Loctite(R) Super Glue All Plastics  IDH 685935

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Loctite(R) Super Glue All Plastics
IDH No.: 685935  ADHESIVE
Product Type: Cyanoacrylate ester

2. COMPOSITION, INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl cyanoacrylate</td>
<td>7085-85-0</td>
<td>90-95</td>
</tr>
</tbody>
</table>

Ingredients which have exposure limits

<table>
<thead>
<tr>
<th>Exposure Limits (TWA)</th>
<th>ACGIH (TLV)</th>
<th>OSHA (PEL)</th>
<th>OTHER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl cyanoacrylate</td>
<td>0.2 ppm TWA</td>
<td>None</td>
<td>None</td>
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</tbody>
</table>

Exposure Limits (STEL)

<table>
<thead>
<tr>
<th>Exposure Limits (STEL)</th>
<th>ACGIH (TLV)</th>
<th>OSHA (PEL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl cyanoacrylate</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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. Exposure to vapors above the established limits may cause symptoms of non-allergic asthma.

Existing Conditions Aggravated by Exposure: None known

Literature Referenced  Carcinogen
<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Target Organ and Other Health Effects</th>
<th>NTP</th>
<th>IARC</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl cyanoacrylate</td>
<td>ALG IRR RES</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
</tr>
</tbody>
</table>
3. HAZARDS IDENTIFICATION

Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>ALG</td>
<td>Allergen</td>
</tr>
<tr>
<td>BLO</td>
<td>Blood</td>
</tr>
<tr>
<td>BNM</td>
<td>Bone Marrow</td>
</tr>
<tr>
<td>CNS</td>
<td>Central nervous system</td>
</tr>
<tr>
<td>EYE</td>
<td>Eyes</td>
</tr>
<tr>
<td>IMM</td>
<td>Immune system</td>
</tr>
<tr>
<td>IRR</td>
<td>Irritant</td>
</tr>
<tr>
<td>LIV</td>
<td>Liver</td>
</tr>
<tr>
<td>MUT</td>
<td>Mutagen</td>
</tr>
<tr>
<td>RES</td>
<td>Respiratory</td>
</tr>
<tr>
<td>SKI</td>
<td>Skin</td>
</tr>
<tr>
<td>THY</td>
<td>Thyroid</td>
</tr>
</tbody>
</table>

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: 176 - 200°F Method: Tag Closed Cup

Extinguishing Agents: Carbon dioxide, foam, dry chemical

Special Firefighting 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: 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. Soak up with an inert absorbent.
Product Name: Loctite(R) Super Glue All Plastics
IDH No.: 685935

7. HANDLING AND STORAGE

Safe Storage: Store below 75 deg. F.
Handling: Avoid contact with skin and eyes. Avoid breathing vapor.

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: colorless liquid
Odor: Sharp, irritating
Boiling Point: More than 300°F
pH: Does not apply
Solubility in Water: Polymerized by water
Specific Gravity 1.05
Volatile Organic Compound (EPA Method 24) <2%
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, alkalies.

Conditions to Avoid: Not available
Hazardous Decomposition Products (non-thermal): None

11. TOXICOLOGICAL INFORMATION

See Section 3.
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. TRANSPORTATION INFORMATION

U.S. Department of Transportation Ground (49 CFR):

Proper shipping name: Combustible liquids, n.o.s. (Cyanoacrylate ester)
Hazard class/division: Combustible liquid
Identification number: NA 1993
Packing group: None
Exceptions: (Not more than 450 Liters) Unrestricted
Marine pollutant: None

International Air Transportation (ICAO/IATA):

Proper shipping name: Aviation regulated liquids, n.o.s (Cyanoacrylate ester)
Greater than 500 ml
Hazard class/division: 9
Identification number: UN 3334
Packing group: None
Exceptions: (Not more than 500ml) Unrestricted

WaterTransportation (IMO/IMDG):

Proper shipping name: Unrestricted
Hazard class/division: None
Identification number: None
Packing group: None
Marine pollutant: None

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
16. OTHER INFORMATION

Estimated HMIS(R) Code:

Health Hazard: 2
Flammability Hazard: 2
Reactivity Hazards: 1
Personal Protection: See Section 8.

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:
Company: Regulatory Affairs
(24hr.) Phone: (440) 937-7000
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.
Loctite Super Glue All Plastics Activator

**ACTIVATOR**

**I DH 685935**

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Loctite Super Glue All Plastics Activator

**I DH No.:** ACTIVATOR 685935

Part of Kit: 685935

Product Type: Activator

2. COMPOSITION, INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-HEPTANE</td>
<td>142-82-5</td>
<td>95-100</td>
</tr>
</tbody>
</table>

The substituted amine is registered with the state of New Jersey as a trade secret: NJ TSRN 06-070-1067-5076P.

