## Description

The 434 *Acetone* is a super-fast drying, VOC-exempt, and zero residue solvent.

It is very useful for 3D printing because it can be used to improve adherence of the ABS plastic to the printing bed. The acetone vapors can also be used to smooth the surface of finished 3D printed pieces.

It can be used as a diluent to meet VOC regulations or to clean hard to clean organic residues.

This fast drying time of the 434 makes is a good choice for spray application that require low VOC and quicker drying times.

## Features and Benefits

- **Enhances Adhesion to the Print Bed for 3D Printing**
- **Smooth Finishing of 3D Printed Pieces**
- **Highly Miscible with Other Common Organic Solvents**
- **Fast Evaporation Rate**
- **VOC Exempt**

## Principal Components

| **Name** | ***CAS Number*** |
|---|---|
| acetone | *67-64-1* |

## Properties

| ***Physical Property*** | ***Method*** | ***Value*** |
|---|---|---|
| Color<br>Odor<br>Other Threshold | —<br> | Clear<br>Ketone, nail polish remover<br>62 ppm |
| Density at 25°C [77 °F]<br>Viscosity at 25°C [77 °F]<br>Flash Point | <br>Brookfield SP1<br>Closed Cup | 0.79 g/mL<br>0.5 cP [0.0005 Pa·s]<br>-17 °C [1.4 °F] |
| Freezing Point<br>Boiling Point<br>Vapor Pressure at 25°C [77 °F] | Tag closed cup | -94 °C [-70 °F]<br>56 °C [133 °F]<br>24.3 kPa [182 mm of Hg] |
| Relative Evap. Rate (BuAc = 1)<br>Volatile Organic Content (VOC)<br><br>MIR value | | 6.3<br>VOC-Exempt<br><br>0.43 g $O_3$/ g of product |

*Continued on the next page*

| ***Solvation Parameters*** | ***Values*** | |
|---|---|---|
| Solubility in water | Highly soluble | |
| Hansen Solubility Parameters [a)] | $(cal/cm^3)^{½}$ | $[MPa]^{½}$ |
| *Non-Polar* | 7.6 | 15.6 |
| *Polar* | 5.1 | 10.3 |
| *Hydrogen Bonding* | 3.3 | 6.8 |
| Total | 9.8 | 20.1 |

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

## Compatibility

***Substrate Compatibility:*** Active on plastics. 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 diluents is too active, dilute or substitute it with a diluents with less solvent power.

***Solvent Miscibility:*** The 434 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

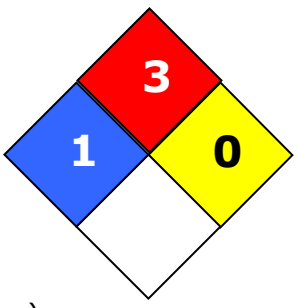
Please see the 434 **Safety Data Sheet** (SDS) for more details on transportation, storage, handling and other security guidelines.

***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:** | **1** |
| **FLAMMABILITY:** | **4** |
| **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:*** The 435 has is a VOC-exempt solvent in the USA and Canada. 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.

**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

| *Cat. No.* | *Form* | *Net Volume* | | *Net Weight* | | *Shipping Weight* | |
|---|---|---|---|---|---|---|---|
| **434-1L** | Liquid | 945 mL | 32 fl oz | 750 g | 1.7 lb | 5.5 kg | 11.5 lb (×5) [a)] |
| **434-4L** | Liquid | 3.78 L | 1 gal | 3.0 kg | 6.6 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.

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## Warranty

*M.G. Chemicals Ltd.* warranties 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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