



## Safety Data Sheet

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LOCTITE EA 901NA-B1 PART B  
known as (HYSOL EA 901 NA.B-1 PART B)

MSDS-No. : 234768  
V000.0  
Date of issue: 06.08.2015

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

**Product name:** LOCTITE EA 901NA-B1 PART B  
known as (HYSOL EA 901 NA.B-1 PART B)

**Intended use:** Part B of 2-Component Epoxy 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>
Skin corrosion	Category 1B
Serious eye damage/eye irritation	Category 1
Skin sensitizer	Category 1
Chronic hazards to the aquatic environment	Category 2

#### Hazard pictogram:



**Signal word:** Danger

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<b>Hazard statement(s):</b>	H314 Causes severe skin burns and eye damage. H317 May cause an allergic skin reaction. H411 Toxic to aquatic life with long lasting effects.
<b>Precautionary Statement(s):</b>	
<b>Prevention:</b>	P261 Avoid breathing dust/fume/gas/mist/vapours/spray. P264 Wash hands thoroughly after handling. 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.
<b>Response:</b>	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/ 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 remove. Continue rinsing. Get immediate medical advice/attention. P333+P313 If skin irritation or rash occurs: Get medical advice/attention. P363 Wash contaminated clothing before reuse. P391 Collect spillage.
<b>Storage:</b>	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 C - Corrosive N - Dangerous for the environment

**Risk phrases:**

R34 Causes burns.  
R43 May cause sensitisation by skin contact.  
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Safety phrases:**

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.  
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.  
S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).  
S46 If swallowed, seek medical advice immediately and show this container or label.  
S60 This material and its container must be disposed of as hazardous waste.

**Dangerous Goods information:**

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:** organic amine  
**Type of preparation:** Accelerator for epoxy systems

**Identity of ingredients:**

Chemical ingredients	CAS-No.	Proportion
C18 Fatty acid dimer, tall oil fatty acid, triethylenetetramine polymer	68082-29-1	60- 100 %
2,2'-Iminodi(ethylamine)	111-40-0	10- 30 %
Ethane-1,2-diol	107-21-1	< 5 %
Triethylenetetramine	112-24-3	< 5 %
non hazardous ingredients~		< 10 %

**Section 4. First aid measures**

<b>Ingestion:</b>	Do not induce vomiting. Have victim rinse mouth thoroughly with water. Seek medical advice.
<b>Skin:</b>	In case of contact, immediately remove contaminated clothing and flush skin with copious amounts of water. Seek medical attention from a specialist.
<b>Eyes:</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Seek medical attention from a specialist.
<b>Inhalation:</b>	Move to fresh air. Keep warm and in a quiet place. Seek medical advice.
<b>First Aid facilities:</b>	Eye wash and safety shower Normal washroom facilities
<b>Medical attention and special treatment:</b>	Treat symptomatically.

**Section 5. Fire fighting measures**

<b>Suitable extinguishing media:</b>	Carbon dioxide, foam, powder Fine water spray
<b>Improper extinguishing media:</b>	Water spray jet
<b>Decomposition products in case of fire::</b>	Thermal decomposition can lead to release of irritating gases and vapors. Carbon monoxide. Carbon dioxide. Oxides of nitrogen.
<b>Special protective equipment for fire-fighters:</b>	Wear protective equipment. Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA).
<b>Additional fire fighting advice:</b>	In case of fire, keep containers cool with water spray. Collect contaminated fire fighting water separately. It must not enter drains.
<b>Hazchem code:</b>	2X

**Section 6. Accidental release measures**

<b>Personal precautions:</b>	Danger of slipping on spilled product. Ensure adequate ventilation. Avoid skin and eye contact. Wear impervious gloves and chemical splash goggles.
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**Environmental precautions:** Do not empty into drains / surface water / ground water.

**Clean-up methods:** Collect spilled material with an inert absorbent such as sand or vermiculite. Place in properly labeled closed container.  
Dispose of contaminated material as waste according to Section 13.

### Section 7. Handling and storage

**Precautions for safe handling:** For the Part A plus Part B adhesive mixture, follow curing schedule as recommended in product literature.  
Do not heat Part B at temperatures greater than 100 °C (212 °F). This material may self-react at higher temperatures and cause an exotherm. The exotherm has the potential for release of excessive energy and toxic gasses.  
Empty containers retain product residue, so obey hazard warnings and handle empty containers as if they were full.  
Do not cut, grind, weld, or drill on or near this container.  
Avoid breathing mists or aerosols of this product.  
Avoid contact with eyes, skin and clothing.

**Conditions for safe storage:** Store in sealed original container.  
Store in a cool, dry place.  
Ensure that storage and workrooms are adequately ventilated.  
Keep away from heat and direct sunlight.

