Technical Data Sheet

SGA
Contact Grease 2G

Product Description

The Electrolube number 2 range of contact lubricants were developed in response to a requirement for an effective treatment for all types of contacts, particularly in situations where extremes of temperature and environmental conditions are encountered. Correct application of the right grade will reduce contact resistance and arcing of contacts of all ratings from small relays to high capacity contactors.

This range includes SGA contact grease, SOA contact oil and SFA dilute contact oil. SGA is a non-melting grease which will not migrate from vertical contacts or surfaces and will provide greater protection from atmospheric conditions than an oil.

Electrolube have additional contact grease products with different properties for specific applications. These include improved plastics compatibility, wider temperature range etc. Please ask for further details.

Features

- Effective at low temperature (-40°C).
- Low evaporative loss (0.4% after 72 hours at 100°C).
- Contains no silicones.
- Excellent lubrication properties (spiral shaped molecules with effective length of 20 Angstrom units).
- Will loosen tarnish and corrosion, leaving a protective film to prevent further contamination.
- High stable synthetic material, fully inhibited against copper corrosion, oxidation, etc.
- Improves contact performance by increasing the effective contact area and preventing arcing.

Approvals **RoHS Compliant (2002/95/EC):** **Yes**

Typical Properties:

Colour	Beige
Density (g/ml)	1
Temperature Range (°C)	-40 to +125
Evaporation Weight Loss (% 7 days @ 100°C)	3.17
Evaporation Weight Loss (% 7 days @ 125°C)	3.35
Copper Strip Corrosion (IP154 / ISO 2160)	≤1b
Drop Point (IP32 / ISO 2176 (°C))	267
Cone Penetration Worked (ASTM D217, 60 strokes @ 20°C)	320
Cone Penetration Un-worked (ASTM D 217 @ 20°C)	300
Cone Penetration Un-worked (ASTM D 217 @ -40°C)	170
Consistency (NLGI)	1
Fliessdruck (Flow Pressure) (DIN 51805, mbar @ -40°C)	650

Oil Bleed / Separation (IP121)	5%
Plastic Compatibility - ABS	Test
Plastic Compatability - PC	Test
Thickener	Clay
Neutralisation Value (mgKOH/g)	0.2
Water Content (%)	0.4
UV Trace	No

Electrical Properties:

Loss Tangent (Tan delta 1MHz)	0.03

Base Oil Properties:

Base Oil Type	Complex Ester
Base Oil Viscosity @ 40°C (Kinematic Viscosity (cSt))	49
Base Oil Viscosity @ 100°C (Kinematic Viscosity (cSt))	10
Base Oil Viscosity Index (ASTM D 2270)	197
Pour Point (ASTM D 97 (°C))	-54
Flash Point (COC ASTM D 92 (°C))	>200

Packing	Order Code	Shelf Life	Container Dimension
20 ml Syringe	SGA20S	48 Months	
1 Kg Bulk	SGA01K	72 Months	
5 Kg Bulk	SGA05K	72 Months	
12.5 Kg Bulk	SGA12.5K	72 Months	254mm (inside diameter) x 330mm (height)
25 Kg Bulk	SGA25K	72 Months	305mm (inside diameter) x 406mm (height)

NATO Stock No (SGA01K): 6850-99-220-1588
NATO Stock No (SGA20S): 9150-99-573-8274

Directions For Use

Before final treatment with Electrolube lubricants, contact surfaces should be clean and dry. For general removal of dirt, Electrolube Ultrasolve is recommended. Hardened dirt and tarnish, especially on larger contacts, should be removed by rubbing with an abrasive material, which can be impregnated with the lubricant to be used.

After cleaning non-wiping contacts, loosened tarnish should be removed before a final application of lubricant is made. Electrolube Contact Cleaning Strips (CCS) are recommended for this purpose. With wiping contacts, loosened tarnish will be pushed aside. This can be removed if desired, but is usually not necessary, due to the excellent lubricating and protective properties of the contact lubricant.

SGA can be applied by one of the following methods (although this list is not exhaustive):

Manually by way of a syringe
Semi-automated using syringe dispensing
Fully automated by way of a follower/pusher plate with dispensing system.

Typical Product Applications

SGA is suitable for use on all types of electrical contacts including those in corrosive industrial environments and in heavy arcing conditions e.g. large connections, battery terminals, contactors, busbars, knife switches, rheostats, large voltage regulators etc.

SGA may also be used on fixed or moving contacts, edge connectors, turret tuners, plug sockets, switching devices, potentiometers, fuses, small regulators, slip rings, slider/rotary controls, rocker/push-pull edge connectors, valve pins, switchgear and butting contacts.

Care should be taken to ensure that certain paints, rubbers, and thermoplastics are not near the area of the contact. A small area should be tested first to ensure compatibility.