Safety Data Sheet

LOCTITE SI 598 BK RTV SILICON known as Loctite 598 Black 95G AU

SDS No. : 152851
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SECTION 1 IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product name: LOCTITE SI 598 BK RTV SILICON known as Loctite 598 Black 95G AU

Intended use: Silicone sealant

Supplier:

Henkel Australia Pty Ltd
135-141 Canterbury Road
Kilsyth, Victoria, 3137
Australia
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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:

Hazard Class	Hazard Category
Serious eye damage/eye irritation	Category 1
Skin sensitizer	Category 1
Carcinogenicity	Category 1B
Target Organ Systemic Toxicant - Single exposure	Category 2

Hazard pictogram:

Signal word: Danger

Hazard statement(s):
H318 Causes serious eye damage.
H317 May cause an allergic skin reaction.
H350 May cause cancer.
H371 May cause damage to organs.

Precautionary Statement(s):

Prevention:
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P260 Do not breathe dust or fumes.
P264 Wash hands thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response:
P302+P352 IF ON SKIN: Wash with plenty of water.
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.
P308+P311 IF exposed or concerned: Call a POISON CENTER/doctor.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P362+P364 Take off contaminated clothing and wash it before reuse.

Storage:
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
resins

Type of preparation: Silicone sealant

Identity of ingredients:

Chemical ingredients	CAS-No.	Proportion
Limestone	1317-65-3	30- < 50 %
Silane, dichlorodimethyl-, reaction products with silica	68611-44-9	1- < 10 %
Butan-2-one O,O',O"-(vinylsilylidyne)trioxime	2224-33-1	1- < 3 %
2-butanone oxime	96-29-7	1- < 3 %
Non-hazardous ingredients~		remainder up to 100%

SECTION 4 FIRST AID MEASURES

Ingestion: Rinse mouth, do not induce vomiting, consult a doctor.

Skin: Immediately wash skin thoroughly with soap and water.
Seek medical advice.

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes.
Immediate medical treatment necessary.

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
Water spray or fog.

Improper extinguishing media: High pressure waterjet

Decomposition products in case of fire: Irritating and/or toxic fumes and gases may be emitted upon the product's decomposition.
Oxides of carbon.
Oxides of silicon.

Special protective equipment for fire-fighters: Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.

Additional fire fighting advice: In case of fire, keep containers cool with water spray.
Collect contaminated fire fighting water separately. It must not enter drains.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Use personal protective equipment as described in Section 8.
Avoid contact with skin and eyes.

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

Clean-up methods: Absorb spill with inert material. Shovel material into appropriate container for disposal.
Dispose of contaminated material as waste according to Section 13.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling: Avoid skin and eye contact.
Refer to Section 8.
Ensure that workrooms are adequately ventilated.

Conditions for safe storage: Suitable material for containers: original container.
Store in a cool, dry, well-ventilated area.
Keep away from heat and direct sunlight.

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)
Limestone(Calcium carbonate) 1317-65-3		10		-	-	-
Inhalable dust (not otherwise classified) 68611-44-9	Inhalable dust.		10	-	-	-
Respirable dust (not otherwise classified)	Respirable dust.		3	-	-	-

None

Biological Exposure Indices:
None

Engineering controls:	Ensure good ventilation/suction at the workplace.
Eye protection:	Wear chemical goggles and face shield.
Skin protection:	Use of an impervious apron is recommended. 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:	Black Paste
Odor:	Mild
pH:	Not applicable, Product is non-soluble (in water).
Melting point / freezing point:	Not applicable, Determination technically not possible
Specific gravity:	1.3
Flash point: (Tagliabue closed cup)	> 93 °C (> 199.4 °F)
Vapor pressure: (; 20 °C (68 °F))	< 5 mm hg
Vapor density:	Heavier than air.
Density:	1.05 g/cm3
Solubility in water:	Polymerises in presence of water.
VOC content: (2010/75/EC)	< 5.00 %

SECTION 10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions of temperature and pressure.
Conditions to avoid:	Exposure to air or moisture over prolonged periods.
Incompatible materials:	Polymerises in presence of water. Reaction with acids: production of heat and carbon dioxide.
Hazardous decomposition products:	Methyl ethyl ketoxime formed during cure. Methanol is liberated slowly upon exposure to moisture.

SECTION 11 TOXICOLOGICAL INFORMATION

Health Effects:

Ingestion: May cause gastrointestinal tract irritation if swallowed.

Skin: Mild skin irritation.
Symptoms may include redness, edema, drying, defatting and cracking of the skin.
May cause an allergic skin reaction.

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: May cause irritation to nose and throat.