### 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)
DIETHYLENE TRIAMINE 111-40-0		1	4.2	-	-	-	-
ETHYLENE GLYCOL (VAPOUR) 107-21-1	Vapor.	20	52	-	-	-	-
ETHYLENE GLYCOL (VAPOUR) 107-21-1	Vapor.	-	-	-	-	40	104
ETHYLENE GLYCOL (PARTICULATE) 107-21-1	Particulate.	-	10	-	-	-	-

**Engineering controls:** Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.

**Eye protection:** For eye protection, use tightly fitted safety goggles and a face-shield

**Skin protection:** Use of protective coveralls and long sleeves is recommended.  
Suitable protective gloves.

Use of Butyl or Nitrile Rubber gloves 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:** 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>	Amber Liquid
<b>Odor:</b>	Ammonia
<b>pH:</b>	> 7
<b>Specific gravity:</b>	0.96
<b>Boiling point:</b>	> 93 °C (> 199.4 °F)
<b>Flash point:</b>	> 93 °C (> 199.4 °F)
<b>Vapor pressure:</b> (; 20 °C (68 °F))	< 1.0 mm hg
<b>Density:</b>	0.96 g/cm <sup>3</sup>
<b>Solubility in water:</b>	Partially soluble (20 °C)
<b>VOC content:</b> (2010/75/EC)	< 3 %

### Section 10. Stability and reactivity

<b>Stability:</b>	Stable under normal conditions of temperature and pressure.
<b>Conditions to avoid:</b>	Heat, flames, sparks and other sources of ignition. Danger of decomposition if exposed to heat. Avoid mixing resin (Part A) and curing agent (Part B) unless you plan to use immediately.
<b>Incompatible materials:</b>	Reaction with strong oxidants. Reaction with strong acids. Reaction with strong bases Will cause some corrosion to copper alloys and aluminum.
<b>Hazardous decomposition products:</b>	Thermal decomposition can lead to release of irritating gases and vapors.  Carbon monoxide. Carbon dioxide. Oxides of nitrogen.

### Section 11. Toxicological information

**Health Effects:****Ingestion:**

Irritation and corrosive action can occur in the mouth, stomach tissue and digestive tract if swallowed.

**Skin:**

Corrosive to skin.

Symptoms may include redness, burning, drying, cracking and skin burns.

May cause skin sensitization.

**Eyes:**

Causes serious eye damage.

Contact with the eyes may cause moderate to severe eye injury. Eye contact may result in corneal injury. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.

**Inhalation:**

Inhalation of vapors or mist can cause severe irritation, tissue and scarring of the respiratory tract.

**Acute toxicity:**

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
C18 Fatty acid dimer, tall oil fatty acid, triethylenetetramine polymer 68082-29-1 2,2'-Iminodi(ethylamine) 111-40-0	LD50	> 2,000 mg/kg	oral		rat	Expert judgement
	LD50	> 2,000 mg/kg	dermal		rabbit	
	LD50	1,553 mg/kg	oral		rat	
	LD50	1,045 mg/kg	dermal		rabbit	
Ethane-1,2-diol 107-21-1	Acute toxicity estimate (ATE)	500 mg/kg	dermal oral			Expert judgement
Triethylenetetramine 112-24-3	LD50	2,780 mg/kg	oral		rat	OECD Guideline 402 (Acute Dermal Toxicity)
	LD50	1,465 mg/kg	dermal		rabbit	

**Skin corrosion/irritation:**

Hazardous components CAS-No.	Result	Exposure time	Species	Method
2,2'-Iminodi(ethylamine) 111-40-0	corrosive	15 min	rabbit	BASF Test
Triethylenetetramine 112-24-3	corrosive		rabbit	

**Serious eye damage/irritation:**

Hazardous components CAS-No.	Result	Exposure time	Species	Method
2,2'-Iminodi(ethylamine) 111-40-0	corrosive	30 s	rabbit	

**Respiratory or skin sensitization:**

Hazardous components CAS-No.	Result	Test type	Species	Method
2,2'-Iminodi(ethylamine) 111-40-0	sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
Triethylenetetramine 112-24-3	sensitising	Guinea pig maximisation test	guinea pig	Magnusson and Kligman Method

**Germ cell mutagenicity:**

Hazardous components CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
Ethane-1,2-diol 107-21-1	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		
Triethylenetetramine 112-24-3	positive	bacterial reverse mutation assay (e.g Ames test)	with and without		

**Section 12. Ecological information****General ecological information:** Do not empty into drains / surface water / ground water.**Ecotoxicity:** Toxic to aquatic life with long lasting effects.**Toxicity:**

