Safety Data Sheet

LOCTITE 561 PIPE SEALANT STICK known as LOCTITE® 561 THREAD SEALANT

SDS No. : 153640
V001.5
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Section 1. Identification of the substance/preparation and of the company/undertaking

Product name: LOCTITE 561 PIPE SEALANT STICK known as LOCTITE® 561 THREAD SEALANT

Intended use: Anaerobic Sealant

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:

Hazard Class	Hazard Category
Skin sensitizer	Category 1
Acute hazards to the aquatic environment	Category 3
Serious eye damage/eye irritation	Category 2
Chronic hazards to the aquatic environment	Category 3

Hazard pictogram:

Signal word: Warning

Hazard statement(s):
H319 Causes serious eye irritation.
H317 May cause an allergic skin reaction.
H412 Harmful to aquatic life with long lasting effects.

Precautionary Statement(s):

Prevention:
P264 Wash hands thoroughly after handling.
P280 Wear protective gloves/eye protection.

Response:
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 If eye irritation persists: Get medical advice/attention.
P302+P352 IF ON SKIN: Wash with plenty of water.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P363 Wash contaminated clothing before reuse.

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
Ethane-1,2-diol	107-21-1	< 5 %
Silica, amorphous, fumed, crystal-free	112945-52-5	<= 5 %
Titanium dioxide	13463-67-7	<= 5 %
α, α-dimethylbenzyl hydroperoxide	80-15-9	< 1 %
non hazardous ingredients~		80- 100 %

Section 4. First aid measures

Ingestion:
Do not induce vomiting.
Have victim rinse mouth thoroughly with water.
Seek medical advice.

Skin:
Rinse with running water and soap.
In case of adverse health effects seek medical advice.

Eyes:
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Seek medical advice.

Inhalation:
Move to fresh air. If symptoms persist, seek medical advice.

First Aid facilities:
Eye wash
Normal washroom facilities

Medical attention and special treatment:
Treat symptomatically.

Section 5. Fire fighting measures

Suitable extinguishing media:
Carbon dioxide, foam, powder

Decomposition products in case of fire: Thermal decomposition can lead to release of irritating gases and vapors.
Carbon monoxide.
Carbon dioxide.
Oxides of nitrogen.

Special protective equipment for fire-fighters: Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA).
Wear full protective clothing.

Section 6. Accidental release measures

Personal precautions: Avoid skin and eye contact.
Use personal protective equipment as described 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.

Section 7. Handling and storage

Precautions for safe handling: Use only in well-ventilated areas.
Avoid skin and eye contact.
Wear suitable protective clothing, safety glasses and gloves.

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/m3)	Peak Limit. (ppm)	Peak Limit. (mg/m3)	STEL (ppm)	STEL (mg/m3)
ETHYLENE GLYCOL (VAPOUR) 107-21-1		20	52				
ETHYLENE GLYCOL (VAPOUR) 107-21-1						40	104
ETHYLENE GLYCOL (PARTICULATE) 107-21-1			10				
CUMENE 98-82-8						75	375
CUMENE 98-82-8		25	125				
SILICA, AMORPHOUS: FUMED SILICA (RESPIRABLE DUST) 112945-52-5	Respirable dust.		2				

FUMED SILICA (RESPIRABLE DUST) 112945-52-5	Respirable dust.		2				
ETHYLENE GLYCOL (VAPOUR) 107-21-1		20	52				
ETHYLENE GLYCOL (VAPOUR) 107-21-1						40	104
ETHYLENE GLYCOL (PARTICULATE) 107-21-1			10				
TITANIUM DIOXIDE 13463-67-7	Inhalable dust.		10				

Engineering controls: Use local exhaust ventilation if the potential for airborne exposure exists.

Eye protection: Wear protective glasses.

Skin protection: Wear suitable protective clothing.
Nitrile rubber gloves should be worn.

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

Appearance: Off white
waxy

Odor: mild

Specific gravity: 1.1394

Boiling point: > 150 °C (> 302 °F)

Flash point: Not applicable

Vapor pressure: < 13 mbar
(; 25 °C (77 °F))

Density: 1.14 g/cm3

VOC content: < 3 %
(2010/75/EC)

Section 10. Stability and reactivity

Stability: Stable under recommended storage conditions.

