

## ULTRAGEL II<sup>®</sup> ULTRASONIC COUPLANT

### GENERAL DESCRIPTION

Since 1976, Ultrigel II<sup>®</sup> has been the NDT industry's most specified and used NDT ultrasonic couplant because of its outstanding acoustic performance, chemical characteristics, thixotropic properties, and corrosion inhibition. Ultrigel II<sup>®</sup> is ideal for flaw detection, thickness gauging, flow metering and acoustic emission testing over extended ambient temperatures.

### TEMPERATURE OPERATING RANGE

-10° to 210°F (-23° to 99°C)

### BENEFITS

- Holds on vertical and overhead surfaces, fills depressions in rough surfaces
- Excellent wetting characteristics
- Slow drying with good transducer lubrication
- Increased acoustic impedance for reduced surface noise
- Contains glycerine to extend drying time

### TYPICAL PROPERTIES (at ambient temperature)

Typical Properties	Ultrigel II <sup>®</sup>
Viscosity	~80,000 cps (Brookfield Helipath Spindle E @ 1.5 rpm)
Velocity	1.65 ± .05 mm/μsec
Acoustic Impedance	1.8 ± .05 MRayls
pH	7.8 ± .5
Auto Ignition Temperature <sup>2</sup>	>720°F (382°C)
Total Halogens	<50 ppm
Sulfur	<50 ppm

### SAFETY

Non-flammable and non-irritating. Contains no silicones or petroleum distillates. No heavy metals incorporated into formula.

**REMOVAL**

Water-soluble; easily removed with water rinse. Isopropyl alcohol or 100% ethyl alcohol will also remove Ultrigel II<sup>®</sup>.

**ACOUSTIC TRANSMISSION**

Optimal transmission requires that an ultrasonic couplant have no air bubbles; Sonotech<sup>®</sup>'s unique processing eliminates couplant air bubbles.

**CORROSION INHIBITION**

Ultrigel II<sup>®</sup> contains a corrosion inhibitor for ferrous metals with a relative effectiveness rating of 90 and is compatible with most composites and metals.

**SPECIFICATION COMPLIANCE:**

ASTM F519 Hydrogen Embrittlement testing on high strength steel, ASTM F945 Stress Corrosion Cracking on Titanium Alloys, PWA 36604, or MCL E-205 Type II (ASTM F945), PWA 36700/36604 Hot corrosion testing on High Temperature Alloys AMS 5544 (Waspalloy), 5536 (Hastelloy X), 6359 (Ferrous based alloys), 4037 (Aluminum), 5608 (Haynes 188), 5508 (Greek Ascology) and 4375 (Magnesium), PWA 286 and 275 (gas turbine blade coatings), PWA 1484 turbine blade alloy.

**PACKAGING**

1 Gal. (4 Liter) Container

5 Gal. (18.9 Liter) Container

55 Gal. (208.2 Liter) Drum

4 oz. (120 mL) Bottle (12 Pack)

12 oz. (355 mL) Bottle (12 Pack)