

**Safety Data Sheet**

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Loctite 406

SDS No. : 153530

V001.2

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**SECTION 1 IDENTIFICATION OF THE MATERIAL AND SUPPLIER**

<b>Product name:</b>	Loctite 406
<b>Intended use:</b>	Cyanoacrylate
<b>Supplier:</b>	Henkel New Zealand Ltd 2 Allens Rd Auckland, 2013 New Zealand Phone: +64 (9) 272-6710
<b>Emergency Telephone for Chemical Accidents:</b>	24 HOUR EMERGENCY CONTACT NUMBER 0800 243 622

**SECTION 2 HAZARDS IDENTIFICATION****Classification of the substance or mixture**

Classified as hazardous under the New Zealand Hazardous Substances and New Organisms Act (HSNO).

Not Classified as Dangerous Goods according to NZS 5433: 2012 and the Land Transport Rule: Dangerous Goods 2005.

**GHS Classification:**

<b><u>Hazard Class</u></b>	<b><u>Hazard Category</u></b>	<b><u>Target organ</u></b>
Flammable liquids	Category 4	
Skin irritation	Category 2	
Serious eye irritation	Category 2A	
Target Organ Systemic Toxicant - Single exposure	Category 3	respiratory tract irritation
Acute hazards to the aquatic environment	Category 3	

**Hazard pictogram:****Signal word:**

Warning

<b>Hazard statement(s):</b>	H227 Combustible liquid. H315 Causes skin irritation. H319 Causes serious eye irritation. H335 May cause respiratory irritation. H402 Harmful to aquatic life.
<b>Precautionary Statement(s):</b>	
<b>Prevention:</b>	P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P261 Avoid breathing mist/vapours. P264 Wash hands thoroughly after handling. P271 Use only outdoors or in a well-ventilated area. P273 Avoid release to the environment. P280 Wear protective gloves/protective clothing/eye protection/face protection.
<b>Response:</b>	P302+P352 IF ON SKIN: Wash with plenty of water. P304+P340+P312 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. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P332+P313 If skin irritation occurs: Get medical advice/attention. P337+P313 If eye irritation persists: Get medical advice/attention. P362+P364 Take off contaminated clothing and wash it before reuse. P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
<b>Storage:</b>	P403+P233 Store in a well-ventilated place. Keep container tightly closed. P405 Store locked up.
<b>Disposal:</b>	P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations.

**SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS**

**General chemical description:** Mixture

**Identity of ingredients:**

Chemical ingredients	CAS-No.	Proportion
Ethyl 2-cyanoacrylate	7085-85-0	90- <= 100 %

**SECTION 4 FIRST AID MEASURES**

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<b>Ingestion:</b>	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).
<b>Skin:</b>	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.
<b>Eyes:</b>	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.
<b>Inhalation:</b>	Move to fresh air, consult doctor if complaint persists.
<b>First Aid facilities:</b>	Eye wash Normal washroom facilities
<b>Medical attention and special treatment:</b>	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

<b>Suitable extinguishing media:</b>	Foam, extinguishing powder, carbon dioxide. Fine water spray
<b>Decomposition products in case of fire:</b>	Oxides of carbon, oxides of nitrogen, irritating organic vapors.
<b>Particular danger in case of fire:</b>	In the event of a fire, carbon monoxide (CO), carbon dioxide (CO <sub>2</sub> ) and nitrogen oxides (NO <sub>x</sub> ) can be released.
<b>Special protective equipment for fire-fighters:</b>	Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA).

## SECTION 6. ACCIDENTAL RELEASE MEASURES

<b>Personal precautions:</b>	Ensure adequate ventilation.
<b>Environmental precautions:</b>	Do not let product enter drains.
<b>Clean-up methods:</b>	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**

<b>Precautions for safe handling:</b>	Ventilation (low level) is recommended when using large volumes Use of dispensing equipment is recommended to minimise the risk of skin or eye contact
<b>Conditions for safe storage:</b>	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****Workplace exposure standards:**

None

**Biological Exposure Indices:**

None

**Engineering controls:**

Ensure good ventilation/suction at the workplace.

**Eye protection:**

Safety glasses with sideshields or chemical safety goggles should be worn if there is a risk of splashing.

**Skin protection:**

Chemical-resistant protective gloves (EN 374).  
Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to > 30 minutes permeation time as per EN 374):  
nitrile rubber (NBR;  $\geq$  0.4 mm thickness)  
Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374):  
nitrile rubber (NBR;  $\geq$  0.4 mm thickness)  
This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced.  
Polyethylene or polypropylene gloves are recommended when using large volumes.  
Do not use PVC, rubber or nylon gloves.

