Revision Number: 005.0

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1. IDENTIFICATION

Product name: **LOCTITE 4981 INSTANT ADHESIVE known as Super Bonder® 4981 Medical Dev**

IDH number: 229812

Product type/ Recommended use: Cyanoacrylate

Item number: 18694

Restriction of Use: None identified

Region: United States

Company address:
Henkel Corporation
One Henkel Way
Rocky Hill, Connecticut 06067

Contact information:
Telephone: +1 (860) 571-5100
MEDICAL EMERGENCY Phone: Poison Control Center
1-877-671-4608 (toll free) or 1-303-592-1711
TRANSPORT EMERGENCY Phone: CHEMTREC
1-800-424-9300 (toll free) or 1-703-527-3887
MEDICAL EMERGENCY Phone: Poison Control Center
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1-800-424-9300 (toll free) or 1-703-527-3887
Internet: www.henkelna.com

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW	
DANGER:	BONDS SKIN IN SECONDS. H227 COMBUSTIBLE LIQUID. H320 CAUSES EYE IRRITATION. H335 MAY CAUSE RESPIRATORY IRRITATION. H360 MAY DAMAGE FERTILITY OR THE UNBORN CHILD.

HAZARD CLASS	HAZARD CATEGORY
FLAMMABLE LIQUID	4
EYE IRRITATION	2B
REPRODUCTIVE TOXICITY	1B
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE	3

PICTOGRAM(S)

Precautionary Statements

Prevention:
P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P210 - Keep away from heat, sparks, open flames, hot surfaces - no smoking.
P261 - Avoid breathing mist/vapours.
P264 - Wash affected area thoroughly after handling.
P271 - Use only outdoors or in a well-ventilated area.
P280 - Wear protective gloves, clothing, eye and face protection.

Response:
P304+P340+P312 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313 - IF exposed or concerned: Get medical attention.
P337+P313 - If eye irritation persists: Get medical attention.
P370+P378 - In case of fire: Use foam, dry chemical or carbon dioxide to extinguish.

Storage:
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P405 - Store locked up.

Disposal: P501 - Dispose of contents and/or container according to Federal, State/Provincial and local governmental regulations.

Other hazards Not available.

Classification complies with OSHA Hazard Communication Standard (29 CFR 1910.1200) and is consistent with the provisions of the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

See Section 11 for additional toxicological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Component(s)	CAS Number	Weight %*
Ethyl 2-cyanoacrylate	7085-85-0	80 - 100
Bis(2-hydroxy-3-tert-butyl-5-methylphenyl)methane	119-47-1	0.1 - 1

* Exact percentages may vary or are trade secret. Concentration range is provided to assist users in providing appropriate protections.

4. FIRST AID MEASURES

First Aid Measures by likely routes of exposure

Inhalation: Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. If symptoms develop and persist, get medical attention.

Skin contact: Do not pull bonded skin apart. Soak in warm soapy water. Gently peel apart using a blunt instrument. If skin is burned due to the rapid generation of heat by a large drop, seek medical attention. If lips are bonded, apply warm water to the lips and encourage wetting and pressure from saliva in mouth. Peel or roll lips apart. Do not pull lips apart with direct opposing force.

Eye contact: Immediately flush with plenty of water for at least 15 minutes. Get medical attention. If eyelids are bonded closed, release eyelashes with warm water by covering with a wet pad. Do not force eye open. Cyanoacrylate will bond to eye protein and will cause a lachrymatory effect which will help to debond the adhesive. Keep eye covered until debonding is complete, usually within 1-3 days. Medical attention should be sought in case solid particles of polymerized cyanoacrylate trapped behind the eyelid caused abrasive damage.

Ingestion: Ensure breathing passages are not obstructed. The product will polymerize rapidly and bond to the mouth making it almost impossible to swallow. Saliva will separate any solidified product in several hours. Prevent the patient from swallowing any separated mass.

