Safety Data Sheet

LOCTITE TLB 9300 APS PART A

SDS No. : 734592
V001.0
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Section 1. Identification of the substance/preparation and of the company/undertaking

Product name: LOCTITE TLB 9300 APS PART A

Other means of identification: LOCTITE TLB 9300 APSi PART A 17L
Product code: IDH2857602
Recommended use of the chemical and restrictions on use

Intended use: Part A for 2-K-Polyurethane adhesive and sealant
Manufacturer/Importer/Distributor Representative Company

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Singapore

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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
Skin sensitizer	Category 1
Chronic hazards to the aquatic environment	Category 2

GHS label elements:

Hazard pictogram:



Signal word: Warning

Hazard statement: H317 May cause an allergic skin reaction.
H411 Toxic to aquatic life with long lasting effects.

Precaution:

Prevention: 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.

Response: P302+P352 IF ON SKIN: Wash with plenty of water.
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
Aluminium oxide - non fibrous form 1344-28-1	30- 60 %	
Aluminium hydroxide 21645-51-2	30- 60 %	
Reaction mass of 3-methylphenyl diphenyl phosphate, 4-methylphenyl diphenyl phosphate, bis(3-methylphenyl) phenyl phosphate, 3-methylphenyl 4-methylphenyl phenyl phosphate and triphenyl phosphate	0.1- 1 %	Acute hazards to the aquatic environment 1 H400
Dodecane-1-thiol 112-55-0	0.1- 1 %	Skin corrosion 1C H314 Serious eye damage/eye irritation 1 H318 Skin Sensitization 1A H317 Acute hazards to the aquatic environment 1 H400 Chronic hazards to the aquatic environment 1 H410
Cashew, nutshell liq. polymer with epichlorohydrin 68413-24-1	0.1- 1 %	Skin Sensitization 1B H317
dibutyltin dilaurate 77-58-7	0.1- 1 %	Serious eye damage/eye irritation 2 H319 Skin Sensitization 1 H317 Germ cell mutagenicity 2 H341 Reproductive toxicant. 1B H360 Target Organ Systemic Toxicant - Single exposure 1 H370 Target Organ Systemic Toxicant - Repeated exposure 1 H372 Acute hazards to the aquatic environment 1 H400 Chronic hazards to the aquatic environment 1 H410

Section 4. First aid measures

Inhalation:	Move to fresh air, consult doctor if complaint persists.
Skin contact:	IF ON SKIN: Wash with plenty of soap and water. In case of adverse health effects seek medical advice.
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:	All common extinguishing agents are suitable.
Improper extinguishing media:	High pressure waterjet
Specific hazards arising from the chemical:	In case of fire toxic gases can be released.
Special protection equipment and precautions for firefighters:	Wear self-contained breathing apparatus. Wear protective equipment.

Section 6. Accidental release measures

Personal precautions:	Wear protective equipment. Avoid contact with skin and eyes. Keep unprotected persons away. Danger of slipping on spilled product.
Environmental precautions:	Do not empty into drains / surface water / ground water. Inform authorities in the event of product spillage to water courses or sewage systems.
Clean-up methods:	Remove with liquid-absorbing material (sand, peat, sawdust). Dispose of contaminated material as waste according to Section 13.

Section 7. Handling and storage

Handling:	Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Avoid breathing vapors or mists of this product. For industrial use only. Do not take internally.
Storage:	Ensure good ventilation/extraction.Avoid moisture. Temperatures between + 5 °C and + 30 °C

Section 8. Exposure controls / personal protection

Components with specific control parameters for workplace:

