Safety Data Sheet

LOCTITE 403

MSDS-No. : 434636
V001.0
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Section 1. Identification of the substance/preparation and of the company/undertaking

Product name: LOCTITE 403

Intended use: Cyanoacrylate

Supplier:
Henkel Australia Pty Ltd
135-141 Canterbury Road
Kilsyth, Victoria, 3137
Australia

Phone: +61 (3) 9724 6444

Emergency information: 24 HOUR EMERGENCY CONTACT NUMBER 03 9724 6556

Section 2. Hazards identification

Classification of the substance or mixture
Hazardous according to the criteria of Safe Work Australia.

GHS Classification:

Hazard Class	**Hazard Category**
Flammable liquids	Category 4

Signal word: Warning

Hazard statement(s): H227 Combustible liquid.

Precautionary Statement(s):

Prevention: P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280 Wear protective gloves, eye protection, and face protection.

Response: P370+P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

Storage: P403+P235 Store in a well-ventilated place. Keep cool.

Disposal: P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Classification of material None

Risk phrases:
Not applicable

Safety phrases:
Not applicable

Dangerous Goods information:
Not classified as Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG Code).

Signal word:
HAZARDOUS

Section 3. Composition / information on ingredients

General chemical description: Substance
General chemical description: Mixture
Type of preparation: Cyanoacrylate Adhesive

Identity of ingredients:

Chemical ingredients	CAS-No.	Proportion
2-Methoxyethyl 2-cyanoacrylate	27816-23-5	60- 100 %
non hazardous ingredients~		< 30 %

Section 4. First aid measures

Ingestion: Ensure that breathing passages are not obstructed. The product will polymerise immediately in the mouth making it almost impossible to swallow. Saliva will slowly separate the solidified product from the mouth (several hours).

Skin: Do not pull bonded skin apart. It may be gently peeled apart using a blunt object such as a spoon, preferably after soaking in warm soapy water.
Cyanoacrylates give off heat on solidification. In rare cases a large drop will generate enough heat to cause a burn.
Burns should be treated normally after the adhesive has been removed from the skin.
If lips are accidentally stuck together apply warm water to the lips and encourage maximum wetting and pressure from saliva inside the mouth.
Peel or roll lips apart. Do not try to pull the lips apart with direct opposing action.

Eyes: If the eye is bonded closed, release eyelashes with warm water by covering with wet pad.
Cyanoacrylate will bond to eye protein and will cause periods of weeping which will help to debond the adhesive.
Keep eye covered until debonding is complete, usually within 1-3 days.
Do not force eye open. Medical advice should be sought in case solid particles of cyanoacrylate trapped behind the eyelid cause any abrasive damage.

Inhalation: Move to fresh air, consult doctor if complaint persists.

First Aid facilities: Eye wash and safety shower
Normal washroom facilities

Medical attention and special treatment: 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.

Section 5. Fire fighting measures

Suitable extinguishing media: Foam, extinguishing powder, carbon dioxide.
Fine water spray

Improper extinguishing media:	None known
Decomposition products in case of fire::	Oxides of carbon, oxides of nitrogen, irritating organic vapors.
Particular danger in case of fire::	In the event of a fire, carbon monoxide (CO) and carbon dioxide (CO2) can be released. In case of fire, keep containers cool with water spray.
Special protective equipment for fire-fighters:	Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA).

Section 6. Accidental release measures

Personal precautions:	Ensure adequate ventilation.
Environmental precautions:	Do not let product enter drains.
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.

Section 7. Handling and storage

Precautions for safe handling:	Ventilation (low level) is recommended when using large volumes Use of dispensing equipment is recommended to minimise the risk of skin or eye contact
Conditions for safe storage:	For optimum shelf life store in original containers under refrigerated conditions at 2 - 8°C (35.6 - 46.4 °F)

Section 8. Exposure controls / personal protection

National exposure standards:

Engineering controls:	Ensure good ventilation/suction at the workplace.
Eye protection:	Wear protective glasses.
Skin protection:	The use of chemical resistant gloves such as Nitrile is recommended. Polyethylene or polypropylene gloves are recommended when using large volumes. Do not use PVC, rubber or nylon gloves. Please note that in practice the working life of chemical resistant gloves may be considerably reduced as a result of many influencing factors (e.g. temperature). Suitable risk assessment should be carried out by the end user. If signs of wear and tear are noticed then the gloves should be replaced.
Respiratory protection:	Ensure adequate ventilation. If inhalation risk exists, wear a respirator or air supplied mask complying with the requirements of AS/NZS 1715 and AS/NZS 1716.

