

LOCTITE CORPORATION

09/11/96

ROCKY HILL, CONNECTICUT 06067  
EMERGENCY PHONE: (860) 571-5100

MATERIAL SAFETY DATA SHEET

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Super Bonder(R) Super Glue  
49411

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Super Bonder(R) Super Glue  
Item No.: 49411  
Part No.: 49411  
Product Type: Cyanoacrylate Ester Adhesive

## 2. COMPOSITION, INFORMATION ON INGREDIENTS

Ingredients	CAS No.	%
Ethyl cyanoacrylate	7085-85-0	95-100
Poly (methyl methacrylate)	9011-14-7	3-5
HYDROQUINONE	123-31-9	0.1-0.5

## Ingredients which have exposure limits

Exposure Limits (TWA) Ingredients	ACGIH (TLV)	OSHA (PEL)	OTHER
Ethyl cyanoacrylate	None	None	2 ppm TWA
HYDROQUINONE	2 mg/m <sup>3</sup> TWA	2 mg/m <sup>3</sup> TWA	2 mg/m <sup>3</sup> TWA
		4 mg/m <sup>3</sup> STEL	

Exposure Limits (STEL) Ingredients	ACGIH (TLV)	OSHA (PEL)
Ethyl cyanoacrylate	(4 ppm) (18 mg/m <sup>3</sup> )	(4 ppm) (16 mg/m <sup>3</sup> )

### 3. HAZARDS IDENTIFICATION

**Toxicity:** Skin contact may cause burns.  
 Bonds skin rapidly and strongly.  
 Skin and eye irritant.  
 Estimated oral LD50 more than 5000mg/kg.  
 Estimated dermal LD 50 more than 2000 mg/kg.

**Primary Routes of Entry:** None known

**Signs and symptoms of Exposure:** Vapor is irritating to eyes and mucous membranes above TLV. Prolonged and repeated overexposure to vapors may produce symptoms of non-allergic asthma in sensitive individuals.

**Existing Conditions Aggravated by Exposure:** None known

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### 3. HAZARDS IDENTIFICATION (continued)

Ingredients	Literature Referenced	Carcinogen	
	Target Organ and Other Health Effects	NTP	IARC OSHA
Ethyl cyanoacrylate	ALG IRR RES	NO	NO NO
Poly (methyl methacrylate)	IRR	NO	N/A NO
HYDROQUINONE	BLO BNM CNS EYE IMM IRR MUT SKI NO	N/A	NO

## Abbreviations

N/A Not Applicable	ALG Allergen
BLO Blood	BNM Bone Marrow
CNS Central nervous system	EYE Eyes
IMM Immune system	IRR Irritant
MUT Mutagen	RES Respiratory
SKI Skin	

## 4. FIRST AID MEASURES

- Ingestion: Ingestion is not likely. See supplemental page for emergency procedures.
- Inhalation: Remove to fresh air. If symptoms persist, obtain medical attention.
- Skin Contact: Soak in warm water. See supplemental page for emergency procedures.
- Eye Contact: Flush with water. See supplemental page for emergency procedures.

## 5. FIRE FIGHTING MEASURES

- Flash Point: 150-200°F Method: Tag Closed Cup
- Recommended Extinguishing Agents: Carbon dioxide, Foam, Dry Chemical
- Hazardous Products formed by Fire or Thermal Decomp Irritating organic fragments
- Unusual Fire or Explosion Hazards: None

- Explosive Limits:  
(% by volume in air)Lower Not Applicable  
(% by volume in air)Upper Not Applicable

## 6. ACCIDENTAL RELEASE MEASURES

- Steps to be taken in case of spill or leak: Flood with water to polymerize. Soak up with an inert absorbent.

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## 7. HANDLING AND STORAGE

Safe Storage: Store below 75 deg. F.  
(Contact Loctite Customer Service 1-800-243-4874 for shelf Life information)  
Handling: Avoid contact with skin and eyes. Avoid breathing vapors.

## 8. EXPOSURE CONTROLS, PERSONAL PROTECTION

Eyes: Safety glasses or goggles mandatory.  
Skin: Nitrile or polyethylene gloves and aprons.  
Do not use cotton.  
See supplemental page for additional information.  
Ventilation: Positive down-draft exhaust ventilation should be provided to maintain vapor concentration below TLV.  
  
See Section 2 for Exposure Limits.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear liquid  
Odor: Sharp, irritating  
Boiling Point: More than 300°F  
pH: Not Applicable  
Solubility in Water: Polymerized  
Specific Gravity: 1.05 at 75°F  
Volatile Organic Compound  
(EPA Method 24) 94.0%; 987 g/l

Vapor Pressure: Less than 0.2mm at 75°F  
Vapor Density: Approximately 3  
Evaporation Rate  
(Ether = 1) Not available

## 10. STABILITY AND REACTIVITY

Stability: Stable  
Hazardous Polymerization: Will not occur  
Incompatibility: Polymerized by contact with water, alcohols,  
amines, alkalies.  
Hazardous Decomposition  
Products (non-thermal): None

## 11. TOXICOLOGICAL INFORMATION

See Section 3.

