Safety Data Sheet

LOCTITE 460 LOW BLOOM INSTANT ADHESIVE known as
460 Prism® Low Odor/Low Bloom

SDS No. : 434271
V001.1
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Section 1. Identification of the substance/preparation and of the company/undertaking

Product name: LOCTITE 460 LOW BLOOM INSTANT ADHESIVE known as 460 Prism® Low Odor/Low Bloom

Intended use: Cyanoacrylate

Supplier:
Henkel Australia Pty Ltd
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Kilsyth, Victoria, 3137
Australia

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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:

Hazard Class	Hazard Category
Flammable liquids	Category 4
Acute hazards to the aquatic environment	Category 3
Chronic hazards to the aquatic environment	Category 3

Signal word: Warning

Hazard statement(s):
H227 Combustible liquid.
H412 Harmful to aquatic life with long lasting effects.

Precautionary Statement(s):

Prevention:
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273 Avoid release to the environment.
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.

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

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).

Section 3. Composition / information on ingredients

General chemical description: Mixture
Type of preparation: Cyanoacrylate Adhesive

Identity of ingredients:

Chemical ingredients	CAS-No.	Proportion
Bis(2-hydroxy-3-tert-butyl-5-methylphenyl)methane	119-47-1	< 3 %
non hazardous ingredients~		< 100 %

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 bums they should be treated symptomatically after adhesive is removed.
Treat symptomatically.

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:	Thermal decomposition can lead to release of irritating gases and vapors. 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:	Wear full protective clothing. Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA).

Section 6. Accidental release measures

Personal precautions:	Ensure adequate ventilation. Avoid contact with skin and eyes. Wear protective equipment.
Environmental precautions:	Do not empty into drains / surface water / ground water.
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. Dispose of contaminated material as waste according to Section 13.

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 Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist. Wash thoroughly after handling. Avoid contact with fabric or paper goods. Contact with these materials may cause rapid polymerization which can generate smoke and strong irritating vapors, and cause thermal burns. See advice in section 8
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/extraction.
Eye protection:	Wear protective glasses.
Skin protection:	Use nitrile gloves and aprons as necessary to prevent contact. Do not use PVC, nylon or cotton. 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:	Negligible
pH:	Not applicable
Boiling point:	> 149 °C (> 300.2 °F)
Flash point:	80 °C (176 °F)
Vapor density:	Approximate 3
Density:	1.1 g/cm3
Solubility in water:	Polymerises in presence of water.
Viscosity (dynamic): (; Method: ;; LCT STM 740; cone & plate viscosity)	25 - 45 mPa.s

Section 10. Stability and reactivity

Stability: Stable under recommended storage conditions.

Conditions to avoid: Avoid moisture.
Protect from direct sunlight.
Heat, flames, sparks and other sources of ignition.

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

Hazardous decomposition products: Thermal decomposition can lead to release of irritating gases and vapors.

carbon dioxide

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: 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
Bis(2-hydroxy-3-tert-butyl-5-methylphenyl)methane 119-47-1	LD50 LD50	> 10,000 mg/kg > 10,000 mg/kg	oral dermal		rat rat	not specified not specified

Germ cell mutagenicity:

Hazardous components CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
Bis(2-hydroxy-3-tert-butyl-5-methylphenyl)methane 119-47-1	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)

Section 12. Ecological information

Ecotoxicity: Do not empty into drains / surface water / ground water., Harmful to aquatic life with long lasting effects.

Toxicity:

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
Bis(2-hydroxy-3-tert-butyl-5-methylphenyl)methane 119-47-1	LC50	Toxicity > Water solubility	Fish		Oryzias latipes	OECD Guideline 203 (Fish, Acute Toxicity Test)
Bis(2-hydroxy-3-tert-butyl-5-methylphenyl)methane 119-47-1	EC50	Toxicity > Water solubility	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Bis(2-hydroxy-3-tert-butyl-5-methylphenyl)methane 119-47-1	EC50	Toxicity > Water solubility	Algae	72 h	Pseudokirchneriella subcapitata (reported as Selenastrum capricornutum)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Bis(2-hydroxy-3-tert-butyl-5-methylphenyl)methane 119-47-1	NOEC	Toxicity > Water solubility	Algae	72 h	Pseudokirchneriella subcapitata (reported as Selenastrum capricornutum)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Bis(2-hydroxy-3-tert-butyl-5-methylphenyl)methane 119-47-1	EC 50	> 10,000 mg/l	Bacteria	3 h		OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)

Persistence and degradability:

Hazardous components CAS-No.	Result	Route of application	Degradability	Method
Bis(2-hydroxy-3-tert-butyl-5-methylphenyl)methane 119-47-1	under test conditions no biodegradation observed	aerobic	0 %	OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))

Bioaccumulative potential / Mobility in soil:

Hazardous components CAS-No.	LogPow	Bioconcentration factor (BCF)	Exposure time	Species	Temperature	Method
Bis(2-hydroxy-3-tert-butyl-5-methylphenyl)methane 119-47-1		320 - 780	60 d	Cyprinus carpio		OECD Guideline 305 E (Bioaccumulation: Flow-through Fish Test)
Bis(2-hydroxy-3-tert-butyl-5-methylphenyl)methane 119-47-1	6.25				20 °C	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)

Section 13. Disposal considerations

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

Disposal for uncleaned package: Packaging that cannot be cleaned are to be disposed of in the same manner as the product.

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 IATA:	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
GHS: Globally Harmonized System
CAS: Chemical Abstracts Service
OECD: Organization for Economic Cooperation and Development
LD 50: Lethal Dose 50%
LC 50: Lethal Concentration 50%
IMDG: International Maritime Dangerous Goods code
IATA-DGR: International Air Transport Association – Dangerous Goods Regulations

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Disclaimer:

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