

Description

The 4140 *Flux Remover for PC Boards* is a blend of ethyl alcohol, isopropanol, and ethyl acetate that is an eco-friendly, dry cleaning solvent. It has a non-corrosive and non-conductive formulation with a moderate dry time.

Applications & Usages

Since the 4140 is safe for most plastics, seals, heat sinks, and printed circuit board components, it is used heavily in the electronics industry. It is great for removing rosin, non-rosin, no-clean fluxes, and ionic contamination.

Benefits and Features

- **Suitable for Use in Food Facilities as a Non-Food Chemical**—Canadian and NFS recognition letters available on request
- **RoHS Compliant**
- **Low odor**
- **Safe on most plastics**
- **Moderate dry time**
- **Zero residue**

ATTENTION! Consumer Product VOC Dilution Requirements

Residential or institutional users in California and other states (IL, IN, MI, OH, CT, DE, ME, MD, MA, NH, NJ, NY, PA, RI, VT, VA, DC, UT) with Electronic Cleaners 75% VOC limits must dilute the product 3:1 with water or acetone prior to use.

Storage Properties

<i>Properties</i>	<i>Value</i>
Shelf Life @22 °C [72 °F] Storage Temperature ^{a)}	5 y -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 Property</i>	<i>Method</i>	<i>Value</i>
Odor	—	Mild alcohol
Color	Visual	Colorless
Specific gravity @25 °C [77 °F]	Literature	0.79 g/mL
Flash Point	"	13 °C [55 °F]
Boiling Point	"	≥78 °C [≥172 °F]
Auto-ignition	"	≥363 °C [685 °F]
Viscosity	ASTM D445	2.4 cP
Water miscibility	Literature	Soluble

Compatibility

It is generally compatible with plastics, seals, PCB components, paints, rubbers, and plant fibers.

Health, Safety, and Environmental Awareness

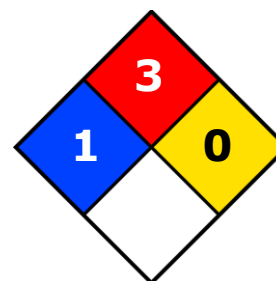
Please see the 4140 **Safety Data Sheet** (SDS) for more details on transportation, storage, handling and other security guidelines.

Environmental Impact: The 4140 has a high volatile organic content of 100% [791 g/L]. Avoid runoff into storm and sewer drains. This product is biodegradable.

HMIS® RATING

HEALTH:	* 1
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)

Health and Safety: The 4140 is flammable and shouldn't be used in the presence of open flames or other ignition source. Keep container closed. Avoid prolonged breathing of vapors. Use with adequate ventilation.

Application Instructions

Follow the procedure below for best results.

Consumer product VOC dilution requirements

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To clean residues in liquid bath

1. Pour the flux remover into a tray.
2. Submerge the PC board while brushing the flux with a hog hair cleaning brush.
3. While the PC board is submerged, swish the flux remover to ensure the dissolved solids are rinsed off.

NOTE: When rinsing many boards, dissolved flux may accumulate in the tray and dipping the board may deposit flux solids onto the board. A separate tray for rinsing or aerosol can may be used for further rinsing.

To clean residues in aerosol format

1. Spray flux remover onto the flux and brush with a hog hair cleaning brush.
2. Ensure the dissolved solids are rinsed off completely before the flux remover evaporates to prevent solids re-deposits.
3. Hold the board vertically and rinse liberally until the flux remover runs off of the board.

To clean residues in pen format

1. Shake the pen vigorously to ensure good flow quality.
2. Touch pen lightly on the surface while squeezing the barrel to allow flux remover to dispense.

Packaging and Supporting Products

<i>Cat. No.</i>	<i>Packaging</i>	<i>Net Volume</i>		<i>Net Weight</i>		<i>Packaging Weight</i>	
4140-P	Pen	11.5 mL	0.39 fl oz	9.10 g	0.32 oz	0.04 kg	0.09 lb
4140-400G	Aerosol	453 mL	15.3 fl oz	400 g	14.1 oz	4 kg ^{a)}	8.82 lb ^{a)}
4140-1L	Bottle	1 L	1.05 qt	791 g	1.74 lb	5.5 kg ^{b)}	12.2 lb ^{b)}
4140-4L	Jug	4 L	1.06 gal	3.16 kg	6.98 lb	3.63 kg	8.0 lb
4140-20L	Pail	20 L	5.34 gal	15.8 kg	34.8 lb	17.2 kg	38 lb

a) Case pack of 10

b) Case pack of 6

Supporting Products

- *Acetone*: Cat. No. 434-1L, 434-4L
- *Hog Hair Cleaning Brush*: Cat. No. 852
- *Large Hog Hair Cleaning Brush*: Cat. No. 853

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

Flux Remover for PC Boards 4140 Technical Data Sheet

4140-Liquid

Warranty

M.G. Chemicals Ltd. warrants this product for 12 months from the date of purchase by the end user. *M.G. Chemicals Ltd.* makes no claims as to shelf life of this product for the warranty. The liability of *M.G. Chemicals Ltd.* whether based on its warranty, contracts, or otherwise shall in no case include incidental or consequential damage.

Disclaimer

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