

ECHOGEL[®] ULTRASONIC COUPLANT

GENERAL DESCRIPTION

Echogel[®] is a glycerine and silicon-free, couplant formulated for use in inspections where salt cake or metal corrosion salts are present. It resists viscosity breakdown on salt caked boiler surfaces and other corroded materials and contains a ferrous corrosion inhibitor with a relative effectiveness rating of 65.

TEMPERATURE OPERATING RANGE

27° to 140°F (-3° to 60°C)

BENEFITS

- Enhanced wetting capabilities; will quickly wet oily or dirty surfaces
- Remains stable on corrosion or salt cake, and is recommended for inspection of power generating boilers when salt cake is present
- Does not contain glycerine

TYPICAL PROPERTIES (at ambient temperature)

| Typical Properties | Echogel [®] |
|------------------------------|-----------------------------------------------|
| Viscosity | |
| Grade 14 (Medium) | ~25,000 cps (Brookfield LV Spindle #4 @ 6rpm) |
| Grade 20 (High) | ~75,000 cps (Brookfield LV Spindle #4 @ 6rpm) |
| Velocity | 1.55 ± .05 mm/μsec |
| Acoustic Impedance, Grade 20 | 1.60 ± .05 MRayls |
| pH | 7.5 to 9.0 |
| Total Halogens | <50 ppm |
| Sulfur | <50 ppm |

SAFETY

Non-flammable and non-irritating. Contains no hydrocarbons or petroleum distillates.

REMOVAL

The polymer (thickening agent) in Echogel[®] will form a film if allowed to dry on the part. If complete removal of couplant is required, do so before the film has dried with a water rinse or a water and brushing combination. If allowed to dry, and a film forms, it can be removed by pressure washing, preferably with hot water, immersing the part in water until the film rehydrates, can be washed or brushed off, or by wire brushing or sand blasting.

ACOUSTIC TRANSMISSION

Optimal transmission requires that an ultrasonic couplant have no air bubbles that can reflect, scatter and attenuate sound waves. Sonotech's unique processing eliminates couplant air bubbles.

CORROSION INHIBITION

Echogel[®] contains a corrosion inhibitor for ferrous metals with a relative effectiveness rating of 65 and is compatible with most composites and metals. Ferrous Corrosion Characteristics Chart available at: <http://www.magnaflux.com>.

SPECIFICATION COMPLIANCE:

NAVSHIPS MIL-STD 767 and 2041, ASTM F519 (Hydrogen Embrittlement of low alloy high strength steel)

PACKAGING Grade 14

- 1 Gal. (4 Liter) Container
- 5 Gal. (18.9 Liter) Container
- 55 Gal. (208.2 Liter) Drum

Grade 20

- 1 Gal. (4 Liter) Container
- 5 Gal. (18.9 Liter) Container
- 55 Gal. (208.2 Liter) Drum