

377



Material Safety Data Sheet

Prod. No. 10035 Loctite Tissue Adhesive

(Quick Set Epoxy)
#99002

Section 1: Product and Company Identification

Product Name: Loctite Tissue Adhesive

Product Type: Cyanoacrylate Ester

Company Name

Ted Pella, Inc. and PELCO International, P.O. Box 492477, Redding, CA 96049-2477

Domestic Phone (800) 237-3526 (Mon-Thu. 6:00AM to 4:30PM PST; Fri 6:00AM to 4:00PM PST)

International Phone (01) (530) 243-2200 (Mon-Thu. 6:00AM to 4:30PM PST; Fri 6:00AM to 4:00PM PST)

Chemtrec Emergency Number 1-800-424-9300 24 hrs a day.

Section 2 Physical Data

Boiling Point: More than 300°F

Vapor Pressure: Less than 0.2mm

Vapor Density: Approximately 3

Solubility in water: Polymerized by water

Volatile Organic Compound (EPA method 24): 93.0%

Specific Gravity: 1.09 at 75°F

Evaporation Rate, ether = 1: Not available

ph: Does not apply

Appearance: Clear liquid

Odor: Pungent

Section 3 Fire and Explosion Hazard Data

Flash Point: 150 - 200°F

Test Mode: Tag Closed Cup

Estimated NFPA code:

Health Hazard: 2

Fire Hazard: 2

Reactivity Hazard: 2

Specific Hazard: No water

Estimated HMIS code:

Health Hazard: 2

Flammability Hazard: 2

Reactivity Hazard: 2

Flammable Limits in air, % by volume:

LEL: Not available

UEL: Not available

Extinguishing Media: Carbon Dioxide, foam, dry chemical

Hazardous products formed by fire or thermal decomposition: Irritating organic vapors.

Unusual Fire or Explosion Hazards: None

Compressed Gases: None

Pressure at Room Temperature: Does not apply

Section 4 Ingredients:

Ethyl Cyanoacrylate, 90 - 95%; CAS No.: 7085-85-0

Poly (Methyl Methacrylate), 5 - 10%; CAS No.: 011-14-7

Hydroquinone, 0.1 - 1%; CAS No.: 123-31-9

Section 5 Health Hazard Data:

Toxicity: Bonds skin rapidly and strongly. Skin and eye irritant. Estimated oral LD50 more than 5000 mg/kg. Estimated dermal LD50 more than 2000mk/kg.

Primary Routs 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 provide allergic reactions with asthma-like symptoms in sensitive individuals.

Existing conditions aggravated by exposure: None known.

Exposure Limits:

Ethyl Cyanoacrylate:

ACGIH (TLV): none

OSHA (TLV): none

Other: 2 PPM TWA

Exposure Limits:

Poly (methyl methacrylate):

ACGIH (TLV): none

OSHA (TLV): none

Other: none

Exposure Limits:

Hydroquinone:

ACGIH (TLV): 2mg/m³ TWA

OSHA (TLV): 2mg/m³ TWA

Other: none

Literature Referenced

Target Organ and other Health Effects

Ingredients	Reference	Carcinogen		
		NTP	IARC	OSHA
Ethyl Cyanoacrylate	LUN SKI	No	No	No

Poly (methyl methacrylate)	No Data	No	NA	No
Hydroquinone	No Data	No	NA	No

Section 6 First Aid:

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, non-surgical first aid. Treatment of specific types of accidents are given below.

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 the 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 1/2 to 2 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.

Inhalation:

Remove to fresh air. Treat symptomatically

NA= Not Applicable; LUN= Lung; SKI= Skin

Section 7 Reactivity Data:

Stability: Stable

Hazardous Polymerization: Will not occur

Hazardous Decomposition Products (non-thermal): None

Incompatibility: Polymerized by contact with water, alcohols, amines, alkalies

Section 8 Personal Protection:

Eyes: Safety glasses or goggles.

Skin: Polyethylene gloves recommended. Do not use cotton gloves.

Ventilation: Positive down-draft exhaust ventilation should be provided to maintain vapor concentration below TLV.

Section 9 Storage and Handling Procedures:

Store at or below 75°F to preserve shelf life. Avoid contact with skin and eyes. Avoid breathing vapor.

Section 10 Shipping Regulations:

Type or Class:

DOT: Unrestricted (not more than one pint)

ORM-A (1 pint to 110 gallons) Combustible liquid (not less than 110 gallons)

IATA: Unrestricted; DOT regulations apply in U.S.

Proper Shipping Name:

DOT: Unrestricted (not more than one pint)

ORM-A, N.O.S. (ethyl cyanoacrylate solution) (1 pint to 110 gallons);

Combustible liquid, N.O.S. (ethyl cyanoacrylate solution) (not less than 110 gallons)

IATA: Unrestricted; DOT regulations apply in U.S.

Identification Number:

DOT: None (not more than one pint)

NA 1693 (one pint to 110 gallons)

NA 1993 (not less than 110 gallons)

IATA: None (not more than 16 ounces; one pint domestic)

ID 8027 (more than 16 ounces)

NA 1693 (more than one pint) (domestic air only)

Section 11 Spill or leak and Disposal Procedures:

Steps to be taken in case of spill or leak:

Flood with water to polymerize completely. Soak up with an inert absorbant.

Recommended methods of disposal:

Polymerize as above. Incinerate in accordance with EPA and local regulations.

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