# SARCOOL 431 AF

Last Updated: 09.01.2025
Product Code: IC0680

SARCOOL 431 AF is a premium quality, formaldehyde free, bio-stable, multi-functional, semi-synthetic soluble cutting fluid concentrate which produces a transparent micro-emulsion when diluted in water.Designed for use across a wide range of applications and metals for use in soft to hard water qualities.

## APPLICATION

Specifically developed for its versatility across a wide range of materials and applications. It is 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.

## BENEFITS

- Forms a translucent micro emulsion in most waters.
- Compatible with most water qualities up to 400ppm calcium carbonate.
- Highly resistant to bacterial and fungal degradation, giving freedom from bad smells or slimy deposits.
- Offers good corrosion inhibition to ferrous metals.
- Good resistance to contact corrosion thus allowing work pieces to be stacked without staining.
- Chlorine, nitrite, phenol and formaldehyde free and based on highly refined mineral oil, thus giving optimum operator acceptability.
- Contains specially developed silicone-free anti-foam additives to overcome foaming in high-pressure systems using soft water.
- Creates minimal sticky residues that can easily be washed away with water.

## PERFORMANCE PROFILE

Recommended Metalworking Concentrations

| | |
|---|---|
| Grinding | 3% – 5% |
| Light Duty | 4% – 6% |
| Heavy Duty | 6% – 8% |

## TYPICAL PROPERTIES

| | |
|---|---|
| Appearance (Concentrate) | Amber liquid |
| Appearance (Emulsion) | Translucent |
| pH (4% emulsion) | 9.7 |
| IP 287 Breakpoint | 1.5% |
| Mineral Oil Content | Medium |
| Refractometer Conversion Factor | 1.3 |
| Make Up Water Hardness | 50 – 400 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).

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 DISPOSAAL

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.