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

Product name:
LOCTITE SF 754 PA1GAL

Other means of identification:
LOCTITE SF 754 PA1GAL

Product code:
IDH2473620
Recommended use of the chemical and restrictions on use

Intended use:
Rust preventor
Manufacturer/Importer/Distributor Representative Company
Henkel Thailand Ltd. The Offices at Centralworld,
35th Floor, 999/9 Rama 1 Rd.,
Kwang Patumwan, Khet Patumwan,
10330 Bangkok

Thailand

Phone: +66 (2209) 8000
Fax-no.: +66 (2209) 8008

E-mail address of person responsible for Safety Data Sheet:
ap-ua-psra.sea@henkel.com

Emergency Telephone for Chemical Accidents:
FOR EMERGENCIES ONLY (Spill, major leak, Fire, Exposure, or Accident). Call: +662 209 8008

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
Barite (Ba(SO4)) 13462-86-7	1- 10 %	
2-butoxyethanol 111-76-2	1- 10 %	Flammable liquids 4 H227 Acute toxicity 4; Oral H302 Acute toxicity 3; Inhalation H331 Skin corrosion/irritation 2 H315 Serious eye damage/eye irritation 2A H319
Tannins 1401-55-4	1- 10 %	Acute toxicity 5; Oral H303 Skin corrosion/irritation 2 H315 Serious eye damage/eye irritation 2A H319 Acute hazards to the aquatic environment 3 H402 Chronic hazards to the aquatic environment 3 H412
Silica, amorphous, fumed, cryst.-free 112945-52-5	1- 10 %	
Benzene, 1,1'-oxybis-, tetrapropylene derivs., sulfonated, sodium salts 119345-04-9	0.1- 1 %	Serious eye damage/eye irritation 1 H318 Acute hazards to the aquatic environment 2 H401 Chronic hazards to the aquatic environment 2 H411
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone (3:1) 55965-84-9	< 0.1 %	Acute toxicity 3; Oral H301 Acute toxicity 2; Inhalation H330 Acute toxicity 2; Dermal H310 Skin corrosion/irritation 1 H314 Serious eye damage/eye irritation 1 H318 Skin sensitizer 1A H317 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. 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 if necessary.

Ingestion:
Do not induce vomiting.
Seek medical advice.

Section 5. Fire fighting measures

Suitable extinguishing media:
Carbon dioxide, foam, powder

Special protection equipment and precautions for firefighters:
Wear self-contained breathing apparatus.

Hazardous combustion products:
Oxides of carbon, oxides of nitrogen, irritating organic vapors.

Section 6. Accidental release measures

Personal precautions:
Avoid contact with skin and eyes.
Ensure adequate ventilation.
Wear protective equipment.
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.

Storage:
Store in a cool, well-ventilated place.

Section 8. Exposure controls / personal protection

Components with specific control parameters for workplace:

BARIUM AND SOLUBLE COMPOUNDS, AS BA 13462-86-7	**Value type**	Time Weighted Average (TWA):
	mg/m³	0.5
	Remarks	ACGIH
BARIUM, SOLUBLE COMPOUNDS, AS BA 13462-86-7	**Value type**	Time Weighted Average (TWA):
	mg/m³	0.5
	Remarks	TH OEL
2-BUTOXYETHANOL (EGBE) 111-76-2	**Value type**	Time Weighted Average (TWA):
	ppm	20
	Remarks	ACGIH
2-BUTOXYETHANOL 111-76-2	**Value type**	Time Weighted Average (TWA):
	ppm	50
	Remarks	TH OEL
Particles (insoluble or poorly soluble) not otherwise specified, respirable particles 112945-52-5	**Value type**	Time Weighted Average (TWA):
	mg/m³	3
	Remarks	ACGIH
Particles (insoluble or poorly soluble) not otherwise specified, inhalable particles 112945-52-5	**Value type**	Time Weighted Average (TWA):
	mg/m³	10
	Remarks	ACGIH

Respiratory protection:
Ensure adequate ventilation.

Hand protection:
The use of chemical resistant gloves such as Nitrile is recommended.
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.
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:
Protective eye equipment should conform to EN166.
Wear protective glasses.

Body protection:
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.

General protection and hygiene measures:
The workplace should be equipped with an emergency shower and eye-rinsing facility.

