Safety Data Sheet

LOCTITE SI 5910 FLANGE SEALANT known as 5910 FLANGE SEALANT 50ML EN

SDS No. : 152856
V001.17
Revision: 28.12.2020
printing date: 17.05.2021

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

Product name: LOCTITE SI 5910 FLANGE SEALANT known as 5910 FLANGE SEALANT 50ML EN

Other means of identification: LOCTITE SI 5910 50MLEN CN ONLY
Product code: IDH472841
Recommended use of the chemical and restrictions on use

Intended use: Sealant

Identification of manufacturer, importer or distributor
Importer: Henkel Singapore Pte Ltd 401 Commonwealth Drive, #03-01/02, Haw Par Technocentre, Singapore. 149598
Phone : +65 62660100 Fax : +65 62661161

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:

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

GHS label elements:

Hazard pictogram:

Signal word: Danger

Hazard statement:

H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H350 May cause cancer.
H411 Toxic to aquatic life with long lasting effects.

Precaution:

Prevention:

P201 Obtain special instructions before use.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
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.

Response:

P302+P352 IF ON SKIN: Wash with plenty of water.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313 IF exposed or concerned: Get medical advice/attention.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P391 Collect spillage.

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
Calcium carbonate 471-34-1	30- 60 %	
Butan-2-one O,O',O''-(vinylsilylidyne)trioxime 2224-33-1	1- 10 %	Serious eye damage/eye irritation 1 H318 Skin Sensitization 1 H317 Target Organ Systemic Toxicant - Repeated exposure 2 H373
Carbon black - Nano 1333-86-4	1- 10 %	
Fatty acids, C14-18 and C16-18-unsatd. 67701-06-8	1- 10 %	
Butan-2-one O,O',O'',O'''-silanetetrayltetraoxime 34206-40-1	0.1- 1 %	Flammable solids 1 H228 Serious eye damage/eye irritation 2 H319 Skin Sensitization 1 H317 Target Organ Systemic Toxicant - Repeated exposure 2 H373
octamethylcyclotetrasiloxane 556-67-2	0.1- 1 %	Flammable liquids 3 H226 Toxic to reproduction 2 H361 Chronic hazards to the aquatic environment 1 H410
2-butanone oxime 96-29-7	0.1- 1 %	Acute toxicity 3; Oral H301 Acute toxicity 4; Dermal H312 Skin irritation 2 H315 Serious eye damage/eye irritation 1 H318 Skin Sensitization 1 H317 Carcinogenicity 1B H350 Target Organ Systemic Toxicant - Single exposure 1 H370 Target Organ Systemic Toxicant - Single exposure 3 H336 Target Organ Systemic Toxicant - Repeated exposure 2 H373
Inorganic filler Proprietary	0.1- 1 %	Flammable solids 1 H228 Substances and mixtures, which on contact with water, emit flammable gases 2 H261
White mineral oil (petroleum), highly refined 8042-47-5	0.1- 1 %	

Section 4. First aid measures

Inhalation:	Move to fresh air. If symptoms persist, seek medical advice.
Skin contact:	Rinse with running water and soap. Obtain medical attention if irritation persists.
Eye contact:	Rinse immediately with plenty of running water (for 10 minutes), seek medical attention from a specialist.
Ingestion:	Rinse mouth, drink 1-2 glasses of water, do not induce vomiting, consult a doctor.
Indication of immediate medical attention and special treatment needed:	See section: Description of first aid measures

Section 5. Fire fighting measures

Suitable extinguishing media:	Carbon dioxide, foam, powder
Specific hazards arising from the chemical:	Do not expose to direct heat. In the event of a fire, carbon monoxide (CO), carbon dioxide (CO2) and nitrogen oxides (NOx) can be released.
Special protection equipment and precautions for firefighters:	Wear self-contained breathing apparatus.
Additional fire fighting advice:	In case of fire, keep containers cool with water spray.

Section 6. Accidental release measures

Personal precautions:	Avoid skin and eye contact. Wear protective equipment. Ensure adequate ventilation. See advice in section 8
Environmental precautions:	Do not empty into drains / surface water / ground water.
Clean-up methods:	Scrape up as much material as possible. Store in a partly filled, closed container until disposal. Dispose of contaminated material as waste according to Section 13.

Section 7. Handling and storage

Handling:	Use only in well-ventilated areas. Vapours should be extracted to avoid inhalation. Avoid skin and eye contact. See advice in section 8
Storage:	Store in a cool, well-ventilated place. Refer to Technical Data SheetNever allow product to get in contact with water during storage

Section 8. Exposure controls / personal protection

Components with specific control parameters for workplace:

CALCIUM CARBONATE (LIMESTONE, MARBLE) 471-34-1	**Value type**	Time Weighted Average (TWA):
	mg/m³	10
	Remarks	SG PEL
Calcium carbonate 471-34-1	**Value type**	Time Weighted Average (TWA):
	mg/m³	10
CARBON BLACK, INHALABLE FRACTION 1333-86-4	**Value type**	Time Weighted Average (TWA):
	mg/m³	3
	Remarks	ACGIH
CARBON BLACK 1333-86-4	**Value type**	Time Weighted Average (TWA):
	mg/m³	3.5
	Remarks	SG PEL
ALUMINUM METAL AND INSOLUBLE COMPOUNDS, RESPIRABLE FRACTION 7429-90-5	**Value type**	Time Weighted Average (TWA):
	mg/m³	1
	Remarks	ACGIH
ALUMINIUM, PYRO POWDERS, AS AL 7429-90-5	**Value type**	Time Weighted Average (TWA):
	mg/m³	5
	Remarks	SG PEL
ALUMINIUM, WELDING FUMES, AS AL 7429-90-5	**Value type**	Time Weighted Average (TWA):
	mg/m³	5
	Remarks	SG PEL
ALUMINIUM, METAL DUST 7429-90-5	**Value type**	Time Weighted Average (TWA):
	mg/m³	10
	Remarks	SG PEL
MINERAL OIL, EXCLUDING METAL WORKING FLUIDS, PURE, HIGHLY AND SEVERELY REFINED, INHALABLE FRACTION 8042-47-5	**Value type**	Time Weighted Average (TWA):
	mg/m³	5
	Remarks	ACGIH
OIL MIST, MINERAL 8042-47-5	**Value type**	Time Weighted Average (TWA):
	mg/m³	5
	Remarks	SG PEL
OIL MIST, MINERAL 8042-47-5	**Value type**	Short Term Exposure Limit (STEL):
	mg/m³	10
	Remarks	SG PEL

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: Wear protective glasses.
Protective eye equipment should conform to EN166.

Body protection: Suitable protective clothing
Protective clothing should conform to EN 14605 for liquid splashes or to EN 13982 for dusts.

Engineering controls: Provide local and general exhaust ventilation to effectively remove and prevent buildup of any vapors or mists generated from the handling of this product.

Hygienic measures: Take off contaminated clothing and wash before reuse. Wash hands before work breaks and after finishing work. Do not eat, drink or smoke while working.

Section 9. Physical and chemical properties

Appearance:	black paste
Odor:	mild
Odor threshold (CA):	No data available.
pH:	Not applicable
Melting point / freezing point:	Not available.
Specific gravity:	1.34
Boiling point:	> 200 °C (> 392 °F)
Flash point:	> 93.30 °C (> 199.94 °F)
Evaporation rate:	No data available.
Flammability (solid, gas):	No data available.
Lower explosive limit:	No data available.
Upper explosive limit:	No data available.
Vapor pressure: (; 20 °C (68 °F))	< 5 mm hg
Vapor density:	Heavier than air
Density:	1.31 g/cm3
Solubility:	Polymerises in presence of water.
Partition coefficient: n-octanol/water:	No data available.
Auto ignition:	No data available.
Decomposition temperature:	No data available.
Viscosity:	No data available.
VOC content: (2010/75/EC)	< 5.00 %

Section 10. Stability and reactivity

Reactivity/Incompatible materials:	Polymerises in presence of water.
Chemical stability:	Stable under recommended storage conditions.
Conditions to avoid:	Stable Exposure to air or moisture over prolonged periods.
Hazardous decomposition products:	Methyl ethyl ketoxime formed during cure. Methanol is liberated slowly upon exposure to moisture.

Section 11. Toxicological information

General toxicological information: Methylethyl ketoxime released during polymerisation of oxime curing RTV silicones is irritating to the respiratory system
Methylethyl ketoxime released during polymerisation of oxime curing silicones. It is harmful in contact with skin and is a skin sensitizer.
Prolonged or repeated contact may cause skin irritation.

Oral toxicity: Acute toxicity estimate (ATE) : > 2,000 mg/kg
Method: Calculation method

Symptoms of Overexposure**:** SKIN: Rash, Urticaria.
After eye contact: Corrosive, may cause permanent damage to eyes (impairment of vision).

Acute oral toxicity:

Calcium carbonate 471-34-1	Value type	LD50
	Value	> 2,000 mg/kg
	Species	rat
	Method	OECD Guideline 420 (Acute Oral Toxicity)
Butan-2-one O,O',O''-(vinylsilylidyne)trioxime 2224-33-1	Value type	LD50
	Value	> 2,000 mg/kg
	Species	rat
	Method	OECD Guideline 425 (Acute Oral Toxicity: Up-and-Down Procedure)
Carbon black - Nano 1333-86-4	Value type	LD50
	Value	> 8,000 mg/kg
	Species	rat
	Method	OECD Guideline 401 (Acute Oral Toxicity)
Fatty acids, C14-18 and C16-18-unsatd. 67701-06-8	Value type	LD50
	Value	> 5,000 mg/kg
	Species	rat
	Method	OECD Guideline 401 (Acute Oral Toxicity)
Butan-2-one O,O',O'',O'''-silanetetrayltetraoxime 34206-40-1	Value type	LD50
	Value	2,463 mg/kg
	Species	rat
	Method	OECD Guideline 401 (Acute Oral Toxicity)
octamethylcyclotetrasiloxane 556-67-2	Value type	LD50
	Value	> 4,800 mg/kg
	Species	rat
	Method	equivalent or similar to OECD Guideline 401 (Acute Oral Toxicity)
2-butanone oxime 96-29-7	Value type	Acute toxicity estimate (ATE)
	Value	100 mg/kg
	Species	
	Method	Expert judgement
Inorganic filler Proprietary	Value type	LD50
	Value	> 15,900 mg/kg
	Species	rat
	Method	OECD Guideline 401 (Acute Oral Toxicity)
White mineral oil (petroleum), highly refined 8042-47-5	Value type	LD50
	Value	> 5,000 mg/kg
	Species	rat
	Method	OECD Guideline 401 (Acute Oral Toxicity)

