



Safety Data Sheet

LOCTITE AA 330

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SDS No. : 416828

V001.0

Date of issue: 23.06.2020

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

Product name: LOCTITE AA 330

Intended use: Acrylic Adhesive

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 corrosion	Category 1A	
Serious eye damage/eye irritation	Category 1	
Skin sensitizer	Category 1	
Toxic to reproduction	Category 1B	
Target Organ Systemic Toxicant - Single exposure	Category 3	respiratory tract irritation
Acute hazards to the aquatic environment	Category 3	
Chronic hazards to the aquatic environment	Category 3	

Hazard pictogram:



Signal word: Danger

- Hazard statement(s):** H227 Combustible liquid.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H335 May cause respiratory irritation.
H360 May damage fertility or the unborn child.
H412 Harmful to aquatic life with long lasting effects.
- Precautionary Statement(s):**
- Prevention:** P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
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.
P272 Contaminated work clothing should not be allowed out of the workplace.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P281 Use personal protective equipment as required.
- Response:** P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P304+P340+P310 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or physician.
P305+P351+P338+P315 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention.
P308+P313 IF exposed or concerned: Get medical advice/attention.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P363 Wash contaminated clothing before reuse.
P370+P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
- Storage:** P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.
- 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

Identity of ingredients:

Chemical ingredients	CAS-No.	Proportion
Tetrahydrofurfuryl methacrylate	2455-24-5	30- < 60 %
methacrylic acid	79-41-4	5- < 10 %
2-Ethylhexyl methacrylate	688-84-6	< 10 %
reaction product: bisphenol-A-(epichlorhydrin)	25068-38-6	< 1 %
Tetrahydrofurfuryl alcohol	97-99-4	< 0.3 %
1,1,2-trichloroethane	79-00-5	< 1 %
non hazardous ingredients~		< 50 %

Section 4. First aid measures

Ingestion:	Seek medical advice. Rinse out mouth, drink 1-2 glasses of water, do not induce vomiting.
Skin:	Seek medical advice. Rinse with running water and soap. Launder contaminated clothing before reuse.
Eyes:	Rinse immediately with plenty of running water (for 10 minutes). Seek medical attention if necessary.
Inhalation:	Should not be a problem as product is of low volatility. However, if feeling unwell remove patient to fresh air.
First Aid facilities:	Eye wash and safety shower Normal washroom facilities
Medical attention and special treatment:	Treat symptomatically.

Section 5. Fire fighting measures

Suitable extinguishing media:	Carbon dioxide, foam, powder
Improper extinguishing media:	None known
Combustion behaviour:	Combustible Liquid
Decomposition products in case of fire:	Oxides of carbon, oxides of nitrogen, irritating organic vapors.
Particular danger in case of fire:	In case of fire, keep containers cool with water spray.
Special protective equipment for fire-fighters:	Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.

Section 6. Accidental release measures

Personal precautions:	Ensure adequate ventilation. Wear protective equipment. Remove sources of ignition. See advice in section 8
Environmental precautions:	Do not let product enter drains.
Clean-up methods:	For small spills wipe up with paper towel and place in container for disposal. For large spills absorb onto inert absorbent material and place in sealed container for disposal. Wash spillage site thoroughly with soap and water or detergent solution. Dispose of contaminated material as waste according to Section 13.

Section 7. Handling and storage

- Precautions for safe handling:** Use only in well-ventilated areas.
Avoid skin and eye contact.
Prolonged or repeated skin contact should be avoided to minimise any risk of sensitisation.
- Conditions for safe storage:** Store in original containers at 8-21°C (46.4-69.8°F) and do not return residual materials to containers as contamination may reduce the shelf life of the bulk product.

Section 8. Exposure controls / personal protection**National exposure standards:**

Ingredient [Regulated substance]	form of exposure	TWA (ppm)	TWA (mg/m ³)	Peak Limit. (ppm)	Peak Limit. (mg/m ³)	STEL (ppm)	STEL (mg/m ³)
METHACRYLIC ACID 79-41-4		20	70				
1,1,2-TRICHLOROETHANE 79-00-5		10	55				

- Engineering controls:** Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.
- Eye protection:** Wear chemical goggles and face shield.
- Skin protection:** Protective clothing that covers arms and legs.
The use of chemical resistant gloves such as Nitrile is recommended.
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.
Do not inhale vapors and fumes.
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:** Amber
Liquid
- Odor:** Sharp, Irritating
- pH:** 10
- Specific gravity:** 1.16
- Boiling point:** > 148.9 °C (> 300 °F)
- Flash point:** > 100 °C (> 212 °F)
- Vapor pressure:** < 4 mbar
- Solubility in water:** Slightly soluble
- VOC content:** 1.59 % 18.4 g/l

Section 10. Stability and reactivity

- Stability:** Stable under recommended storage conditions.
- Conditions to avoid:** Avoid excessive heat and ignition sources.

