

Cyanoacrylate Safety Data Sheet

Section 1. Identification

1.1. Product identifier used on the label Part Numbers: LQB 003, LQB 003T, LFC 004, LFC 004T, CHLOT01-08

1.2. Other means of identification Topical Skin Adhesive

1.3. Recommended use of the chemical and restrictions on use

A topical skin adhesive used to close easily approximated skin edges of wounds from surgical incisions, including punctures from minimally invasive surgery and simple, thoroughly cleansed, trauma induced lacerations.

Federal (USA) law restricts this device to sale by or on the order of a physician.

1.4. Name, address, and telephone number of the manufacturer

Advanced Medical Solutions (Plymouth) Ltd.
 Western Wood Way
 Langage Science Park
 Plymouth
 Devon PL7 5BG
 UK
 Tel: +44(0)8444 125754
 E-mail: customer.support@admedsol.com

1.5. Emergency phone number

Tel: +44(0)8444 125754

Section 2. Hazard(s) Identification

2.1. Classification of the chemical

Health Hazard	Environmental Hazard	Physical Hazard
Acute Toxicity – N/A Skin Corrosion – N/A Skin Irritation – N/A Serious Eye Damage – N/A Eye Irritation – Category 2B Respiratory Sensitisation – N/A Skin Sensitisation – N/A Germ Cell Mutagenicity – N/A Carcinogenicity – N/A Reproductive Toxicity – N/A Specific Target Organ: Single Exposure – N/A Repeated/Prolonged Exposure – N/A Aspiration – N/A	None	None

2.2. Signal word None

2.3. Hazard statement None

2.4. Symbol None

2.5. Precautionary statement None

Section 3. Composition/ Information on Ingredients

	Ingredients		CAS No.	EC No.	Weight %	Classification	R Phrases
	Chemical Name	Synonyms					
3.1.	2-Octyl cyanoacrylate	None	133978-15-1	None	0 - 100	I	36, 37
3.2.	n-Butyl cyanoacrylate	Enbucrylate	6606-65-1	None	0 - 100	I	36, 37

n-Butyl cyanoacrylate and 2-Octyl cyanoacrylate as individual compounds or blended together. These compounds compose the majority of the product. Other components in the formulation constitute a trade secret and occur in non-hazardous amounts.

R36: Irritating to eyes

R37: Irritating to respiratory system

Section 4. First Aid Measures

4.1. Eyes: If eyelids are bonded, release eyelashes with a pad soaked in warm water. Cyanoacrylate that has bonded to eye protein will produce tears, which will assist in the debonding process. Keep eye covered with a wet pad until debonding is complete, usually within 1 to 3 days – do not force eye open. Seek medical advice if solid particles of cyanoacrylate are trapped behind eyelid – this may cause abrasive damage.

4.2. Skin: Do not force separation. Peel or roll skin apart in warm soapy water using a blunt instrument such as a spoon. Pre-soaking in a solution of 5% sodium bicarbonate will assist separation.

4.3. Ingestion: Do not induce vomiting. Give 1 – 3 glasses of water to drink to dilute stomach contents. Do not give anything by mouth if victim is unconscious or convulsing. Obtain immediate medical attention. Saliva should lift adhesive in 12 to 48 hours. Avoid swallowing adhesive after detachment. Lips may become bonded together, apply copious amounts of warm water and encourage wetting/pressure from saliva inside mouth. Peel or roll lips apart gently. Call a physician.

4.4. Inhalation: Remove to fresh air. If symptoms persist, call a physician.

Section 5. Fire Fighting Measures

5.1. Extinguishing Media: Water spray, CO₂, Foam, Dry Chemical

5.2. Unusual Fire and Explosion Hazards: Water may spread fire. Product floats on water when cured. Acrid smoke and irritating fumes (oxides of carbon – oxides of nitrogen) occur in fire conditions.

5.3. Special Fire Fighting Procedures: Wear full protective equipment including self-contained breathing apparatus

Section 6. Accidental Release Measures

6.1. Personal precautions, protective equipment, and emergency procedures:

Wear appropriate protective clothing. Prevent material from entering drains and watercourses.

6.2. Methods and materials for containment and cleaning up:

Use water spray to polymerise and scrape off floor. Solidified material may be scraped from surfaces for disposal.

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Section 7. Handling and Storage

- 7.1. Precautions for safe handling:** Avoid contact with eyes, skin and clothing. Avoid inhaling vapours on application.
7.2. Conditions for safe storage: Avoid moisture, direct UV sunlight and prolonged storage above 25°C (77°F).