Section 9. Physical and chemical properties

Appearance:	Clear, Colorless, Straw Liquid
Odor:	Odorless
Odor threshold (CA):	1 - 2 ppm
Specific gravity:	1.1

Boiling point:	> 149 °C (> 300.2 °F)
Flash point: (Tagliabue closed cup)	80 °C (176 °F)
Vapor pressure: (None)	< 0.2 mm hg
Density:	1.1 g/cm3

Section 10. Stability and reactivity

Stability: Stable under normal conditions of temperature and pressure.

Conditions to avoid: Keep away from heat, ignition sources and incompatible materials.

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

Hazardous decomposition products: Oxides of nitrogen.

Oxides of carbon.
Irritating organic vapours.

Section 11. Toxicological information

Health Effects:

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

Skin: Bonds skin in seconds. May cause skin irritation. 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.

Eyes: May cause mild irritation

Inhalation: Inhalation of vapors or mists of the product may be irritating to the respiratory system.

Acute toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
2-Methoxyethyl 2-cyanoacrylate 27816-23-5	LD50	> 5,000 mg/kg	oral		rat	OECD Guideline 401 (Acute Oral Toxicity)
	LD50	> 2,000 mg/kg	dermal		rabbit	OECD Guideline 402 (Acute Dermal Toxicity)

Skin corrosion/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
2-Methoxyethyl 2-cyanoacrylate 27816-23-5	not irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Serious eye damage/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
2-Methoxyethyl 2-cyanoacrylate 27816-23-5	not irritating	300 s		HET-CAM Test

Respiratory or skin sensitization:

Hazardous components CAS-No.	Result	Test type	Species	Method
2-Methoxyethyl 2-cyanoacrylate 27816-23-5	not sensitising	Guinea pig maximisation test	guinea pig	

Germ cell mutagenicity:

Hazardous components CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
2-Methoxyethyl 2-cyanoacrylate 27816-23-5	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)

Section 12. Ecological information

General ecological information: Biological and Chemical Oxygen Demands (BOD and COD) are insignificant., Do not empty into drains / surface water / ground water.

Ecotoxicity: Harmful to aquatic life with long lasting effects.

Persistence and degradability:

Hazardous components CAS-No.	Result	Route of application	Degradability	Method
2-Methoxyethyl 2-cyanoacrylate 27816-23-5	readily biodegradable	aerobic	86 %	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)

Section 13. Disposal considerations

Waste disposal of product: Cured adhesive: Dispose of as water insoluble non-toxic solid chemical in authorised landfill or incinerate under controlled conditions.
Dispose of in accordance with local and national regulations.
Contribution of this product to waste is very insignificant in comparison to article in which it is used

Disposal for uncleaned package: After use, tubes, cartons and bottles containing residual product should be disposed of as chemically contaminated waste in an authorised legal land fill site or incinerated.
Disposal must be made according to official regulations.

Section 14. Transport information

Road and Rail Transport:

Dangerous Goods information: Not classified as Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG Code).

Marine transport IMDG:
Not dangerous goods

Air transport IATA:

UN no.:	3334
Proper shipping name:	Aviation regulated liquid, n.o.s. (Cyanoacrylate ester)
Class or division:	9
Packing group:	III
Packing instructions (passenger)	964
Packing instructions (cargo)	964
Additional Information:	Primary packs containing less than 500ml are unregulated by this mode of transport and may be shipped unrestricted.

Section 15. Regulatory information

SUSMP Poisons Schedule None

Section 16. Other information

Abbreviations/acronyms:
ADGC - Australian Dangerous Goods Code
IMDG: International Maritime Dangerous Goods code
IATA-DGR: International Air Transport Association – Dangerous Goods Regulations

Reason for issue: New Safety Data Sheet format. involved chapters: 1 - 16

Disclaimer:

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