



## Safety Data Sheet

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LOCTITE HY 4090

MSDS-No. : 467545  
V001.1  
Date of issue: 26.08.2015

### Section 1. Identification of the substance/preparation and of the company/undertaking

**Product name:** LOCTITE HY 4090

**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: 1800 032 379

### Section 2. Hazards identification

**Classification of the substance or mixture**

Hazardous according to the criteria of Safe Work Australia.

**GHS Classification:**

<u>Hazard Class</u>	<u>Hazard Category</u>	<u>Target organ</u>
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 dust/fume/gas/mist/vapours/spray. 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, eye protection, and 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 Take off contaminated clothing. P370+P378 In case of fire: Use water spray (fog), foam, dry chemical or carbon dioxide 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.

Classification of material Xi - Irritant

**Risk phrases:**

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

**Safety phrases:**

S23 Do not breathe vapour.

S24/25 Avoid contact with skin and eyes.

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 water.

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

S46 If swallowed, seek medical advice immediately and show this container or label.

**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:**

Mixture

**Type of preparation:**

Part A of two part adhesive

**Identity of ingredients:**

Chemical ingredients	CAS-No.	Proportion
Ethyl 2-cyanoacrylate	7085-85-0	60- 100 %
Hydroquinone	123-31-9	< 0.1 %
non hazardous ingredients~		10- 30 %

**Section 4. First aid measures**

<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>	Treat symptomatically and supportively.

**Section 5. Fire fighting measures**

<b>Suitable extinguishing media:</b>	Foam, extinguishing powder, carbon dioxide. Fine water spray
<b>Improper extinguishing media:</b>	None known
<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) and carbon dioxide (CO2) can be released. In case of fire, keep containers cool with water spray.
<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>	Avoid skin and eye contact. Vapours should be extracted to avoid inhalation.
<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

#### National exposure standards:

Ingredient [Regulated substance]	form of exposure	TWA (ppm)	TWA (mg/m3)	Peak Limit. (ppm)	Peak Limit. (mg/m3)	STEL (ppm)	STEL (mg/m3)
HYDROQUINONE 123-31-9			2	-	-	-	-

<b>Engineering controls:</b>	Provide local and general exhaust ventilation to effectively remove and prevent buildup of any vapors or mists generated from the handling of this product.
<b>Eye protection:</b>	Wear protective glasses.
<b>Skin protection:</b>	Protective clothing that covers arms and legs. 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.
<b>Respiratory protection:</b>	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 to yellowish
<b>Odor:</b>	liquid irritating
<b>Specific gravity:</b>	1.01 - 1.06
<b>Flash point:</b>	80 - 93 °C (176 - 199.4 °F)
<b>Vapor pressure:</b>	< 700 mbar (no method; 50 °C (122 °F))
<b>Density:</b>	1.01 - 1.06 g/cm3
<b>Solubility in water:</b>	Insoluble
<b>VOC content:</b>	< 3 % (2010/75/EC)

**Section 10. Stability and reactivity**

<b>Stability:</b>	Stable under normal conditions of temperature and pressure.
<b>Conditions to avoid:</b>	Excessive heat.
<b>Incompatible materials:</b>	Rapid exothermic polymerization will occur in the presence of water, amines, alkalis and alcohols.
<b>Hazardous decomposition products:</b>	Oxides of carbon.

**Section 11. Toxicological information**

<b>Health Effects:</b>	
<b>Ingestion:</b>	Not expected to be harmful by ingestion. Rapidly polymerizes (solidifies) and bonds in mouth. It is almost impossible to swallow.
<b>Skin:</b>	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. 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.
<b>Eyes:</b>	Irritating to eyes. Causes excessive tearing. Eyelids may bond.
<b>Inhalation:</b>	Exposure to vapors above the established exposure limit results in respiratory irritation, which may lead to difficulty in breathing and tightness in the chest.

**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	OECD Guideline 401 (Acute Oral Toxicity) OECD Guideline 402 (Acute Dermal Toxicity)
Hydroquinone 123-31-9	LD50	367 mg/kg	oral		rat	OECD Guideline 401 (Acute Oral Toxicity)

**Skin corrosion/irritation:**

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Ethyl 2-cyanoacrylate 7085-85-0	slightly irritating	24 h	rabbit	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	72 h	rabbit	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		guinea pig	
Hydroquinone 123-31-9	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
Ethyl 2-cyanoacrylate 7085-85-0	negative negative negative	bacterial reverse mutation assay (e.g Ames test) mammalian cell gene mutation assay in vitro mammalian chromosome aberration test	with and without with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay) OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test) OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
Hydroquinone 123-31-9	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		EU Method B.13/14 (Mutagenicity)

**Repeated dose toxicity:**

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Method
Hydroquinone 123-31-9	NOAEL= $\geq$ 250 mg/kg	oral: gavage	14 days 5 days/week. 12 doses	rat	OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents)
Hydroquinone 123-31-9	LOAEL= $\leq$ 500 mg/kg	oral: gavage	14 days 5 days/week. 12 doses	rat	OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents)

**Section 12. Ecological information****General ecological information:** Do not empty into drains / surface water / ground water.**Ecotoxicity:** Harmful to aquatic life.**Toxicity:**

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
Hydroquinone 123-31-9	LC50	0.638 mg/l	Fish	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
Hydroquinone 123-31-9	EC50	0.134 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Hydroquinone 123-31-9	EC50	0.335 mg/l	Algae	72 h	Selenastrum capricornutum (new name: Pseudokirchnerella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Hydroquinone 123-31-9	EC 50	0.038 mg/l	Bacteria	30 min		DIN 38412, part 27 (Bacterial oxygen consumption test)

**Persistence and degradability:**

Hazardous components CAS-No.	Result	Route of application	Degradability	Method
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Ethyl 2-cyanoacrylate 7085-85-0		aerobic	57 %	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
Hydroquinone 123-31-9	readily biodegradable	aerobic	75 - 81 %	EU Method C.4-E (Determination of the "Ready" Biodegradability Closed Bottle Test)

**Bioaccumulative potential / Mobility in soil:**

Hazardous components CAS-No.	LogKow	Bioconcentration factor (BCF)	Exposure time	Species	Temperature	Method
Ethyl 2-cyanoacrylate 7085-85-0	0.776				22 °C	EU Method A.8 (Partition Coefficient)
Hydroquinone 123-31-9	0.59					EU Method A.8 (Partition Coefficient)

**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**

### Section 16. Other information

<b>Abbreviations/acronyms:</b>	ADGC - Australian Dangerous Goods Code IMDG: International Maritime Dangerous Goods code IATA-DGR: International Air Transport Association – Dangerous Goods Regulations STEL - Short term exposure limit TWA - Time weighted average
<b>Reason for issue:</b>	Reviewed SDS. Reissued with new date. involved chapters: 1 - 16
<b>Date of previous issue:</b>	13.08.2014
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