Most important symptoms and effects (acute and delayed): The most important known symptoms and effects, both acute and delayed, are described in Section 11: Toxicological Information.

Indication of any immediate medical attention / special treatment needed: Surgery is not necessary to separate accidentally bonded tissues. Experience has shown that bonded tissues are best treated by passive, non-surgical first aid. If rapid curing has caused thermal burns they should be treated symptomatically after adhesive is removed.

5. FIRE FIGHTING MEASURES

Extinguishing media: Water spray (fog), foam, dry chemical or carbon dioxide.

Improper extinguishing agents: Not available.

Special firefighting procedures: Wear a self-contained breathing apparatus with a full face piece operated in pressure-demand or other positive pressure mode.

Unusual fire or explosion hazards: None

Hazardous combustion products: Trace amounts of toxic and/or irritating fumes may be released and the use of breathing apparatus is recommended.

6. ACCIDENTAL RELEASE MEASURES

Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.

Environmental precautions: Ventilate area. Do not allow product to enter sewer or waterways.

Clean-up methods: Do not use cloths for mopping up. Flood with water to complete polymerization and scrape off the floor. Cured material can be disposed of as non-hazardous waste. Refer to Section 8 "Exposure Controls / Personal Protection" prior to clean up.

7. HANDLING AND STORAGE

Handling: Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist. Wash thoroughly after handling. Avoid contact with fabric or paper goods. Contact with these materials may cause rapid polymerization which can generate smoke and strong irritating vapors, and cause thermal burns.

Storage: Keep in a cool, well ventilated area away from heat, sparks and open flame. Keep container tightly closed until ready for use.

For information on product shelf life, please review labels on container or check the Technical Data Sheet.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Employers should complete an assessment of all workplaces to determine the need for, and selection of, proper exposure controls and protective equipment for each task performed.

Hazardous Component(s)	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
Ethyl 2-cyanoacrylate	0.2 ppm TWA 1 ppm STEL (Dermal sensitization) (Respiratory sensitization)	None	None	None

Engineering controls: Use positive down-draft exhaust ventilation if general ventilation is insufficient to maintain vapor concentration below established exposure limits.

Respiratory protection: Use NIOSH approved respirator if there is potential to exceed exposure limit(s).

Eye/face protection: Safety goggles or safety glasses with side shields. Full face protection should be used if the potential for splashing or spraying of product exists.

Skin protection: Use nitrile gloves and aprons as necessary to prevent contact. Do not use PVC, nylon or cotton.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: liquid
Color: Colourless / Colorless to light yellow
Odor: Irritating
Odor threshold: Not available.
pH: Product reacts with water., Not applicable
Vapor pressure: < 0.2 mm hg (25 °C (77°F)) < 700 mbar (50 °C (122°F)) no method / method unknown
Boiling point/range: > 149 °C (> 300.2 °F)None
Melting point/ range: Not applicable, Product is a liquid
Density/Relative density: 1.1
Relative vapor density: 3 20 °C
Flash point: 80 - 93 °C (176°F - 199.4 °F)
Flammable/Explosive limits - lower: Not available.
Flammable/Explosive limits - upper: Not available.
Autoignition temperature: 485 °C (905°F)
Flammability: The product is not flammable.

Evaporation rate:	Not available.
Solubility:	Polymerises in presence of water. Water
Partition coefficient n-octanol/water (logarithmic value):	Not available.
VOC content:	< 2 %; < 20 g/l (California SCAQMD Method 316B) (Estimated)
Dynamic viscosity:	Not available.
Kinematic viscosity:	> 20.5 mm2/s
Particle characteristics:	Not applicable, Product is a liquid
Decomposition temperature:	Not available.

10. STABILITY AND REACTIVITY

Stability: Stable under recommended storage conditions.

Hazardous reactions: Rapid exothermic polymerization will occur in the presence of water, amines, alkalis and alcohols.

Hazardous decomposition products: None

Incompatible materials: Water, amines, alkalis and alcohols.