Acute toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Limestone 1317-65-3	LD50 LC50 LD50	> 2,000 mg/kg > 3 mg/l > 2,000 mg/kg	oral inhalation dermal	4 h	rat rat rat	OECD Guideline 420 (Acute Oral Toxicity) OECD Guideline 403 (Acute Inhalation Toxicity) OECD Guideline 402 (Acute Dermal Toxicity)
Silane, dichlorodimethyl-, reaction products with silica 68611-44-9	LD50 LC50 LD50	> 5,000 mg/kg > 5.01 mg/l > 2,000 mg/kg	oral inhalation dermal	4 h	rat rat rat	OECD Guideline 401 (Acute Oral Toxicity) OECD Guideline 436 (Acute Inhalation Toxicity: Acute Toxic Class (ATC) Method) OECD Guideline 402 (Acute Dermal Toxicity)
Butan-2-one O,O',O"-(vinylsilylidyne)trioxime 2224-33-1	LD50 Acute toxicity estimate (ATE) LD50	> 2,000 mg/kg 2,500 mg/kg > 2,009 mg/kg	oral oral dermal		rat rat	OECD Guideline 425 (Acute Oral Toxicity: Up-and-Down Procedure) Expert judgement OECD Guideline 402 (Acute Dermal Toxicity)
2-butanone oxime 96-29-7	Acute toxicity estimate (ATE) LC50 Acute toxicity estimate (ATE)	100 mg/kg > 20 mg/l 1,100 mg/kg	oral inhalation dermal	4 h	not specified	Expert judgement not specified Expert judgement

Skin corrosion/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Limestone 1317-65-3	not irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Silane, dichlorodimethyl-, reaction products with silica 68611-44-9	not irritating	4 h	rabbit	not specified
Butan-2-one O,O',O"-(vinylsilylidyne)trioxime 2224-33-1	not irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Serious eye damage/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Limestone 1317-65-3	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Silane, dichlorodimethyl-, reaction products with silica 68611-44-9	not irritating		rabbit	not specified
Butan-2-one O,O',O"-(vinylsilylidyne)trioxime 2224-33-1	irritating or corrosive		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
2-butanone oxime 96-29-7	Category 1 (irreversible effects on the eye)		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Respiratory or skin sensitization:

Hazardous components CAS-No.	Result	Test type	Species	Method
Limestone 1317-65-3	not sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
Silane, dichlorodimethyl-, reaction products with silica 68611-44-9	not sensitising	Patch-Test	human	human repeat insult patch test
Butan-2-one O,O',O"-(vinylsilylidyne)trioxime 2224-33-1	sensitising	Guinea pig maximisation test	guinea pig	equivalent or similar to OECD Guideline 406 (Skin Sensitisation)
2-butanone oxime 96-29-7	sensitising	Guinea pig maximisation test	guinea pig	OECD Guideline 406 (Skin Sensitisation)

Germ cell mutagenicity:

Hazardous components CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
Limestone 1317-65-3	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)
Silane, dichlorodimethyl-, reaction products with silica 68611-44-9	negative negative	bacterial reverse mutation assay (e.g Ames test) in vitro mammalian chromosome aberration test	with and without with and without		Ames Test Chromosome Aberration Test
Butan-2-one O,O',O"-(vinylsilylidyne)trioxime 2224-33-1	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Butan-2-one O,O',O"-(vinylsilylidyne)trioxime 2224-33-1	negative	intraperitoneal		mouse	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
2-butanone oxime 96-29-7	negative negative negative	bacterial reverse mutation assay (e.g Ames test) mammalian cell gene mutation assay DNA damage and repair assay, unscheduled DNA synthesis in mammalian cells in vitro	with and without with		EPA OPPTS 870.5265 (The Salmonella typhimurium Bacterial Reverse Mutation Test) OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test) OECD Guideline 482 (Genetic Toxicology: DNA Damage and Repair, Unscheduled DNA Synthesis in Mammalian Cells In Vitro)
2-butanone oxime 96-29-7	negative negative	oral: gavage oral: feed		rat Drosophila melanogaster	EPA OPPTS 870.5385 (In Vivo Mammalian Cytogenetic Tests: Bone Marrow Chromosomal Analysis) EPA OPPTS 870.5385 (In Vivo Mammalian Cytogenetic Tests: Bone Marrow Chromosomal Analysis)

Repeated dose toxicity:

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Method
Limestone 1317-65-3	NOAEL=1,000 mg/kg	oral: gavage	48 ddaily	rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
Silane, dichlorodimethyl-, reaction products with silica 68611-44-9	NOAEL=500 mg/kg	oral: feed	5-8 wdaily	rat	not specified
Butan-2-one O,O',O"-(vinylsilylidyne)trioxime 2224-33-1	LOAEL=25 mg/kg	oral: gavage	13 w5 d/week	rat	equivalent or similar to OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
2-butanone oxime 96-29-7	LOAEL=25 mg/kg	oral: gavage	13 w5 d/week	rat	equivalent or similar to OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)

SECTION 12. ECOLOGICAL INFORMATION

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

Ecotoxicity:
Chronic aquatic toxicity: This product has no known eco-toxicological effects.