Section 8. Exposure Controls, Personal Protection

- 8.1. Exposure limit:** Not determined
8.2. Engineering controls: Local exhaust to prevent eye irritation
8.3. Individual protection measures:
 Respiratory Protection (Specify type): Normally not necessary. A NIOSH approved organic vapour cannister may be used.
 Protective gloves: Chemical resistant gloves – polyethylene recommended.
 Other protective clothing or equipment: Chemical goggles, safety glasses with side shields, rubber apron.

Section 9. Physical and Chemical Properties

- 9.1. Appearance (physical state, colour, etc):** Violet or colourless liquid
9.2. Odour: Slightly pungent/sharp
9.3. Odour threshold: Not determined
9.4. pH: N/A
9.5. Melting point/freezing point: Not determined
9.6. Boiling point: >150°C (302°F)
9.7. Flash point: 85 - 112°C Setaflash closed cup method
9.8. Evaporation rate: Not determined butyl acetate = 1
9.9. Flammability: N/A
9.10. Lower flammability or explosive limits: Not determined
9.12. Upper flammability or explosive limits: Not determined
9.13. Vapour pressure: Not determined
9.14. Vapour density: Not determined air = 1
9.15. Relative density: 0.989-1.444 H₂O = 1
9.16. Solubility: Negligible in water (polymerises)
9.17. Partition coefficient: Not determined n-octanol/water
9.18. Auto-ignition temperature: Not determined
9.19. Decomposition temperature: Not determined
9.20. Viscosity: <100cP

Section 10. Stability and Reactivity

- 10.1. Chemical stability:** Stable
10.2. Possibility of hazardous reactions: Hazardous polymerisation may not occur
10.3. Conditions to avoid: Temperatures >38°C (100°F)
10.4. Incompatible materials: Amines, Alcohols, Water, cotton, wool bases
10.5. Hazardous decomposition products: Combustible by-products of carbon monoxide and dioxide

Section 11. Toxicological Information

11.1. Information on the likely routes & symptoms of exposure

Cyanoacrylate vapours are irritating to eyes and mucous membranes; prolonged and repeated overexposure may result in allergic reactions (rhinitis) with asthma-like symptoms in certain individuals. In the event of fire or heating, cyanoacrylate adhesives increase their volatility and this increases the risk of respiratory irritation and sensitisation.

Contact dermatitis may occur after chronic repetitive exposure of the skin to liquid monomer.

Weeping, tears and double vision may be experienced until polymerisation has occurred. If cured cyanoacrylate enters the eye, there is a chance of corneal damage due to abrasion. Irritation with pain, corneal abrasions, keratoconjunctivitis and eyelash loss occurs.

Pre-existing skin, eye and respiratory disorders may be aggravated by exposure. The vapour is irritating to eyes and mucous membranes. Prolonged and repeated overexposure to vapours may produce allergic reactions with asthma-like symptoms in sensitive individuals

11.3. Delayed and immediate effects and also chronic effects from short and long term exposure

This product is not expected to cause long-term adverse health effects.

This product is not expected to cause reproductive and developmental health effects.

11.4. Numerical measures of toxicity (such as acute toxicity estimates)

- LD50:** Lethal dose 50%
LC50: Lethal concentration 50%

11.5. Carcinogenicity

- Carcinogenity, NTP:** Not considered carcinogenic by NTP, IARC and OSHA
IARC Monographs: No
OSHA Regulated: No

Section 12. Ecological Information

- 12.1. Environmental Fate:** Not available

Section 13. Disposal Consideration

- 13.1.** This product is not a hazardous waste. Flood with water to polymerise. Soak up with an inert absorbent (earth or sand).
 Dispose of in an approved landfill in accordance with local authority regulations.

Section 14. Transport Information

- 14.1.** Not restricted for transportation by air, sea, and road.

Section 15. Regulatory Information

- 15.1. Labelling information:**
 Indication of Danger: None
 Risk Phrases: None
 Contains: Cyanoacrylate

Section 16. Additional Information

- 16.1. Date of preparation:** 15 April 2015
16.2. Revision: 01
16.3. Last change made: Originated to comply with requirements of OSHA Regulation 1910.1200

The opinions expressed above are those of qualified experts within Advanced Medical Solutions (Plymouth) Ltd. We believe that the information provided is current as of the date of this Material Safety Data Sheet. Since the use of this information and the conditions of use of the product are not under the control of AMS (Plymouth) Ltd, it is the user's obligation to determine conditions of safe use of this product.