Reactivity: Not available.

Conditions to avoid: Spontaneous polymerization.

11. TOXICOLOGICAL INFORMATION

Likely routes of exposure: Skin, Inhalation, Eyes, Ingestion

Potential Health Effects/Symptoms

Inhalation: May cause respiratory tract irritation. Exposure to vapors above the established exposure limit results in respiratory irritation, which may lead to difficulty in breathing and tightness in the chest.

Skin contact: May cause skin irritation. Bonds skin in seconds. Cyanoacrylates have been reported to cause allergic reaction but due to rapid polymerization at the skin surface, an allergic response is rare. Cyanoacrylates generate heat on solidification. In rare circumstances a large drop will burn the skin. Cured adhesive does not present a health hazard even if bonded to the skin.

Eye contact: Irritating to eyes. Causes excessive tearing. Eyelids may bond.

Ingestion: Not expected to be harmful by ingestion. Rapidly polymerizes (solidifies) and bonds in mouth. It is almost impossible to swallow.

Hazardous Component(s)	LD50s and LC50s
Ethyl 2-cyanoacrylate	None
Bis(2-hydroxy-3-tert-butyl-5-methylphenyl)methane	Oral LD50 (Mouse) = 11,000 mg/kg Oral LD50 (Mouse) = 11,000 mg/kg

Hazardous Component(s)	Immediate Health Effects	Delayed Health Effects	Chronic Health Effects
Ethyl 2-cyanoacrylate	Irritant	Allergen	Respiratory
Bis(2-hydroxy-3-tert-butyl-5-methylphenyl)methane	Irritant		

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Ethyl 2-cyanoacrylate	No	No	No
Bis(2-hydroxy-3-tert-butyl-5-methylphenyl)methane	No	No	No

12. ECOLOGICAL INFORMATION

Ecological information: Not available.

13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

Recommended method of disposal: Follow all local, state, federal and provincial regulations for disposal.

14. TRANSPORT INFORMATION

The transport information provided in this section only applies to the material/formulation itself, and is not specific to any packaging.

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

Proper shipping name:	Combustible liquid, n.o.s. (Cyanoacrylate ester)
Hazard class or division:	Combustible Liquid
Identification number:	NA 1993
Packing group:	III

International Air Transportation (ICAO/IATA)

Proper shipping name:	Aviation regulated liquid, n.o.s. (Cyanoacrylate ester)
Hazard class or division:	9
Identification number:	UN 3334
Packing group:	III
Exceptions:	Primary packs containing less than 500ml are unregulated by this mode of transport and may be shipped unrestricted.

Water Transportation (IMO/IMDG)

Proper shipping name:	Not regulated
Hazard class or division:	None
Identification number:	None
Packing group:	None

15. REGULATORY INFORMATION

United States Regulatory Information

TSCA 8 (b) Inventory Status:	All components are listed as active or are exempt from listing on the Toxic Substances Control Act (TSCA) inventory.
TSCA 12 (b) Export Notification:	None above reporting de minimis
CERCLA/SARA Section 302 EHS:	None above reporting de minimis.
CERCLA/SARA Section 311/312:	Please refer to the GHS classification in Section 2
CERCLA/SARA Section 313:	None above reporting de minimis.
California Proposition 65:	This product contains a chemical known in the State of California to cause cancer.

Canada Regulatory Information

CEPA DSL/NDSL Status:	Contains one or more components listed on the Non-Domestic Substances List. All other components are listed on or are exempt from listing on the Domestic Substances List. Components listed on the NDSL must be tracked by all Canadian Importers of Record as required by Environment Canada. They may be imported into Canada in limited quantities. Please contact Regulatory Affairs for additional details.

16. OTHER INFORMATION

This safety data sheet contains changes from the previous version in sections: New Safety Data Sheet format., Expanded chemical information in Section 2 and related sections.

Prepared by: Product Safety and Regulatory Affairs

Issue date: 08/13/2025

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