

Description

The 4354 *Thinner 4* is a slower drying thinner for use with the MG Chemical's urethane and acrylic conformal products. The thinner has excellent solvent strength, making it a good oil and grease remover. It has very low water solubility, so it is unlikely to absorb water and create blush. Its drying speed is slow enough to promote excellent leveling, but it is fast enough to accommodate a reasonable assembly line speed.

Application

The 4354 makes is a good choice for spray application.

Features and Benefits

- **Blush Resistant**
- **Slow Evaporation Rate**
- **Good Leveling and Gloss**
- **Highly Miscible with Other Common Organic Solvents**
- Compatible with most substrates used in electronic parts and enclosures

Principal Components

| Name | CAS Number |
|------------------|-------------------|
| xylene (isomers) | 1330-20-7 |
| ethylbenzene | 100-41-4 |
| toluene | 108-83-3 |

Properties

| Physical Property | Method | Value |
|--------------------------------|----------------|-----------------------|
| Color | | Clear |
| Odor | — | sharp, aromatic |
| Density at 25°C [77 °F] | | 0.87 g/mL |
| Viscosity at 25°C [77 °F] | Brookfield SP1 | ~0.6 cP [0.0006 Pa·s] |
| Flash Point | Tag Closed Cup | 27 °C [81 °F] |
| Freezing Point | | Not established |
| Boiling Point | | 137 °C [279 °F] |
| Vapor Pressure at 25°C [77 °F] | | 2.6 kPa [19 mm of Hg] |
| Relative Evap. Rate (BuAc = 1) | | 0.60 |
| Volatile Organic Content (VOC) | | 100% [868 g/mL] |
| Product weighted MIR value | | 4.08 |

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| <i>Solvation Parameters</i> | | <i>Value</i> |
|--|-------------------------|--------------|
| Solubility in water | | insoluble |
| Hansen Solubility Parameters ^{a)} (cal/cm ³) ^{1/2} ; [MPa] ^{1/2} | Total | 8.8 [17.9] |
| | <i>Non-Polar</i> | 8.6 [17.7] |
| | <i>Polar</i> | 0.5 [1.0] |
| | <i>Hydrogen Bonding</i> | 1.3 [2.6] |

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

Compatibility

Substrate Compatibility: The 4354 *Thinner 4* is compatible with most substrate materials found on printed circuit assemblies.

Solvent Miscibility: The 4354 is highly miscible with other common organic solvent. It can be mixed with

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

Health, Safety, and Environmental Awareness

Please see the 4354 **Material Safety Data Sheet** (MSDS) for more details on transportation, storage, handling and other security guidelines.

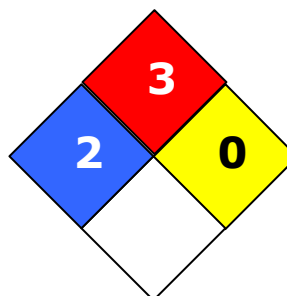
Health and Safety: This liquid is highly flammable and should be kept away from flames and other ignition sources. It can cause drowsiness and dizziness, and may cause central nervous system damage for prolonged and repeated high exposure. Avoid exposure during pregnancy because it is suspected of being reproductively toxic.

Use only outdoors or in well ventilated area. In cases of inadequate ventilation wear respiratory protection. 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)



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

Thinner 4 4354 Technical Data Sheet

4354

Environmental Impact: The 4354 has volatile organic content of 100% (w/w) [or 883 g/L]. The mixture components are classified as a hazardous air pollutants. It is RoHS compliant.

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.

Packaging and Supporting Products

| <i>Cat. No.</i> | <i>Form</i> | <i>Net Volume</i> | <i>Net Weight</i> | <i>Shipping Weight</i> |
|-----------------|-------------|-------------------|-------------------|-----------------------------------|
| 4354-1L | Liquid | 950 mL 32 fl oz | 0.82 kg 1.8 lb | 5.5 kg 11.5 lb (×5) ^{a)} |
| 4354-4L | Liquid | 3.8 L 1 gal | 3.31 kg 7.3 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.

Email: support@mgchemicals.com

Phone: 1-800-340-0772 Ext. 30 (Canada, Mexico & USA)
1-905-331-1396 Ext. 30 (International)

Fax: 1-905-331-2862 or 1-800-340-0773

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Burlington, Ontario, Canada
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9347-193rd Street
Surrey, British Columbia, Canada
V4N 4E7

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.

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