Toxicity:

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
Limestone 1317-65-3	LC50	Toxicity > Water solubility	Fish	96 h	Oncorhynchus mykiss	not specified
Limestone 1317-65-3	EC50	Toxicity > Water solubility	Daphnia	48 h	Daphnia magna	not specified
Limestone 1317-65-3	EC50	Toxicity > Water solubility	Algae	72 h	Desmodesmus subspicatus	not specified
Limestone 1317-65-3	EC50	> 1,000 mg/l	Bacteria	3 h	activated sludge of a predominantly domestic sewage	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
Silane, dichlorodimethyl-, reaction products with silica 68611-44-9	LC50	> 10,000 mg/l	Fish	96 h	Brachydanio rerio (new name: Danio rerio)	OECD Guideline 203 (Fish, Acute Toxicity Test)
Silane, dichlorodimethyl-, reaction products with silica 68611-44-9	EL50	> 10,000 mg/l	Daphnia	24 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Silane, dichlorodimethyl-, reaction products with silica 68611-44-9	EC50	> 173 mg/l	Algae	72 h	Desmodesmus subspicatus	OECD Guideline 201 (Alga, Growth Inhibition Test)
Silane, dichlorodimethyl-, reaction products with silica 68611-44-9	EC50	> 2,500 mg/l	Bacteria	3 h	activated sludge of a predominantly domestic sewage	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
Butan-2-one O,O',O''-(vinylsilylidyne)trioxime 2224-33-1	LC50	> 560 mg/l	Fish	96 h	Brachydanio rerio (new name: Danio rerio)	OECD Guideline 203 (Fish, Acute Toxicity Test)
Butan-2-one O,O',O''-(vinylsilylidyne)trioxime 2224-33-1	NOEC	50 mg/l	Fish	14 d	Oryzias latipes	OECD Guideline 204 (Fish, Prolonged Toxicity Test: 14-day Study)
Butan-2-one O,O',O''-(vinylsilylidyne)trioxime 2224-33-1	EC50	201 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Butan-2-one O,O',O''-(vinylsilylidyne)trioxime 2224-33-1	EC50	94 mg/l	Algae	72 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Butan-2-one O,O',O''-(vinylsilylidyne)trioxime 2224-33-1	NOEC	30 mg/l	Algae	72 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
2-butanone oxime 96-29-7	LC50	320 - 1,000 mg/l	Fish	96 h	Leuciscus idus	DIN 38412-15
2-butanone oxime 96-29-7	NOEC	50 mg/l	Fish	14 d	Oryzias latipes	OECD Guideline 204 (Fish, Prolonged Toxicity Test: 14-day Study)
2-butanone oxime 96-29-7	EC50	> 500 mg/l	Daphnia	48 h	Daphnia magna	EU Method C.2 (Acute Toxicity for Daphnia)
2-butanone oxime 96-29-7	EC50	11.8 mg/l	Algae	72 h	Scenedesmus capricornutum	OECD Guideline 201 (Alga, Growth Inhibition Test)
2-butanone oxime 96-29-7	NOEC	2.56 mg/l	Algae	72 h	Scenedesmus capricornutum	OECD Guideline 201 (Alga, Growth Inhibition Test)
2-butanone oxime 96-29-7	EC10	177 mg/l	Bacteria	17 h		DIN 38412, part 8 (Pseudomonas Zellvermehrungshemm-Test)

Persistence and degradability:

Hazardous components CAS-No.	Result	Route of application	Degradability	Method
Butan-2-one O,O',O''-(vinylsilylidyne)trioxime 2224-33-1	not readily biodegradable.	aerobic	26 %	OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))
2-butanone oxime 96-29-7	inherently biodegradable	aerobic	70 %	OECD Guideline 302 B (Inherent biodegradability: Zahn-Wellens/EMPA Test)

Bioaccumulative potential / Mobility in soil:

Hazardous components CAS-No.	LogPow	Bioconcentration factor (BCF)	Exposure time	Species	Temperature	Method
2-butanone oxime 96-29-7		0.5 - 0.6	42 d	Oryzias latipes	25 °C	OECD Guideline 305 C (Bioaccumulation: Test for the Degree of Bioconcentration in Fish)
2-butanone oxime 96-29-7	0.65				25 °C	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)

SECTION 13. DISPOSAL CONSIDERATIONS

Waste disposal of product: Collection and delivery to recycling enterprise or other registered elimination institution. Dispose of as hazardous waste in compliance with local and national regulations.

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

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: HSR002670

NZIoC: Compliant for NZIoC

SECTION 16. OTHER INFORMATION

Abbreviations/acronyms:

CAS: Chemical Abstracts Service
GHS: Globally Harmonized System
HSNO: Hazardous Substances and New Organisms
IATA : International Air Transport Association – Dangerous Goods Regulations
IMDG: International Maritime Dangerous Goods code
LC 50: Lethal Concentration 50%
LD 50: Lethal Dose 50%
STEL - Short term exposure limit
TWA - Time weighted average

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

Date of previous issue: 29.07.2020

Disclaimer:

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