Incompatible materials:	Strong oxidizing agents. Strong reducing agents. Strong acids. Alkalis.
Hazardous decomposition products:	At higher temperature carbon oxides and nitrogen oxides may be generated. Irritating organic vapours.
Hazardous polymerization:	Will not occur.

Section 11. Toxicological information

Health Effects:	
Ingestion:	May be harmful if swallowed.
Skin:	Contact with skin can cause irritation and allergic reaction (sensitization) in some individuals.
Eyes:	Contact can cause moderate to severe irritation and possible injury to the eyes. Vapors may also produce eye irritation.
Inhalation:	May cause irritation to nose and throat.
Chronic effects:	Repeated excessive dermal exposure may cause marked skin irritation and may increase the possibility of allergic reactions.

Acute toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Tetrahydrofurfuryl methacrylate 2455-24-5	LD50	3,945 mg/kg	oral		rat	OECD Guideline 401 (Acute Oral Toxicity)
methacrylic acid 79-41-4	LD50 LC50 LD50	1,320 mg/kg > 3.6 mg/l 500 - 1,000 mg/kg	oral inhalation dermal	4 h	rat rat rabbit	equivalent or similar to OECD Guideline 401 (Acute Oral Toxicity) OECD Guideline 403 (Acute Inhalation Toxicity) Dermal Toxicity Screening
2-Ethylhexyl methacrylate 688-84-6	LD0 LD50 LD50	> 2,000 mg/kg > 2,000 mg/kg > 20,000 mg/kg	oral oral dermal		rat rat rat	OECD Guideline 401 (Acute Oral Toxicity) OECD Guideline 401 (Acute Oral Toxicity) not specified
reaction product: bisphenol-A- (epichlorhydrin) 25068-38-6	LD50 LD50	> 2,000 mg/kg > 2,000 mg/kg	oral dermal		rat rat	OECD Guideline 420 (Acute Oral Toxicity) OECD Guideline 402 (Acute Dermal Toxicity)
Tetrahydrofurfuryl alcohol 97-99-4	LD50	> 2,000 mg/kg	oral		rat	OECD Guideline 423 (Acute Oral toxicity)

Skin corrosion/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Tetrahydrofurfuryl methacrylate 2455-24-5	not irritating	24 h	rabbit	Draize Test
methacrylic acid 79-41-4	corrosive	3 min	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
reaction product: bisphenol-A- (epichlorhydrin) 25068-38-6	moderately irritating	24 h	rabbit	Draize Test
Tetrahydrofurfuryl alcohol 97-99-4	not irritating	4 h	rabbit	EPA OPP 81-5 (Acute Dermal Irritation)

Serious eye damage/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Tetrahydrofurfuryl methacrylate 2455-24-5	not irritating		rabbit	Draize Test
methacrylic acid 79-41-4	corrosive		rabbit	Draize Test
reaction product: bisphenol-A- (epichlorhydrin) 25068-38-6	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Tetrahydrofurfuryl alcohol 97-99-4	irritating		rabbit	EPA OPP 81-4 (Acute Eye Irritation)

Respiratory or skin sensitization:

Hazardous components CAS-No.	Result	Test type	Species	Method
Tetrahydrofurfuryl methacrylate 2455-24-5	sensitising	Patch-Test	human	not specified
Tetrahydrofurfuryl methacrylate 2455-24-5	sensitising	Direct peptide reactivity assay (DPRA)	cysteine and lysine, in chemico test	not specified
methacrylic acid 79-41-4	not sensitising	Buehler test	guinea pig	equivalent or similar to OECD Guideline 406 (Skin Sensitisation)
2-Ethylhexyl methacrylate 688-84-6	sensitising	Guinea pig maximisation test	guinea pig	Magnusson and Kligman Method
reaction product: bisphenol-A- (epichlorhydrin) 25068-38-6	sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
Tetrahydrofurfuryl alcohol 97-99-4	not sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)