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## 12. ECOLOGICAL INFORMATION

No data available

## 13. DISPOSAL CONSIDERATIONS

Recommended methods of

disposal: Polymerize as above.

Incinerate following EPA and local regulations.

EPA Hazardous Waste

Number NH - Not a RCRA Hazardous Waste Material

14. TRANSPORT INFORMATION

DOT (49 CFR 172)

Domestic Ground Transport

Proper Shipping Name: Unrestricted (Not more than 450 liters);

Combustible liquids, n.o.s. (Cyanoacrylate ester)

(More than 450 liters)

Hazard Class or

Division: Unrestricted (Not more than 450 liters)

Combustible liquid (More than 450 liters)

Identification Number: None (Not more than 450 liters);

NA 1993 (More than 450 liters)

Marine Pollutant: None

IATA

Proper Shipping Name: Unrestricted (Not more than one pint);

Other regulated substances (More than one pint)

Class or Division: Unrestricted (Not more than one pint);

Class 9 (More than one pint)

UN or ID Number: None (Not more than one pint)

ID 8027 (More than one pint)

15. REGULATORY INFORMATION

CA Proposition 65: No Prop65 chemicals are known to be present.

16. OTHER INFORMATION

Estimated NFPA(R) Code:

Health Hazard: 2

Fire Hazard: 2

Reactivity Hazard: 2

Specific Hazard: No water

Estimated HMIS(R) Code:

Health Hazard: 2

Flammability Hazard: 2

Reactivity Hazards: 2

Personal Protection: See Section 8.

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16. OTHER INFORMATION

(continued)

NFPA is a registered trademark of the National Fire Protection Assn.

HMIS is a registered trademark of the National Paint and Coatings Assn.

Prepared By: Stephen Repetto  
Title: Research Chemist, Environmental Health & Safety  
Company: Loctite Corp., 1001 Tr Br Cr, Rocky Hill CT 06067  
(24hr.) Phone: (860) 571-5100  
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INFORMATION FOR FIRST AID AND CASUALTY ON TREATMENT FOR ADHESION OF



## HUMAN SKIN TO ITSELF IF CAUSED BY CYANOACRYLATE ADHESIVES

Cyanoacrylate adhesive is a very fast setting and strong adhesive. It bonds human tissue including skin in seconds. Experience has shown that accidents due to cyanoacrylates are handled best by passive, nonsurgical first aid. Treatment of specific types of accidents are given below.

### SKIN CONTACT

Remove excess adhesive. Soak in warm, soapy water. The adhesive will come loose from the skin in several hours. Cured adhesive does not present a health hazard even when bonded to the skin.

Avoid contact with clothes, fabrics, rags, or tissue. Contact with these materials may cause polymerization. The polymerization of large amounts of adhesive will generate heat causing smoke, skin burns, and strong, irritating vapors. Wear nitrile or polyethylene gloves and apron when handling large amounts of adhesive.

### SKIN ADHESION

First immerse the bonded surfaces in warm, soapy water. Peel or roll the surfaces apart with the aid of a blunt edge, e.g. a spatula or a teaspoon handle; then remove adhesive from the skin with soap and water. Do not try to pull surfaces apart with a direct opposing action.

### EYELID TO EYELID OR EYEBALL ADHESION

In the event that eyelids are stuck together or bonded to the eyeball, wash thoroughly with warm water and apply a gauze patch. The eye will open without further action, typically in 1-4 days. There will be no residual damage. Do not try to open the eyes by manipulation.

### ADHESIVE ON THE EYEBALL

Cyanoacrylate introduced into the eyes will attach itself to the eye protein and will disassociate from it over intermittent periods, generally covering several hours. This will cause periods of weeping until clearance is achieved. During the period of contamination, double vision may be experienced together with a lachrymatory effect, and it is important to understand the cause and realize that disassociation will normally occur within a matter of hours, even with gross contamination.

## MOUTH

If lips are accidentally stuck together, apply lots of warm water to the lips and encourage maximum wetting and pressure from saliva inside the mouth. Peel or roll lips apart. Do not try to pull the lips

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with direct opposing action.

It is almost impossible to swallow cyanoacrylate. The adhesive solidifies and adheres in the mouth. Saliva will lift the adhesive in one half to two days. In case a lump forms in the mouth, position the patient to prevent ingestion of the lump when it detaches.

## BURNS

Cyanoacrylates give off heat on solidification. In rare cases a large drop will increase in temperature enough to cause a burn.

Burns should be treated normally after the lump of cyanoacrylate is released from the tissue as described above.

## SURGERY

It should never be necessary to use such a drastic method to separate accidentally bonded skin.