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
C18 Fatty acid dimer, tall oil fatty acid, triethylenetetramine polymer 68082-29-1	LC50	> 1 - 10 mg/l	Fish		no data	OECD Guideline 203 (Fish, Acute Toxicity Test)
2,2'-Iminodi(ethylamine) 111-40-0	LC50	430 mg/l	Fish	96 h	Poecilia reticulata	EU Method C.1 (Acute Toxicity for Fish)
2,2'-Iminodi(ethylamine) 111-40-0	EC50	64.6 mg/l	Daphnia	48 h	Daphnia magna	EU Method C.2 (Acute Toxicity for Daphnia)
2,2'-Iminodi(ethylamine) 111-40-0	NOEC	10.2 mg/l	Algae	72 h	Selenastrum capricornutum (new name: Pseudokirchnerella subcapitata)	EU Method C.3 (Algal Inhibition test)
2,2'-Iminodi(ethylamine) 111-40-0	EC50	187 mg/l	Algae	72 h	Selenastrum capricornutum (new name: Pseudokirchnerella subcapitata)	EU Method C.3 (Algal Inhibition test)
Ethane-1,2-diol 107-21-1	NOEC	15,380 mg/l	Fish	28 d	Oryzias latipes	OECD Guideline 204 (Fish, Prolonged Toxicity Test: 14-day Study)
Ethane-1,2-diol 107-21-1	LC50	72,860 mg/l	Fish	96 h	Pimephales promelas	OECD Guideline 203 (Fish, Acute Toxicity Test)
Ethane-1,2-diol 107-21-1	EC50	34,400 mg/l	Daphnia	48 h	Ceriodaphnia sp.	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Ethane-1,2-diol 107-21-1	EC50	> 20,000 mg/l	Algae		Microcystis aeruginosa	OECD Guideline 201 (Alga, Growth Inhibition Test)
Triethylenetetramine 112-24-3	LC50	570 mg/l	Fish	96 h	Poecilia reticulata	OECD Guideline 203 (Fish, Acute Toxicity Test)
Triethylenetetramine 112-24-3	EC50	31 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Triethylenetetramine 112-24-3	EC10	< 2.5 mg/l	Algae	72 h	Selenastrum capricornutum (new name: Pseudokirchnerella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Triethylenetetramine 112-24-3	EC50	20 mg/l	Algae	72 h	Selenastrum capricornutum (new name: Pseudokirchnerella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)

**Persistence and degradability:**

Hazardous components CAS-No.	Result	Route of application	Degradability	Method
C18 Fatty acid dimer, tall oil fatty acid, triethylenetetramine polymer 68082-29-1		no data	0 - 60 %	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
2,2'-Iminodi(ethylamine) 111-40-0	readily biodegradable	aerobic	87 %	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
Ethane-1,2-diol 107-21-1	readily biodegradable	aerobic	83 - 96 %	OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))
Triethylenetetramine 112-24-3		aerobic	0 %	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)

**Bioaccumulative potential / Mobility in soil:**

Hazardous components CAS-No.	LogKow	Bioconcentration factor (BCF)	Exposure time	Species	Temperature	Method
2,2'-Iminodi(ethylamine) 111-40-0	-2.13					
Ethane-1,2-diol 107-21-1	-1.36					
Triethylenetetramine 112-24-3	-2.65					OECD Guideline 107 (Partition Coefficient (n- octanol / water), Shake Flask Method)

**Section 13. Disposal considerations**

**Waste disposal of product:** Dispose of as hazardous waste in compliance with local and national regulations.  
Do not allow product to enter sewer or waterways.

**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: Classified as Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG Code).

UN no.: 2735

Proper shipping name: AMINES, LIQUID, CORROSIVE, N.O.S.  
(Diethylenetriamine, Triethylenetetramine)

Class or division: 8

Packing group: II

Hazchem code: 2X

Emergency information: Refer to the Dangerous Goods - Initial Emergency Response Guide  
HB 76.

**Marine transport IMDG:**

UN no.: 2735

Proper shipping name: AMINES, LIQUID, CORROSIVE, N.O.S.  
(Diethylenetriamine, Triethylenetetramine, C18 Fatty acid dimer, tall oil



Class or division: fatty acid, triethylenetetramine polymer)  
8  
Packing group: II  
EmS: F-A ,S-B  
Seawater pollutant: Marine pollutant

**Air transport IATA:**

UN no.: 2735  
Proper shipping name: Amines, liquid, corrosive, n.o.s.  
(Diethylenetriamine, Triethylenetetramine)  
Class or division: 8  
Packing group: II  
Packing instructions (passenger): 851  
Packing instructions (cargo): 855

**Section 15. Regulatory information**

**SUSMP Poisons Schedule** 6

**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  
IMDG: International Maritime Dangerous Goods code  
IATA-DGR: International Air Transport Association – Dangerous Goods Regulations  
TWA - Time weighted average  
STEL - Short term exposure limit

**Reason for issue:** Reviewed SDS. Reissued with new date. involved chapters: 1 - 16

**Date of previous issue:** 21.05.2014

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