Conditions to avoid: Avoid excessive heat and ignition sources.

Incompatible materials: Reaction with strong acids.
Reacts with strong oxidants.

Hazardous decomposition products: 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: Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Skin: May cause transient skin irritation.
Symptoms may include redness, edema, drying, defatting and cracking of the skin.

Eyes: Causes serious eye irritation.
Symptoms may include severe irritation, pain, tearing, blurred vision.

Inhalation: Vapors may cause headaches, nausea, dizziness and respiratory tract irritation.

Acute toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Ethane-1,2-diol 107-21-1	Acute toxicity estimate (ATE) LD50 LD50	500 mg/kg 7,712 mg/kg 10,600 mg/kg	oral oral dermal		 rat rabbit	Expert judgement not specified not specified
Silica, amorphous, fumed, crystal-free 112945-52-5	LD50 LC50 LD50	> 5,000 mg/kg > 58.8 mg/l > 2,000 mg/kg	oral inhalation dermal	4 h	rat rat rabbit	OECD Guideline 401 (Acute Oral Toxicity) OECD Guideline 403 (Acute Inhalation Toxicity) OECD Guideline 402 (Acute Dermal Toxicity)
Titanium dioxide 13463-67-7	LD50 LC50 LD50	> 5,000 mg/kg > 6.82 mg/l >= 10,000 mg/kg	oral inhalation dermal	4 h	rat rat hamster	OECD Guideline 425 (Acute Oral Toxicity: Up-and-Down Procedure) not specified not specified
α, α-dimethylbenzyl hydroperoxide 80-15-9	LD50 LD50 Acute toxicity estimate (ATE)	382 mg/kg 530 - 1,060 mg/kg 1,100 mg/kg	oral dermal dermal		rat rat	other guideline: other guideline: Expert judgement

Skin corrosion/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Ethane-1,2-diol 107-21-1	not irritating	20 h	rabbit	BASF Test
Silica, amorphous, fumed, crystal-free 112945-52-5	not irritating		rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Titanium dioxide 13463-67-7	not irritating	4 h	rabbit	equivalent or similar to OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
α, α-dimethylbenzyl hydroperoxide 80-15-9	corrosive		rabbit	Draize Test

Serious eye damage/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Ethane-1,2-diol 107-21-1	not irritating		rabbit	BASF Test
Silica, amorphous, fumed, crystal-free 112945-52-5	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Titanium dioxide 13463-67-7	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Respiratory or skin sensitization:

Hazardous components CAS-No.	Result	Test type	Species	Method
Ethane-1,2-diol 107-21-1	not sensitising	Guinea pig maximisation test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
Titanium dioxide 13463-67-7	not sensitising	Mouse local lymphnode assay (LLNA)	mouse	equivalent or similar to 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
Ethane-1,2-diol 107-21-1	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Ethane-1,2-diol 107-21-1	negative	oral: feed		rat	Chromosome Aberration Test
Silica, amorphous, fumed, crystal-free 112945-52-5	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 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)
Titanium dioxide 13463-67-7	negative 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)
Titanium dioxide 13463-67-7	negative	oral: gavage		mouse	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
α, α-dimethylbenzyl hydroperoxide 80-15-9	positive	bacterial reverse mutation assay (e.g Ames test)	without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
α, α-dimethylbenzyl hydroperoxide 80-15-9	negative	dermal		mouse	not specified

Repeated dose toxicity:

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Method
Ethane-1,2-diol 107-21-1	NOAEL=150 mg/kg	oral: feed	16 wdaily	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
Silica, amorphous, fumed, crystal-free 112945-52-5	NOAEL=< 0.046 mg/l	inhalation	14 days6 hours/day, 5 days/week	rat	not specified
Silica, amorphous, fumed, crystal-free 112945-52-5	NOAEL=> 4,500 mg/kg	oral: feed	13 weeksdaily, continous	rat	
Titanium dioxide 13463-67-7	NOAEL=1,000 mg/kg	oral: gavage	90 ddaily	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
α, α-dimethylbenzyl hydroperoxide 80-15-9		inhalation: aerosol	6 h/d5 d/w	rat	not specified