ALUMINUM METAL AND INSOLUBLE COMPOUNDS, RESPIRABLE FRACTION 1344-28-1	**Value type**	Time Weighted Average (TWA):
	mg/m³	1
	Remarks	ACGIH
ALUMINIUM OXIDE 1344-28-1	**Value type**	Time Weighted Average (TWA):
	mg/m³	10
	Remarks	SG PEL
Particles (insoluble or poorly soluble) not otherwise specified, respirable particles 1344-28-1	**Value type**	Time Weighted Average (TWA):
	mg/m³	3
	Remarks	ACGIH
Particles (insoluble or poorly soluble) not otherwise specified, inhalable particles 1344-28-1	**Value type**	Time Weighted Average (TWA):
	mg/m³	10
	Remarks	ACGIH
ALUMINUM METAL AND INSOLUBLE COMPOUNDS, RESPIRABLE FRACTION 21645-51-2	**Value type**	Time Weighted Average (TWA):
	mg/m³	1
	Remarks	ACGIH
NUISANCE PARTICULATES 21645-51-2	**Value type**	Time Weighted Average (TWA):
	mg/m³	10
	Remarks	SG PEL
Aluminium hydroxide 21645-51-2	**Value type**	Time Weighted Average (TWA):
	mg/m³	10
Particles (insoluble or poorly soluble) not otherwise specified, respirable particles 21645-51-2	**Value type**	Time Weighted Average (TWA):
	mg/m³	3
	Remarks	ACGIH
Particles (insoluble or poorly soluble) not otherwise specified, inhalable particles 21645-51-2	**Value type**	Time Weighted Average (TWA):
	mg/m³	10
	Remarks	ACGIH
TIN, ORGANIC COMPOUNDS, AS SN 77-58-7	**Value type**	Time Weighted Average (TWA):
	mg/m³	0.1
	Remarks	ACGIH
TIN, ORGANIC COMPOUNDS, AS SN 77-58-7	**Value type**	Time Weighted Average (TWA):
	mg/m³	0.1
	Remarks	SG PEL
TIN, ORGANIC COMPOUNDS, AS SN 77-58-7	**Value type**	Short Term Exposure Limit (STEL):
	mg/m³	0.2
	Remarks	ACGIH
TIN, ORGANIC COMPOUNDS, AS SN 77-58-7	**Value type**	Skin designation:
	Remarks	ACGIH Danger of cutaneous absorption
TIN, ORGANIC COMPOUNDS, AS SN 77-58-7	**Value type**	Short Term Exposure Limit (STEL):
	mg/m³	0.2
	Remarks	SG PEL

Respiratory protection: Ensure good ventilation/suction at the workplace.
If ventilation is not sufficient to effectively prevent buildup of vapor/mist/fume/dust,

appropriate NIOSH/MSHA respiratory protection must be provided.

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 chemical goggles; face shield (if splashing is possible).
Protective eye equipment should conform to EN166.

Body protection: Wear impervious gloves for prolonged contact.
Gloves should be tested to determine suitability for prolonged contact.
Use of impervious apron and boots are recommended.

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

Section 9. Physical and chemical properties

Appearance:	Blue liquid
Odor:	characteristic
Odor threshold (CA):	No data available.
pH:(Concentration: 100 %)	Not applicable6 - 9
Melting point / freezing point:	Not applicable, Product is a liquid
Specific gravity:	No data available.
Boiling point:	No data available.
Flash point: (;; Internal Henkel specification)	> 120 °C (> 248 °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:	No data available.
Vapor density:	No data available.
Density:	2.3 - 2.5 g/cm3
Solubility:	No data available.
Partition coefficient: n-octanol/water:	No data available.
Auto ignition:	No data available.
Decomposition temperature:	No data available.
Viscosity: (; 25 °C (77 °F); Method: ;; Internal Henkel specification)	150 - 250 Pa*s
VOC content:	No data available.

Section 10. Stability and reactivity

Reactivity/Incompatible materials:	None if used for intended purpose. None if used properly.
Chemical stability:	Stable under recommended storage conditions.

Conditions to avoid: None if used for intended purpose.
Hazardous decomposition products: No decomposition if used according to specifications.

Section 11. Toxicological information

General toxicological information: An allergic reaction cannot be excluded after repeated skin contact.
Symptoms of Overexposure**:** SKIN: Rash, Urticaria.

