CHEMICALS

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:	9×10^4 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

Part A

Part B

Thermally Conductive Potting Epoxy and Adhesive

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 ^{2} hr °F)
Thermal Expansion Coefficient:	44 (x 10^6 °C)
Volume Resistivity:	2.14×10^{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

All quantities are single; BU's are packages of 10 Unless otherwise noted.

MATERIAL SAFETY DATA SHEET

Complies with OSHA Hazard Communication Standard 29 CFR 1910.1200

Product Type: Adhesive
Product Name: **Ethyl Cyanoacrylate**
Part Number(s): **19-117**

Section 1 - Identification of Product

Product Name: RP, SI, FS, HT, MG Series
Product Type: Ethyl-2-Cyanoacrylate Ester
Molecular Formula: C6H7NO2

HMIS RATINGS		NFPA			
				Least	0
				Slight	1
Health:	2	Health:	2	Moderate	2
Flammability:	2	Fire Hazard:	2	High	3
Reactivity	2	Reactivity:	2	Extreme	4
				Gloves, Safety Glasses	B

Section 2 - Hazardous Ingredients

			Exposure Limits (TWA)		
Hazardous Components	Cas #	% Wt	ACGIH (TLV)	OSHA (PEL)	Other
Ethyl-2-Cyanoacrylate	7085-85-0	86-99.9	0.2ppm (TWA)	N/A	0.3ppm (STEL)

Section 3 - Physical Data

Form:	Liquid
Color::	Water White/Straw Colored
Odor:	Sharp, irritating
Boiling Point:	>100°C
Vapor Pressure:	<0.5mm Hg
Specific Gravity @ 25°C	1.1
VOC:	81.6% (EPA METHOD 24)
Solubility in Water:	Immiscible in water
Flash Point:	>81°C

Section 4 - Fire & Explosion Hazard Data

Flash Point:	150 - 200°F (>81°C) (method TCC)
Extinguishing Media:	Carbon dioxide, foam, dry chemical, water spray

Special Fire Fighting Procedures:	Wear self-contained breathing apparatus
Hazardous Products Formed by Fire or Thermal Decomp:	Irritating organic vapors may be formed
Unusual Fire or Explosion Hazards:	No applicable information found
Explosive Limits:	
(% by volume in air) Lower	Not available
(% by volume in air) Upper	Not available

Section 5 - Health Hazard Data

Label Precautionary Statements:	Irritant. Irritating to eyes, skin and respiratory system. Cyanoacrylate. Danger. Bonds skin and eyes in seconds.
Primary Route(s) of Entry:	None known
Toxicity:	Skin contact may cause burns Bonds skin rapidly Skin and eye irritant Estimated oral LD 50 more than 5,000 mg/kg Estimated dermal LD 50 more than 2,000 mg/kg
Symptoms of Exposure:	Vapors is irritating to mucous membranes when above TLV. Prolonged and repeated overexposure to vapors may produce allergic reactions with asthma like symptoms in sensitive individuals.
Existing conditions aggravated by exposure:	None known

Ethyl Cyanoacrylate is not listed as a carcinogen in the US National Toxicology Program Annual report on carcinogens, or by the International Agency for Research on Cancer.

Target Organs and Other Health Effects:

		Carcinogens		
		NTP	IARC	OSHA
Ethyl Cyanoacrylate:	Allergen, irritant, respiratory	No	No	No
Poly (methyl methacrylate):	Irritant	No	N/A	No
Hydroquinone	ACGIH animal carcinogen, blood, Bone marrow, central nervous system, eye, immune system, irritant, liver, skin, mutagen, thyroid.	No	N/A	No

First Aid Measures and Personal Protection:	
Ingestion:	Ingestion is not likely due to polymerization.
Inhalation:	Remove to fresh air. If symptoms persist, obtain medical attention.
Skin Contact:	Soak in warm soapy water.
Eye Contact:	Flush with water. Seek medical attention.
Personal Protection:	
Eye:	Chemical safety glasses or goggles
Skin:	Polyethylene gloves and/or aprons. DO NOT use cotton/cloth type gloves.