



# SUPERGRIND MP

# SYNTHETIC GRINDING FLUID

# **DESCRIPTION**

SUPERGRIND MP is a biostable, fully synthetic water mix grinding fluid which is formulated for applications involving high removal rates of ferrous and non-ferrous materials.

Due to the unique formulation, SUPERGRIND MP combines properties which ensure extremely good flushing performance coupled with low foaming characteristics that allow the fluid to stay clear and clean.

SUPERGRIND MP is part of the new generation of grinding fluids which are nitrite, mineral oil, sulphur, chlorine and phenol free, and having excellent resistance to attack by moulds and bacteria, resulting in extended odour free sump life.

#### **FEATURES / BENEFITS**

- SYNTHETIC
- BIOSTABLE
- MINERAL OIL FREE
- HIGH CORROSION INHIBITION
- MULTI-METAL PERFORMANCE
- LOW FOAMING
- RAPID RELEASE OF FINES
- FOR APPLICATIONS REQUIRING HIGH STOCK REMOVAL

# PHYSICAL CHARACTERISTICS\*

Appearance (working strength) Relative Density @ 15.6°C pH 2% in 200ppm hardness of water Corrosion breakpoint IP287

\* Typical value s not defining a specification

Clear, colourless 1.119 9.6 1.6% (60:1)

# AREAS OF APPLICATION

CYLINDRICAL GRINDING MATERIALS,

**CENTRELESS GRINDING** SURFACE GRINDING

FERROUS AND NON FERROUS

TOOL STEELS, ENGINEERING AND CERAMIC MATERIALS

#### RECOMMENDED CONCENTRATION

As a flood coolant, SUPERGRIND MP forms a bright, clear, colourless solution at between 2-4% by volume depending on the severity of the operation.



# **COOLANT MONITORING**

# **DILUTION**

For hand mixing, always dilute to the required strength by adding the coolant concentrate to drinking quality water, and not in the reverse order. Metering or dosing equipment can carry out this function automatically. Freshly prepared dilutions can easily be checked for concentration using a pocket refractometer.

Dilutions used for topping up frequently require to be adjusted to a lower concentration than the working strength to accommodate for drag-out and evaporation loss.

Never top up with plain water alone.

For working coolants, not too heavily contaminated with tramp oils, a reasonably accurate estimate of sump strength can be obtained.

| REFRACTOMETER READING (% brix scale) | 0.4   | 0.6  | 0.9  | 1.1  | 1.3  | 2.3  | 2.9  | 6     |
|--------------------------------------|-------|------|------|------|------|------|------|-------|
| CONCENTRATION OF COOLANT (%V/V)      | 1     | 2    | 3    | 4    | 5    | 7.5  | 10   | 15    |
| APPROX STRENGTH COOLANT:WATER        | 1:100 | 1:50 | 1:30 | 1:25 | 1:20 | 1:15 | 1:10 | 1:7.5 |

# **HEALTH AND SAFETY**

MSDS No 1170 refers

# **COOLANT CARE**

Following a few straightforward good housekeeping practices will ensure a trouble free working life.

Start with a clean coolant system - purged with a good systems cleaner (SUPERCLEAN DD1 AND SUPERCLEAN KD 150 SYSTEM CLEANERS). Charge the sump with fresh coolant at the correct dilution for the operation and regularly monitor the concentration. Periodically remove, by suction filtration, metal fines and sludges, particularly in mixed metal machining.

**Tramp Oils** arise from positive loss lubricators, oily stock, hydraulics, etc. If allowed to build up in the system, tramp oils are the **most frequent cause of performance loss**. Their presence leads to bacterial degradation, de-emulsification, souring (pH drop) corrosion and poor finishes.

On machines standing idle, anaerobic spoilage can be prevented by recirculating the coolant a few hours twice weekly.

Our Technical Engineers will be pleased to provide on-site technical advice and training on your specific coolant requirements.

Issue No. 1 MSDS 1170