



Description

The 409B *Electrosolve™ Contact Cleaner* is a very fast drying and zero residue contact cleaner. It is effective at dissolving oils and non-polar residues, and for assisting with the removal of oxidation using a brush. It cleans connectors, contacts, circuit breakers, microprocessors, and LED and PCB components.

Features and Benefits

- **Suitable for Use in Food Facilities as a Non-Food Chemical**—Canadian and NFS recognition letters available on request
- **Safe on many plastics**
- **Zero residue**
- **Fast evaporation rate**
- **Dissolves oils and residues**
- **RoHS compliant**

ATTENTION!

Do NOT use on live circuits.

For use on equipment that will not tolerate aqueous cleaning solutions.

Not for use in direct contact with food.

Usage Parameters

<i>Properties</i>	<i>Value</i>
Shelf Life	5 y

Temperature Ranges

<i>Properties</i>	<i>Value</i>
Storage Temperature Limits ^{a)}	-20 to 40 °C [-4 to 104 °F]

a) Storage below zero is not necessary. Cool, dry, and well ventilated area recommended.

Properties

<i>Physical Properties</i>	<i>Method</i>	<i>Value</i>
High Purity	— Brookfield SP1 Closed Cup	No residue
Color		Clear
Odor		Mild hydrocarbon
Density @25°C [77 °F]		0.66 g/mL
Viscosity @25°C [77 °F]		0.3 cP [0.0003 Pa·s]
Flash Point		-29 °C [-20 °F]
Boiling Point		52 °C [126 °F]
Vapor Pressure @25°C [77 °F]		33 kPa [250 mmHg]
Relative Evaporation Rate		0.8 (Ether = 1); 9.4 (ButAc=1)
Volatile Organic Content (VOC)		100%

<i>Solvation Parameters</i>	<i>Value</i>	
Solubility in Water	Insoluble	
KB (Kauri Butanol) Value	30	
Hansen Solubility Parameters ^{a)}	(MPa) ^{1/2}	[cal/cm ³] ^{1/2}
Total	14.9	7.28
<i>Non-Polar</i>	14.9	7.28
<i>Polar</i>	0.0	0.0
<i>Hydrogen Bonding</i>	0.0	0.0

a) Hansen parameters calculate using component literature values and volume fraction composition.

Compatibility

Substrate Compatibility: Consult 409B partial compatibility chart table for substrate compatibility. It is always recommended to perform a compatibility test on a non-critical test area prior to large scale applications. Perform this test even if the chart predicts high compatibility since modern plastic parts may incorporate hidden incompatible materials in the form of plastic blends or as protective and decorative coatings.

Compatibility Chart

<i>Plastic type</i>	<i>Resistance</i>
Epoxy	Very Good
ABS (acrylonitrile butadiene styrene)	Poor
PMMA (Acrylic)	Good
PVC (Polyvinyl chloride)	Good
HD-PE (high density polyethylene)	Good
LD-PE (low density polyethylene)	Partial
PP (polypropylene)	Good
PS (polystyrene)	Partial
PC (Polycarbonate)	Poor

ATTENTION!

Use with care on thin plastics or near parts that are chemically sensitive.

Solvent Miscibility: The 409B is generally miscible organic solvent, but it is immiscible with water.

Health, Safety, and Environmental Awareness

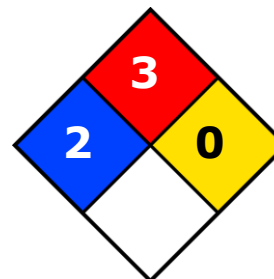
Please see the 409B **Safety Data Sheet** (SDS) for more details on transportation, storage, handling and other security guidelines.

Health and Safety: This liquid is highly flammable and should be kept away from flames and other ignition sources. Avoid breathing in fumes or direct contact with the material.

HMIS® RATING

HEALTH:	* 2
FLAMMABILITY:	3
PHYSICAL HAZARD:	0
PERSONAL PROTECTION:	

NFPA® 704 CODES



Approximate HMIS and NFPA Risk Ratings Legend:

0 (Low or none); 1 (Slight); 2 (Moderate); 3 (Serious); 4 (Severe)

Environmental Impact: It is RoHS compliant.

Application Instructions

To clean residues in aerosol format

1. Spray dirty area.
2. Ensure that wash runs off the circuit board along the shortest unencumbered path to prevent redeposit of solvated residues

Packaging and Supporting Products

<i>Cat. No.</i>	<i>Packaging</i>	<i>Net Volume</i>		<i>Net Weight</i>		<i>Packaging Weight</i>	
409B-140G	Aerosol	188 mL	6.35 fl oz	140 g	4.93 oz	2.2 kg ^{a)}	4.9 lb ^{a)}
409B-340G	Aerosol	457 mL	15.4 fl oz	340 g	11.9 oz	4.6 kg ^{a)}	10 lb ^{a)}

a) Case pack of ten

Supporting Products

- *Hog Hair Cleaning Brush:* Cat. No. 852
- *Large Hog Hair Cleaning Brush:* Cat. No. 853



ISO 9001 Registered Quality System.
Burlington, Ontario, Canada QMI File # 004008

Electrosolve™ Contact Cleaner 409B Technical Data Sheet

409B-Aerosol

Technical Support

Contact us regarding any questions, improvement suggestions, or problems with this product. Application notes, instructions, and FAQs are located at www.mgchemicals.com.

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Disclaimer

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