



## Safety Data Sheet

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LOCTITE AA 324 STRUCTURAL ADH known as 324  
SPEEDBONDER 50ML EN/CH/JP

SDS No. : 153503

V002.4

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

**Product name:** LOCTITE AA 324 STRUCTURAL ADH known as 324 SPEEDBONDER 50ML EN/CH/JP

**Other means of identification:** LOCTITE AA 324 50ML EN/CH  
**Product code:** IDH231558

**Recommended use of the chemical and restrictions on use**

**Intended use:** Acrylic Adhesive

**Identification of manufacturer, importer or distributor**

**Importer:** Henkel Malaysia Sdn Bhd 46th Floor, Menara TM, Jalan Pantai Baharu, 59200 Kuala Lumpur, Malaysia. Phone :+ 603 22461000 Fax : + 60322461188

**E-mail address of person responsible for Safety Data Sheet:** ap-ua-psra.sea@henkel.com

**Emergency information:** FOR EMERGENCIES ONLY (Spill, major leak, Fire, Exposure, or Accident). Call CHEMTREC: +1 703-741-5970

### Section 2. Hazards identification

**GHS Classification:**

<u>Hazard Class</u>	<u>Hazard Category</u>	<u>Target organ</u>
Skin corrosion/irritation	Category 2	
Serious eye damage/eye irritation	Category 2	
Skin sensitizer	Category 1	
Specific target organ toxicity - single exposure	Category 3	respiratory tract irritation
Chronic hazards to the aquatic environment	Category 3	

**GHS label elements:**

**Hazard pictogram:**



**Signal word:**

Warning

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**Hazard statement:**

H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.  
H412 Harmful to aquatic life with long lasting effects.

**Precaution:**

**Prevention:**

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
P273 Avoid release to the environment.  
P280 Wear eye protection/face protection.  
P280 Wear protective gloves.  
P264 Wash hands thoroughly after handling.  
P272 Contaminated work clothing should not be allowed out of the workplace.

**Response:**

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.  
P333+P313 If skin irritation or rash 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.

**Storage:**

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

**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.

**Section 3. Composition / information on ingredients**

**Substance or Mixture:**  
Mixture

**Declaration of hazardous chemical:**

Hazard component CAS-No.	Content	GHS Classification
2-Hydroxyethyl methacrylate 868-77-9	10- 30 %	Skin corrosion/irritation 2 H315 Serious eye damage/eye irritation 2 H319 Skin sensitizer 1 H317
exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl methacrylate 7534-94-3	10- 30 %	Skin corrosion/irritation 2 H315 Serious eye damage/eye irritation 2 H319 Specific target organ toxicity - single exposure 3 H335 Chronic hazards to the aquatic environment 2 H411
Methacrylic acid, monoester with propane-1,2-diol 27813-02-1	1- 10 %	Serious eye damage/eye irritation 2 H319 Skin sensitizer 1 H317
Tert-butyl perbenzoate 614-45-9	1- 10 %	Organic peroxides C H242 Acute toxicity 4; Inhalation H332 Skin corrosion/irritation 2 H315 Skin sensitizer 1 H317 Acute hazards to the aquatic environment 1 H400 Chronic hazards to the aquatic environment 3 H412
Acrylic acid 79-10-7	1- 10 %	Flammable liquids 3 H226 Acute toxicity 4; Oral H302 Acute toxicity 4; Inhalation H332 Acute toxicity 4; Dermal H312 Skin corrosion/irritation 1A H314 Specific target organ toxicity - single exposure 3 H335 Acute hazards to the aquatic environment 1 H400 Chronic hazards to the aquatic environment 2 H411

**Section 4. First aid measures**

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

**Skin contact:** Rinse with running water and soap.  
Obtain medical attention if irritation persists.

<b>Eye contact:</b>	Rinse immediately with plenty of running water (for 10 minutes), seek medical attention from a specialist.
<b>Ingestion:</b>	Rinse mouth, drink 1-2 glasses of water, do not induce vomiting, consult a doctor.
<b>Indication of immediate medical attention and special treatment needed:</b>	See section: Description of first aid measures

### Section 5. Fire fighting measures

<b>Suitable extinguishing media:</b>	Foam, extinguishing powder, carbon dioxide.
<b>Improper extinguishing media:</b>	High pressure waterjet
<b>Specific hazards arising from the chemical:</b>	Danger of decomposition if exposed to heat.
<b>Special protection equipment and precautions for firefighters:</b>	Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.
<b>Hazardous combustion products:</b>	Isocyanate vapors See section 10.