Ingredients which have exposure limits

<table>
<thead>
<tr>
<th>Exposure Limits (TWA)</th>
<th>ACGIH (TLV)</th>
<th>OSHA (PEL)</th>
<th>OTHER</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-HEPTANE</td>
<td>400 ppm TWA</td>
<td>500 ppm TWA</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>1640 mg/M3</td>
<td>1600 mg/M3</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Exposure Limits (STEL)</th>
<th>ACGIH (TLV)</th>
<th>OSHA (PEL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-HEPTANE</td>
<td>500 ppm</td>
<td>500 ppm</td>
</tr>
<tr>
<td></td>
<td>2050 mg/M3</td>
<td>2000 mg/M3</td>
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</tbody>
</table>

3. HAZARDS IDENTIFICATION

Toxicity: Severe eye irritant. Skin irritant. Inhalation irritates nose and throat. Ingestion may irritate digestive tract and cause nausea, vomiting, and diarrhea. Aspiration of material into the lungs can cause chemical pneumonitis, which can be fatal

Primary Routes of Entry: Heptane: Inhalation, ingestion, contact.

Signs and Symptoms of Exposure: Inhalation: Dizziness, anesthesia, unconsciousness, difficulty in breathing.

Skin and eyes: Redness

Existing Conditions Aggravated by Exposure: Skin disorders, heart conditions, respiratory disorders.
### 3. HAZARDS IDENTIFICATION

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Literature Referenced</th>
<th>Target Organ and Other Health Effects</th>
<th>Carcinogen</th>
<th>NTP</th>
<th>IARC</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-HEPTANE</td>
<td></td>
<td>CNS IRR</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
</tr>
</tbody>
</table>

**Abbreviations**

- CNS: Central nervous system
- IRR: Irritant

### 4. FIRST AID MEASURES

**Ingestion:**
Do not induce vomiting. Keep individual calm. Obtain medical attention.

**Inhalation:**
Remove to fresh air. If symptoms persist, obtain medical attention.

**Skin Contact:**
Wash with soap and water.

**Eye Contact:**
Flush at least 15 minutes with water. Obtain medical attention.

### 5. FIRE FIGHTING MEASURES

**Flash Point:**
30°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:**
Vapor may travel considerable distance to source ignition and flash back.

**Explosive Limits:**
- Lower: 1%
- Upper: 7%

### 6. ACCIDENTAL RELEASE MEASURES

**Steps to be taken in case of spill or leak:**
Maintain good ventilation. Avoid ignition sources. Soak up remainder in an inert absorbent and store in a closed container until disposal.
7. HANDLING AND STORAGE

Safe Storage: Store between 40 and 80°F in a tightly closed container away from oxidizing materials and sources of ignition.

Handling: Keep away from flame. Avoid prolonged breathing of vapors. Avoid skin or eye contact.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

Eyes: Safety glasses or goggles.
Skin: Rubber or plastic gloves.
Ventilation: Adequate to avoid exceeding TLV.
Respiratory: Not available

See Section 2 for Exposure Limits.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear liquid
Odor: Aliphatic
Boiling Point: 205-210°F
pH: Does not apply
Solubility in Water: Immiscible
Specific Gravity: 0.684
Volatile Organic Compound (EPA Method 24): Not available
Vapor Pressure: 35 mm at 68°F
Vapor Density: 3.45
Evaporation Rate (Ether = 1): 2.7

10. STABILITY AND REACTIVITY

Stability: Stable
Hazardous Polymerization: Will not occur
Incompatibility: Strong oxidizers, strong acids or bases, selected amines, peroxides, acid chlorides, acid anhydrides alkali metals, ammonia.

Conditions to Avoid: Not available
Hazardous Decomposition Products (non-thermal): None

11. TOXICOLOGICAL INFORMATION

See Section 3.
Product Name: Loctite Super Glue All Plastics Activator
IDH No.: ACTIVATOR 685935

12. ECOLOGICAL INFORMATION
No data available

13. DISPOSAL CONSIDERATIONS

Recommended methods of disposal: Incinerate following EPA and local regulations.
EPA Hazardous Waste Number: D001 - Hazardous waste per 40CFR 261.21

14. TRANSPORTATION INFORMATION

U.S. Department of Transportation Ground (49 CFR):

Proper shipping name:
Hazard class or division:
Identification number:
Packing group:
Exceptions: Not regulated for transport by ALL modes

International Air Transportation (ICAO/IATA):

Proper shipping name:
Hazard class or division:
Identification number:
Packing group:
Exceptions: Not regulated for transport by ALL modes

Water Transportation (IMO/IMDG):

Proper shipping name:
Hazard class or division:
Identification number:
Packing group:
Exceptions: Not regulated for transport by ALL modes

Marine pollutant:

15. REGULATORY INFORMATION

CA Proposition 65: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

16. OTHER INFORMATION

Estimated NFPA(R) Code:
Health Hazard: 1
Fire Hazard: 3
Reactivity Hazard: 0
Specific Hazard: Does not apply
Product Name: Loctite Super Glue All Plastics Activator
IDH.: ACTIVATOR 685935

16. OTHER INFORMATION (continued)

Estimated HMIS(R) Code:
  Health Hazard: 1
  Flammability Hazard: 3
  Reactivity Hazards: 0
  Personal Protection: See Section 8.

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Prepared by:
Company: Regulatory Affairs 8/08 Rev 5/09
(24hr.) Phone: (440) 937-7000