Revision Number: 002.2

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1. PRODUCT AND COMPANY IDENTIFICATION

Product name: **LOCTITE 454 INSTANT ADHESIVE GEL known as LOCTITE® QUICKTITE® INSTANT AD**

IDH number: 680522

Product type: Cyanoacrylate

Item number: 39202

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
Internet: www.henkelna.com

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW	
WARNING:	BONDS SKIN IN SECONDS. COMBUSTIBLE LIQUID. CAUSES EYE IRRITATION. MAY CAUSE RESPIRATORY IRRITATION.

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

PICTOGRAM(S)



Precautionary Statements

Prevention:

Keep away from heat, sparks, open flames, hot surfaces - no smoking. Avoid breathing vapors, mist, or spray. Wash affected area thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves, eye protection, and face protection.

Response:

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. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention. In case of fire: Use foam, dry chemical or carbon dioxide to extinguish.

Storage:

Store in a well-ventilated place. Keep container tightly closed. Store in a well-ventilated place. Keep cool. Store locked up.

Disposal:

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

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	Percentage*
Ethyl 2-cyanoacrylate	7085-85-0	60 - 100
Treated fumed silica	67762-90-7	5 - 10
Methyl methacrylate polymer	9011-14-7	5 - 10
Pentafluorobenzonitrile	773-82-0	0.1 - 1
Bis(2-hydroxy-3-tert-butyl-5-methylphenyl)methane	119-47-1	0.1 - 1
dibenzo[a,j]-1,4,7,10,13,16-hexaoxacyclooctadeca-2,11-diene	14187-32-7	0.1 - 1
3,4,5,6-tetrahydrophthalic anhydride	2426-02-0	0 - 0.1
Hydroquinone	123-31-9	0 - 0.1
Methyl methacrylate	80-62-6	0 - 0.1
Benzoyl peroxide	94-36-0	0 - 0.1
Sulfur dioxide	7446-09-5	0 - 0.1
2-tert-Butyl-p-cresol	2409-55-4	0 - 0.1
Methanesulphonic acid	75-75-2	0 - 0.1
Aluminum	7429-90-5	0 - 0.1

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

4. FIRST AID MEASURES

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.

Symptoms: See Section 11.

Notes to physician: 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.
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:	Not available.
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:	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.

7. HANDLING AND STORAGE

Handling:	Avoid contact with eyes, skin and clothing. Avoid breathing vapors or mists of this product. 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.

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	1 ppm STEL 0.2 ppm TWA (Respiratory sensitization) (Dermal sensitization)	None	None	None
Treated fumed silica	10 mg/m3 TWA Inhalable dust. 3 mg/m3 TWA Respirable fraction.	15 mg/m3 TWA Total dust. 5 mg/m3 TWA Respirable fraction.	None	None
Methyl methacrylate polymer	None	None	None	None
Pentafluorobenzonitrile	None	None	None	None
Bis(2-hydroxy-3-tert-butyl-5-methylphenyl)methane	None	None	None	None
dibenzo[a,j]-1,4,7,10,13,16-hexaoxacyclooctadeca-2,11-diene	None	None	None	None
3,4,5,6-tetrahydrophthalic anhydride	None	None	None	None
Hydroquinone	1 mg/m3 TWA (Dermal sensitization)	2 mg/m3 PEL	None	None
Methyl methacrylate	50 ppm TWA 100 ppm STEL (Dermal sensitization)	100 ppm (410 mg/m3) PEL	None	50 ppm
Benzoyl peroxide	5 mg/m3 TWA	5 mg/m3 PEL	None	None
Sulfur dioxide	0.25 ppm STEL	5 ppm (13 mg/m3) PEL	None	None
2-tert-Butyl-p-cresol	None	None	None	None
Methanesulphonic acid	None	None	None	None
Aluminum	1 mg/m3 TWA Respirable fraction.	15 mg/m3 PEL (as Al) Total dust. 5 mg/m3 PEL (as Al) Respirable fraction. 15 MPPCF TWA Respirable fraction. 50 MPPCF TWA Total dust. 5 mg/m3 TWA Respirable fraction. 15 mg/m3 TWA Total dust.	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: Gel
Color: Clear
Odor: Irritating
Odor threshold: 1 - 2 ppm
pH: Not available.

