

### Description

The 4050A *Safety Wash II* is a high-purity printed circuit board cleaner. It uses a blend of high-purity isohexanes, ethyl alcohol, isopropyl alcohol, and ethyl acetate to remove both polar and non-polar contaminants.

The alcohol and organic solvent blend is sufficiently strong to dissolve medium to heavy greases, fluxes, and other organic contaminants while remaining effective at cleaning ionic flux residues. It is an excellent choice when IPA alone is not powerful enough to dissolve heavy grease and flux contaminants.

### Applications & Usages

Since the 4050A is safe for most plastics, seals, ceramics found on printed circuit boards, it is used heavily in the electronics industry. It is quick drying relative to water.

### Benefits and Features

- **Suitable for Use in Food Facilities as a Non-Food Chemical**—Canadian and NFS recognition letters available on request
- **Variable valve allows user to control the rate of flow**
- **Safe on most electronic components**
- **Zero residue**



**ATTENTION:** 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 <sup>a)</sup>	-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>Value</i>
Odor	Mild alcohol
Color	colorless
Specific Gravity	0.75
Flash Point	-29 °C [-20 °F]
Boiling Point	>50 °C [>121 °F]
Auto-ignition	>234 °C [>453 °F]
Vapor density	>1.6
Vapor Pressure	14 kPa [102 mmHg]
Water solubility	partial
<i>Solvation Parameters</i>	<i>Value</i>
Solubility in water (%wt)	Miscible
Solubility for water (%wt)	Miscible
Hansen Solubility Parameters <sup>a)</sup>	(MPa) <sup>1/2</sup> [cal/cm <sup>3</sup> ] <sup>1/2</sup>
Total	19.0      [9.3]
<i>Non-Polar</i>	15.3      [7.5]
<i>Polar</i>	3.0      [1.5]
<i>Hydrogen Bonding</i>	7.7      [3.8]

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

### Compatibility

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

### Health, Safety, and Environmental Awareness

Please see the 4050A **Safety Data Sheet** (SDS) for more details on transportation, storage, handling and other security guidelines.

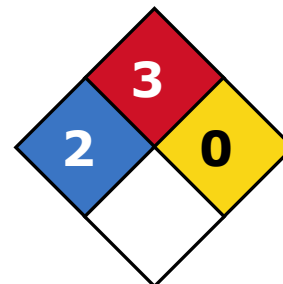
**Health and Safety:** This product is flammable and shouldn't be used in the presence of open flames or other ignition source. Avoid prolonged breathing of vapors. Use with adequate ventilation.

Products is NSF Registered and can be used in and around food establishments (nonfood compounds), such as disinfectants and lubricants, and those used for pre-processing of food proprietary substances, such as fruits/vegetable washing agents.

### HMIS® RATING

<b>HEALTH:</b>	<b>*</b>	<b>2</b>
<b>FLAMMABILITY:</b>		<b>3</b>
<b>PHYSICAL HAZARD:</b>		<b>0</b>
<b>PERSONAL PROTECTION:</b>		

### NFPA® 704 CODES



Approximate HMIS and NFPA Risk Ratings Legend:

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

**Environmental Impact:** The VOC (Volatile Organic Compound) content is 65% (501 g/L) by EPA and WHMIS standards. Avoid runoff into storm and sewer drains. This product is biodegradable.

### Packaging and Supporting Products

<i>Cat. No.</i>	<i>Packaging</i>	<i>Net Weight</i>		<i>Net Volume</i>		<i>Packaging Weight</i>	
<b>4050A-450G</b>	Aerosol	450 g	15.8 oz	535 mL	18 fl oz	5.9 kg <sup>a)</sup>	13 lb <sup>a)</sup>

a) Pack of 10

### 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](http://www.mgchemicals.com).

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

## Safety Wash II 4050A Technical Data Sheet

4050A-Aerosol

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### 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.