



Safety Data Sheet

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LOCTITE 641 RETAINING COMPOUND known as Loctite 641
10ML AU

SDS No. : 153498

V001.2

Revision: 13.07.2023

printing date: 06.08.2025

SECTION 1 IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product name: LOCTITE 641 RETAINING COMPOUND known as Loctite 641 10ML AU

Intended use: Sealant

Supplier:
Henkel New Zealand Ltd
2 Allens Rd
East Tamaki
Auckland, 2013
New Zealand
Phone: +64 (9) 272-6710

Emergency Telephone for Chemical Accidents: 24 HOUR EMERGENCY CONTACT NUMBER 0800 243 622

SECTION 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

Classified as hazardous under the New Zealand Hazardous Substances and New Organisms Act (HSNO).

Not classified as Dangerous Goods under the Land Transport Rule: Dangerous Goods 2005.

GHS Classification:

<u>Hazard Class</u>	<u>Hazard Category</u>	<u>Target organ</u>
Serious eye irritation	Category 2A	
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:

Warning

Hazard statement(s):	H319 Causes serious eye irritation. H335 May cause respiratory irritation. H412 Harmful to aquatic life with long lasting effects.
Precautionary Statement(s):	
Prevention:	P261 Avoid breathing mist/vapours. P264 Wash hands thoroughly after handling. P271 Use only outdoors or in a well-ventilated area. P273 Avoid release to the environment. P280 Wear eye protection/face protection.
Response:	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. P337+P313 If eye irritation persists: Get medical advice/attention.
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.

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

General chemical description: Mixture
Type of preparation: Anaerobic Sealant

Identity of ingredients:

Chemical ingredients	CAS-No.	Proportion
α , α -dimethylbenzyl hydroperoxide	80-15-9	1- < 3 %
N,N-Diethyl-p-toluidine	613-48-9	0.1- < 1 %
N,N-dimethyl-o-toluidine	609-72-3	0.1- < 1 %
methyl methacrylate	80-62-6	0.1- < 1 %
non hazardous ingredients~		60- <= 100 %

SECTION 4 FIRST AID MEASURES

Ingestion:	Do not induce vomiting. Have victim rinse mouth thoroughly with water. Seek medical advice.
Skin:	In case of contact, immediately remove contaminated clothing and flush skin with copious amounts of water. 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.
Keep warm and in a quiet place.
Seek medical advice.

First Aid facilities: Eye wash and safety shower
Normal washroom facilities

Medical attention and special treatment: Treat symptomatically and supportively.

SECTION 5. FIRE FIGHTING MEASURES

Suitable extinguishing media: Foam, dry chemical or carbon dioxide.

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

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

Additional fire fighting advice: Collect contaminated fire fighting water separately. It must not enter drains.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Avoid skin and eye contact.
Ensure adequate ventilation.
Wear appropriate personal protective equipment.

Environmental precautions: Do not empty into drains / surface water / ground water.

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

Workplace exposure standards:

Ingredient [Regulated substance]	form of exposure	TWA (ppm)	TWA (mg/m3)	Ceiling	STEL (ppm)	STEL (mg/m3)
METHYL METHACRYLATE 80-62-6		50	208	-	-	-
METHYL METHACRYLATE		-	-	-	100	416

Biological Exposure Indices:
None

Engineering controls:	Ensure adequate ventilation.
Eye protection:	Wear protective glasses.
Skin protection:	Wear suitable protective clothing. Suitable protective 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:	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:	Yellow Liquid
Odor:	Characteristic
pH:	Not applicable, Product is non-polar/aprotic.
Melting point / freezing point:	Not applicable, Product is a liquid
Specific gravity:	1.08
Boiling point:	> 150 °C (> 302 °F)
Flash point:	> 100 °C (> 212 °F)
(Tagliabue closed cup)	No flash point up to 100 °C
Vapor pressure:	< 5 mm hg
(; 27 °C (80.6 °F)no method /	< 300 mbar
method unknown; 50 °C (122 °F); 20 °C (68 °F))	< 0.13 mbar
Vapor density:	> 1
Density:	1.08 g/cm ³
Auto ignition:	Not available.
Decomposition temperature:	
VOC content (2010/75/EC)	0 % (VOCV 814.018 VOC regulation CH)
VOC content:	10.4 % 112 g/l

SECTION 10. STABILITY AND REACTIVITY

Stability:	Stable under recommended storage conditions.
Conditions to avoid:	Heat, flames, sparks and other sources of ignition. Extremes of temperature.

Incompatible materials:	Strong oxidizing agents. Reducing agents. Keep away from alkalis. Metal oxides. Reacts with acids.
Hazardous decomposition products:	Thermal decomposition can lead to release of irritating gases and vapors. Carbon monoxide. Carbon dioxide.
Hazardous polymerization:	Will not occur.

SECTION 11 TOXICOLOGICAL INFORMATION

Health Effects:	
Ingestion:	May cause irritation to the gastrointestinal tract, mouth and mucous membranes.
Skin:	May cause mild skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin.
Eyes:	Causes serious eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.
Inhalation:	This product is irritating to the respiratory system. Inhalation of vapors may cause moderate to severe respiratory tract irritation.