### Section 6. Accidental release measures

<b>Personal precautions:</b>	Avoid contact with skin and eyes. Wear protective equipment.
<b>Environmental precautions:</b>	Do not let product enter drains.
<b>Clean-up methods:</b>	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. Dispose of contaminated material as waste according to Section 13. Avoid dust formation.

### Section 7. Handling and storage

<b>Handling:</b>	Ensure that workrooms are adequately ventilated. See advice in section 8 Avoid open flames.
<b>Storage:</b>	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****Components with specific control parameters for workplace:**

ACRYLIC ACID 79-10-7	<b>Value type</b>	Time Weighted Average (TWA):
	<b>ppm</b>	2
	<b>Remarks</b>	ACGIH
ACRYLIC ACID 79-10-7	<b>Value type</b>	Time Weighted Average (TWA):
	<b>ppm</b>	2
	<b>mg/m<sup>3</sup></b>	5.9
<b>Remarks</b>	MY OEL	
ACRYLIC ACID 79-10-7	<b>Value type</b>	Skin designation:
	<b>Remarks</b>	ACGIH Can be absorbed through the skin.
ACRYLIC ACID 79-10-7	<b>Value type</b>	Skin designation:
	<b>Remarks</b>	MY OEL Can be absorbed through the skin.

**Respiratory protection:**

Ensure adequate ventilation.  
An approved mask or respirator fitted with an organic vapour cartridge should be worn if the product is used in a poorly ventilated area  
Filter type: A (EN 14387)

**Hand 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; >= 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; >= 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.

**Eye protection:**

Goggles which can be tightly sealed.  
and/or  
facial protection  
Protective eye equipment should conform to EN166.

**Body protection:**

Wear suitable protective clothing.  
Protective clothing should conform to EN 14605 for liquid splashes or to EN 13982 for dusts.

**Hygienic measures:**

Wash hands before work breaks and after finishing work. Do not eat, drink or smoke while working.

**Section 9. Physical and chemical properties**

<b>Appearance:</b>	colourless viscous, liquid
<b>Odor:</b>	characteristic, irritating
<b>Odor threshold (CA):</b>	No data available.
<b>pH:</b>	No data available.

<b>Melting point / freezing point:</b>	No data available.
<b>Specific gravity:</b>	1.1
<b>Boiling point:</b>	> 149 °C (> 300.2 °F)
<b>Flash point:</b> (Tagliabue closed cup)	90 °C (194 °F)
<b>Evaporation rate:</b>	No data available.
<b>Flammability (solid, gas):</b>	No data available.
<b>Lower explosive limit:</b>	No data available.
<b>Upper explosive limit:</b>	No data available.
<b>Vapor pressure:</b>	No data available.
<b>Vapor density:</b>	No data available.
<b>Density:</b>	1.1 g/cm <sup>3</sup>
<b>Solubility:</b>	No data available.
<b>Partition coefficient: n-octanol/water:</b>	No data available.
<b>Auto ignition:</b>	No data available.
<b>Decomposition temperature:</b>	No data available.
<b>Viscosity:</b>	No data available.
<b>VOC content:</b> (2010/75/EC)	< 3 %

### Section 10. Stability and reactivity

<b>Reactivity/Incompatible materials:</b>	Reaction with strong acids. Reacts with strong oxidants.
<b>Chemical stability:</b>	Stable under recommended storage conditions.
<b>Conditions to avoid:</b>	Danger of decomposition if exposed to heat. Exposure to light. Stable under normal conditions of storage and use.
<b>Hazardous decomposition products:</b>	Irritating vapors. Hydrocarbons carbon oxides. May produce fumes when heated to decomposition. Fumes may contain carbon monoxide and other toxic fumes. See section 5.

