



LOCTITE® NonFlammable Electrical Contact Cleaner

February 2009

PRODUCT DESCRIPTION

LOCTITE® NonFlammable Electrical Contact Cleaner provides the following product characteristics:

Technology	Solvent cleaner
Chemical Type	Halogenated Solvent
Appearance	Clear water-white ^{LMS}
Viscosity	Very low
Cure	Not applicable
Application	Cleaning of electrical / electronics devices

LOCTITE® NonFlammable Electrical Contact Cleaner is a non-conductive, fast evaporating cleaner that leaves no residue. The product is suited for cleaning electrical and electronic devices. It is designed to be an alternative to CFC-113 and 1,1,1-trichloroethane solvents.

The product is used as an electrical contact cleaner to remove grease, dirt, oil, flux and other surface contaminants from sensitive electrical/electronics devices. LOCTITE® NonFlammable Electrical Contact Cleaner can also be used to clean motorized instruments, control panels, electrically driven equipment, motors and other electronic devices requiring non-flammable, non-conductive, low residue degreasing agents.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Specific Gravity @ 25 °C	1.34
Kauri-Butanol Value (KB) , ASTM D 1133-61	21.7
Surface Tension, ASTM D 1590, dynes/cm	15.9
Drying Time @ 20 °C, seconds	5
Deliverable Mass, g	≥340 ^{LMS}

Flash Point - See MSDS

Electrical Properties:

Dielectric Breakdown Strength, ASTM D 877, kV/mm	21.5
Electrical Conductivity, μS/cm	0.0

Material Compatibility

LOCTITE® NonFlammable Electrical Contact Cleaner is compatible with most metals, many plastics and elastomers. The following table shows the effects of the product on samples, which were Immersed for 30 minutes @ 20 °C. After removing from the solvent, each specimen was wiped dry and allowed to stand for 30 minutes prior to testing. Since plastics and elastomers can be formulated and manufactured to have a wide range of physical properties, it is recommended that compatibility for the particular grade or product formulation be established prior to production cleaning. The following table shows the effects of the product on various plastics and elastomers.

Material Incompatibility

LOCTITE® NonFlammable Electrical Contact Cleaner may be incompatible with some powdered or finely divided/abraded aluminum. It is recommended that the compatibility be established prior to production cleaning.

LOCTITE® NonFlammable Electrical Contact Cleaner Compatibility with Plastics and Elastomers (Tested per ASTM D 543-87)

Plastics / Elastomers	Ranking	Appearance
ABS	2	Attacked
Buna-N	1	Swelled
Butyl rubber	1	Swelled
Delrin	0	No change
G-10 Epoxy	0	No change
Neoprene	1	Swelled
Nylon 101	0	No change
Phenolic	0	No change
Acrylic (PMMA)	2	Attacked
Polycarbonate	2	Hazed
Polyethylene (HD)	0	No change
Polyethylene (LD)	0	No change
Polypropylene	1	Swelled
PVC	0	No change
Polyetherimide	0	No change
Polybutyleneterephthalate	0	No change

Ranking Key

0	No visible effect: no significant weight or dimension change
1	Moderate effect on weight and dimension; no visible effect on substrate
2	Not compatible

GENERAL INFORMATION

This product is not recommended for use in pure oxygen and/or oxygen rich systems and should not be selected with a sealant for chlorine or other strong oxidizing materials.

For safe handling information on this product, consult the Material Safety Data Sheet (MSDS).

Directions for use:

1. Hold can 15 to 20 cm from surface to be cleaned.
2. Spray surfaces liberally. Extension tube can be used to pinpoint application.
3. Allow LOCTITE® NonFlammable Electrical Contact Cleaner to fully evaporate from parts prior to bonding to avoid solvent entrapment within the bond joint.



Loctite Material Specification^{LMS}

LMS dated October 31, 2008. Test reports for each batch are available for the indicated properties. LMS test reports include selected QC test parameters considered appropriate to specifications for customer use. Additionally, comprehensive controls are in place to assure product quality and consistency. Special customer specification requirements may be coordinated through Henkel Quality.

Storage

The product is classified as flammable and must be stored in an appropriate manner in compliance with relevant regulations. Do not store near oxidizing agents or combustible materials. Store product in the unopened container in a dry location. Storage information may also be indicated on the product container labelling.

Optimal Storage: 8 °C to 21 °C. Storage below 8 °C or greater than 28 °C can adversely affect product properties.

Material removed from containers may be contaminated during use. Do not return product to the original container. Henkel cannot assume responsibility for product which has been contaminated or stored under conditions other than those previously indicated. If additional information is required, please contact your local Technical Service Center or Customer Service Representative.

Conversions

$(^{\circ}\text{C} \times 1.8) + 32 = ^{\circ}\text{F}$
 $\text{kV/mm} \times 25.4 = \text{V/mil}$
 $\text{mm} / 25.4 = \text{inches}$
 $\mu\text{m} / 25.4 = \text{mil}$
 $\text{N} \times 0.225 = \text{lb}$
 $\text{N/mm} \times 5.71 = \text{lb/in}$
 $\text{N/mm}^2 \times 145 = \text{psi}$
 $\text{MPa} \times 145 = \text{psi}$
 $\text{N}\cdot\text{m} \times 8.851 = \text{lb}\cdot\text{in}$
 $\text{N}\cdot\text{m} \times 0.738 = \text{lb}\cdot\text{ft}$
 $\text{N}\cdot\text{mm} \times 0.142 = \text{oz}\cdot\text{in}$
 $\text{mPa}\cdot\text{s} = \text{cP}$

Note

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Reference 0.1