Acute oral toxicity:

Aluminium oxide - non fibrous form 1344-28-1	Value type	LD50
	Value	> 10,000 mg/kg
	Species	rat
	Method	equivalent or similar to OECD Guideline 401 (Acute Oral Toxicity)
Aluminium hydroxide 21645-51-2	Value type	LD50
	Value	> 2,000 mg/kg
	Species	rat
	Method	OECD Guideline 423 (Acute Oral toxicity)
Reaction mass of 3-methylphenyl diphenyl phosphate, 4-methylphenyl diphenyl phosphate, bis(3-methylphenyl) phenyl phosphate, 3-methylphenyl 4-methylphenyl phenyl phosphate and triphenyl phosphate	Value type	LD50
	Value	> 6,050 mg/kg
	Species	rat
	Method	not specified
Dodecane-1-thiol 112-55-0	Value type	LD50
	Value	> 5,000 mg/kg
	Species	rat
	Method	OECD Guideline 401 (Acute Oral Toxicity)
Cashew, nutshell liq. polymer with epichlorohydrin 68413-24-1	Value type	LD50
	Value	> 2,000 mg/kg
	Species	rat
	Method	OECD Guideline 423 (Acute Oral toxicity)
dibutyltin dilaurate 77-58-7	Value type	LD50
	Value	2,071 mg/kg
	Species	rat
	Method	equivalent or similar to OECD Guideline 401 (Acute Oral Toxicity)

Acute dermal toxicity:

Reaction mass of 3-methylphenyl diphenyl phosphate, 4-methylphenyl diphenyl phosphate, bis(3-methylphenyl) phenyl phosphate, 3-methylphenyl 4-methylphenyl phenyl phosphate and triphenyl phosphate	Value type	LD50
	Value	> 2,000 mg/kg
	Species	rat
	Method	equivalent or similar to OECD Guideline 402 (Acute Dermal Toxicity)
Dodecane-1-thiol 112-55-0	Value type	LD50
	Value	> 2,000 mg/kg
	Species	rat
	Method	equivalent or similar to OECD Guideline 402 (Acute Dermal Toxicity)
Cashew, nutshell liq. polymer with epichlorohydrin 68413-24-1	Value type	LD50
	Value	> 2,000 mg/kg
	Species	rat
	Method	OECD Guideline 402 (Acute Dermal Toxicity)
dibutyltin dilaurate 77-58-7	Value type	LD50
	Value	> 2,000 mg/kg
	Species	rat
	Method	OECD Guideline 402 (Acute Dermal Toxicity)

Skin corrosion/irritation:

Aluminium oxide - non fibrous form 1344-28-1	Result	not irritating
	Exposure time	24 h
	Species	rabbit
	Method	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Aluminium hydroxide 21645-51-2	Result	not irritating
	Exposure time	4 h
	Species	rabbit
	Method	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Reaction mass of 3-methylphenyl diphenyl phosphate, 4-methylphenyl diphenyl phosphate, bis(3-methylphenyl) phenyl phosphate, 3-methylphenyl 4-methylphenyl phenyl phosphate and triphenyl phosphate	Result	not irritating
	Exposure time	4 h
	Species	rabbit
	Method	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Dodecane-1-thiol 112-55-0	Result	Category 1C (corrosive)
	Exposure time	4 h
	Species	rabbit
	Method	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Cashew, nutshell liq. polymer with epichlorohydrin 68413-24-1	Result	not irritating
	Exposure time	60 min
	Species	Human, EpiDermTM SIT (EPI-200), Reconstructed Human Epidermis (RHE)
	Method	OECD Guideline 439 (In Vitro Skin Irritation: Reconstructed Human Epidermis (RHE) Test Method)
dibutyltin dilaurate 77-58-7	Result	not corrosive
	Exposure time	
	Species	Human, EpiSkinTM (SM), Reconstructed Human Epidermis (RHE)
	Method	OECD Guideline 431 (In Vitro Skin Corrosion: Reconstructed Human Epidermis (RHE) Test Method)
dibutyltin dilaurate 77-58-7	Result	not irritating
	Exposure time	
	Species	Human, EpiSkinTM (SM), Reconstructed Human Epidermis (RHE)
	Method	other guideline:
dibutyltin dilaurate 77-58-7	Result	not corrosive
	Exposure time	
	Species	Corrositex Biobarrier Membrane (reconstituted collagen matrix)
	Method	OECD Guideline 435 (In Vitro Membrane Barrier Test Method for Skin Corrosion)

