

# Material Safety Data Sheet

## LOCTITE 414 SUPERBONDER

**Infosafe No.** 1LO0Y      **Issue Date** May 1998      **Status** ISSUED by LOCTITE

**Classified as hazardous according to criteria of NOHSC**

### COMPANY DETAILS

**Company Name** LOCTITE AUSTRALIA PTY LTD

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**Emergency Tel.** See CONTACT POINT

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### IDENTIFICATION

**Product Code** 414

**Product Name** LOCTITE 414 SUPERBONDER

**Proper**

**Shipping Name** None Allocated

Other Names	Name	Product Code
	LOCTITE 424 PRISM & 404,413,414,415,416,420,422,430,493,495,496	
	LOCTITE 422 SUPERBONDER	422
	LOCTITE 493 SUPERBONDER	493
	LOCTITE 495 SUPERBONDER	495
	LOCTITE 496 SUPERBONDER	496
	LOCTITE 424 SUPERBONDER PRISM 25gm	42423-25
	LOCTITE 413 SUPERBONDER	413
	LOCTITE 415 SUPERBONDER	415
	LOCTITE 416 SUPERBONDER	416
	LOCTITE 420 SUPERBONDER	420
	LOCTITE 424 SUPERBONDER PRISM 500gm	42462
	424	
	493	
	495	

	496
	CA
	SUPERBONDER
	PRISM
	413
	414
	415
	416
	420
	422
<b>UN Number</b>	None Allocated
<b>DG Class</b>	None Allocated
<b>Packing Group</b>	None Allocated
<b>Hazchem Code</b>	None Allocated
<b>Poisons Schedule</b>	Not Scheduled
<b>Product Use</b>	ADHESIVE FOR BONDING WOOD, CERAMICS, METALS, SOME PLASTICS, SOME RUBBERS ETC.

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### Physical Data

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<b>Appearance</b>	COLOURLESS CLEAR LIQUID, SHARP ACRID ODOUR, LOW/MEDIUM VISCOSITY.
<b>Melting Point</b>	< -10°C
<b>Boiling Point</b>	> 100°C
<b>Vapour Pressure</b>	< 0.01 mm Hg @ 25°C
<b>Specific Gravity</b>	Approx. 1.05 - 1.10
<b>Flash Point</b>	> 85°C (COC)
<b>Flamm. Limit</b>	
<b>LEL</b>	not known
<b>Explosion Data</b>	not known

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### Other Properties

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<b>Volatile Component</b>	not known
<b>Autoignition Temp.</b>	not known
<b>Vapour Density</b>	Approx. 3
<b>pH Value</b>	not known
<b>Form</b>	Liquid
<b>Decomposition Temperature</b>	not known
<b>Molecular Weight</b>	not known

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### Ingredients

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Ingredients	Name	CAS	Proportion
	ALKYL ALPHA CYANOACRYLATE		0-99.9 %
	POLYALKYL METHACRYLATE THICKENER		0-10 %
	ORGANIC STABILIZERS		0-0.2 %
<b>Other Information</b>	NOTE: ABOVE INGREDIENTS ARE PRESENT IN PERCENTAGES BY WEIGHT LESS THAN SHOWN.		

## HEALTH HAZARD INFORMATION

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### Health Effects

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<b>Acute - Swallowed</b>	Non-harmful.
<b>Acute - Eye</b>	High concentrations of vapours will cause irritation.
<b>Acute - Skin</b>	Contact with skin may result in irritation.
<b>Acute - Inhaled</b>	The vapour may be an irritant to the mucous membranes and respiratory tract.
<b>Chronic</b>	None known.