Acute inhalative toxicity:

Calcium carbonate 471-34-1	Value type	LC50
	Value	> 3 mg/l
	Exposure time	4 h
	Species	rat
	Method	OECD Guideline 403 (Acute Inhalation Toxicity)
octamethylcyclotetrasiloxane 556-67-2	Value type	LC50
	Value	36 mg/l
	Exposure time	4 h
	Species	rat
	Method	OECD Guideline 403 (Acute Inhalation Toxicity)
Inorganic filler Proprietary	Value type	LC50
	Value	> 5 mg/l
	Exposure time	4 h
	Species	rat
	Method	not specified
White mineral oil (petroleum), highly refined 8042-47-5	Value type	LC50
	Value	> 5 mg/l
	Exposure time	4 h
	Species	rat
	Method	OECD Guideline 403 (Acute Inhalation Toxicity)

Acute dermal toxicity:

Calcium carbonate 471-34-1	Value type	LD50
	Value	> 2,000 mg/kg
	Species	rat
	Method	OECD Guideline 402 (Acute Dermal Toxicity)
Butan-2-one O,O',O''-(vinylsilylidyne)trioxime 2224-33-1	Value type	LD50
	Value	> 2,009 mg/kg
	Species	rat
	Method	OECD Guideline 402 (Acute Dermal Toxicity)
Butan-2-one O,O',O'',O'''-silanetetrayltetraoxime 34206-40-1	Value type	LD50
	Value	> 2,000 mg/kg
	Species	rat
	Method	OECD Guideline 402 (Acute Dermal Toxicity)
octamethylcyclotetrasiloxane 556-67-2	Value type	LD50
	Value	> 2,375 mg/kg
	Species	rat
	Method	equivalent or similar to OECD Guideline 402 (Acute Dermal Toxicity)
2-butanone oxime 96-29-7	Value type	Acute toxicity estimate (ATE)
	Value	1,100 mg/kg
	Species	
	Method	Expert judgement
White mineral oil (petroleum), highly refined 8042-47-5	Value type	LD50
	Value	> 2,000 mg/kg
	Species	rabbit
	Method	OECD Guideline 402 (Acute Dermal Toxicity)

Skin corrosion/irritation:

Calcium carbonate 471-34-1	Result	not irritating
	Exposure time	4 h
	Species	rabbit
	Method	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Carbon black - Nano 1333-86-4	Result	not irritating
	Exposure time	24 h
	Species	rabbit
	Method	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Fatty acids, C14-18 and C16-18-unsatd. 67701-06-8	Result	not irritating
	Exposure time	4 h
	Species	rabbit
	Method	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
octamethylcyclotetrasiloxane 556-67-2	Result	not irritating
	Exposure time	

	Species	rabbit
	Method	equivalent or similar to OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Inorganic filler Proprietary	Result	not irritating
	Exposure time	24 h
	Species	rabbit
	Method	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
White mineral oil (petroleum), highly refined 8042-47-5	Result	not irritating
	Exposure time	
	Species	rabbit
	Method	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Serious eye damage/irritation:

Calcium carbonate 471-34-1	Result	not irritating
	Exposure time	
	Species	rabbit
	Method	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Carbon black - Nano 1333-86-4	Result	not irritating
	Exposure time	
	Species	rabbit
	Method	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Fatty acids, C14-18 and C16-18-unsatd. 67701-06-8	Result	not irritating
	Exposure time	
	Species	rabbit
	Method	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Butan-2-one O,O',O'',O'''-silanetetrayltetraoxime 34206-40-1	Result	irritating
	Exposure time	1 h
	Species	rabbit
	Method	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
octamethylcyclotetrasiloxane 556-67-2	Result	not irritating
	Exposure time	
	Species	rabbit
	Method	equivalent or similar to OECD Guideline 405 (Acute Eye Irritation / Corrosion)
2-butanone oxime 96-29-7	Result	Category 1 (irreversible effects on the eye)
	Exposure time	
	Species	rabbit
	Method	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Inorganic filler Proprietary	Result	not irritating
	Exposure time	
	Species	rabbit
	Method	FDA Guideline
White mineral oil (petroleum), highly refined 8042-47-5	Result	not irritating
	Exposure time	
	Species	rabbit
	Method	OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Respiratory or skin sensitization:

Calcium carbonate 471-34-1	Result	not sensitising
	Test type	Mouse local lymphnode assay (LLNA)
	Species	mouse
	Method	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
Butan-2-one O,O',O''-(vinylsilylidyne)trioxime 2224-33-1	Result	Sensitizing
	Test type	Guinea pig maximisation test
	Species	guinea pig
	Method	OECD Guideline 406 (Skin Sensitisation)
Carbon black - Nano 1333-86-4	Result	not sensitising
	Test type	Buehler test
	Species	guinea pig
	Method	OECD Guideline 406 (Skin Sensitisation)
Butan-2-one O,O',O'',O'''-silanetetrayltetraoxime 34206-40-1	Result	sensitising
	Test type	Guinea pig maximisation test
	Species	guinea pig
	Method	OECD Guideline 406 (Skin Sensitisation)
octamethylcyclotetrasiloxane 556-67-2	Result	not sensitising
	Test type	Guinea pig maximisation test
	Species	guinea pig
	Method	OECD Guideline 406 (Skin Sensitisation)
2-butanone oxime 96-29-7	Result	sensitising
	Test type	Guinea pig maximisation test
	Species	guinea pig
	Method	OECD Guideline 406 (Skin Sensitisation)
Inorganic filler Proprietary	Result	not sensitising
	Test type	Draize Test
	Species	guinea pig
	Method	Draize Test
White mineral oil (petroleum), highly refined 8042-47-5	Result	not sensitising
	Test type	Buehler test
	Species	guinea pig
	Method	OECD Guideline 406 (Skin Sensitisation)

Germ cell mutagenicity:

Calcium carbonate 471-34-1	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)
Calcium carbonate 471-34-1	Result	negative
	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)
Calcium carbonate 471-34-1	Result	negative
	Type of study / Route of administration	mammalian cell gene mutation assay
	Metabolic activation / Exposure time	with and without
	Method	OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Butan-2-one O,O',O''-(vinylsilylidyne)trioxime 2224-33-1	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)
Butan-2-one O,O',O''-(vinylsilylidyne)trioxime 2224-33-1	Result	negative
	Type of study / Route of administration	intraperitoneal
	Metabolic activation / Exposure time	
	Species	mouse
	Method	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
Carbon black - Nano 1333-86-4	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)
Carbon black - Nano 1333-86-4	Result	negative
	Type of study / Route of administration	mammalian cell gene mutation assay
	Metabolic activation / Exposure time	with and without
	Method	OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Carbon black - Nano 1333-86-4	Result	negative
	Type of study / Route of administration	sister chromatid exchange assay in mammalian cells
	Metabolic activation / Exposure time	with and without
	Method	OECD Guideline 479 (Genetic Toxicology: In Vitro Sister Chromatid Exchange Assay in Mammalian Cells)
Carbon black - Nano 1333-86-4	Result	negative
	Type of study / Route of administration	oral: feed
	Metabolic activation / Exposure time	
	Species	Drosophila melanogaster
	Method	OECD Guideline 477 (Genetic Toxicology: Sex-linked Recessive Lethal Test in Drosophila melanogaster)
Fatty acids, C14-18 and C16-18-unsatd. 67701-06-8	Result	negative
	Type of study / Route of administration	bacterial reverse mutation assay (e.g Ames test)
	Metabolic activation / Exposure time	with and without
	Method	not specified
octamethylcyclotetrasiloxane 556-67-2	Result	negative
	Type of study / Route of administration	bacterial gene mutation assay
	Metabolic activation / Exposure time	with and without
	Method	OECD Guideline 471 (Bacterial Reverse Mutation Assay)
octamethylcyclotetrasiloxane 556-67-2	Result	negative
	Type of study / Route of administration	in vitro mammalian chromosome aberration test
	Metabolic activation / Exposure time	with and without
	Method	equivalent or similar to OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
octamethylcyclotetrasiloxane 556-67-2	Result	negative
	Type of study / Route of administration	mammalian cell gene mutation assay
	Metabolic activation / Exposure time	with and without
	Method	equivalent or similar to OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
octamethylcyclotetrasiloxane 556-67-2	Result	negative
	Type of study / Route of administration	inhalation
	Metabolic activation / Exposure time	
	Species	rat
	Method	equivalent or similar to OECD Guideline 475 (Mammalian Bone Marrow Chromosome Aberration Test)