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:	White liquid
Odor:	Mild
Odor threshold (CA):	No data available.
pH:	1.95
Melting point / freezing point:	No data available.
Specific gravity:	1.202
Boiling point:	No data available.
Flash point:	> 93 °C (> 199.4 °F)
Evaporation rate:	No data available.
Flammability (solid, gas):	No data available.
Lower explosive limit:	Not applicable
Upper explosive limit:	Not applicable
Vapor pressure: (; 20 °C (68 °F))	24 mbar
Vapor density:	1.2
Density:	1.202 g/cm3
Solubility:	Soluble
Partition coefficient: n-octanol/water:	No data available.
Auto ignition:	Not applicable
Decomposition temperature:	No data available.
Viscosity:	No data available.
VOC content:	< 3.0 % < 100 g/l

Section 10. Stability and reactivity

Reactivity/Incompatible materials:
Strong oxidizing agents.
Acids.
Reaction with strong bases
Chemical stability:
Stable under recommended storage conditions.
Conditions to avoid:
Stable under normal conditions of storage and use.
Excessive heat.
Hazardous decomposition products:
Carbon dioxide.

Section 11. Toxicological information

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

Inhalative toxicity: Acute toxicity estimate (ATE) : > 20 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Method: Calculation method

Health Effects:
Skin: May cause an allergic skin reaction.
Symptoms of Overexposure**:** None known.

Acute oral toxicity:

Barite (Ba(SO4)) 13462-86-7	Value type	LD50
	Value	30,700 - 36,400 mg/kg
	Species	rat
	Method	not specified
Barite (Ba(SO4)) 13462-86-7	Value type	LD50
	Value	> 15,000 mg/kg
	Species	rat
	Method	not specified
2-butoxyethanol 111-76-2	Value type	Acute toxicity estimate (ATE)
	Value	1,200 mg/kg
	Species	
	Method	Expert judgement
Tannins 1401-55-4	Value type	LD50
	Value	2,260 mg/kg
	Species	rat
	Method	not specified
Silica, amorphous, fumed, cryst.-free 112945-52-5	Value type	LD50
	Value	> 5,000 mg/kg
	Species	rat
	Method	OECD Guideline 401 (Acute Oral Toxicity)
Benzene, 1,1'-oxybis-, tetrapropylene derivs., sulfonated, sodium salts 119345-04-9	Value type	LD50
	Value	> 2,000 mg/kg
	Species	rat
	Method	not specified
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone (3:1) 55965-84-9	Value type	LD50
	Value	66 mg/kg
	Species	rat
	Method	OECD Guideline 401 (Acute Oral Toxicity)

Acute inhalative toxicity:

2-butoxyethanol 111-76-2	Value type	Acute toxicity estimate (ATE)
	Value	3 mg/l
	Exposure time	4 h
	Species	
	Method	Expert judgement
Silica, amorphous, fumed, cryst.-free 112945-52-5	Value type	LC50
	Value	> 5.01 mg/l
	Exposure time	4 h
	Species	rat
	Method	OECD Guideline 436 (Acute Inhalation Toxicity: Acute Toxic Class (ATC) Method)
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone (3:1) 55965-84-9	Value type	LC50
	Value	0.171 mg/l
	Exposure time	4 h
	Species	rat
	Method	OECD Guideline 403 (Acute Inhalation Toxicity)

Acute dermal toxicity:

2-butoxyethanol 111-76-2	Value type	Acute toxicity estimate (ATE)
	Value	> 5,000 mg/kg
	Species	
	Method	Expert judgement
2-butoxyethanol 111-76-2	Value type	LD50
	Value	> 2,000 mg/kg
	Species	guinea pig
	Method	OECD Guideline 402 (Acute Dermal Toxicity)
2-butoxyethanol 111-76-2	Value type	LD50
	Value	> 2,000 mg/kg
	Species	rat
	Method	OECD Guideline 402 (Acute Dermal Toxicity)
Silica, amorphous, fumed, cryst.-free 112945-52-5	Value type	LD50
	Value	> 2,000 mg/kg
	Species	rabbit
	Method	OECD Guideline 402 (Acute Dermal Toxicity)
Benzene, 1,1'-oxybis-, tetrapropylene derivs., sulfonated, sodium salts 119345-04-9	Value type	LD50
	Value	> 2,000 mg/kg
	Species	rabbit
	Method	not specified
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone (3:1) 55965-84-9	Value type	LD50
	Value	87.12 mg/kg
	Species	rabbit
	Method	OECD Guideline 402 (Acute Dermal Toxicity)

Skin corrosion/irritation:

2-butoxyethanol 111-76-2	Result	irritating
	Exposure time	4 h
	Species	rabbit
	Method	EU Method B.4 (Acute Toxicity: Dermal Irritation / Corrosion)
Silica, amorphous, fumed, cryst.-free 112945-52-5	Result	not irritating
	Exposure time	4 h
	Species	rabbit
	Method	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Benzene, 1,1'-oxybis-, tetrapropylene derivs., sulfonated, sodium salts 119345-04-9	Result	not irritating
	Exposure time	24 h
	Species	rabbit
	Method	not specified
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone (3:1) 55965-84-9	Result	corrosive
	Exposure time	4 h
	Species	rabbit
	Method	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Serious eye damage/irritation:

2-butoxyethanol 111-76-2	Result	irritating
	Exposure time	24 h
	Species	rabbit
	Method	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Silica, amorphous, fumed, cryst.-free 112945-52-5	Result	not irritating
	Exposure time	
	Species	rabbit
	Method	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Benzene, 1,1'-oxybis-, tetrapropylene derivs., sulfonated, sodium salts 119345-04-9	Result	Category 1 (irreversible effects on the eye)
	Exposure time	
	Species	rabbit
	Method	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone (3:1) 55965-84-9	Result	Category 1 (irreversible effects on the eye)
	Exposure time	
	Species	rabbit
	Method	not specified

Respiratory or skin sensitization:

2-butoxyethanol 111-76-2	Result	not sensitising
	Test type	Guinea pig maximisation test
	Species	guinea pig
	Method	OECD Guideline 406 (Skin Sensitisation)
Silica, amorphous, fumed, cryst.-free 112945-52-5	Result	not sensitising
	Test type	
	Species	human
	Method	not specified
Benzene, 1,1'-oxybis-, tetrapropylene derivs., sulfonated, sodium salts 119345-04-9	Result	not sensitising
	Test type	Guinea pig maximisation test
	Species	guinea pig
	Method	OECD Guideline 406 (Skin Sensitisation)
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone (3:1) 55965-84-9	Result	sensitising
	Test type	Guinea pig maximisation test
	Species	guinea pig
	Method	OECD Guideline 406 (Skin Sensitisation)
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone (3:1) 55965-84-9	Result	sensitising
	Test type	Mouse local lymphnode assay (LLNA)
	Species	mouse
	Method	not specified

Germ cell mutagenicity:

2-butoxyethanol 111-76-2	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)
2-butoxyethanol 111-76-2	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)
2-butoxyethanol 111-76-2	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)
2-butoxyethanol 111-76-2	Result	negative
	Type of study / Route of administration	intraperitoneal
	Metabolic activation / Exposure time	
	Species	mouse
	Method	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
Silica, amorphous, fumed, cryst.-free 112945-52-5	Result	negative
	Type of study / Route of administration	bacterial reverse mutation assay (e.g Ames test)
	Metabolic activation / Exposure time	
	Method	not specified
Silica, amorphous, fumed, cryst.-free 112945-52-5	Result	negative
	Type of study / Route of administration	in vitro mammalian chromosome aberration test
	Metabolic activation / Exposure time	
	Method	not specified
Silica, amorphous, fumed, cryst.-free 112945-52-5	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	not specified
Benzene, 1,1'-oxybis-, tetrapropylene derivs., sulfonated, sodium salts 119345-04-9	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)
Benzene, 1,1'-oxybis-, tetrapropylene derivs., sulfonated, sodium salts 119345-04-9	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)
Benzene, 1,1'-oxybis-, tetrapropylene derivs., sulfonated, sodium salts 119345-04-9	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)
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone (3:1) 55965-84-9	Result	ambiguous
	Type of study / Route of administration	bacterial reverse mutation assay (e.g Ames test)
	Metabolic activation / Exposure time	with and without
	Method	equivalent or similar to OECD Guideline 471 (Bacterial Reverse Mutation Assay)
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone (3:1) 55965-84-9	Result	positive
	Type of study / Route of administration	in vitro mammalian chromosome aberration test
	Metabolic activation / Exposure time	with and without
	Method	EPA OPP 84-2 (Mutagenicity Testing)
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone (3:1) 55965-84-9	Result	positive
	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)
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone (3:1) 55965-84-9	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	not applicable
	Method	OECD Guideline 482 (Genetic Toxicology: DNA Damage and Repair, Unscheduled DNA Synthesis in Mammalian

