

### BioSwitch™ BIODEGRADABLE SWITCH PLATE LUBRICANT

Whitmore's BioSwitch™ protects switch plates from wear by forming a protective layer of solid lubricants. After it is applied, the fluid begins to dry on the switch, although it will retain some wetness and does not become powdery. As the switch operates, the lubricant "plates out" and the protective coating becomes denser in the contact area. This dense layer is not sticky and does not attract dirt.

BioSwitch™ is biodegradable as measured by the Modified Sturm test.

#### HOW TO APPLY:

Whitmore's BioSwitch™ can be applied by pouring, brushing, or spraying. Completely cover the switch with the thinnest layer possible.

#### RAIN:

BioSwitch™ can be applied to wet switches, and it won't wash off in the rain. As the coating dries, it becomes even more resistant to rain.

#### FREQUENCY OF LUBRICATION:

With BioSwitch™, a switch that operates twice as often does not need lubrication twice as often. The following are general guidelines regarding lubrication frequency using BioSwitch™.

Normal to Heavy: Weekly  
Infrequent: Monthly

Switches operating in very severe conditions may require lubrication twice a week.

#### BENEFITS:

- **REDUCES FRICTION AND WEAR** – low coefficient of friction facilitates ease of switch operation. This minimizes effort and risk of injury.
- **LONG LASTING PROTECTION** – less frequent reapplication saves time and lowers consumption.
- **WIDE TEMPERATURE RANGE** – one grade is suitable for year-round use.
- **EASY TO APPLY** – it can be poured, brushed, or sprayed.
- **RESISTS CONTAMINANTS** – does not attract dirt.
- **BioResponsible™** – helps reduce the impact on the environment.

#### PACKAGING:

BioSwitch™ is available in pails, kegs, drums, and one-way bulk totes. Also available through a bulk lubricant delivery system that can be designed to meet your switchyard operational needs.

Product tends to separate. If possible, store container upside-down. Shake or stir before use. For larger containers a compressed air line can be inserted to create agitation.

ASTM #		TYPICAL CHARACTERISTICS
D-2983	<b>Viscosity (Brookfield Viscometer)</b> Spindle 2 @ 10 rpm @ 50°F (10°C), cps	1,500
D-97	<b>Pour Point, °F (°C)</b>	-15 (-26)
<b>Gardner Method</b>	<b>Density, lb/gal @ 60°F (15.5°C)</b> <b>Specific Gravity, g/cc @ 60°F (15.5°C)</b>	7.96 0.956
D-92	<b>Flash Point, °F (°C)</b> Cleveland Open Cup (Base Oils)	>500 (260)
D-2596	<b>Four Ball EP</b> Weld Point, kg	400
D-2266	<b>Four Ball Wear</b> Scar Width, mm	0.50
D-4048 (Modified)	<b>Copper Strip Corrosion</b> <b>212°F (100°C) @ 3 hrs</b>	1B
	<b>Color</b>	Gray Fluid

*The above are average values. Minor variations which do not affect product performance are to be expected in normal manufacturing.*

#### PACKAGING

Bulk	Nonreturnable Totes	Drums	Kegs	Pails
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#### THE WHITMORE MANUFACTURING COMPANY

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