octamethylcyclotetrasiloxane 556-67-2	Result	negative
	Type of study / Route of administration	oral: gavage
	Metabolic activation / Exposure time	
	Species	rat
	Method	equivalent or similar to OECD Guideline 478 (Genetic Toxicology: Rodent Dominant Lethal Test)
2-butanone oxime 96-29-7	Result	negative
	Type of study / Route of administration	bacterial reverse mutation assay (e.g Ames test)
	Metabolic activation / Exposure time	with and without
	Method	EPA OPPTS 870.5265 (The Salmonella typhimurium Bacterial Reverse Mutation Test)
2-butanone oxime 96-29-7	Result	negative
	Type of study / Route of administration	mammalian cell gene mutation assay
	Metabolic activation / Exposure time	with
	Method	OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
2-butanone oxime 96-29-7	Result	negative
	Type of study / Route of administration	DNA damage and repair assay, unscheduled DNA synthesis in mammalian cells in vitro
	Metabolic activation / Exposure time	
	Method	OECD Guideline 482 (Genetic Toxicology: DNA Damage and Repair, Unscheduled DNA Synthesis in Mammalian Cells In Vitro)
2-butanone oxime 96-29-7	Result	negative
	Type of study / Route of administration	oral: gavage
	Metabolic activation / Exposure time	
	Species	rat
	Method	EPA OPPTS 870.5385 (In Vivo Mammalian Cytogenetic Tests: Bone Marrow Chromosomal Analysis)
2-butanone oxime 96-29-7	Result	negative
	Type of study / Route of administration	oral: feed
	Metabolic activation / Exposure time	
	Species	Drosophila melanogaster
	Method	EPA OPPTS 870.5385 (In Vivo Mammalian Cytogenetic Tests: Bone Marrow Chromosomal Analysis)
Inorganic filler Proprietary	Result	positive
	Type of study / Route of administration	in vitro mammalian cell micronucleus test
	Metabolic activation / Exposure time	without
	Method	OECD Guideline 487 (In vitro Mammalian Cell Micronucleus Test)
Inorganic filler Proprietary	Result	positive
	Type of study / Route of administration	in vitro mammalian chromosome aberration test
	Metabolic activation / Exposure time	without
	Method	OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
Inorganic filler Proprietary	Result	negative
	Type of study / Route of administration	mammalian cell gene mutation assay
	Metabolic activation / Exposure time	with and without
	Method	OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Inorganic filler Proprietary	Result	negative
	Type of study / Route of administration	oral: gavage
	Metabolic activation / Exposure time	
	Species	rat
	Method	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
Inorganic filler Proprietary	Result	ambiguous
	Type of study / Route of administration	oral: gavage
	Metabolic activation / Exposure time	
	Species	rat
	Method	OECD Guideline 475 (Mammalian Bone Marrow Chromosome Aberration Test)
White mineral oil (petroleum), highly refined 8042-47-5	Result	negative
	Type of study / Route of administration	bacterial reverse mutation assay (e.g Ames test)
	Metabolic activation / Exposure time	with
	Method	OECD Guideline 471 (Bacterial Reverse Mutation Assay)
White mineral oil (petroleum), highly refined 8042-47-5	Result	negative
	Type of study / Route of administration	mammalian cell gene mutation assay
	Metabolic activation / Exposure time	with and without
	Method	OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)

White mineral oil (petroleum), highly refined 8042-47-5	Result	negative
	Type of study / Route of administration	intraperitoneal
	Metabolic activation / Exposure time	
	Species	mouse
	Method	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)

Repeated dose toxicity:

Calcium carbonate 471-34-1	Result	NOAEL=1,000 mg/kg
	Route of application	oral: gavage
	Exposure time / Frequency of treatment	48 ddaily
	Species	rat
	Method	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
Butan-2-one O,O',O''-(vinylsilylidyne)trioxime 2224-33-1	Result	NOAEL=10 mg/kg
	Route of application	oral: gavage
	Exposure time / Frequency of treatment	
	Species	rat
	Method	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
Butan-2-one O,O',O'',O'''-silanetetrayltetraoxime 34206-40-1	Result	NOAEL=25 mg/kg
	Route of application	oral: drinking water
	Exposure time / Frequency of treatment	90 ddaily: ad libitum
	Species	rat
	Method	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
octamethylcyclotetrasiloxane 556-67-2	Result	LOAEL=35 ppm
	Route of application	inhalation
	Exposure time / Frequency of treatment	6 h nose only inhalation5 days/week for 13 weeks
	Species	rat
	Method	OECD Guideline 412 (Repeated Dose Inhalation Toxicity: 28/14-Day)
octamethylcyclotetrasiloxane 556-67-2	Result	NOAEL=960 mg/kg
	Route of application	dermal
	Exposure time / Frequency of treatment	3 w5 d/w
	Species	rabbit
	Method	equivalent or similar to OECD Guideline 410 (Repeated Dose Dermal Toxicity: 21/28-Day Study)
2-butanone oxime 96-29-7	Result	LOAEL=40 mg/kg
	Route of application	oral: gavage
	Exposure time / Frequency of treatment	13 wdaily
	Species	rat
	Method	not specified
White mineral oil (petroleum), highly refined 8042-47-5	Result	NOAEL=>= 1,600 mg/kg
	Route of application	oral: feed
	Exposure time / Frequency of treatment	90 ddaily
	Species	rat
	Method	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)

Section 12. Ecological information

General ecological information: Cured Loctite products are typical polymers and do not pose any immediate environmental hazards., Precautions required with respect to Environmental Hazards of articles in which this product is used should be considered., Do not empty into drains / surface water / ground water.

Ecotoxicity: Toxic to aquatic life with long lasting effects.