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### First Aid

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<b>Swallowed</b>	DO NOT INDUCE VOMITING! It is almost impossible to swallow cyanoacrylate as the adhesive solidifies and adheres to the mouth. Saliva will lift this adhesive within one or two days. ENSURE THAT AIR PASSAGES ARE KEPT CLEAR! Keep patient calm to avoid possibility of vomiting, as this may block air passage and cause suffocation.
<b>Eye</b>	Cyanoacrylate adhesives introduced into the eyes will attach itself to the eye protein but will usually dissociate from it over periods covering several hours. This will cause periods of weeping over several hours until clearance is achieved. There is no chronic after effect. During the period of contamination, double vision may be experienced together with the lachrymatory effect, and it is important to understand the cause and realise that full recovery is rapid and normally within one or two days, even with gross contamination. Where the eye is bonded closed, release the eyelashes by swabbing with warm water or covering with a warm wet pad. The eye should then open of its own accord within 24 hours. MINOR eye contamination should be treated by copious washing with WATER or a 1% SODIUM BICARBONATE SOLUTION.
<b>Skin</b>	Cyanoacrylate adhesives bond skin in seconds under slight pressure. Bonded skin should be peeled apart, with the aid of warm soapy water if necessary, but never PULLED directly apart. Peel or roll the surfaces apart with the aid of a blunt edge ie. a spoon handle or spatula. In cases of large areas of skin being bonded, pre-soaking in a warm 1% solution of SODIUM BICARBONATE will be helpful.
<b>Inhaled</b>	Remove victim to fresh air. Recovery should be rapid after removal from exposure. See notes 'PRECAUTIONS FOR USE - OTHER INFORMATION'.
<b>First Aid Facilities</b>	Eyewash station and normal washroom facilities must be provided, and a safety shower is strongly recommended. Risk Phrases: R36/37/38 - Irritating to eyes, respiratory system and skin. R43 - May cause sensitization by skin contact. Safety Phrases: S1/2 Keep locked up and out of reach of children. S24/25 Avoid contact with skin and eyes. S37/39 Wear suitable gloves and eye/face protection. S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S28 After contact with skin, wash immediately with plenty of soap and water.

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## Advice to Doctor

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**Advice to Doctor** Where the eye is firmly closed, the eyelashes may be cautiously trimmed to assist opening. ONLY if it is feared that there are solid particles behind the eyelid, WHICH IS HIGHLY UNLIKELY, should any attempt be made to open the eyelid surgically.  
Refer to TOXICITY DATA SECTION.  
Contact LOCTITE AUSTRALIA PTY. LTD.

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## Other Health Hazard Information

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## PRECAUTIONS FOR USE

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**Exposure Limits** No exposure standard has been established for this product; but a standard does exist for the following ingredient/s:

SUBSTANCE	TWA	STEL
	ppm	mg/m3
METHYL CYANOACRYLATE	2	ppm mg/m3

(based on a discomfort factor).

**Eng. Controls** Consider mechanical ventilation.

**Other Information** This product is relatively non toxic. Due to its strong bonding action with keratin of the outer skin, any allergic sensitization is considered extremely unlikely. In very dry atmospheres (below 50% Relative Humidity) vapour given off during use may irritate the eyes and respiratory system. When Relative Humidity is adjusted to above 55% by the use of suitable humidifiers there should be no problem of irritancy. Such vapours have no acute or chronic effects with normal industrial exposure; however, there may be a slight risk of sensitization in some individuals in the unlikely event of exposure for extended periods to very high concentrations. Ventilation and/or humidity control will eliminate any such possibility.

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## Personal Protection

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**Protective Equip.** Avoid skin and eye contact. Wearing of the following personal protective equipment is recommended. Safety glasses.  
Polyethylene or polypropylene gloves ONLY.

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## Flammability

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**Fire Hazards** Will burn if involved in a fire but not considered to be a significant fire risk.

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## SAFE HANDLING INFORMATION

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## Storage and Transport

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**Storage and Transport** Transport in original containers. Store in original containers.  
Keep containers firmly closed when not in use. Storage may be at room temperature, however storage at or below 5 °C will ensure maximum shelf life.