		Cells In Vitro)
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone (3:1) 55965-84-9	Result	negative
	Type of study / Route of administration	oral: gavage
	Metabolic activation / Exposure time	
	Species	mouse
	Method	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone (3:1) 55965-84-9	Result	negative
	Type of study / Route of administration	oral: gavage
	Metabolic activation / Exposure time	
	Species	mouse
	Method	OECD Guideline 475 (Mammalian Bone Marrow Chromosome Aberration Test)
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone (3:1) 55965-84-9	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)
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone (3:1) 55965-84-9	Result	negative
	Type of study / Route of administration	oral: gavage
	Metabolic activation / Exposure time	
	Species	rat
	Method	OECD Guideline 486 (Unscheduled DNA Synthesis (UDS) Test with Mammalian Liver Cells in vivo)
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone (3:1) 55965-84-9	Result	negative
	Type of study / Route of administration	oral: gavage
	Metabolic activation / Exposure time	
	Species	rat
	Method	EPA OPP 84-2 (Mutagenicity Testing)

Repeated dose toxicity:

2-butoxyethanol 111-76-2	Result	NOAEL=0.121 mg/l
	Route of application	inhalation
	Exposure time / Frequency of treatment	42 or 90 days6 hours/day, 5 days/week
	Species	rat
	Method	not specified
2-butoxyethanol 111-76-2	Result	NOAEL=< 69 mg/kg
	Route of application	oral: drinking water
	Exposure time / Frequency of treatment	90 dcontinous
	Species	rat
	Method	equivalent or similar to OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
Benzene, 1,1'-oxybis-, tetrapropylene derivs., sulfonated, sodium salts 119345-04-9	Result	NOAEL=150 mg/kg
	Route of application	oral: feed
	Exposure time / Frequency of treatment	2 yearsdaily
	Species	rat
	Method	not specified
Benzene, 1,1'-oxybis-, tetrapropylene derivs., sulfonated, sodium salts 119345-04-9	Result	NOAEL=128 mg/kg
	Route of application	oral: feed
	Exposure time / Frequency of treatment	2 yearsdaily
	Species	dog
	Method	not specified
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone (3:1) 55965-84-9	Result	NOAEL=16.3 mg/kg
	Route of application	oral: drinking water
	Exposure time / Frequency of treatment	90 ddaily
	Species	rat
	Method	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone (3:1) 55965-84-9	Result	NOAEL=0.34 mg/m3
	Route of application	inhalation: aerosol
	Exposure time / Frequency of treatment	90 d6 h/d, 5 d/w
	Species	rat
	Method	OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day)
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone (3:1) 55965-84-9	Result	NOAEL=2.625 mg/kg
	Route of application	dermal
	Exposure time / Frequency of treatment	90 d6 h/d
	Species	rat
	Method	EPA OPP 82-3 (Subchronic Dermal Toxicity 90 Days)

Section 12. Ecological information

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

Ecotoxicity: H411 Toxic to aquatic life with long lasting effects.

Toxicity:

Barite (Ba(SO4)) 13462-86-7	Value type	EC0
	Value	> 10,000 mg/l
	Acute Toxicity Study	Bacteria
	Exposure time	30 min
	Species	
	Method	not specified
2-butoxyethanol 111-76-2	Value type	LC50
	Value	1,474 mg/l
	Acute Toxicity Study	Fish
	Exposure time	96 h
	Species	Oncorhynchus mykiss
	Method	OECD Guideline 203 (Fish, Acute Toxicity Test)

