised that coolant systems are thoroughly sterilised with a System Cleaner prior to coolant changes (see Sarsol System Cleaner Technical Data Sheet for further information and guidelines).

SAR LUBRICANTS (SQUIRE A. RADCLIFFE & SONS LTD)

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Further tests for bacteria, fungus, pH and tramp oil contamination are available through our Cooltrak Fluid Management Service. This service offers guidance and assistance for users to comply with current HSE legislative requirements. Please contact us for further details.

HEALTH & SAFETY, STORAGE AND DISPOSAL

Please refer to the Safety Data Sheet, freely available, for product handling and disposal advice. Please note that the SDS includes handling, storage, health and disposal information which should be passed on to anyone else who comes in contact with our product. Additional advice can also be obtained from your local representative.

NOTE: Read and understand all precautions on container labels before using this product.