**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**

<b>Appearance:</b>	colourless liquid
<b>Odor:</b>	irritating
<b>pH:</b>	Not applicable, Product reacts with water.
<b>Melting point / freezing point:</b>	Not applicable, Product is a liquid
<b>Specific gravity:</b>	1.1
<b>Boiling point:</b>	> 149 °C (> 300.2 °F)
<b>Flash point:</b>	80.0 - 93 °C (176 - 199.4 °F) (Tagliabue closed cup)
<b>Vapor pressure:</b>	< 0.5 mm hg (; 25 °C (77 °F)no method / < 700 hPa

method unknown; 50 °C (122 °F))  
**Vapor density:** 3  
**Density:** 1.1000 g/cm<sup>3</sup>  
**Solubility in water:** Polymerises in presence of water.  
**Auto ignition:** 485 °C  
**Decomposition temperature:**

**SECTION 10. STABILITY AND REACTIVITY**

**Stability:** Stable under recommended storage conditions.

**Conditions to avoid:** Spontaneous polymerization.

**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.

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

**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:** May cause skin irritation.  
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.

**Eyes:** Irritating to eyes. Causes excessive tearing. Eyelids may bond.

**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.

**Aggravated med. condition:** Eye, skin, and respiratory disorders.

**Acute toxicity:**

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Ethyl 2-cyanoacrylate 7085-85-0	LD50 LD50	> 5,000 mg/kg > 2,000 mg/kg	oral dermal		rat rabbit	equivalent or similar to OECD Guideline 423 (Acute Oral toxicity) equivalent or similar to OECD Guideline 402 (Acute Dermal Toxicity)

**Skin corrosion/irritation:**

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Ethyl 2-cyanoacrylate 7085-85-0	slightly irritating	24 h	rabbit	equivalent or similar to OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

**Serious eye damage/irritation:**

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Ethyl 2-cyanoacrylate 7085-85-0	irritating		rabbit	equivalent or similar to OECD Guideline 405 (Acute Eye Irritation / Corrosion)

**Respiratory or skin sensitization:**

Hazardous components CAS-No.	Result	Test type	Species	Method
Ethyl 2-cyanoacrylate 7085-85-0	not sensitising	Skin sensitisation	guinea pig	not specified

**Germ cell mutagenicity:**

Hazardous components CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
Ethyl 2-cyanoacrylate 7085-85-0	negative negative negative	bacterial reverse mutation assay (e.g Ames test) in vitro mammalian chromosome aberration test mammalian cell gene mutation assay	with and without with and without with and without		equivalent or similar to OECD Guideline 471 (Bacterial Reverse Mutation Assay) OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test) OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)

**SECTION 12. ECOLOGICAL INFORMATION**

**General ecological information:** Do not empty into drains / surface water / ground water.

**Ecotoxicity:** H402 Harmful to aquatic life.

**Persistence and degradability:**

Hazardous components CAS-No.	Result	Route of application	Degradability	Method
Ethyl 2-cyanoacrylate 7085-85-0	not readily biodegradable.	aerobic	57 %	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)

**Bioaccumulative potential / Mobility in soil:**

Hazardous components CAS-No.	LogPow	Bioconcentration factor (BCF)	Exposure time	Species	Temperature	Method
Ethyl 2-cyanoacrylate 7085-85-0	0.776				22 °C	EU Method A.8 (Partition Coefficient)

**SECTION 13. DISPOSAL CONSIDERATIONS**

- Waste disposal of product:** Dispose of in accordance with local and national regulations.
- 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**

**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 IATA: Primary packs containing less than 500ml are unregulated by this mode of transport and may be shipped unrestricted.

**SECTION 15. REGULATORY INFORMATION**

**New Zealand regulatory information:**  
Classified as hazardous under the New Zealand Hazardous Substances and New Organisms Act (HSNO).

**HSNO Approval Number:** Group standard HSR002657

**Site and Storage:** Refer to the site and storage requirements for this Group Standard.

**NZIoC:** Compliant for NZIOC

**SECTION 16. OTHER INFORMATION**

**Abbreviations/acronyms:** HSNO - Hazardous Substances and New Organisms  
GHS: Globally Harmonized System  
CAS: Chemical Abstracts Service  
IMDG: International Maritime Dangerous Goods code  
IATA-DGR: International Air Transport Association – Dangerous Goods Regulations

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**Disclaimer:**

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