

SOA Electrolube No. 2 Oil

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. This range includes SGA contact grease and SOA contact oil. SOA is a high quality lubricating oil, suitable for applications where a low viscosity product is required.

- Excellent lubrication properties; spiral shaped molecules with effective length of 20 Angstrom units
- Produces low and constant mV drop and contact resistance; low evaporative weight loss
- Will loosen tarnish and corrosion, leaving a protective film to prevent further contamination
- High stable synthetic material; fully inhibited against copper corrosion and contains no silicones

Approvals

RoHS-2 Compliant (2011/65/EU):
NATO Stock No (SOA55B):

Yes
6850-99-220-1930(RAF)
6850-99-096-3372 (Army)

Typical Properties

Colour	Light Brown
Density (g/ml)	0.98
Temperature Range (°C)	-40 to +155
Evaporation Weight Loss (% 72 hours @ 100°C)	0.4
Copper Strip Corrosion (IP154 / ISO 2160)	≤1b
Silver Corrosion (DIN 51759, 3hrs @100°C)	No Change
Plastic Compatibility - ABS	Test
Plastic Compatibility - PC	Test
Ash Content (%)	<0.02
Neutralisation Value (mg KOH/g)	0.38
Water Content (ppm)	32
Refractive Index (N/D 20)	1.46
UV Trace	No
Kinematic Viscosity @ 100°C (cSt)	10.4
Viscosity Index (ASTM D 2270:IP 226)	190
Pour Point (ASTM D 97 (°C))	-46
Flash Point (COC ASTM D 92 (°C))	242
Surface Tension (dynes/cm @ 20°C)	34.7

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All information is given in good faith but without warranty. Properties are given as a guide only and should not be taken as a specification.

Electrolube cannot be held responsible for the performance of its products within any application determined by the customer, who must satisfy themselves as to the suitability of the product.

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Electrical Properties

Dielectric Constant (1 MHz)	5
Breakdown Voltage (BS148 (kV))	47
Loss Tangent (Tan delta 1MHz)	0.002

<u>Description</u>	<u>Packaging</u>	<u>Order Code</u>	<u>Shelf Life</u>
SOA No. 2 Oil	55 ml Bottle	SOA55B	48 Months
	1 Kg Bulk	SOA01K	72 Months
	5 Kg Bulk	SOA05K	72 Months
	25 Kg Bulk	SOA25K	72 Months

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.

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

- Manually** by way of a syringe/dropper bottle
- Semi-automated** using syringe dispensing
- Fully automated** by way of a dispensing system

Typical Product Applications

SOA can be used on all types of electrical contacts, but 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.

SOA should be used on contacts that have very low contact forces and in applications where it will not migrate. Typical areas of use are small contacts, brushes, bearings, organ key contacts, jack plugs, push button switches and relays

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