### Section 11. Toxicological information

<b>Oral toxicity:</b>	Acute toxicity estimate (ATE) : > 2,000 mg/kg Method: Calculation method
<b>Inhalative toxicity:</b>	Acute toxicity estimate (ATE) : > 20 mg/l Exposure time: 4 h Test atmosphere: Vapor. Method: Calculation method
<b>Dermal toxicity:</b>	Acute toxicity estimate (ATE) : > 2,000 mg/kg Method: Calculation method

Symptoms of Overexposure: SKIN: Redness, inflammation.  
SKIN: Rash, Urticaria.  
EYE: Irritation, conjunctivitis.  
RESPIRATORY: Irritation, coughing, shortness of breath, chest tightness.

**Acute oral toxicity:**

exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl methacrylate 7534-94-3	Value type	LD50
	Value	> 2,000 mg/kg
	Species	rat
	Method	
Methacrylic acid, monoester with propane-1,2-diol 27813-02-1	Value type	LD50
	Value	> 2,000 mg/kg
	Species	rat
	Method	OECD Guideline 401 (Acute Oral Toxicity)
Tert-butyl perbenzoate 614-45-9	Value type	LD50
	Value	4,838 mg/kg
	Species	rat
	Method	
Acrylic acid 79-10-7	Value type	LD50
	Value	1,500 mg/kg
	Species	rat
	Method	BASF Test

**Acute inhalative toxicity:**

Tert-butyl perbenzoate 614-45-9	Value type	LC50
	Value	> 1.01 mg/l
	Exposure time	
	Species	Not specified
	Method	
Acrylic acid 79-10-7	Value type	LC50
	Value	> 5.1 mg/l
	Exposure time	4 h
	Species	rat
	Method	OECD Guideline 403 (Acute Inhalation Toxicity)
Acrylic acid 79-10-7	Value type	Acute toxicity estimate (ATE)
	Value	11 mg/l
	Exposure time	
	Species	
	Method	Expert judgement

**Acute dermal toxicity:**

2-Hydroxyethyl methacrylate 868-77-9	Value type	LD50
	Value	> 3,000 mg/kg
	Species	rabbit
	Method	
exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl methacrylate 7534-94-3	Value type	LD50
	Value	> 3,000 mg/kg
	Species	rabbit
	Method	
Methacrylic acid, monoester with propane-1,2-diol 27813-02-1	Value type	LD50
	Value	> 5,000 mg/kg
	Species	rabbit
	Method	
Tert-butyl perbenzoate 614-45-9	Value type	LD50
	Value	3,817 mg/kg
	Species	rat
	Method	
Acrylic acid 79-10-7	Value type	Acute toxicity estimate (ATE)
	Value	1,100 mg/kg
	Species	
	Method	Expert judgement
Acrylic acid 79-10-7	Value type	LD50
	Value	> 2,000 mg/kg
	Species	rabbit
	Method	OECD Guideline 402 (Acute Dermal Toxicity)

**Skin corrosion/irritation:**

Acrylic acid 79-10-7	Result	highly corrosive
	Exposure time	3 min
	Species	rabbit
	Method	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

**Serious eye damage/irritation:**

Acrylic acid 79-10-7	Result	corrosive
	Exposure time	21 d
	Species	rabbit
	Method	BASF Test

**Respiratory or skin sensitization:**

Acrylic acid 79-10-7	Result	not sensitising
	Test type	Skin painting test
	Species	guinea pig
	Method	



**Germ cell mutagenicity:**

2-Hydroxyethyl methacrylate 868-77-9	Result	negative
	Type of study / Route of administration	bacterial reverse mutation assay (e.g Ames test)
	Metabolic activation / Exposure time	with and without
	Method	OECD Guideline 471 (Bacterial Reverse Mutation Assay)
2-Hydroxyethyl methacrylate 868-77-9	Result	positive
	Type of study / Route of administration	in vitro mammalian chromosome aberration test
	Metabolic activation / Exposure time	with and without
	Method	OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
Acrylic acid 79-10-7	Result	negative
	Type of study / Route of administration	bacterial reverse mutation assay (e.g Ames test)
	Metabolic activation / Exposure time	with and without
	Method	

**Section 12. Ecological information****General ecological information:**

If used properly the product does not enter the drains., In the cured state contribution of this product to Environmental Hazards is insignificant in comparison to articles in which it is used.

