HENKEL LOCTITE CORPORATION 1001 TROUT BROOK CROSSING
ROCKY HILL, CT 06067-3910
EMERGENCY PHONE: (860) 571-5100 FAX: (860) 571-5465

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MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: SUPER GLUE GELMATIC (SGM)
Item No.: 21937
Product Type: Cyanoacrylate ester

2. COMPOSITION, INFORMATION ON INGREDIENTS

Ingredients	CAS No.	%
Ethyl cyanoacrylate	7085-85-0	85-90
Poly (methyl methacrylate)	9011-14-7	5-10
SILICA, AMORPHOUS, FUMED, CRYSTALLINE-FREE	112945-52-5	5-10
HYDROQUINONE	123-31-9	0.1-0.5

Ingredients which have exposure limits

Exposure Limits (TWA) Ingredients	ACGIH (TLV)	OSHA (PEL)	OTHER
Ethyl cyanoacrylate	0.2 ppm TWA	None	None
SILICA, AMORPHOUS, FUMED, CRYSTALLINE-FREE	10 mg/m3 TWA	6 mg/m3 TWA	3 mg/m3 TWA resp. dust
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. Exposure to vapors above the established limits may cause symptoms of non-allergic asthma.

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
Poly (methyl methacrylate)	IRR	NO	N/A	NO
SILICA, AMORPHOUS, FUMED, CRYSTALLINE-FREE	NUI	NO	N/A	NO
HYDROQUINONE	BLO BNM CNS EYE IMM IRR LIV MUT SKI THY	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
LIV Liver	MUT Mutagen
NUI Nuisance dust	RES Respiratory
SKI Skin	THY Thyroid

Product Name: SUPER GLUE GELMATIC (5GM)
Item No.: 21937

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
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. Soak up with an inert absorbent.

7. HANDLING AND STORAGE

Safe Storage: Store at or 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 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: Water white gel
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) 85.4%; 897 grams per liter
Less than 20 g/l (California SCAQMD method 316B)
Vapor Pressure: Less than 0.2 mm
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,

10. STABILITY AND REACTIVITY (continued)

amines, alkalies.

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: Dispose in accordance with Federal, State 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: 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) UN 3334 (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 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: Henkel Loctite Corporation, Rocky Hill CT 06067
(24hr.) Phone: (860) 571-5100
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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.