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MATERIAL SAFETY DATA SHEET

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CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name:

Super Bonder(R) Super Glue 49411

Item No.:

49411

Part No. Product Type:

Cyanoacrylate Ester Adhesive

COMPOSITION, INFORMATION ON INGREDIENTS

Ingredients

CAS No.

%

Ethyl cyanoacrylate Poly (methyl methacrylate) HYDROQUINONE

7085-85-0 9011-14-7 123-31-9

95-100 3-5 0.1-0.5

Ingredients which have exposure limits

Exposure Limits (TWA) Ingredients

Ethyl cyanoacrylate

ACGIH (TLV)

OSHA (PEL) OTHER

None

None

HYDROQUINONE

2 mg/m3 TWA

2 mg/m3 TWA

2 ppm TWA 9.1 mg/m3 2 mg/m3 TWA 4 mg/m3 STEL

Exposure Limits (STEL)

Ingredients

ACGIH (TLV)

OSHA (PEL)

Ethyl cyanoacrylate

(4 ppm) (18 mg/m3)

(4 ppm) (16 mg/m3)

3. HAZARDS IDENTIFICATION

oxicity:

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.

None known

Primary Routes of Entry: Signs and Symptoms

of Exposure:

Vapor is irritating to eyes and mucous membranes above TLV. Prolonged and repeated overexposure to vapors in 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

NO

Ethyl cyanoacrylate Poly (methyl methacrylate) HYDROQUINONE

ALG IRR RES

NO NO NO NΠ NO

IRR

AC3 BLO BNM CNS EYE IMM IRR MUT NO

SKI

Abbreviations

N/A Not Applicable

ALG Allergen BNM Bone Marrow EYE Eyes IRR Irritant

RES Respiratory

AC3 ACGIH animal carcinogen.

BLO Blood

CNS Central nervous system

IMM Immune system MUT Mutagen SKI Skin

1. FIRST AID MEASURES

Ingestion:

Ingestion is not likely. See supplemental page for

Inhalation:

emergency procedures. Remove to fresh air. If symptoms persist,

obtain medical attention.

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Tag Closed Cup

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Method:

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FIRST AID MEASURES

(continued)

Skin Contact: Eye Contact:

Soak in warm water. See supplemental page for emergency procedures. Flush with water. See supplemental page for

emergency procedures.

FIRE FIGHTING MEASURES

Flash Point:

150-200°F

Recommended Extinguishing Agents: Special Firefighting

Carbon dioxide, Foam, Dry Chemical

Procedures:

Not available

Hazardous Products formed
by Fire or Thermal Decomp Irritating organic fragments
Unusual Fire or

Explosion Hazards:

None

Explosive Limits:

(% by volume in air)Lower (% by volume in air)Upper Not Applicable Not Applicable

<u>ACCIDENTAL RELEASE MEASURES</u>

Steps to be taken in case

of spill or leak:

Flood with water to polymerize. Soak up with an

inert absorbent.

7. HANDLING AND STORAGE

Safe Storage:

(Contact Loctite Customer Handling:

Store below 75 deg. F. Service 1-800-243-4874 for shelf life information) Avoid contact with skin and eyes. Avoid breathing

vapors.

EXPOSURE CONTROLS, PERSONAL PROTECTION

Eyes: Skin:

Safety glasses or goggles mandatory. Nitrile or polyethylene gloves and aprons. Do not use cotton.

Ventilation:

See supplemental page for additional information. 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:

Odor: **Boiling Point:**

Clear liquid Sharp, irritati More than 300°F Not Applicable irritating Polymerized 1.05 at 75°F

pH:
Solubility in Water:
Specific Gravity
Volatile Organic Compound (EPA Method 24)

94.0%; 987 g/l Less than 0.2mm at 75°F Approximately 3

Vapor Pressure: Vapor Density: Evaporation Rate (Ether = 1)

Not available

STABILITY AND REACTIVITY 10.

Stability: Hazardous Polymerization:

Will not occur

Incompatibility:

Polymerized by contact with water, alcohols,

amines, alkalies. Not available

Conditions to Avoid: Hazardous Decomposition Products (non-thermal):

None

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TOXICOLOGICAL INFORMATION 11

See Section 3.

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. 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:

Identification Number:

Unrestricted (Not more than 450 liters) Combustible liquid (More than 450 liters) None (Not more than 450 liters); NA 1993 (More than 450 liters)

Marine Pollutant:

None

Proper Shipping Name:

Class or Division:

Unrestricted (Not more than one pint);
Other regulated substances (More than one pint)
Unrestricted (Not more than one pint);
Class 9 (More than one pint)
None (Not more than one pint)
ID 8027 (More than one pint)

UN or ID Number:

15. REGULATORY INFORMATION

CA Proposition 65:

No Prop65 chemicals are known to be present.

16. OTHER INFORMATION

Estimated NFPA(R) Code:

Health Hazard: Fire Hazard:

Reactivity Hazard: Specific Hazard:

Does not apply

Estimated HMIS(R) Code: Health Hazard:

Flammability Hazard: Reactivity Hazards: Personal Protection:

22

2 2

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.

Prepared By:

Revision Date:

Title:

Company: (24hr.) Phone:

Stephen Repetto

Research Chemist, Environmental Health & Safety Loctite Corp., 1001 Tr Br Cr, Rocky Hill CT 05057 (850) 571-5100 April 15, 1997 Revision: 0026

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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.