

## EPOXY CEMENTS (Cont.)

### GC Electronic Grade Self Leveling Potting Silicone Sealant



Electronic Grade Self Leveling Silicone is a one-component, RTV (room temperature vulcanizing) product that uses new cross-linking mechanism as a cure method. No acetic or other corrosive by-products are generated during the curing process. It can be used in corrosion sensitive electrical or electronic equipment with no adverse effect and cures at room temperature.

**Temperature Range (after cure):** -57°C to +204°C (-70°F to +400°F)  
**Dielectric Strength:** 452 V/mil (173 KV/cm)  
**Thermal Expansion Coefficient:**  $9 \times 10^{-4}$  1/K  
**0°C to 100°C (32°F to 212°F)**  
**Volume Resistivity:**  $>2.19 \times 10^{15}$  Ohm/cm

**Part No. 19-160** 10.2 fl. oz. Caulk Tube, Clear

### Thermally Conductive Potting Epoxy and Adhesive



Part A



Part B

This potting Epoxy and adhesive is a highly filled medium viscosity black casting resin formulated for application requiring a high degree of thermal conductivity. Mix ratio 1:1. It contains abrasive aluminum oxide filler which can introduce wear considerations. Cure is normally achieved at room temperature, although an elevated cure schedule can be used to reach final properties quickly.

**Temperature Range:** -40°C to 150°C (40°F to 300°F)  
**Dielectric Strength:** 430 V/mil  
**Thermal Conductivity:** 7.34 (Btu \* in/ft<sup>2</sup> hr °F)  
**Thermal Expansion Coefficient:**  $44 \times 10^{-6}$  °C  
**Volume Resistivity:**  $2.14 \times 10^{12}$  Ohm/cm

**Part No. 19-161** 2-4 oz. Containers

## CYANOACRYLATE ADHESIVES & DEBONDERS

"Instant bonding" cyanoacrylate adhesives cure in seconds, do not depend on evaporation of solvents and require no clamping. They are colorless and moisture resistant. They are ideal for bonding metals, plastics, rubber, glass and ceramics to each other or to dissimilar materials. Bonding strength up to several thousand psi is possible making them among the strongest adhesives available. These adhesives are economical, as only a drop is required. The best type should be determined by experimentation. Use them to repair broken plastic cabinets and other plastic items, attaching nameplates and rubber feet to panels and chassis, cementing broken ceramic glass and rubber items, repairing jewelry, etc. Porous surfaces may be bonded with Gelweld No. 19-0117. The average setting time is between 10 and 100 seconds, after which the cemented articles can be handled. These adhesives may even be used to bond surfaces which are normally difficult to cement, such as teflon, polyethylene, vinyl, silicone rubber and glass.

### GR-R-RIP



World famous Ethyl Cyanoacrylate rapid bonding adhesive in gravity fed bottle. Bond strength not affected by temperatures from -60°C to 85°C (-76°F to 185°F).

**Part No. 19-115** 0.106 fl. oz. Bottle

### GC Super Adhesive

Ethyl Cyanoacrylate Adhesive



Forms strong, lasting bonds in seconds between either similar or dissimilar materials metal, porcelain, plastic, glass, most rubbers, hardwoods, and other non-porous materials with smooth, close-fitting surfaces. The bond resists softening at temperatures up to 320°F (160°C). Your most versatile adhesive for bonding, attaching, fixturing. Cures to a strength of 5000 psi; because it is solvent-free, there is no shrinking during curing and no solvent fumes. Fills gaps to .003".

Meets Mil. Spec. MIL-A-46050C Type I Class 2.

**Part No. 10-128** 1 fl. oz. Bottle

### GC Super Glue Regular Formula

Ethyl Cyanoacrylate Adhesive



Medium viscosity formula for efficient wicking action, faster curing time. Excellent for bonding any combination of plastic, rubber or metal parts. This grade is ideal for small or fine work on non-porous, smooth surfaces. It fills gaps of .003-.005". Highly resistant to acid, alkali, alkali water, solvents and fungus. Non-toxic.

