

REC'D MAY 18 2000

MATERIAL SAFETY DATA SHEET

ADH00022  
KIT07404

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Loctite(R) 480 Prism(R) Instant Adhesive  
Black Toughened  
Item No.: 48040  
Product Type: Cyanoacrylate ester

2. COMPOSITION, INFORMATION ON INGREDIENTS

Ingredients	CAS No.	%
Ethyl cyanoacrylate	7085-85-0	85-90
Ethylene copolymer rubber	54545-50-5	5-10
CARBON BLACK	1333-86-4	1-3
PTHALIC ANHYDRIDE*	85-44-9	0.1-1
HYDROQUINONE	123-31-9	0.1-0.5

\* This component is listed as a SARA Section 313 Toxic Chemical.

Ingredients which have exposure limits

Exposure Limits (TWA) Ingredients	ACGIH (TLV)	OSHA (PEL)	OTHER
Ethyl cyanoacrylate	0.2 ppm TWA	None	None
CARBON BLACK	3.5 mg/m3 TWA	3.5 mg/m3 TWA	5ppm
PTHALIC ANHYDRIDE	1 ppm TWA	1 ppm TWA	None
	6.1 mg/m3	6 mg/m3	
HYDROQUINONE	2 mg/m3 TWA	2 mg/m3 TWA	2 mg/m3 TWA 4 mg/m3 STEL

Exposure Limits (STEL) Ingredients	ACGIH (TLV)	OSHA (PEL)

3. HAZARDS IDENTIFICATION

Toxicity: Skin contact may cause burns.  
Bonds skin rapidly and strongly.  
Skin and eye irritant.

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

Ingredients	Literature Referenced Target Organ and Other Health Effects	Carcinogen NTP IARC OSHA
Ethyl cyanoacrylate	ALG IRR RES	NO NO NO
Ethylene copolymer rubber	No Data	NO NO NO
CARBON BLACK	RES	NO 2B NO
PTHALIC ANHYDRIDE	ALG COR IRR RES	NO NO NO
HYDROQUINONE	AC3 BLO BNM CNS EYE IMM IRR LIV NO MUT SKI THY	N/A NO

Abbreviations

N/A Not Applicable	2B Possibly carcinogenic to humans
AC3 ACGIH animal carcinogen.	ALG Allergen
BLO Blood	BNM Bone Marrow
CNS Central nervous system	COR Corrosive
EYE Eyes	IMM Immune system
IRR Irritant	LIV Liver
MUT Mutagen	RES Respiratory
SKI Skin	THY Thyroid

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.

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LOCTITE CORPORATION

1001 TROUT BROOK CROSSING  
ROCKY HILL, CT 06067-3910  
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ISSUED 5/12/00  
43:52  
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5. FIRE FIGHTING MEASURES

Flash Point: 150-200°F Method: Tag Closed Cup  
Recommended Extinguishing Agents: Carbon dioxide, foam, dry chemical  
Special Firefighting Procedures: Not available  
Hazardous Products formed by Fire or Thermal Decomp: Irritating organic vapors  
Unusual Fire or Explosion Hazards: None  
Explosive Limits:  
(% by volume in air) Lower Not available  
(% by volume in air) Upper Not available

6. ACCIDENTAL RELEASE MEASURES

Steps to be taken in case of spill or leak: Flood with water to polymerize completely. Solid polymer is non hazardous.

7. HANDLING AND STORAGE

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

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

Eyes: Safety glasses or goggles.  
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  
Respiratory: Not available  
See Section 2 for Exposure Limits.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Viscous, black liquid  
Odor: Sharp, irritating  
Boiling Point: More than 300°F  
pH: Does not apply  
Solubility in Water: Polymerized by water  
Specific Gravity: 1.1  
Volatile Organic Compound (EPA Method 24): Not available  
Vapor Pressure: Less than 0.2mm  
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, or alkalis.  
Conditions to Avoid: Not available  
Hazardous Decomposition Products (non-thermal): None

11. TOXICOLOGICAL INFORMATION

Estimated oral LD50 more than 5000 mg/kg.  
Estimated dermal LD50 more than 2000 mg/kg.

12. ECOLOGICAL INFORMATION

No data available

13. DISPOSAL CONSIDERATIONS

Recommended methods of disposal: Polymerize as above. Incinerate in accordance with EPA and local regulations.

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EPA Hazardous Waste Number: NH - Not a RCRA Hazardous Waste Material

14. TRANSPORTATION 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);  
Aviation regulated liquid, n.o.s., (Cyanoacrylate  
Ester) (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 California Proposition 65 chemicals are known  
to be present.

16. OTHER INFORMATION

Estimated NFPA(R) Code:

Health Hazard:

2

Fire Hazard:

2

Reactivity Hazard:

1

Specific Hazard:

Does not apply

Estimated HMIS(R) Code:

Health Hazard:

2\*

Flammability Hazard:

2

Reactivity Hazards:

1

Personal Protection:

See Section 8.

NFPA is a registered  
HMIS is a registered

trademark of the National Fire Protection Assn.  
trademark of the National Paint and Coatings Assn.

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Revision Date:

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Revision: 0004

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Supplement

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 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.