

# Cyanoacrylate Materials Safety Data Sheet

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## Section 1. Chemical Product

n-Butyl cyanoacrylate and 2-Octyl cyanoacrylate as individual compounds or blended together.

## Section 2. Composition, Information on Ingredient

	Ingredients		CAS No.	EC No.	Weight %	Classification	R Phrases
	Chemical Name	Synonyms					
2.1	2-Octyl cyanoacrylate	None	NA	None	0 - 100	I	36, 37
2.2	n-Butyl cyanoacrylate	Enbucrylate	6606-65-1	None	0 - 100	I	36, 37

These compounds compose the majority of the product. Other components in the formulation constitute a trade secret and occur in non-hazardous amounts.

## Section 3. Hazardous Identification

Routes of Entry: Eye contact, Skin contact, Inhalation  
Health Hazards: Eye – Skin – Respiratory system.  
Target Organs:  
Potential Health Effects: Eyes – may cause severe irritation. During period of eye contamination double vision may occur, weeping will occur until clearance is achieved.  
Skin – bonds in seconds. May cause irritation, may cause allergic skin reaction.  
Ingestion – unlikely route of exposure due to polymerisation. Bonds to oral tissue in seconds. Saliva will lift adhesive in one to two days.  
Inhalation – may cause sensitisation and upper respiratory tract irritation.  
Medical conditions generally aggravated by exposure: 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.

## Section 4. First Aid Measures

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

## Section 5. Fire Fighting Measures.

Flash Point: 85 - 112°C  
(Setaflash closed cup method)

Flammable Limits: LEL %: Not determined (N/D)  
UEL %: N/D

Extinguishing Media: Water spray, CO<sub>2</sub>, Foam, Dry Chemical  
Special Fire Fighting Procedures: Wear full protective equipment including self-contained breathing apparatus.  
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.

## Section 6. Accidental Release Measures

Use water spray to polymerise and scrape off floor. Solidified material may be scraped from surfaces for disposal. Wear appropriate protective clothing. Prevent material from entering drains and watercourses.

## Section 7. Handling and Storage

Avoid contact with eyes, skin and clothing. Avoid inhaling vapours on application. Avoid moisture, direct UV sunlight and prolonged storage above 25°C (77°F).

## Section 8. Exposure Controls, Personal Protection

Respiratory Protection (Specify type): Normally not necessary. A NIOSH approved organic vapour cannister may be used.

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Ventilation: Local exhaust to prevent eye irritation.  
 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

Physical state:	Liquid	Specific Gravity:	0.989-1.444
Boiling point:	>150°C (302°F)	(H <sub>2</sub> O =1)	
Vapour density (air =1):	N/D	Melting point:	N/D
Vapour pressure (mmHg):	N/D	Evaporation rate	
		(butyl acetate =1):	N/D
Solubility in water:	Negligible, polymerises in water		
Appearance and odour:	clear liquid, slightly pungent/ sharp odour		
% Volatile:	0 at 21°C (70°F)		
pH:	N/A		

## Section 10. Stability and Reactivity

Stability	Unstable _____	Stable <input checked="" type="checkbox"/> _____
Incompatibility (Materials to avoid)	Amines, Alcohols, Water, cotton, wool bases	
Hazardous decomposition or By-products:	Combustible by-products of carbon monoxide and dioxide	
Hazardous polymerisation:	May occur _____	May not occur <input checked="" type="checkbox"/> _____
Conditions to avoid:	Temperatures >38°C (100°F)	

## Section 11. Toxicological Information

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

Carcinogeny, NTP: Not considered carcinogenic by NTP, IARC and OSHA  
 IARC Monographs: No  
 OSHA Regulated: No  
 LD50: Lethal dose 50%  
 LC50: Lethal concentration 50%

## Section 12. Ecological Information

Environmental Fate: Not available

## Section 13. Disposal Consideration

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

Not restricted for transportation by air, sea, and road.

## Section 15. Regulatory Information

Labelling information:	Indication of Danger:	None
	Risk Phrases:	None
	Contains:	Cyanoacrylate

## Section 16. Additional Information

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.