



## HYDRO SAFE®, INC.

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### **Hydro-Safe® Liquid Elevator Casing Filler E-800-HB Flexible Hydraulic Jack Protection "Pours Like Honey"**

**Hydro-Safe® Casing Filler E-800-HB** is available to provide excellent dielectric filler material between the casing and the cylinder. The following information describes the product as indicated. H-B signifies a heavy concentration of rust inhibitor.

**Hydro-Safe® Casing Filler E-800-HB** can be easily poured or pumped at 70° F, and forms a thixotropic gel at 60° or lower. This product meets FDA guidelines for incidental food contact waxes and oils. It contains no toxic or harmful materials, and has a C.O.C. flash point of 450° F or higher. **Hydro-Safe® Casing Filler E-800-HB** is designed to absorb and/or displace water from metal surfaces and hold it within itself. It is therefore not necessary for the product to be heavier than water. **Hydro-Safe® Casing Filler E-800-HB** has a resistivity over a thousand times as great as that of the competitive product. This insures complete and total electrical insulation up to 14 KVAC. A Product Data sheet and MSDS sheet are enclosed.

**Hydro-Safe® Casing Filler E-800-HB** is a solventless thixotropic, petrolatum-based corrosion preventive formulated specifically for filling the annular areas between the external walls of the cylinder and interior walls of the casing.

In an unagitated state *below 60° F*, **Hydro-Safe® Casing Filler E-800-HB** has a soft, gel-like consistency, but upon agitation will become sufficiently fluid so that it will flow readily. This unique thixotropic property enables it to be poured or pumped into the pipeline casings without preheating, except in extreme cold weather. Within minutes after injection into the casing, the gel-like structure reforms and the casing filler sets up again.

**Hydro-Safe® Casing Filler E-800-HB** also contains an extremely effective polar type corrosion inhibitor which has a greater tendency than water to be absorbed on steel surfaces. Thus, **Hydro-Safe® Casing Filler E-800-HB** will preferentially wet both surfaces on the casing and cylinder, completely displacing all moisture and/or water in the process and absorbing it. This also prevents water from entering any filled spaces.

**USES: Hydro-Safe® Casing Filler E-800-HB** is designed specifically to prevent corrosion of a steel cylinder inside a circular casing. It will also provide effective electrical isolation of cylinders from metallic casings that are a part of an underground system. Introduction of **Hydro-Safe® Casing Filler E-800-HB** into annular space between the cylinder and casing prevents corrosion of the cylinder inside the casing when electrical isolation is required. This practice is described in "Minimum Federal Safety Standards for Gas Lines, Subpart 1 - Requirements for Corrosion Control, Section 192-467 External Corrosion Control: Electrical Isolation."

#### **APPLICATION:**

The thixotropic property of **Hydro-Safe® Casing Filler E-800-HB** enables it to be readily poured from the drum at temperatures of 70° F or higher.

If heating is necessary, in extreme cold weather it may be applied directly to the drum or it may be done in a portable heating kettle or by using heater bands. **Hydro-Safe® Casing Filler E-800-HB** will flow freely when heated to its pour point of 70° F; it can then be pumped or poured into the casing by gravity flow.

**FEATURES:**

- Will displace and absorb accumulated water during injection into the casing and prevent it from entering filled casings.
- Will preferentially wet metal surfaces, subjected to water immersion.
- Prevents shorted casings.
- High dielectric strength -- electrically non-conductive
- Easy to apply -- flows readily at 70° or above.
- Excellent volume stability after application sets up into a soft gel without appreciable change in volume.
- Chemically stable -- resists chemical interaction with potentially corrosive contaminants.
- Very low vapor pressure.
- High flash point.

**PUMPING EQUIPMENT (if required):**

ALEMITE Medium Pressure Pump #7886-A-5. Call Alemite for a dealer near you at 800-822-4579 or visit their website [www.alemite.com](http://www.alemite.com)

**FILLING PROCEDURE:**

Water that has accumulated in the casing should be blown out through the vent with compressed air or pumped out.

**PHYSICAL PROPERTIES:**

<b><u>ITEMS</u></b>	<b><u>RANGE</u></b>	<b><u>METHOD</u></b>
Color	Amber	ASTM D-287
Specific Gravity	0.88 - 0.90	-----
Weight per Gallon	7.35 - 7.50 lbs	ASTM D-97
Pour Point	70° F	ASTM D-92
Flash Point (COC)	450° F	ASTM D-88
Viscosity at 150° F	130 - 145 SUS	ASTM D-88
Viscosity at 70° F	80,000 – 110,000 SUS	ASTM D-88

NOTE: Above 130° F, **Hydro-Safe® Casing Filler E-800-HB** viscosity is virtually identical with that of medium-heavy lubrication oil - SAE 30.

Penetration (Cone) at 77° F	328 - 367	ASTM D-937
Thermal Conductivity	0.12 BTU/hr/FT.2° F	-----
	FT. Thickness (approx.)	
	Excellent Insulating Ability	
Specific Heat (Heat Cap)	0.51 BUT/lb/°F (approx.)	-----
Resistivity	Non Conductive	-----

**FORMULA FOR CALCULATING AMOUNT OF PRODUCT NEEDED:**

Information needed for calculation:

- A. Depth of hole (in feet)
- B. Diameter of hole or casing (in inches)
- C. Diameter of jack cylinder (in inches)

Formula:

$$A \times .0408579 = D$$

$$\frac{B^2 - C^2}{E \times D} = \text{Gallons}$$

Example:

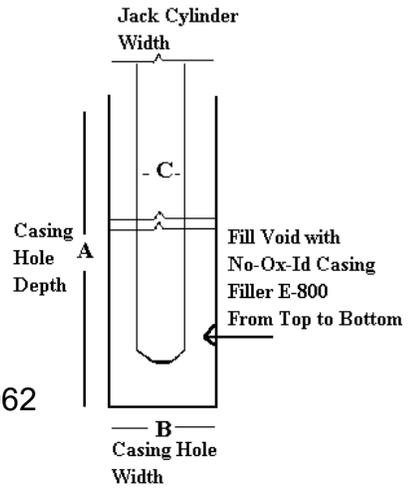
- If:    A = 26 feet  
           B = 12 inches  
           C = 8.625 inches

$$\text{Then: } 26 \times 0.0408579 = 1.062$$

$$B^2 = 144$$

$$C^2 = \underline{74}$$

$$70 \times 1.062 = 74 \text{ gallons}$$



Shipping Point: F.O.B. Hartville, OH