Germ cell mutagenicity:

Hazardous components CAS-No.	Result	Type of study/ Route of administration	Metabolic activation/ Exposure time	Species	Method
methacrylic acid 79-41-4	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		equivalent or similar to OECD Guideline 471 (Bacterial Reverse Mutation Assay)
methacrylic acid 79-41-4	negative negative	inhalation oral: gavage		mouse mouse	equivalent or similar to OECD Guideline 478 (Genetic Toxicology: Rodent Dominant Lethal Test) equivalent or similar to OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
2-Ethylhexyl methacrylate 688-84-6	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
reaction product: bisphenol-A- (epichlorhydrin) 25068-38-6	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 472 (Genetic Toxicology: Escherichia coli, Reverse Mutation Assay)
reaction product: bisphenol-A- (epichlorhydrin) 25068-38-6	negative	oral: gavage		mouse	not specified
Tetrahydrofurfuryl alcohol 97-99-4	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		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)

Repeated dose toxicity:

Hazardous components CAS-No.	Result	Route of application	Exposure time/ Frequency of treatment	Species	Method
Tetrahydrofurfuryl methacrylate 2455-24-5	NOAEL=300 mg/kg	oral: gavage	29 dyes, concurrent vehicle	rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction/ Developmental Toxicity Screening Test)
methacrylic acid 79-41-4		inhalation	90 d6 h/d, 5 d/w	rat	OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day)
reaction product: bisphenol-A- (epichlorhydrin) 25068-38-6	NOAEL=50 mg/kg	oral: gavage	14 wdaily	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
Tetrahydrofurfuryl alcohol 97-99-4	NOAEL=500 ppm	oral: feed	91-93 ddaily	rat	not specified
Tetrahydrofurfuryl alcohol 97-99-4	NOAEL=1000 ppm	oral: feed	91-93 ddaily	rat	not specified

Section 12. Ecological information

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

Ecotoxicity: Harmful to aquatic life with long lasting effects.

Toxicity:

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
Tetrahydrofurfuryl methacrylate 2455-24-5	LC50	34.7 mg/l	Fish	96 h	Pimephales promelas	OECD Guideline 203 (Fish, Acute Toxicity Test)
Tetrahydrofurfuryl methacrylate 2455-24-5	EC50	> 100 mg/l	Algae	72 h	Desmodesmus subspicatus	OECD Guideline 201 (Alga. Growth Inhibition Test)
Tetrahydrofurfuryl methacrylate 2455-24-5	NOEC	> 100 mg/l	Algae	72 h	Desmodesmus subspicatus	OECD Guideline 201 (Alga. Growth Inhibition Test)
methacrylic acid 79-41-4	LC50	85 mg/l	Fish	96 h	Salmo gairdneri (new name: Oncorhynchus mykiss)	EPA OTS 797.1400 (Fish Acute Toxicity Test)
methacrylic acid 79-41-4	EC50	> 130 mg/l	Daphnia	48 h	Daphnia magna	EPA OTS 797.1300 (Aquatic Invertebrate Acute Toxicity Test, Freshwater Daphnids)
methacrylic acid 79-41-4	NOEC	8.2 mg/l	Algae	72 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga. Growth Inhibition Test)
methacrylic acid 79-41-4	EC50	45 mg/l	Algae	72 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga. Growth Inhibition Test)
methacrylic acid 79-41-4	EC10	100 mg/l	Bacteria	17 h		not specified
2-Ethylhexyl methacrylate 688-84-6	LC50	2.78 mg/l	Fish	96 h	Oryzias latipes	OECD Guideline 203 (Fish, Acute Toxicity Test)
2-Ethylhexyl methacrylate 688-84-6	EC50	4.56 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
2-Ethylhexyl methacrylate 688-84-6	EC50	7.68 mg/l	Algae	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga. Growth Inhibition Test)
2-Ethylhexyl methacrylate 688-84-6	NOEC	0.28 mg/l	Algae	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga. Growth Inhibition Test)
reaction product: bisphenol-A- (epichlorhydrin) 25068-38-6	LC50	1.75 mg/l	Fish	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
reaction product: bisphenol-A- (epichlorhydrin) 25068-38-6	EC50	1.7 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
reaction product: bisphenol-A- (epichlorhydrin) 25068-38-6	EC50	> 11 mg/l	Algae	72 h	Scenedesmus capricornutum	OECD Guideline 201 (Alga. Growth Inhibition Test)
reaction product: bisphenol-A- (epichlorhydrin) 25068-38-6	NOEC	4.2 mg/l	Algae	72 h	Scenedesmus capricornutum	OECD Guideline 201 (Alga. Growth Inhibition Test)
reaction product: bisphenol-A- (epichlorhydrin) 25068-38-6	IC50	> 100 mg/l	Bacteria	3 h	activated sludge, industrial	other guideline:
Tetrahydrofurfuryl alcohol 97-99-4	LC50	> 101 mg/l	Fish	96 h	Oryzias latipes	OECD Guideline 203 (Fish, Acute Toxicity Test)
1,1,2-trichloroethane 79-00-5	LC50	136 mg/l	Fish	96 h	Pimephales promelas	OECD Guideline 203 (Fish, Acute Toxicity Test)
1,1,2-trichloroethane 79-00-5	EC50	160 mg/l	Daphnia	48 h	Daphnia magna	other guideline:
1,1,2-trichloroethane	EC50	213 mg/l	Algae	72 h	Scenedesmus subspicatus (new	OECD Guideline

