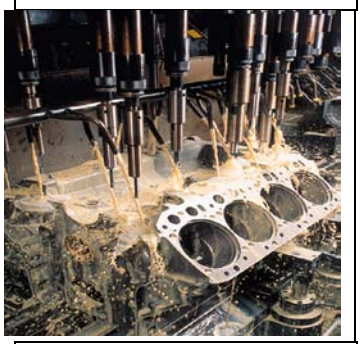
INDUSTRIAL *METAL WORKING*

SPIRIT 500 S

High performance Bio stable cutting fluid

Product Profile



Spirit 500 S is a true multi purpose bio-stable micro emulsion product meant to meet both Casting and non-ferrous machining application.

Spirit 500 S is made out of speciality esters, rust inhibitors, biocides, fungicides, high molecular weight alcohols and EP additives. The low shear strength film provided by the speciality antiwear additives helps in obviating buildup thus attain the unique high wheel performance

Applications

- **Spirit 500 S** is designed for use in most production engineering application which includes both stand alone as well as centralized machining system
- Recommended for ferrous and non-ferrous O.D, ID, centerless and surface grinding, and milling, drilling, boring and threading operation.

Features & Benefits

- **Excellent hard water tolerance**
- Micro droplet structure exhibit **exceptional emulsion stability**
- Longer coolant life **reduces the overall production cost**
- Higher thermal conductivity **reduces built up edge and maintain the tolerance limit**
- Built-in antiweld additive **reduces wheel dressing and improves tool life**
- Its low foaming character **renders better component visibility and trouble free operation**
- Higher degree of corrosion protection **Improves shelf life of machined components**
- **Operator and environment friendly**

Typical Characteristics

Attributes	Reference Method	Typical Test Data
Colour	Visual	Light brown liquid
Density at 29.5°	ASTM D 1298	1.004
Flash point PMCC, C	ASTM D 93	155
pH of 3.3 % soln	ASTM D 70	9.1
Emulsion stability	IS 1115	Passes
Cast iron corrosion test	IP 287	Grade 0
Refractometer correction factor	Internal	1.15

(Characteristics of this chart are typical values)

RECOMMENDED DILUTION CHART

Operation	Cast Iron	Stainless Steel	Low Tensile Steel	High Tensile Steel	Non Ferrous
Turning	3- 4 %	4- 5 %	3- 4 %	3- 4 %	3- 4 %
Drilling	3- 4 %	4- 5 %	3- 4 %	4- 5 %	3- 4 %
Boring	3- 4 %	4- 5 %	3- 4 %	4- 5 %	3- 4 %
Milling	3- 4 %	3- 4 %	3- 4 %	3- 4 %	3- 4 %
Tapping	4- 5 %	5– 7 %	4- 6 %	5- 7 %	4- 6 %
Grinding	3- 4 %	3- 4 %	3- 4 %	3- 4 %	2- 3 %
Sawing	4- 6 %	5- 7 %	4- 6 %	5- 7 %	3- 4 %
Screw cutting	4- 6 %	5- 7 %	4- 6 %	5- 7 %	4- 6 %

To attain best results, the following procedure is suggested

A) PRE SYSTEM CLEANING :

Prior to the charge of fresh coolant/emulsion ensure the whole system are thoroughly cleaned. The following steps are recommended for effective cleaning.

1. Circulate the old coolant in the system with available biocides/system cleaner for at least 24 Hrs prior to coolant change over.
2. Drain/discharge the coolant and clean the tank manually.
3. Refill the tank with minimum quantity of water along with 0.02% of system cleaner solution and circulate it for 2 Hrs. Then drain the cleaning solution.
4. Recharge the system with 0.5% of proposed coolant and circulate it for 2 Hrs. Drain the coolant Completely.

B) Coolant preparation:

1. Always add oil to water under agitation. Make sure that only clean container is used for mixing.
2. Do not use galvanized container.
3. Do not mix in machine sumps.

REMEMBER A GOOD MIXING ENSURES LONGER COOLANT LIFE.

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