Acute toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
α , α -dimethylbenzyl hydroperoxide 80-15-9	LD50 LC50 Acute toxicity estimate (ATE)	382 mg/kg 1.370 mg/l 1,100 mg/kg	oral inhalation dermal	4 h	rat rat	other guideline: not specified Expert judgement
N,N-Diethyl-p-toluidine 613-48-9	Acute toxicity estimate (ATE) Acute toxicity estimate (ATE) Acute toxicity estimate (ATE)	100 mg/kg 3 mg/l 300 mg/kg	oral inhalation dermal			Expert judgement Expert judgement Expert judgement
methyl methacrylate 80-62-6	LD50 LC50 LD50	9,400 mg/kg 29.8 mg/l > 5,000 mg/kg	oral inhalation dermal	4 h	rat rat rabbit	not specified not specified equivalent or similar to OECD Guideline 402 (Acute Dermal Toxicity)

Skin corrosion/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
α , α -dimethylbenzyl hydroperoxide 80-15-9	corrosive		rabbit	Draize Test
N,N-Diethyl-p-toluidine 613-48-9	irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Respiratory or skin sensitization:

Hazardous components CAS-No.	Result	Test type	Species	Method
methyl methacrylate 80-62-6	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
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
methyl methacrylate 80-62-6	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		not specified

Repeated dose toxicity:

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Method
α , α -dimethylbenzyl hydroperoxide 80-15-9		inhalation: aerosol	6 h/d5 d/w	rat	not specified
methyl methacrylate 80-62-6	LOAEL=2000 ppm	inhalation	14 weeks6 hrs/day, 5 days/wk	mouse	Dose Range Finding Study
methyl methacrylate 80-62-6	NOAEL=1000 ppm	inhalation	14 weeks6 hrs/day, 5 days/wk	mouse	Dose Range Finding Study

SECTION 12. ECOLOGICAL INFORMATION

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

Ecotoxicity:

H412 Harmful to aquatic life with long lasting effects.

Toxicity:

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
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	18.84 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
α , α -dimethylbenzyl hydroperoxide 80-15-9	EC50	3.1 mg/l	Algae	72 h	Desmodesmus subspicatus (reported as Scenedesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
α , α -dimethylbenzyl hydroperoxide 80-15-9	NOEC	1 mg/l	Algae	72 h	Desmodesmus subspicatus (reported as Scenedesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
α , α -dimethylbenzyl hydroperoxide 80-15-9	EC10	70 mg/l	Bacteria	30 min	not specified	not specified
N,N-Diethyl-p-toluidine 613-48-9	LC50	42.25 mg/l	Fish	96 h	Danio rerio	OECD Guideline 203 (Fish, Acute Toxicity Test)
N,N-Diethyl-p-toluidine 613-48-9	EC50	35.2 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
N,N-Diethyl-p-toluidine 613-48-9	EC50	7.42 mg/l	Algae	72 h	Desmodesmus subspicatus	OECD Guideline 201 (Alga, Growth Inhibition Test)
N,N-dimethyl-o-toluidine 609-72-3	LC 50	46 mg/l	Fish	96 h	Fathead minnow (Pimephales promelas)	
methyl methacrylate 80-62-6	LC50	350 mg/l	Fish	96 h	Leuciscus idus	OECD Guideline 203 (Fish, Acute Toxicity Test)
methyl methacrylate 80-62-6	EC50	69 mg/l	Daphnia	48 h	Daphnia magna	EPA OTS 797.1300 (Aquatic Invertebrate Acute Toxicity Test, Freshwater Daphnids)
methyl methacrylate 80-62-6	EC50	170 mg/l	Algae	96 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
methyl methacrylate 80-62-6	NOEC	100 mg/l	Algae	96 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
methyl methacrylate 80-62-6	EC20	> 150 - 200 mg/l	Bacteria	30 min	activated sludge, domestic	ISO 8192 (Test for Inhibition of Oxygen Consumption by Activated Sludge)

Persistence and degradability:

Hazardous components CAS-No.	Result	Route of application	Degradability	Method
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α , α -dimethylbenzyl hydroperoxide 80-15-9	not readily biodegradable.	aerobic	3 %	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)
N,N-Diethyl-p-toluidine 613-48-9	not readily biodegradable.	not specified	1 %	other guideline:
N,N-dimethyl-o-toluidine 609-72-3	not readily biodegradable.		1 %	other guideline:
methyl methacrylate 80-62-6	readily biodegradable	aerobic	94 %	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
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	1.6				25 °C	OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)
N,N-Diethyl-p-toluidine 613-48-9	3.7					QSAR (Quantitative Structure Activity Relationship)
methyl methacrylate 80-62-6	1.38				20 °C	other guideline:

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.
Disposal for uncleaned package:	Disposal of empty packaging at suitable material collection for recycling. 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**Dangerous Goods information:****Land Transport:**

Not classified as Dangerous Goods under the Land Transport Rule: Dangerous Goods 2005.

Marine transport IMDG:

Not dangerous goods

Air transport IATA:
Not dangerous goods

SECTION 15. REGULATORY INFORMATION

New Zealand regulatory information:

Classified as hazardous under the New Zealand Hazardous Substances and New Organisms Act (HSNO).

HSNO Approval Number: Group standard HSR002670

Site and Storage: Refer to the site and storage requirements for this Group Standard.

NZIoC: Compliant for NZIOC

SECTION 16. OTHER INFORMATION

Abbreviations/acronyms: HSNO - Hazardous Substances and New Organisms
GHS: Globally Harmonized System
CAS: Chemical Abstracts Service
IMDG: International Maritime Dangerous Goods code
IATA-DGR: International Air Transport Association – Dangerous Goods Regulations

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

Date of previous issue: 09.10.2018

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