Serious eye damage/irritation:

Aluminium oxide - non fibrous form 1344-28-1	Result	slightly irritating
	Exposure time	
	Species	rabbit
	Method	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Aluminium hydroxide 21645-51-2	Result	not irritating
	Exposure time	
	Species	rabbit
	Method	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Reaction mass of 3-methylphenyl diphenyl phosphate, 4-methylphenyl diphenyl phosphate, bis(3-methylphenyl) phenyl phosphate, 3-methylphenyl 4-methylphenyl phenyl phosphate and triphenyl phosphate	Result	not irritating
	Exposure time	
	Species	rabbit
	Method	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Cashew, nutshell liq. polymer with epichlorohydrin 68413-24-1	Result	not irritating
	Exposure time	60 min
	Species	Human, corneal model
	Method	not specified
dibutyltin dilaurate 77-58-7	Result	irritating
	Exposure time	
	Species	rabbit
	Method	OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Respiratory or skin sensitization:

Aluminium oxide - non fibrous form 1344-28-1	Result	not sensitising
	Test type	Draize Test
	Species	guinea pig
	Method	Landsteiner & Jacobs Method
Aluminium hydroxide 21645-51-2	Result	not sensitising
	Test type	Guinea pig maximisation test
	Species	guinea pig
	Method	OECD Guideline 406 (Skin Sensitisation)
Reaction mass of 3-methylphenyl diphenyl phosphate, 4-methylphenyl diphenyl phosphate, bis(3-methylphenyl) phenyl phosphate, 3-methylphenyl 4-methylphenyl phenyl phosphate and triphenyl phosphate	Result	not sensitising
	Test type	Mouse local lymphnode assay (LLNA)
	Species	mouse
	Method	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
Dodecane-1-thiol 112-55-0	Result	sensitising
	Test type	Mouse local lymphnode assay (LLNA)
	Species	mouse
	Method	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
Cashew, nutshell liq. polymer with epichlorohydrin 68413-24-1	Result	sensitising
	Test type	Guinea pig maximisation test
	Species	guinea pig
	Method	OECD Guideline 406 (Skin Sensitisation)
dibutyltin dilaurate 77-58-7	Result	Sensitizing
	Test type	Guinea pig maximisation test
	Species	guinea pig
	Method	OECD Guideline 406 (Skin Sensitisation)

Germ cell mutagenicity:

Aluminium oxide - non fibrous form 1344-28-1	Result	negative
	Type of study / Route of administration	in vitro mammalian chromosome aberration test
	Metabolic activation / Exposure time	with and without
	Method	OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Aluminium oxide - non fibrous form 1344-28-1	Result	negative
	Type of study / Route of administration	oral: gavage
	Metabolic activation / Exposure time	
	Species	rat
	Method	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
Aluminium hydroxide 21645-51-2	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)
Aluminium hydroxide 21645-51-2	Result	negative
	Type of study / Route of administration	oral: gavage
	Metabolic activation / Exposure time	
	Species	rat
	Method	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
Reaction mass of 3-methylphenyl diphenyl phosphate, 4-methylphenyl diphenyl phosphate, bis(3-methylphenyl) phenyl phosphate, 3-methylphenyl 4-methylphenyl phenyl phosphate and triphenyl phosphate	Result	negative
	Type of study / Route of administration	bacterial reverse mutation assay (e.g Ames test)
	Metabolic activation / Exposure time	with and without
	Method	Ames Test
Reaction mass of 3-methylphenyl diphenyl phosphate, 4-methylphenyl diphenyl phosphate, bis(3-methylphenyl) phenyl phosphate, 3-methylphenyl 4-methylphenyl phenyl phosphate and triphenyl phosphate	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)
Reaction mass of 3-methylphenyl diphenyl phosphate, 4-methylphenyl diphenyl phosphate, bis(3-methylphenyl) phenyl phosphate, 3-methylphenyl 4-methylphenyl phenyl phosphate and triphenyl phosphate	Result	negative
	Type of study / Route of administration	in vitro mammalian chromosome aberration test
	Metabolic activation / Exposure time	without
	Method	equivalent or similar to OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
Reaction mass of 3-methylphenyl diphenyl phosphate, 4-methylphenyl diphenyl phosphate, bis(3-methylphenyl) phenyl phosphate, 3-methylphenyl 4-methylphenyl phenyl phosphate and triphenyl phosphate	Result	positive
	Type of study / Route of administration	in vitro mammalian chromosome aberration test
	Metabolic activation / Exposure time	with
	Method	equivalent or similar to OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
Reaction mass of 3-methylphenyl diphenyl phosphate, 4-methylphenyl diphenyl phosphate, bis(3-methylphenyl) phenyl phosphate, 3-methylphenyl 4-methylphenyl phenyl phosphate and triphenyl phosphate	Result	negative
	Type of study / Route of administration	intraperitoneal
	Metabolic activation / Exposure time	
	Species	mouse
	Method	EU Method B.12 (Mutagenicity
Dodecane-1-thiol 112-55-0	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)
Dodecane-1-thiol 112-55-0	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)
Dodecane-1-thiol 112-55-0	Result	negative
	Type of study / Route of administration	oral: gavage
	Metabolic activation / Exposure time	
	Species	mouse
	Method	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
Cashew, nutshell liq. polymer with epichlorohydrin 68413-24-1	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)
Cashew, nutshell liq. polymer with epichlorohydrin 68413-24-1	Result	negative
	Type of study / Route of administration	in vitro mammalian cell micronucleus test
	Metabolic activation / Exposure time	with and without
	Method	OECD Guideline 487 (In vitro Mammalian Cell Micronucleus Test)
Cashew, nutshell liq. polymer with epichlorohydrin 68413-24-1	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)
dibutyltin dilaurate 77-58-7	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)
dibutyltin dilaurate 77-58-7	Result	positive
	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)
dibutyltin dilaurate 77-58-7	Result	negative
	Type of study / Route of administration	bacterial reverse mutation assay (e.g Ames test)
	Metabolic activation / Exposure time	with and without
	Method	OECD Guideline 471 (Bacterial Reverse Mutation Assay)
dibutyltin dilaurate 77-58-7	Result	positive
	Type of study / Route of administration	oral: gavage
	Metabolic activation / Exposure time	
	Species	mouse
	Method	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)

Repeated dose toxicity:

Aluminium oxide - non fibrous form 1344-28-1	Result	
	Route of application	inhalation: dust
	Exposure time / Frequency of treatment	
	Species	rat
	Method	OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day)
Reaction mass of 3-methylphenyl diphenyl phosphate, 4-methylphenyl diphenyl phosphate, bis(3-methylphenyl) phenyl phosphate, 3-methylphenyl 4-methylphenyl phenyl phosphate and triphenyl phosphate	Result	NOAEL=105 mg/kg
	Route of application	oral: feed
	Exposure time / Frequency of treatment	90 dcontinous
	Species	rat
	Method	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
Reaction mass of 3-methylphenyl diphenyl phosphate, 4-methylphenyl diphenyl phosphate, bis(3-methylphenyl) phenyl phosphate, 3-methylphenyl 4-methylphenyl phenyl phosphate and triphenyl phosphate	Result	NOAEL=117 mg/kg
	Route of application	oral: feed
	Exposure time / Frequency of treatment	90 dcontinous
	Species	rat
	Method	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
Cashew, nutshell liq. polymer with epichlorohydrin 68413-24-1	Result	NOAEL=62.5 mg/kg
	Route of application	oral: gavage
	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: Do not empty into drains / surface water / ground water.

