

WS 40HW is water-soluble oil, enriched with cationic surfactants for moderate machining and grinding operations on all ferrous and non-ferrous metals. Formulated with refined naphthenic base oil, corrosion inhibitors, biocides and special emulsifiers to perform well even in high hard water (1000 ppm).



Features and benefits

- Excellent hard water stability
- Special biocide package enhances the sump life.
- Corrosion inhibitor package protects the job and machine from rusting.
- Reduces wheel loading and dressing frequency
- Reduces machine down time.
- No Hazardous ingredients as per OSHA Hazardous standards

Directions for use

WS 40HW should be diluted with water in the range of 10:1 to 60:1 depending upon the severity of the operation, work piece material and water hardness. The following practices help in achieving the full benefits of the product.

- Always add oil to water and never the other way.
- Usage of low hardness (< 100 PPM), Low chlorides (< 30 PPM) water.
- Never add product directly to the sump. Add in the emulsion form.
- Always clean the sump thoroughly before a fresh charge.

Typical properties

Attributes	Ref. Method	Specifications
Appearance	Visual	Amber clear liquid
Odor		Mild odor
Specific gravity @ 27 Deg C	ASTM D 1298	0.93+/-0.01
Viscosity @ 37.8 Deg C	ASTM D 445	53 +/- 3.0 CST
Emulsion type	Visual	Milky White Emulsion.
Emulsion stability test 5% in 1000 ppm hard water	Internal	Passes
PH of 5% solution	Internal	9.4 – 10. 2
Foam depression in secs 5% D.M Water	IP 312/74	60 secs Max
Cast iron corrosion test 5% 1000 PPM	IP 287	Less than 1%
Hand Refractometer reading (1: 20)	Internal	5. 6 +/- 0. 2
Oil content		70 % Minimum
HMIS Rating		
Health: 1	Reactivity: 1	Flammability 1

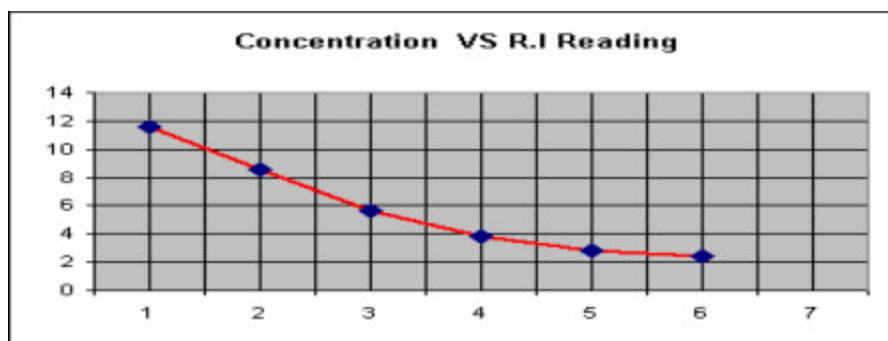
Metal Compatibility

Operation

Concentration

Ferrous	Yes	Drilling	1: 15
Aluminum	Yes	Broaching	1: 10
Brass/copper	Yes	Tapping	1: 10
Magnesium	No	Milling	1: 25
Titanium	No	Boring	1: 15

X-Axis	Y-axis
Concentration	R.I reading
1) 1:10	11.6
2) 1:15	8.6
3) 1:20	5.6
4) 1:30	3.8
5) 1:40	2.8
6) 1:50	2.4



Pack size: Available in 20 & 205 liter drums.

Note: For more details on storage and disposal please refer to material safety data sheet

ITW Chemin

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PDS NO: 06/IC/MF; Rev date: 10/01/06