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With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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8333

## **Description**

The 8333 Super Glue, Liquid is a quick curing, solventless, medium viscosity cyanoacrylate adhesive.

## **Applications & Usages**

Its primary application is to bond parts together without the need for heat or pressure. This adhesive is well suited to bond rubber to rubber, plastic to plastic, rubber to metal, and plastic to metal applications.

This adhesive is not intended as a structural adhesive to join load bearing structures.

### **Benefits and Features**

- Mil-Spec-46050C: Adhesive Type II, Class 2
- Bonds a wide variety of substrates
- Handling time of only 10 seconds
- · Strong chemical resistance

#### **ENVIRONMENT**

✓ RoHS

✓ REACH compliant

### **Usage Parameters**

Properties	Value
Typical Handling Time a)	10 s
Service Cure a) @22 °C [72 °F]	>24 h
Cure Type	Humidity
Shelf Life	2 y

a) Assumes 50% relative humidity. The fixture and cure time depend on the humidity, the type of material being bonded, bond gap, and temperature.

### **Temperature Ranges**

Value
-55 to 80 °C [-67 to 176 °F]
5 to 22 °C [41 to 72 °F]

## **Principal Components**

Name

Ethyl-2-cyanoacrylate

CAS Number

7085-85-0

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## **Properties of Cured 8333**

Physical Properties	Method	Value		
Color Density @25 °C [79 °C]	Visual	Clear 1.05 g/cm <sup>3</sup>		
Lap Shear Strength  (Stainless Steel) (Aluminum) (ABS) (PVC) (Polycarbonate) (Phenolic Rubber) (Neoprene)  Butt Joints Tensile Strength (Stainless Steel)	ISO 4587 b) <20 s fixture time <15 s fixture time <10 s fixture time <5 s fixture time <30 s fixture time <10 s fixture time <10 s fixture time <5 s fixture time ISO 6922	>14.5 N/mm <sup>2</sup> [>2 100 lb/in <sup>2</sup> ] >12.1 N/mm <sup>2</sup> [>1 750 lb/in <sup>2</sup> ] >6.2 N/mm <sup>2</sup> [>900 lb/in <sup>2</sup> ] >5.2 N/mm <sup>2</sup> [>750 lb/in <sup>2</sup> ] >12.4 N/mm <sup>2</sup> [>1 800 lb/in <sup>2</sup> ]		
Electric Properties	Method	Value		
Volume Resistivity	ASTM D 257	≥2 × 10 <sup>15</sup> Ω·cm		
Dielectric Dissipation & Constant Dissipation & Constant @1 kHz	ASTM D 150-98	dissipation, D constant, k' 0.02 2 to 3.5		

*Note:* Specifications are for sample cured at 50% relative humidity for at least 24 hours.

## **Storage**

Store between 5 to 22 °C [41 and 72 °F] in dry area away from sunlight.

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a)  $N/mm^2 = MPa$ ;  $Ib/in^2 = psi$ 

b) The fixture time is the time required to develop a shear strength of 0.1 N/mm<sup>2</sup>. This corresponds to the strength at which the parts may no longer be moved independently.

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## Compatibility

**Adhesion**—As seen in the substrate adhesion table, the 8333 adheres to a wide variety of materials.

### **Materials Subject to Bonding**

Natural	Plastics/Polymers	Ceramics	Metals
Latex	ABS	Porcelain	Aluminum
Leather	Acrylic		Brass
Paper, Fiber	Bakelite		Chrome
Fabric	EPDM		Copper
Rubber	Fiberglass		Steel
Wood	NBR (nitrile rubber)		
	Neoprene		
	Nitrile		
	Phenolic		
	Polybutylene Terephthalate		
	Polycarbonate		
	Polyester		
	PVC		
	Styrene-Butadiene rubber		

*Note:* The MG 8333 Super Glue is not compatible with contaminants like oil, and greases that may affect adhesion. If contamination is present, clean the surface with a suitable cleaner such as MG Chemicals 4050 Safety Wash, 406B Superwash, or 824 Isopropyl Alcohol.

**Chemical Resistance**—To test the chemical resistance, the adhesive was aged in various chemicals and the strength of the adhesive bond was compared to that of control specimens.

### Retained Adhesive Strength and After Chemical/Solvent Exposure

Chemical/Solvent	Conditions/Temperature (°C)	Exposure Duration (hour)	Percent of Initial Strength	
Gasoline	22 °C	500	100%	
Isopropanol	22 °C	500	100%	
Ethanol	22 °C	500	100%	
Freon	22 °C	500	100%	
Motor Oil	40 °C	500	100%	
Polycarbonate	40 °C @95% RH	500	100%	
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## Health, Safety, and Environmental Awareness

Please see the 8333 **Safety Data Sheet** (SDS) for details on transportation, storage, handling and other security guidelines.

Health and Safety: DANGER: Hazardous Adhesive

Do not get in eyes, on skin, or clothing. Do not breathe vapor. Use with adequate ventilation. Do not use near sparks, heat, or open flames. Contact will result in rapid bonding of tissues and may bond skin-to-skin or to other materials. The cured adhesive presents no known hazard.

#### **HMIS® RATING**

HEALTH:	* 2
FLAMMABILITY:	2
PHYSICAL HAZARD:	1
PERSONAL PROTECTION:	

NFPA® 704 CODES



Approximate HMIS and NFPA Risk Ratings Legend:

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

## **Application Instructions**

Follow the procedure below for best results.

#### To bond surfaces

- 1. Clean the surface to be bonded and let dry.
- 2. Remove cap.
- 3. Apply the adhesive directly on the surface and immediately hold the surface together for at least 25 seconds or until the adhesive bond has become fixtured (when the bond is strong enough to allow handling without compromising long term strength).

ATTTENTION! The fixture time depends on the humidity level. On low humidity days, the adhesive takes longer to set.

**NOTE:** Promptly recap the syringe after use to prevent the adhesive curing at the syringe tip.

TIP: Wiping the surface to be bonded with a damp cloth prior to application can promote bonding.

To remove the 8333 adhesive, you can use acetone.

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## **Packaging and Supporting Products**

Cat. No.	Packaging	Net Volume		Net Weight		Shipping Weight	
8333-3G	Bottle	3 mL	0.10 fl oz	3.12 g		0.36 kg <sup>a)</sup>	0.79 lb
8333-20G	Bottle	19 mL	0.65 fl oz	20 g		0.42 kg <sup>b)</sup>	0.93 lb

a) Pack of twenty four

b) Pack of ten

## **Technical Support**

Contact us regarding any questions, improvement suggestions, or problems with this product. Application notes, instructions, and FAQs are located at <a href="https://www.mgchemicals.com">www.mgchemicals.com</a>.

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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**

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.

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