79-00-5					name: Desmodosmus subspicatus	201 (Alga. Growth Inhibition Test)
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Persistence and degradability:

Hazardous components CAS-No.	Result	Route of application	Degradability	Method
Tetrahydrofurfuryl methacrylate 2455-24-5	not readily biodegradable.	aerobic	75 %	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
methacrylic acid 79-41-4	inherently biodegradable	aerobic	100 %	OECD Guideline 302 B (Inherent biodegradability: Zahn- Wellens/EMPA Test)
methacrylic acid 79-41-4	readily biodegradable	aerobic	86 %	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
2-Ethylhexyl methacrylate 688-84-6	readily biodegradable	aerobic	88 %	OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))
reaction product: bisphenol-A- (epichlorhydrin) 25068-38-6	not readily biodegradable.	aerobic	5 %	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
Tetrahydrofurfuryl alcohol 97-99-4	readily biodegradable	aerobic	92 %	OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))
1,1,2-trichloroethane 79-00-5	not readily biodegradable.	aerobic	5 %	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
Tetrahydrofurfuryl methacrylate 2455-24-5	1.76					EU Method A.8 (Partition Coefficient)
methacrylic acid 79-41-4	0.93				22 °C	OECD Guideline 107 (Partition Coefficient (n- octanol / water), Shake Flask Method)
2-Ethylhexyl methacrylate 688-84-6		37	56 h	Danio rerio	24 °C	OECD Guideline 305 (Bioconcentration: Flow- through Fish Test)
2-Ethylhexyl methacrylate 688-84-6	4.95				20 °C	OECD Guideline 107 (Partition Coefficient (n- octanol / water), Shake Flask Method)
reaction product: bispheno-A- (epichlorhydrin) 25068-38-6	3.242				25 °C	EU Method A.8 (Partition Coefficient)
Tetrahydrofurfuryl alcohol 97-99-4	-0.14				24.7 °C	OECD Guideline 107 (Partition Coefficient (n- octanol / water), Shake Flask Method)
1,1,2-trichloroethane 79-00-5		2	14 d	Lepomis macrochirus		other guideline:
1,1,2-trichloroethane 79-00-5	> 2.05 - < 2.49				20 °C	QSAR (Quantitative Structure Activity Relationship)

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.

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:

Not dangerous goods

Section 15. Regulatory information

SUSMP Poisons Schedule None

AICS: All components are listed or are exempt from listing on the Australian Inventory of Chemical Substances (AICS).

Section 16. Other information

Abbreviations/acronyms: ADGC - Australian Dangerous Goods Code
GHS: Globally Harmonized System
CAS: Chemical Abstracts Service
LD 50: Lethal Dose 50%
OECD: Organization for Economic Cooperation and Development
LC 50: Lethal Concentration 50%
STEL - Short term exposure limit
TWA - Time weighted average

Reason for issue: First issue. involved chapters: 1-16

Disclaimer:

The percentage weight (% w/w) of ingredients is not to be taken as a specification guaranteed by Henkel Australia Pty. Limited, but only as an approximate guide to the content of hazardous ingredients in the material. The information contained herein does not constitute a guarantee by Henkel Australia Pty. Limited concerning the properties of the material.

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