

# CHEMTRONICS®

## Technical Data Sheet

**TDS # CW7100**

### CircuitWorks® Silver Conductive Grease

#### PRODUCT DESCRIPTION

CircuitWorks® Silver Conductive Grease provides maximum electrical and thermal conductivity, proven lubrication properties, and protection from moisture, oxidation, and other environmental hazards. This system utilizes an advanced silicone lubricant that is compatible with metal, rubber, and plastic.

- High electrical conductivity
- Excellent thermal conductivity
- Provides protection against wear
- Remains stable in a wide temperature range; -70 to 485°F (-57 to 252°C)
- Protects against moisture and corrosion
- Very low viscosity vs. temperature change

#### TYPICAL APPLICATIONS

CircuitWorks® Silver Conductive Grease may be used for high and low power applications including:

- Lubrication of Substation Switches or Circuit Breakers
- Heat Dissipation from Transformers
- Low or Medium Speed Sliding Contacts
- Static Grounding on Seals or O-Rings
- Extending the Life of Rotating Switches

#### TYPICAL PRODUCT DATA AND PHYSICAL PROPERTIES

| <b>Composition</b>                           |                                    |
|--|------------------------------------|
| Material                                     | 100% Silver Filled Silicone Grease |
| Color  | Silver/Gray                        |
| Consistency                                  | Smooth Paste                       |
| <b>Properties</b>                            |                                    |
| Electrical Conductivity                      | <0.01 ohm-cm                       |
| Thermal Conductivity (BTU/HR/Sq.FT/IN/°F)    | 50.0                               |
| Operating Temperature Range                  | -70 to 485°F (-57 to 252°C)        |
| Unworked Penetration (ASTM D-1403) 77°F      | 210                                |
| Worked Penetration (ASTM D-1403, 60 Strokes) | 250                                |
| Dropping Point (ASTM D-2266)                 | 491°F (255°C)                      |
| Steel on Steel Wear (ASTM D-2266)            | 1.5mm                              |
| Corrosion on Copper                          | None                               |
| Moisture Resistance                          | Excellent                          |
| Chemical Resistance                          | Excellent                          |
| Electrical Conductivity                      | Excellent                          |
| Thermal Conductivity                         | Excellent                          |
| Lubrication Properties                       | Excellent                          |
| Protection from Oxidation                    | Excellent                          |
| Power Rating                                 | High/Low                           |

## COMPATIBILITY

CircuitWorks® Silver Conductive Grease is generally compatible with metal, rubber, and plastic. As with any compound, compatibility with substrate should be determined on a non-critical area prior to use.

## USAGE INSTRUCTIONS

**Read MSDS carefully prior to use.**

**Surface Preparation:** For best results, clean parts to be lubricated with Chemtronics® Electro-Wash® PX cleaner in order to remove any surface contamination which may prevent adequate material contact.

**Thinning:** Do not attempt to thin.

### Application:

**Syringe:** Remove cap and gently press on plunger. Apply CircuitWorks® Silver Conductive Grease directly to surface or use application tip.

**Bulk:** Apply with brush, spatula, or similar device.

**Clean-Up:** Electro-Wash® PX cleaner can be used to remove trace residues. Excess material may also be removed using a wipe such as the Chemtronics® ControlWipes™. Silver particles may stain porous materials.

### WARNING:

To avoid shock or possible fire, stop power to any system before applying conductive grease. Insure positive and negative contacts remain isolated. Improper use can result in shorting, arcing, or shock.

## AVAILABILITY

CW7100 6.5g / 0.23 oz. Syringe  
CW7100BLK 50 gram / 1.76 oz. Jar , Bulk

## TECHNICAL & APPLICATION ASSISTANCE

Chemtronics® provides a technical hotline to answer your technical and application related questions. The toll free number is: **1-800-TECH-401**.

Additional information (i.e., Technical Data Sheets and Material Safety Data Sheets) is available for all Chemtronics® Products on the **Chemtronics® Fax-On-Demand System™** by calling: **770-426-5447**.

### NOTE:

This information is believed to be accurate. It is intended for professional end users having the skills to evaluate and use the data properly. CHEMTRONICS® does not guarantee the accuracy of the data and assumes no liability in connection with damages incurred while using it.

### MANUFACTURED BY:

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### DISTRIBUTED BY:

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**TECHNICAL HOT LINE 1-800-TECH-401**