

SPIRIT 630 S



METALWORKING



TOTAL

Moderate-Duty, Semi-Synthetic, Micro-Emulsion for Ferrous & Non-Ferrous Metals.

APPLICATIONS

- **SPIRIT 630 S** is a semi-synthetic coolant concentrate for machining and grinding metalworking applications. This coolant is fortified with sulfur and will provide excellent results in applications where high lubricity and extreme pressure capability is required.
- **SPIRIT 630 S** is non-irritating to operators. Production equipment operators will find this product non-irritating to their skin and no objectionable odors. The ingredients for the **SPIRIT 630 S** were selected to make this product acceptable for environmental, health, and safety reviews.
- **SPIRIT 630 S** forms stable emulsions with a wide variety of water conditions, including water hardness over 500 ppm. This formula offers excellent rust protection even when diluted below a 3% concentration.
- **SPIRIT 630 S** is used on all cutting operations on all ferrous and non-ferrous metals. It will not stain aluminum.
- Operations include: milling, cutting, turning, tapping, gear cutting, threading, broaching, turning, drilling, reaming, boring, OD and ID grinding, and centerless grinding.

ADVANTAGES

- Bio-stable without formaldehyde release.
- Extreme pressure and anti-wear agents.
- Excellent lubricity properties--Increases the tool life on a large scale of cutting parameters maintaining an additive layer on the chip / workpiece / tool surface.
- Non-foaming, non-staining, non-flammable, non-irritating and non-toxic.
- Contains no chlorine, nitrites, phenols, or diethanolamine.
- Permits operator surveillance of the workpiece at all times.
- Splits out tramp oil quickly.
- Settles metal fines rapidly and keeps grinding wheels clean.
- Excellent for recycling.

TYPICAL CHARACTERISTICS	SPIRIT 630 S
Appearance	Slight Hazy Amber Liquid
Density @ 60 °F, lbs./gal.	8.63
Specific Gravity @ 60/60 °F	1.03
Flash Point, COC, °F	None
Copper Strip Corrosion	1A - 1B
Sulfur, %wt.	3.0
Chlorine, %wt.	None
pH @ 10%	9.4
Refractive Index Factor	1.39
Refractive Index @ 10%	6.5
Cast Iron Chip Rust Breakpoint	2%

Standard dilution of water to oil is 15:1. May be mixed satisfactorily from 10:1 to 20:1 depending on the type and severity of the operation. For grinding operations, 20 parts water to 1 part **SPIRIT 630 S** is recommended. The concentration should be adjusted as necessary to maximize performance.

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