Meets Mil. spec. MIL-A-46050B Type 1 Class 2.

**Part No. 10-120** 0.075 fl. oz. Tube

### GELWELD

GEL Cyanoacrylate Adhesive



Ethyl Cyanoacrylate super strength adhesive in a "gel" form - will not drip or run. Fills gaps well.

**Part No. 19-117** 0.101 fl. oz. Tube

**MATERIAL SAFETY DATA SHEET**

Complies with OSHA Hazard Communication Standard 29 CFR 1910.1200

Product Type: Cyanoacrylate Adhesive  
 Product Name: **GR-R-RIP**  
 Part Number(s): **19-115**

**Section 1 - Identification of Product**

HMIS Rating:	Least	0
	Slight	1
Health 2	Moderate	2
Flammability 2	High	3
Reactivity 2	Extreme	4
Personal Protection C	See Section 8 for details	

Manufacturer's Material Safety Data Sheet  
 Trade Name: Brush-on Liquid

**Section 2 - Hazardous Ingredients**

Hazardous Ingredient	CAS#	% by Weight	Exposure Limits
Ethyl 2-cyanoacrylate	7085-85-0	95-99	TWA: 0.2 (ppm) from ACGIH (TLV) TWA: 1 (mg/m <sup>3</sup> ) from ACGIH (TLV)

**Section 3 - Physical Data**

Physical State and Appearance:	Liquid. (Transparent Liquid)	Odor: Acrid Taste: Not available Color: Clear Transparent. (Light)
Molecular Weight:	Mixture	
Molecular Formula:	Mixture	
pH (1% Soln/Water):	Basic	
Boiling/Condensation Point:	>190°C (374°F)	
Melting/Freezing Point:	Not available	
Critical Temperature:	Not available	
Specific Gravity:	1.05 (Water = 1)	
Vapor Pressure:	The highest known value is 0.3mm of Hg (@ 20°C) (Ethyl 2-cyanoacrylate)	
Vapor Density:	The highest known value is >1 (Air = 1) (Ethyl 2-cyanoacrylate)	
Volatility:	Not available	
Odor Threshold:	Not available	

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Vapor Density:	The highest known value is >1 (Air = 1) (Ethyl 2-cyanoacrylate)	
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Odor Threshold:	Not available	

Evaporation Rate:	Not available
VOC:	1%
Viscosity:	Dynamic: 45cP
LogK	Not available
Ionicity (in Water):	Not applicable
Dispersion Properties:	Is not dispersed in cold water, hot water
Solubility:	Insoluble in cold water
Physical Chemical Comments:	Insoluble in water

#### Section 4 - Fire & Explosion Hazard Data

Flammability of the Product:	Combustible
Auto-ignition Temperature:	Not available
Flash Points:	The lowest known value is CLOSED CUP: 79°C (174.2°F), (Ethyl 2-cyanoacrylate)
Flammable Limits:	Not available
Products of Combustion:	Not available
Fire Hazards in Presence of Various Substances:	Not available
Explosion Hazards in Presence Of Various Substances:	None known
Fire Fighting Media and Instructions:	SMALL FIRE: Use DRY chemical powder LARGE FIRE: Use water spray, fog or foam. Do not use water jet.
Protective Clothing (Fire):	Vapor respirator or a self contained breathing apparatus
Special Remarks on Fire Hazards:	No additional remark
Special Remarks on Explosion Hazards:	No additional remark

#### Section 5 - Health Hazard Data

Routes of Entry:	Inhalation
Potential Acute Health Effects	
Eyes:	Slightly hazardous in case of eye contact (irritant)
Skin:	Bonds skin instantly
Inhalation:	Concentrated vapors are hazardous if inhaled
Ingestion:	No known hazard
Potential Chronic Health Effects:	Repeated use may result in irritation of mucous membrane and upper respiratory tract
Medical Conditions Aggravated By Overexposure:	Repeated or prolonged exposure is not known to aggravate any medical condition.
Overexposure Signs/Symptoms:	Side effects are asthma, bronchitis & other chronic lung conditions/upper respiratory tract irritant.