

## Description

The 435 *Thinner* is a super-fast drying thinner, low VOC solvent for use with the MG Chemical's conformal and EMI/RFI shielding coating products. It is designed to ensure good adherence to plastic substrates.

## Applications & Usages

This fast drying time of the 435 makes it a good choice for spray application of EMI/RFI shielding and conformal coatings that require low VOC and need quick drying times.

## Benefits and Features

- **Low VOC**
- **Fast evaporation rate**
- **Enhances adhesion to plastic substrates**
- **Highly miscible with other common organic solvents**
- **Compatible with most substrates used in electronic parts and enclosures**

**ATTENTION!** FOR INDUSTRIAL OR LABORATORY USE ONLY. NOT FOR RETAIL SALE IN CALIFORNIA, UTAH, AND NEW HAMPSHIRE.

## Principal Components

Name	CAS Number
acetone	67-64-1
1-methoxy-2-propanol acetate	108-65-6

## Properties

Physical Property	Method	Value
Color	Visual	Clear
Odor	—	Ketone, nail polish remover
Density @25 °C [77 °F]		0.80 g/mL
Viscosity @25 °C [77 °F]	Brookfield SP1	0.5 cP [0.0005 Pa·s]
Flash Point	Closed Cup	-17 °C [-1.4 °F]
Freezing Point		-94 °C [-70 °F]
Boiling Point		≥56 °C [≥133 °F]
Vapor Pressure @25 °C [77 °F]		>220 hPa [163 mmHg]
Relative Evap. Rate (BuAc = 1)		3.77
Volatile Organic Compound (VOC)		8% [64 g/mL]
MIR value		0.52 g O <sub>3</sub> / g of product

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<i>Solvation Parameters</i>		<i>Value</i>
Solubility in water		Highly soluble
Hansen Solubility Parameters <sup>a)</sup> (cal/cm <sup>3</sup> ) <sup>1/2</sup> ; [MPa] <sup>1/2</sup>	Total	9.7 [19.8]
	<i>Non-Polar</i>	7.3 [14.9]
	<i>Polar</i>	5.1 [10.3]
	<i>Hydrogen Bonding</i>	3.3 [6.8]

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

## Compatibility

**Substrate Compatibility:** The 435 Thinner is compatible with most substrate materials found on printed circuit assemblies. Its etching action can remove the need for surface preparation steps for plastics. The high solvent power can also cut through residual contaminants.

**ATTENTION!** Use with care on thin plastics or parts that are chemically sensitive. If this diluent is too active, dilute or substitute it with a diluent with less solvent power.

**Solvent Miscibility:** The 435 is highly miscible with other common organic solvent. It can be mixed with

- Water
- Alcohols
- Aldehydes
- Aromatic and Aliphatic Hydrocarbons
- Ethers
- Glycols
- Glycol Ethers
- Ketones

## Health, Safety, and Environmental Awareness

Please see the 435 **Safety Data Sheet** (SDS) for more details on transportation, storage, handling and other security guidelines.

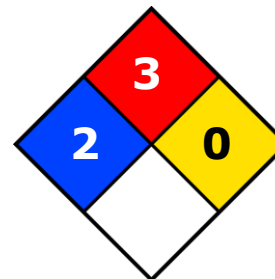
**Health and Safety:** This liquid is highly flammable and should be kept away from flames and other ignition sources. Avoid breathing in fumes or direct contact with the material.

**Environmental Impact:** The 435 has volatile organic content of 8% [64 g/L]. It is RoHS compliant.

## HMIS® RATING

<b>HEALTH:</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)

## Thinning Instructions

Make necessary adjustments according to your paint and spray gun equipment usage instructions. A 1.0 (paint):1.0 (thinner) dilution is a common starting point. If sagging is observed, reduce the thinner ratio.

**ATTENTION!** It is preferable to use this thinner system in a temperature controlled environment. Avoid high temperatures or humidity, which can lead to dry spray and blushing respectively.

## Packaging and Supporting Products

<i>Cat. No.</i>	<i>Packaging</i>	<i>Net Volume</i>		<i>Net Weight</i>		<i>Packaging Weight</i>	
<b>435-1L</b>	Can	945 mL	31.9 fl oz	758 g	1.67 lb	5.5 kg <sup>a)</sup>	11.5 lb <sup>a)</sup>
<b>435-4L</b>	Can	3.78 L	1 gal	3.03 kg	6.69 lb	3.8 kg	8.3 lb

Contact MG Chemicals if custom packaging or sizes are required

a) Pack of five bottles

## 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

# Thinner 435 Technical Data Sheet

435-Liquid

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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

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