Ecotoxicity: Toxic to aquatic life with long lasting effects.

Toxicity:

Aluminium oxide - non fibrous form 1344-28-1	Value type	LC50
	Value	Toxicity > Water solubility
	Acute Toxicity Study	Fish
	Exposure time	96 h
	Species	Salmo trutta
	Method	OECD Guideline 203 (Fish, Acute Toxicity Test)
Aluminium oxide - non fibrous form 1344-28-1	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)
Aluminium oxide - non fibrous form 1344-28-1	Value type	NOEC
	Value	Toxicity > Water solubility
	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	EC50
	Value	Toxicity > Water solubility
	Acute Toxicity Study	Algae
	Exposure time	72 h
	Species	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)
Aluminium oxide - non fibrous form 1344-28-1	Value type	EC0
	Value	Toxicity > Water solubility
	Acute Toxicity Study	Bacteria
	Exposure time	
	Species	not specified

	Method	not specified
Aluminium hydroxide 21645-51-2	Value type	LC50
	Value	Toxicity > Water solubility
	Acute Toxicity Study	Fish
	Exposure time	48 h
	Species	Leuciscus idus
	Method	DIN 38412-15
	Value type	NOEC
	Value	Toxicity > Water solubility
	Acute Toxicity Study	Fish
	Exposure time	33 d
	Species	Pimephales promelas
	Method	OECD Guideline 210 (fish early lite stage toxicity test)
Aluminium hydroxide 21645-51-2	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)
Aluminium hydroxide 21645-51-2	Value type	EC50
	Value	Toxicity > Water solubility
	Acute Toxicity Study	Algae
	Exposure time	72 h
	Species	Pseudokirchneriella subcapitata
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)
Reaction mass of 3-methylphenyl diphenyl phosphate, 4-methylphenyl diphenyl phosphate, bis(3-methylphenyl) phenyl phosphate, 3-methylphenyl 4-methylphenyl phenyl phosphate and triphenyl phosphate	Value type	EC50
	Value	0.55 mg/l
	Acute Toxicity Study	Algae
	Exposure time	72 h
	Species	not specified
	Method	EU Method C.3 (Algal Inhibition test)
	Value type	EC10
	Value	0.2 mg/l
	Acute Toxicity Study	Algae
	Exposure time	72 h
	Species	not specified
	Method	EU Method C.3 (Algal Inhibition test)
Dodecane-1-thiol 112-55-0	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)
Dodecane-1-thiol 112-55-0	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)
Dodecane-1-thiol 112-55-0	Value type	EC50
	Value	0.0145 mg/l
	Acute Toxicity Study	Algae
	Exposure time	72 h
	Species	Pseudokirchneriella subcapitata
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)
	Value type	EC10
	Value	0.0145 mg/l
	Acute Toxicity Study	Algae
	Exposure time	72 h
	Species	Pseudokirchneriella subcapitata
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)
Cashew, nutshell liq. polymer with epichlorohydrin 68413-24-1	Value type	LC50
	Value	> 10,000 mg/l
	Acute Toxicity Study	Fish
	Exposure time	48 h
	Species	Leuciscus idus
	Method	DIN 38412-15
Cashew, nutshell liq. polymer with epichlorohydrin 68413-24-1	Value type	EC50
	Value	> 100 mg/l
	Acute Toxicity Study	Daphnia

	Exposure time	24 h
	Species	Daphnia magna
	Method	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Cashew, nutshell liq. polymer with epichlorohydrin 68413-24-1	Value type	EC 50
	Value	> 100 mg/l
	Acute Toxicity Study	Bacteria
	Exposure time	3 h
	Species	
	Method	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
dibutyltin dilaurate 77-58-7	Value type	LC50
	Value	3.1 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)
dibutyltin dilaurate 77-58-7	Value type	EC50
	Value	0.463 mg/l
	Acute Toxicity Study	Daphnia
	Exposure time	48 h
	Species	Daphnia magna
	Method	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
dibutyltin dilaurate 77-58-7	Value type	EC50
	Value	> 1 mg/l
	Acute Toxicity Study	Algae
	Exposure time	72 h
	Species	Desmodesmus subspicatus
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)
dibutyltin dilaurate 77-58-7	Value type	EC50
	Value	> 1,000 mg/l
	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)