Toxicity:

Calcium carbonate 471-34-1	Value type	LC50
	Value	Toxicity > Water solubility
	Acute Toxicity Study	Fish
	Exposure time	96 h
	Species	Oncorhynchus mykiss
	Method	OECD Guideline 203 (Fish, Acute Toxicity Test)

Calcium carbonate 471-34-1	Value type	EC50
	Value	Toxicity > Water solubility
	Acute Toxicity Study	Daphnia
	Exposure time	48 h
	Species	Daphnia magna
	Method	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Calcium carbonate 471-34-1	Value type	EC50
	Value	Toxicity > Water solubility
	Acute Toxicity Study	Algae
	Exposure time	72 h
	Species	Desmodesmus subspicatus
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)
	Value type	NOEC
	Value	14 mg/l
	Acute Toxicity Study	Algae
	Exposure time	72 h
	Species	Desmodesmus subspicatus
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)
Calcium carbonate 471-34-1	Value type	EC50
	Value	Toxicity > Water solubility
	Acute Toxicity Study	Bacteria
	Exposure time	3 h
	Species	activated sludge of a predominantly domestic sewage
	Method	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
Butan-2-one O,O',O''-(vinylsilylidyne)trioxime 2224-33-1	Value type	LC50
	Value	> 560 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)
	Value type	NOEC
	Value	50 mg/l
	Acute Toxicity Study	Fish
	Exposure time	14 d
	Species	Oryzias latipes
	Method	OECD Guideline 204 (Fish, Prolonged Toxicity Test: 14-day Study)
Butan-2-one O,O',O''-(vinylsilylidyne)trioxime 2224-33-1	Value type	EC50
	Value	201 mg/l
	Acute Toxicity Study	Daphnia
	Exposure time	48 h
	Species	Daphnia magna
	Method	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Butan-2-one O,O',O''-(vinylsilylidyne)trioxime 2224-33-1	Value type	EC50
	Value	94 mg/l
	Acute Toxicity Study	Algae
	Exposure time	72 h
	Species	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)
	Value type	NOEC
	Value	30 mg/l
	Acute Toxicity Study	Algae
	Exposure time	72 h
	Species	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)
Carbon black - Nano 1333-86-4	Value type	LC50
	Value	Toxicity > Water solubility
	Acute Toxicity Study	Fish
	Exposure time	96 h
	Species	Danio rerio
	Method	OECD Guideline 203 (Fish, Acute Toxicity Test)
Carbon black - Nano 1333-86-4	Value type	EC50
	Value	Toxicity > Water solubility
	Acute Toxicity Study	Daphnia
	Exposure time	24 h
	Species	Daphnia magna
	Method	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Carbon black - Nano 1333-86-4	Value type	EC50
	Value	Toxicity > Water solubility
	Acute Toxicity Study	Algae
	Exposure time	72 h

	Species	Desmodesmus subspicatus
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)
	Value type	EC10
	Value	Toxicity > Water solubility
	Acute Toxicity Study	Algae
	Exposure time	72 h
	Species	Desmodesmus subspicatus
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)
Carbon black - Nano 1333-86-4	Value type	EC0
	Value	Toxicity > Water solubility
	Acute Toxicity Study	Bacteria
	Exposure time	3 h
	Species	activated sludge, domestic
	Method	other guideline:
Fatty acids, C14-18 and C16-18-unsatd. 67701-06-8	Value type	LC50
	Value	> 1,000 mg/l
	Acute Toxicity Study	Fish
	Exposure time	96 h
	Species	Brachydanio rerio (new name: Danio rerio)
	Method	not specified
Fatty acids, C14-18 and C16-18-unsatd. 67701-06-8	Value type	EC50
	Value	40 mg/l
	Acute Toxicity Study	Daphnia
	Exposure time	24 h
	Species	Daphnia magna
	Method	not specified
Fatty acids, C14-18 and C16-18-unsatd. 67701-06-8	Value type	EC50
	Value	30 - 100 mg/l
	Acute Toxicity Study	Algae
	Exposure time	96 h
	Species	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)
	Method	DIN 38412-09
	Value type	EC0
	Value	30 mg/l
	Acute Toxicity Study	Algae
	Exposure time	96 h
	Species	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)
	Method	DIN 38412-09
Fatty acids, C14-18 and C16-18-unsatd. 67701-06-8	Value type	EC 50
	Value	> 100 mg/l
	Acute Toxicity Study	Bacteria
	Exposure time	16 h
	Species	
	Method	DIN 38412, part 8 (Pseudomonas Zellvermehrungshemm-Test)
Butan-2-one O,O',O'',O'''-silanetetrayltetraoxime 34206-40-1	Value type	LC50
	Value	843 mg/l
	Acute Toxicity Study	Fish
	Exposure time	96 h
	Species	Pimephales promelas
	Method	OECD Guideline 203 (Fish, Acute Toxicity Test)
	Value type	NOEC
	Value	50 mg/l
	Acute Toxicity Study	Fish
	Exposure time	14 d
	Species	Oryzias latipes
	Method	OECD Guideline 204 (Fish, Prolonged Toxicity Test: 14-day Study)
Butan-2-one O,O',O'',O'''-silanetetrayltetraoxime 34206-40-1	Value type	EC50
	Value	201 mg/l
	Acute Toxicity Study	Daphnia
	Exposure time	48 h
	Species	Daphnia magna
	Method	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Butan-2-one O,O',O'',O'''-silanetetrayltetraoxime 34206-40-1	Value type	EC50
	Value	16 mg/l
	Acute Toxicity Study	Algae
	Exposure time	72 h
	Species	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)
	Value type	NOEC
	Value	2.6 mg/l