**Ecotoxicity:**

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

**Toxicity:**

2-Hydroxyethyl methacrylate 868-77-9	Value type	LC50
	Value	227 mg/l
	Acute Toxicity Study	Fish
	Exposure time	96 h
	Species	Pimephales promelas
	Method	OECD Guideline 203 (Fish, Acute Toxicity Test)
2-Hydroxyethyl methacrylate 868-77-9	Value type	EC50
	Value	380 mg/l
	Acute Toxicity Study	Daphnia
	Exposure time	48 h
	Species	Daphnia magna
	Method	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
2-Hydroxyethyl methacrylate 868-77-9	Value type	EC50
	Value	345 mg/l
	Acute Toxicity Study	Algae
	Exposure time	72 h
	Species	Selenastrum capricornutum (new name: Pseudokirchnerella subcapitata)
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)
	Value type	NOEC
	Value	160 mg/l
	Acute Toxicity Study	Algae
	Exposure time	72 h
	Species	Selenastrum capricornutum (new name: Pseudokirchnerella subcapitata)
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)
2-Hydroxyethyl methacrylate 868-77-9	Value type	EC0
	Value	> 3,000 mg/l
	Acute Toxicity Study	Bacteria
	Exposure time	16 h
	Species	
	Method	
exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl methacrylate 7534-94-3	Value type	LC50
	Value	1.79 mg/l
	Acute Toxicity Study	Fish
	Exposure time	96 h
	Species	Danio rerio
	Method	OECD Guideline 203 (Fish, Acute Toxicity Test)
exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl methacrylate 7534-94-3	Value type	EC50
	Value	1.1 mg/l
	Acute Toxicity Study	Daphnia
	Exposure time	48 h

	Species	Daphnia magna
	Method	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl methacrylate 7534-94-3	Value type	EC50
	Value	2.66 mg/l
	Acute Toxicity Study	Algae
	Exposure time	96 h
	Species	Pseudokirchnerella subcapitata
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)
	Value type	NOEC
	Value	0.254 mg/l
	Acute Toxicity Study	Algae
	Exposure time	96 h
	Species	Pseudokirchnerella subcapitata
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)
Methacrylic acid, monoester with propane-1,2-diol 27813-02-1	Value type	LC50
	Value	493 mg/l
	Acute Toxicity Study	Fish
	Exposure time	48 h
	Species	Leuciscus idus melanotus
	Method	DIN 38412-15
Methacrylic acid, monoester with propane-1,2-diol 27813-02-1	Value type	EC50
	Value	> 130 mg/l
	Acute Toxicity Study	Daphnia
	Exposure time	48 h
	Species	Daphnia magna
	Method	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Methacrylic acid, monoester with propane-1,2-diol 27813-02-1	Value type	EC10
	Value	1,140 mg/l
	Acute Toxicity Study	Bacteria
	Exposure time	16 h
	Species	
	Method	
Tert-butyl perbenzoate 614-45-9	Value type	LC50
	Value	1.6 mg/l
	Acute Toxicity Study	Fish
	Exposure time	96 h
	Species	Brachydanio rerio (new name: Danio rerio)
	Method	OECD Guideline 203 (Fish, Acute Toxicity Test)
Tert-butyl perbenzoate 614-45-9	Value type	EC50
	Value	11 mg/l
	Acute Toxicity Study	Daphnia
	Exposure time	48 h
	Species	Daphnia magna
	Method	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Tert-butyl perbenzoate 614-45-9	Value type	NOEC
	Value	0.72 mg/l
	Acute Toxicity Study	Algae
	Exposure time	72 h
	Species	Pseudokirchnerella subcapitata
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)
	Value type	EC50
	Value	0.8 mg/l
	Acute Toxicity Study	Algae
	Exposure time	72 h
	Species	Pseudokirchnerella subcapitata
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)
Tert-butyl perbenzoate 614-45-9	Value type	EC10
	Value	6 mg/l
	Acute Toxicity Study	Bacteria
	Exposure time	30 min
	Species	activated sludge of a predominantly domestic sewage
	Method	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
Acrylic acid 79-10-7	Value type	LC50
	Value	27 mg/l
	Acute Toxicity Study	Fish
	Exposure time	96 h
	Species	Salmo gairdneri (new name: Oncorhynchus mykiss)
	Method	EPA OTS 797.1400 (Fish Acute Toxicity Test)
Acrylic acid 79-10-7	Value type	EC10
	Value	0.03 mg/l