Section 12. Ecological information

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

Toxicity:

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
Ethane-1,2-diol 107-21-1	LC50	72,860 mg/l	Fish	96 h	Pimephales promelas	EPA-660 (Methods for Acute Toxicity Tests with Fish, Macroinvertebrates and Amphibians)
Ethane-1,2-diol 107-21-1	NOEC	15,380 mg/l	Fish	7 d	Pimephales promelas	other guideline:
Ethane-1,2-diol 107-21-1	EC50	> 100 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Ethane-1,2-diol 107-21-1	EC50	> 6,500 - 13,000 mg/l	Algae	96 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Ethane-1,2-diol 107-21-1	NOEC	> 100 mg/l	Algae	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Ethane-1,2-diol 107-21-1	EC20	> 1,995 mg/l	Bacteria	30 min	activated sludge, domestic	ISO 8192 (Test for Inhibition of Oxygen Consumption by Activated Sludge)
Silica, amorphous, fumed, crystal-free 112945-52-5	LC50	> 10,000 mg/l	Fish	96 h	Brachydanio rerio (new name: Danio rerio)	OECD Guideline 203 (Fish, Acute Toxicity Test)
Silica, amorphous, fumed, crystal-free 112945-52-5	EL50	> 1,000 mg/l	Daphnia	24 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Silica, amorphous, fumed, crystal-free 112945-52-5	NOELR	10,000 mg/l	Algae	72 h	Desmodesmus subspicatus	OECD Guideline 201 (Alga, Growth Inhibition Test)
Silica, amorphous, fumed, crystal-free 112945-52-5	EL50	> 10,000 mg/l	Algae	72 h	Desmodesmus subspicatus	OECD Guideline 201 (Alga, Growth Inhibition Test)
Silica, amorphous, fumed, crystal-free 112945-52-5	EC0	10,000 mg/l	Bacteria	30 min	Pseudomonas putida	DIN 38412, part 27 (Bacterial oxygen consumption test)
α, α-dimethylbenzyl hydroperoxide 80-15-9	LC50	3.9 mg/l	Fish	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
α, α-dimethylbenzyl hydroperoxide 80-15-9	EC50	18 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
α, α-dimethylbenzyl hydroperoxide 80-15-9	ErC50	3.1 mg/l	Algae	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
α, α-dimethylbenzyl hydroperoxide 80-15-9	EC10	70 mg/l	Bacteria	30 min		not specified

Persistence and degradability:

Hazardous components CAS-No.	Result	Route of application	Degradability	Method

Ethane-1,2-diol 107-21-1	readily biodegradable	aerobic	90 - 100 %	OECD Guideline 301 A (new version) (Ready Biodegradability: DOC Die Away Test)
α, α-dimethylbenzyl hydroperoxide 80-15-9		no data	0 %	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)

Bioaccumulative potential / Mobility in soil:

Hazardous components CAS-No.	LogPow	Bioconcentration factor (BCF)	Exposure time	Species	Temperature	Method
Ethane-1,2-diol 107-21-1	-1.36					QSAR (Quantitative Structure Activity Relationship)
Silica, amorphous, fumed, crystal-free 112945-52-5	0.53					QSAR (Quantitative Structure Activity Relationship)
α, α-dimethylbenzyl hydroperoxide 80-15-9		9.1		calculation		OECD Guideline 305 (Bioconcentration: Flow-through Fish Test)
α, α-dimethylbenzyl hydroperoxide 80-15-9	2.16					not specified

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. 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:
Not dangerous goods

`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
LC 50: Lethal Concentration 50%
LD 50: Lethal Dose 50%
OECD: Organization for Economic Cooperation and Development
IMDG: International Maritime Dangerous Goods code
IATA-DGR: International Air Transport Association – Dangerous Goods Regulations
STEL - Short term exposure limit
TWA - Time weighted average

Reason for issue: Reviewed SDS. Reissued with new date. involved chapters: 1,2,3,15,16

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Disclaimer:

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