Persistence and degradability:

Reaction mass of 3-methylphenyl diphenyl phosphate, 4-methylphenyl diphenyl phosphate, bis(3-methylphenyl) phenyl phosphate, 3-methylphenyl 4-methylphenyl phenyl phosphate and triphenyl phosphate	Result	readily biodegradable
	Route of application	aerobic
	Degradability	75 %
	Method	OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))
Dodecane-1-thiol 112-55-0	Result	not readily biodegradable.
	Route of application	aerobic
	Degradability	39.2 %
	Method	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
Cashew, nutshell liq. polymer with epichlorohydrin 68413-24-1	Result	readily biodegradable
	Route of application	aerobic
	Degradability	79 %
	Method	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)
dibutyltin dilaurate 77-58-7	Result	not readily biodegradable.
	Route of application	anaerobic
	Degradability	23 %
	Method	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)

Bioaccumulative potential / Mobility in soil:

Aluminium hydroxide 21645-51-2	LogPow	-0.12
	Temperature	
	Method	QSAR (Quantitative Structure Activity Relationship)
Reaction mass of 3-methylphenyl diphenyl phosphate, 4-methylphenyl diphenyl phosphate, bis(3-	Bioconcentration factor (BCF)	> 100 - < 220
	Exposure time	4 d
	Species	not specified
	Temperature	10 °C

methylphenyl) phenyl phosphate, 3-methylphenyl 4-methylphenyl phenyl phosphate and triphenyl phosphate	Method	OECD Guideline 305 (Bioconcentration: Flow-through Fish Test)
Reaction mass of 3-methylphenyl diphenyl phosphate, 4-methylphenyl diphenyl phosphate, bis(3-methylphenyl) phenyl phosphate, 3-methylphenyl 4-methylphenyl phenyl phosphate and triphenyl phosphate	LogPow	4.5
	Temperature	22 °C
	Method	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)
Dodecane-1-thiol 112-55-0	LogPow	> 6.5
	Temperature	25 °C
	Method	OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)
dibutyltin dilaurate 77-58-7	Bioconcentration factor (BCF)	31 - 155
	Exposure time	
	Species	Cyprinus carpio
	Temperature	
	Method	OECD Guideline 305 (Bioconcentration: Flow-through Fish Test)
dibutyltin dilaurate 77-58-7	LogPow	4.44
	Temperature	20.8 °C
	Method	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)

Section 13. Disposal considerations

Product

Method of disposal: Dispose of in accordance with local and national regulations.

Packaging

Disposal of uncleaned packages: 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:	M6
Hazard ident. number:	90
UN no.:	3082
Label:	9
Technical name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Dodecane-1-thiol)

Railroad transport RID:

Class:	9
Packing group:	III
Classification code:	M6
Hazard ident. number:	90
UN no.:	3082
Label:	9
Technical name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Dodecane-1-thiol)

Inland water transport ADN:

Class:	9
Packing group:	III
Classification code:	M6
Hazard ident. number:	
UN no.:	3082
Label:	9
Technical name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Dodecane-1-thiol)

Marine transport IMDG:

Class:	9
Packing group:	III
UN no.:	3082
Label:	9
EmS:	F-A ,S-F
Seawater pollutant:	Marine pollutant
Proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Dodecane-1-thiol)

Air transport IATA:

Class:	9
Packing group:	III
Packaging instructions (passenger):	964
Packaging instructions (cargo):	964
UN no.:	3082
Label:	9
Proper shipping name:	Environmentally hazardous substance, liquid, n.o.s. (Dodecane-1-thiol)

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), A197 (IATA), 2.10.2.7 (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

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.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).
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.