**Other Storage Info.** There is normally no necessity for any skin protection when using small quantities of CYANOACRYLATE products. However, POLYETHYLENE or POLYPROPYLENE GLOVES may be used. Gloves made of other materials such as RUBBER, NYLON, PVC or FABRIC are NOT RECOMMENDED; unsuspected cuts or cracks in such gloves could lead to skin bonding with CYANOACRYLATE under unusually high heat production causing a skin burn. GOGGLES should be worn when handling LARGE quantities of CYANOACRYLATE ADHESIVES. Ventilation is important and the relative humidity should be above 55% for ideal working conditions. Keep these adhesives away from children due to their strong skin bonding action. DO NOT MIX directly with LOCTITE CYANOACRYLATE ACTIVATORS or ACCELERATORS.

**Proper Shipping Name** None Allocated

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## Spills and Disposal

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**Spills & Disposal** VENTILATE the area. Cloths should NOT be used to mop up spills. Cover with DRY wood, DRY sawdust or flour and collect for disposal, avoiding skin contact. Alternatively dyke the spillage with sand and treat cautiously with water to solidify. Liquid products should be poured into 10 times their volume of water to solidify. Once spilled product has been solidified, dispose of in trade waste bin. Cured product is biodegradable. Protective clothing, safety glasses, polyethylene/polypropylene gloves should be worn when dealing with LARGE spills. Ventilation may be necessary, especially in confined spaces.

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## Fire/Explosion Hazard

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**Fire/Explos. Hazard** No unusual fire or explosion hazards. Decomposes on heating emitting noxious fumes. On burning will emit noxious fumes. Extinguish fire with the following: . Use CO2, dry chemical or foam. Halons.

Fire Hazards and Procedures. Cyanoacrylates are not spontaneously combustible and present no unusual fire hazards. Flash points are greater than 80°C. Preferred fire extinguishers are Carbon Dioxide (CO2) and Water. A small volume of oxides of nitrogen may be released on complete incineration of cyanoacrylates; such decomposition products should not be inhaled. While it is theoretically possible for a small quantity of hydrogen cyanide gas to be evolved on partial incineration of the cyanoacrylate molecule, such conditions are considered difficult to achieve in practice and could, in any event, never produce a level approaching the TLV for hydrogen cyanide, given normal cyanoacrylate volumes and work areas.

**Hazardous Reaction** Reactive with water to solidify and generate heat. Destabilised and solidified by basic material.

**Hazchem Code** None Allocated

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## OTHER INFORMATION

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**Toxicology** This product is relatively NON TOXIC. Due to its strong bonding action with keratin of the outer skin, any allergic sensitization is considered extremely unlikely. In very dry atmospheres (below 50% relative humidity) vapour, during use, will irritate the eyes and respiratory system. When relative humidity is adjusted to above 55% by the use of suitable humidifiers, there should be no problem or irritancy. Such vapours have no

acute or chronic effects with normal industrial exposure; however, there may be a slight risk of sensitization in some individuals in the unlikely event of exposure for extended periods to very high concentrations. Ventilation and/or humidity control will eliminate any such possibility. A TLV (ACGIH) of 2ppm has been adopted for METHYL CYANOACRYLATE based on a DISCOMFORT factor. This product is almost impossible to swallow as it solidifies rapidly in the mouth and bonds to the mouth tissue. CYANOACRYLATES have been used in the human body as surgical adhesives, and are biodegradable. Odour threshold value is approx. 1-2 ppm.

**Environment****Protection** Biodegradable.**Risk Statement** R43 May cause sensitization by skin contact.

R36/37/38 Irritating to eyes, respiratory system and skin.

**Safety** S1/2 Keep locked up and out of reach of children.**Statement** S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S28 After contact with skin, wash immediately with plenty of

S24/25 Avoid contact with skin and eyes.

S37/39 Wear suitable gloves and eye/face protection.

**Hazard****Category** Irritant

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**CONTACT POINT**

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**Contact** Technical Services Manager: Gerard Buys (02)9525 8366 / (0411) 669 002

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**End of MSDS**

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