



TECHNICAL DATA SHEET

GRODAL SS CUT 30

SEMI SYNTHETIC CUTTING AND GRINDING FLUID CONCENTRATE

DESCRIPTION

Grodal SS Cut 30 is a semi synthetic coolant designed for machining and grinding of ferrous metals, specially cast iron and its alloys. It easily emulsifies with water giving a green micro-emulsion with DI water or a hazy green emulsion with hard water. Grodal SS Cut 30 contains around 30% of mineral oil. This small amount of oil improves lubricity and antirust properties. The residual film on machines is not tacky. It does not contain any nitrite, chromate, phosphate, phenol derivatives, heavy metals nor PTBB acid derivatives. The emulsions are stable and highly resistance to deterioration by microorganisms. Foaming is low and rejection of tramp oil is good, thus tramp oil can be removed with conventional equipment (oil skimmers).

APPLICATION

Grodal SS Cut 30 is suitable for processing steel, cast iron, gray cast iron, Aluminium and non ferrous heavy metals. Grodal SS Cut 30 is recommended for most metal cutting and grinding operations where high quality coolant is required.

BENEFITS

- Excellent performance in high speed processing
- Excellent lubricity
- Excellent anti rust property and protects machine & work pieces from rusting.
- Contributes for effective operation and protection of the earth environment.
- Causes very little foaming during the operation
- Excellent cooling performance.

TECHNICAL DATA

Appearance	: Dark Green fluid
Specific Gravity	: 0.96
pH at 5%	: 9
Antirust protection (DIN 51360)	: No rust
Appearance of 5% emulsion	: Translucent Green
Test Herbert	: 0/0-0 no rust
Stability of emulsion at 5% by centrifuging	
a) 10 min. at 2500 rpm	: No separation
b) 12 h. later	: No separation

RECOMMENDATIONS

Grinding : from 2% to 5% Machining: from 3% to 10% .Working concentration depends on

- Severity of the operation: harder materials or heavy-duty operations will require a higher concentration in order to improve the lubricity. Concentration must be kept lower than 10%.
 - Water quality: hard water or water containing chlorides requires a higher concentration to assure the rust protection. We recommend using water with hardness upto 300 gm/l as CaCO₃ and ion chloride content less than 100 mg/l
- To prepare the emulsions of Grodal SS Cut 30 the concentrate must be added upon the water, while stirring, **never the reverse way**. Water driven positive displacement proportioner can be used to dispense coolant on demand at the desired concentration. The product has been designed to avoid any aggressive action on the skin, nevertheless some individuals specially sensible can show symptoms of skin irritation; we recommend to use gloves when handling parts wet with the emulsion and to avoid the contact with the fluid during long time. Maintain concentration & pH to achieve excellent results.

Note: The concentrate must be stocked at temperatures above 5°C.

Concentration of working emulsions can be checked by reading a handle refractometer previously calibrated with four standard emulsions at different concentration, for instance at 2%, 4%, 6% and 8%.

(Conversion factor for Refract meter)

Concentration (volume %) = Reading fo Refract meter X 1.85

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