Vapor pressure:	< 0.2 mm hg
Boiling point/range:	> 149 °C (> 300.2 °F)
Melting point/ range:	Not available.
Specific gravity:	1.05
Vapor density:	3
Flash point:	80 - 93 °C (176°F - 199.4 °F) Tagliabue closed cup
Flammable/Explosive limits - lower:	Not available.
Flammable/Explosive limits - upper:	Not available.
Autoignition temperature:	485 °C (905°F)
Flammability:	Not applicable
Evaporation rate:	Not available.
Solubility in water:	Polymerises in presence of water.
Solubility in water:	Polymerizes on contact with water.
Partition coefficient (n-octanol/water):	Not available.
VOC content:	< 2 %; < 20 g/l (California SCAQMD Method 316B) (Estimated)
Viscosity:	Not available.
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, Alcohols.
Reactivity:	Not available.
Conditions to avoid:	Spontaneous polymerization.

11. TOXICOLOGICAL INFORMATION

Relevant routes of exposure: Skin, Inhalation, Eyes

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. May cause allergic skin reaction. 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	Immediate and Delayed Health Effects
Ethyl 2-cyanoacrylate	None	Irritant, Allergen, Respiratory
Treated fumed silica	None	Irritant
Methyl methacrylate polymer	None	Irritant
Pentafluorobenzonitrile	None	No Data
Bis(2-hydroxy-3-tert-butyl-5-methylphenyl)methane	Oral LD50 (Mouse) = 11,000 mg/kg Oral LD50 (Mouse) = 11,000 mg/kg	Irritant
dibenzo[a,j]-1,4,7,10,13,16-hexaoxacyclooctadeca-2,11-diene	None	Irritant
3,4,5,6-tetrahydrophthalic anhydride	None	No Data
Hydroquinone	Oral LD50 (Rat) = 320 mg/kg Oral LD50 (Mouse) = 245 mg/kg Oral LD50 (Rabbit) = 540 mg/kg Dermal LD50 (Rat) = > 900 mg/kg	Blood, Bone Marrow, Central nervous system, Developmental, Eyes, Immune system, Irritant, Liver, Mutagen, Skin, Thyroid
Methyl methacrylate	Oral LD50 (Rat) = 7,800 mg/kg Oral LD50 (Rabbit) = 6,000 mg/kg Oral LD50 (Rat) = 9,400 mg/kg	Allergen, Irritant, Kidney, Liver, Mutagen, Nervous System, Respiratory
Benzoyl peroxide	Oral LD50 (Rat) = 7,710 mg/kg	Allergen, Irritant, Mutagen
Sulfur dioxide	None	Irritant, Lung, Respiratory, Sensory, Eyes, Developmental
2-tert-Butyl-p-cresol	None	No Data
Methanesulphonic acid	None	Corrosive
Aluminum	None	Central nervous system, Irritant, Lung

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Ethyl 2-cyanoacrylate	No	No	No
Treated fumed silica	No	No	No
Methyl methacrylate polymer	No	No	No
Pentafluorobenzonitrile	No	No	No
Bis(2-hydroxy-3-tert-butyl-5-methylphenyl)methane	No	No	No
dibenzo[a,j]-1,4,7,10,13,16-hexaoxacyclooctadeca-2,11-diene	No	No	No
3,4,5,6-tetrahydrophthalic anhydride	No	No	No
Hydroquinone	No	No	No
Methyl methacrylate	No	No	No
Benzoyl peroxide	No	No	No
Sulfur dioxide	No	No	No
2-tert-Butyl-p-cresol	No	No	No
Methanesulphonic acid	No	No	No
Aluminum	No	No	No

12. ECOLOGICAL INFORMATION

Ecological information: Not available.

13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

Recommended method of disposal: Dispose of according to Federal, State and local governmental regulations.

Hazardous waste number: Not a RCRA hazardous waste.

14. TRANSPORT INFORMATION

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

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
Exceptions: (Not more than 450 L), Unrestricted

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 or are exempt from listing on the Toxic Substances Control Act Inventory.
TSCA 12 (b) Export Notification: None above reporting de minimis

CERCLA/SARA Section 302 EHS: Hydroquinone (CAS# 123-31-9). Sulfur dioxide (CAS# 7446-09-5).
CERCLA/SARA Section 311/312: Immediate Health, Delayed Health, Fire, Reactive
CERCLA/SARA Section 313: None above reporting de minimis.

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

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: This Safety Data Sheet contains changes from the previous version in Section(s): 14

Prepared by: Product Safety and Regulatory Affairs

Issue date: 12/06/2018

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