	Acute Toxicity Study	Algae
	Exposure time	72 h
	Species	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)
	Value type	EC50
	Value	0.13 mg/l
	Acute Toxicity Study	Algae
	Exposure time	72 h
Acrylic acid 79-10-7	Species	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)
	Value type	EC10
	Value	41 mg/l
	Acute Toxicity Study	Bacteria
	Exposure time	16 h
	Species	
	Method	

**Persistence and degradability:**

2-Hydroxyethyl methacrylate 868-77-9	Result	readily biodegradable
	Route of application	aerobic
	Degradability	92 - 100 %
	Method	OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))
exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl methacrylate 7534-94-3	Result	readily biodegradable
	Route of application	aerobic
	Degradability	70 %
	Method	OECD Guideline 310 (Ready BiodegradabilityCO2 in Sealed Vessels (Headspace Test))
Methacrylic acid, monoester with propane-1,2-diol 27813-02-1	Result	readily biodegradable
	Route of application	aerobic
	Degradability	94.2 %
	Method	OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test)
Tert-butyl perbenzoate 614-45-9	Result	readily biodegradable
	Route of application	aerobic
	Degradability	70 %
	Method	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
Acrylic acid 79-10-7	Result	readily biodegradable
	Route of application	aerobic
	Degradability	81 %
	Method	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
	Result	inherently biodegradable
	Route of application	aerobic
	Degradability	100 %
	Method	OECD Guideline 302 B (Inherent biodegradability: Zahn-Wellens/EMPA Test)

**Bioaccumulative potential / Mobility in soil:**

exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl methacrylate 7534-94-3	LogKow	5.09
	Temperature	
	Method	OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)
Methacrylic acid, monoester with propane-1,2-diol 27813-02-1	LogKow	0.97
	Temperature	
	Method	
Tert-butyl perbenzoate 614-45-9	LogKow	3.00
	Temperature	25 °C
	Method	OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)
Acrylic acid 79-10-7	Bioconcentration factor (BCF)	3.16
	Exposure time	
	Species	
	Temperature	
	Method	

Acrylic acid 79-10-7	LogKow	0.46
	Temperature	25 °C
	Method	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)

### Section 13. Disposal considerations

#### Product

**Method of disposal:** Special waste incineration with the approval of the responsible local authority.

#### Packaging

**Disposal of uncleaned packages:** Disposal must be made according to official regulations.  
Use packages for recycling only when totally empty.  
Packaging that cannot be cleaned are to be disposed of in the same manner as the product.

### Section 14. Transport information

**Road transport ADR:**

Not dangerous goods

**Railroad transport RID:**

Not dangerous goods

Inland water transport ADN:

Not dangerous goods

**Marine transport IMDG:**

Not dangerous goods

**Air transport IATA:**

Not dangerous goods

### Section 15. Regulatory information

**Regulatory Information:** Occupational Safety and Health (Classification, Labelling and Safety Data Sheet of Hazardous Chemicals) Regulations 2013 [P.U.(A) 310/213]  
Industry Code of Practice on Chemicals Classification and Hazard Communication

**Global inventory status:**

Regulatory list	Notification
TSCA	yes

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**Section 16. Other information**

**Disclaimer:**

This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.