	Acute Toxicity Study	Algae
	Exposure time	72 h
	Species	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)
octamethylcyclotetrasiloxane 556-67-2	Value type	NOEC
	Value	0.0044 mg/l
	Acute Toxicity Study	Fish
	Exposure time	93 d
	Species	Salmo gairdneri (new name: Oncorhynchus mykiss)
	Method	EPA OPPTS 797.1600 (Fish Early Life Stage Toxicity Test)
	Value type	LC50
	Value	Toxicity > Water solubility
	Acute Toxicity Study	Fish
	Exposure time	96 h
	Species	Oncorhynchus mykiss
	Method	EPA OTS 797.1400 (Fish Acute Toxicity Test)
octamethylcyclotetrasiloxane 556-67-2	Value type	EC50
	Value	Toxicity > Water solubility
	Acute Toxicity Study	Daphnia
	Exposure time	48 h
	Species	Daphnia magna
	Method	EPA OTS 797.1300 (Aquatic Invertebrate Acute Toxicity Test, Freshwater Daphnids)
octamethylcyclotetrasiloxane 556-67-2	Value type	EC50
	Value	Toxicity > Water solubility
	Acute Toxicity Study	Algae
	Exposure time	96 h
	Species	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)
	Method	EPA OTS 797.1050 (Algal Toxicity, Tiers I and II)
	Value type	EC10
	Value	0.022 mg/l
	Acute Toxicity Study	Algae
	Exposure time	96 h
	Species	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)
	Method	EPA OTS 797.1050 (Algal Toxicity, Tiers I and II)
octamethylcyclotetrasiloxane 556-67-2	Value type	EC50
	Value	Toxicity > Water solubility
	Acute Toxicity Study	Bacteria
	Exposure time	3 h
	Species	activated sludge
	Method	ISO 8192 (Test for Inhibition of Oxygen Consumption by Activated Sludge)
2-butanone oxime 96-29-7	Value type	LC50
	Value	320 - 1,000 mg/l
	Acute Toxicity Study	Fish
	Exposure time	96 h
	Species	Leuciscus idus
	Method	DIN 38412-15
	Value type	NOEC
	Value	50 mg/l
	Acute Toxicity Study	Fish
	Exposure time	14 d
	Species	Oryzias latipes
	Method	OECD Guideline 204 (Fish, Prolonged Toxicity Test: 14-day Study)
2-butanone oxime 96-29-7	Value type	EC50
	Value	> 500 mg/l
	Acute Toxicity Study	Daphnia
	Exposure time	48 h
	Species	Daphnia magna
	Method	EU Method C.2 (Acute Toxicity for Daphnia)
2-butanone oxime 96-29-7	Value type	EC50
	Value	11.8 mg/l
	Acute Toxicity Study	Algae
	Exposure time	72 h
	Species	Scenedesmus capricornutum
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)
	Value type	NOEC
	Value	2.56 mg/l
	Acute Toxicity Study	Algae
	Exposure time	72 h
	Species	Scenedesmus capricornutum

	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)
2-butanone oxime 96-29-7	Value type	EC10
	Value	177 mg/l
	Acute Toxicity Study	Bacteria
	Exposure time	17 h
	Species	
	Method	DIN 38412, part 8 (Pseudomonas Zellvermehrungshemm-Test)
White mineral oil (petroleum), highly refined 8042-47-5	Value type	LL50
	Value	> 100 mg/l
	Acute Toxicity Study	Fish
	Exposure time	96 h
	Species	Oncorhynchus mykiss
	Method	OECD Guideline 203 (Fish, Acute Toxicity Test)
White mineral oil (petroleum), highly refined 8042-47-5	Value type	EL50
	Value	> 100 mg/l
	Acute Toxicity Study	Daphnia
	Exposure time	48 h
	Species	Daphnia magna
	Method	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
White mineral oil (petroleum), highly refined 8042-47-5	Value type	NOELR
	Value	100 mg/l
	Acute Toxicity Study	Algae
	Exposure time	72 h
	Species	Pseudokirchneriella subcapitata
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)
White mineral oil (petroleum), highly refined 8042-47-5	Value type	IC50
	Value	> 100 mg/l
	Acute Toxicity Study	Bacteria
	Exposure time	93 d
	Species	other:
	Method	other guideline:

Persistence and degradability:

Calcium carbonate 471-34-1	Result	readily biodegradable
	Route of application	aerobic
	Degradability	90 %
	Method	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)
Butan-2-one O,O',O''-(vinylsilylidyne)trioxime 2224-33-1	Result	not readily biodegradable.
	Route of application	aerobic
	Degradability	26 %
	Method	OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))
Fatty acids, C14-18 and C16-18-unsatd. 67701-06-8	Result	readily biodegradable
	Route of application	aerobic
	Degradability	92 %
	Method	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
Butan-2-one O,O',O'',O'''-silanetetrayltetraoxime 34206-40-1	Result	not readily biodegradable.
	Route of application	aerobic
	Degradability	28 %
	Method	OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))
octamethylcyclotetrasiloxane 556-67-2	Result	not readily biodegradable.
	Route of application	aerobic
	Degradability	3.7 %
	Method	OECD Guideline 310 (Ready BiodegradabilityCO2 in Sealed Vessels (Headspace Test)
2-butanone oxime 96-29-7	Result	inherently biodegradable
	Route of application	aerobic
	Degradability	70 %
	Method	OECD Guideline 302 B (Inherent biodegradability: Zahn-Wellens/EMPA Test)
White mineral oil (petroleum), highly refined 8042-47-5	Result	not readily biodegradable.
	Route of application	aerobic
	Degradability	31.3 %
	Method	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)

Bioaccumulative potential / Mobility in soil:

Calcium carbonate 471-34-1	LogPow	-2.12
	Temperature	
	Method	QSAR (Quantitative Structure Activity Relationship)
octamethylcyclotetrasiloxane 556-67-2	Bioconcentration factor (BCF)	12,400
	Exposure time	28 d
	Species	Pimephales promelas
	Temperature	
	Method	EPA OTS 797.1520 (Fish Bioconcentration Test-Rainbow Trout)
octamethylcyclotetrasiloxane 556-67-2	LogPow	6.488
	Temperature	25.1 °C
	Method	OECD Guideline 123 (Partition Coefficient (1-Octanol / Water), Slow-Stirring Method)
2-butanone oxime 96-29-7	Bioconcentration factor (BCF)	0.5 - 0.6
	Exposure time	42 d
	Species	Oryzias latipes
	Temperature	25 °C
	Method	OECD Guideline 305 C (Bioaccumulation: Test for the Degree of Bioconcentration in Fish)
2-butanone oxime 96-29-7	LogPow	0.65
	Temperature	25 °C
	Method	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)
White mineral oil (petroleum), highly refined 8042-47-5	LogPow	> 4
	Temperature	
	Method	EU Method A.8 (Partition Coefficient)

Section 13. Disposal considerations

Product

Method of disposal: Dispose of in accordance with local and national regulations.
Contribution of this product to waste is very insignificant in comparison to article in which it is used

Packaging

Disposal of uncleaned packages: 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.
Packaging that cannot be cleaned are to be disposed of in the same manner as the product.

Section 14. Transport information

Road transport ADR:

Class:	9
Packing group:	III
Classification code:	M7
Hazard ident. number:	90
UN no.:	3077
Label:	9
Technical name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (octamethylcyclotetrasiloxane)

Railroad transport RID:

Class:	9
Packing group:	III
Classification code:	M7
Hazard ident. number:	90
UN no.:	3077
Label:	9
Technical name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (octamethylcyclotetrasiloxane)

Inland water transport ADN:

Class:	9
Packing group:	III
Classification code:	M7
Hazard ident. number:	
UN no.:	3077
Label:	9
Technical name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (octamethylcyclotetrasiloxane)

Marine transport IMDG:

Class:	9
Packing group:	III
UN no.:	3077
Label:	9
EmS:	F-A ,S-F
Seawater pollutant:	Marine pollutant
Proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (octamethylcyclotetrasiloxane)

Air transport IATA:

Class:	9
Packing group:	III
Packaging instructions (passenger):	956
Packaging instructions (cargo):	956
UN no.:	3077
Label:	9
Proper shipping name:	Environmentally hazardous substance, solid, n.o.s. (octamethylcyclotetrasiloxane)

Further information for transport:

The transport classifications in this section apply generally to packed and bulk goods alike. For containers with a net volume of no more than 5 L for liquid substances or a net mass of no more than 5 kg for solid substances per individual or inner package, the exemptions SP 375 (ADR), 197 (IATA), 969 (IMDG) may be applied, which can result in a deviation from the transport classification for packed goods.

`Section 15. Regulatory information

Regulatory Information: Workplace Safety And Health Act (Chapter 354A) Workplace Safety And Health (Approved Codes of Practice) Notification 2013 SS586 Specification for Hazard Communication for hazardous chemicals and dangerous good Part 1,2,3

Global inventory status:

Regulatory list	Notification
TSCA	yes
DSL	yes
KECI (KR)	yes
ISHL (JP)	yes
IECSC	yes
AICS	yes
TCSI	yes
PICCS (PH)	yes
CH INV	yes
EINECS	yes

Section 16. Other information

Disclaimer: This Safety Data Sheet has been generated based on SS586. No warranty or representation of any kind is given with respect to the substantive or export laws of any other jurisdiction or country. Please confirm that the information provided herein conforms to the substantive export or other law of any other jurisdiction prior to export. Please contact Henkel Product Safety and Regulatory Affairs for additional assistance.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.
Dear Customer,
Henkel is committed to creating a sustainable future by promoting opportunities along the entire value chain. If you would like to contribute by switching from a paper to the electronic version of SDS, please contact the local Customer Service representative. We recommend to use a non-personal email address (e.g. SDS@your_company.com).