	Value type	NOEC
	Value	> 100 mg/l
	Acute Toxicity Study	Fish
	Exposure time	21 d
	Species	Brachydanio rerio (new name: Danio rerio)
	Method	OECD Guideline 204 (Fish, Prolonged Toxicity Test: 14-day Study)
2-butoxyethanol 111-76-2	Value type	EC50
	Value	1,550 mg/l
	Acute Toxicity Study	Daphnia
	Exposure time	48 h
	Species	Daphnia magna
	Method	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
2-butoxyethanol 111-76-2	Value type	EC50
	Value	1,840 mg/l
	Acute Toxicity Study	Algae
	Exposure time	72 h
	Species	Pseudokirchneriella subcapitata
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)
	Value type	NOEC
	Value	286 mg/l
	Acute Toxicity Study	Algae
	Exposure time	72 h
	Species	Pseudokirchneriella subcapitata
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)
2-butoxyethanol 111-76-2	Value type	EC0
	Value	1,000 mg/l
	Acute Toxicity Study	Bacteria
	Exposure time	30 min
	Species	
	Method	not specified
Tannins 1401-55-4	Value type	LC50
	Value	37 mg/l
	Acute Toxicity Study	Fish
	Exposure time	96 h
	Species	Gambusia affinis
	Method	OECD Guideline 203 (Fish, Acute Toxicity Test)
Tannins 1401-55-4	Value type	EC50
	Value	29 mg/l
	Acute Toxicity Study	Daphnia
	Exposure time	48 h
	Species	Dreissena polymorpha
	Method	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Silica, amorphous, fumed, cryst.-free 112945-52-5	Value type	LC50
	Value	> 10,000 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)
Silica, amorphous, fumed, cryst.-free 112945-52-5	Value type	EL50
	Value	> 10,000 mg/l
	Acute Toxicity Study	Daphnia
	Exposure time	24 h
	Species	Daphnia magna
	Method	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Silica, amorphous, fumed, cryst.-free 112945-52-5	Value type	EC50
	Value	> 173 mg/l
	Acute Toxicity Study	Algae
	Exposure time	72 h
	Species	Desmodesmus subspicatus
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)
Silica, amorphous, fumed, cryst.-free 112945-52-5	Value type	EC50
	Value	> 2,500 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)
Benzene, 1,1'-oxybis-, tetrapropylene derivs., sulfonated, sodium salts 119345-04-9	Value type	LC50
	Value	1.3 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	0.15 mg/l
	Acute Toxicity Study	Fish
	Exposure time	33 d
	Species	Pimephales promelas
	Method	OECD Guideline 210 (fish early life stage toxicity test)
Benzene, 1,1'-oxybis-, tetrapropylene derivs., sulfonated, sodium salts 119345-04-9	Value type	LC50
	Value	1.64 mg/l
	Acute Toxicity Study	Daphnia
	Exposure time	48 h
	Species	Daphnia magna
	Method	other guideline:
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone (3:1) 55965-84-9	Value type	LC50
	Value	0.22 mg/l
	Acute Toxicity Study	Fish
	Exposure time	96 h
	Species	Oncorhynchus mykiss
	Method	OECD Guideline 203 (Fish, Acute Toxicity Test)
	Value type	NOEC
	Value	0.098 mg/l
	Acute Toxicity Study	Fish
	Exposure time	28 d
	Species	Oncorhynchus mykiss
	Method	OECD Guideline 210 (fish early life stage toxicity test)
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone (3:1) 55965-84-9	Value type	EC50
	Value	0.12 mg/l
	Acute Toxicity Study	Daphnia
	Exposure time	48 h
	Species	Daphnia magna
	Method	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone (3:1) 55965-84-9	Value type	EC50
	Value	0.0052 mg/l
	Acute Toxicity Study	Algae
	Exposure time	72 h
	Species	Skeletonema costatum
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)
	Value type	NOEC
	Value	0.00064 mg/l
	Acute Toxicity Study	Algae
	Exposure time	48 h
	Species	Skeletonema costatum
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone (3:1) 55965-84-9	Value type	EC20
	Value	0.97 mg/l
	Acute Toxicity Study	Bacteria
	Exposure time	3 h
	Species	activated sludge
	Method	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)

Persistence and degradability:

2-butoxyethanol 111-76-2	Result	readily biodegradable
	Route of application	aerobic
	Degradability	73 %
	Method	EU Method C.4-E (Determination of the "Ready" BiodegradabilityClosed Bottle Test)
Benzene, 1,1'-oxybis-, tetrapropylene derivs., sulfonated, sodium salts 119345-04-9	Result	not readily biodegradable.
	Route of application	aerobic
	Degradability	0 %
	Method	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
	Result	not inherently biodegradable
	Route of application	aerobic
	Degradability	58 %
	Method	OECD Guideline 302 B (Inherent biodegradability: Zahn-Wellens/EMPA Test)
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-	Result	inherently biodegradable
	Route of application	aerobic

3(2H)-isothiazolone (3:1) 55965-84-9	Degradability	100 %
	Method	OECD Guideline 302 B (Inherent biodegradability: Zahn-Wellens/EMPA Test)
	Result	readily biodegradable
	Route of application	aerobic
	Degradability	> 60 %
	Method	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)

Bioaccumulative potential / Mobility in soil:

Barite (Ba(SO4)) 13462-86-7	Bioconcentration factor (BCF)	74.4
	Exposure time	
	Species	Lepomis macrochirus
	Temperature	
	Method	other guideline:
2-butoxyethanol 111-76-2	LogPow	0.81
	Temperature	25 °C
	Method	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)
Benzene, 1,1'-oxybis-, tetrapropylene derivs., sulfonated, sodium salts 119345-04-9	Bioconcentration factor (BCF)	14
	Exposure time	28 d
	Species	Cyprinus carpio
	Temperature	
	Method	OECD Guideline 305 (Bioconcentration: Flow-through Fish Test)
Benzene, 1,1'-oxybis-, tetrapropylene derivs., sulfonated, sodium salts 119345-04-9	LogPow	-2.68
	Temperature	20 °C
	Method	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone (3:1) 55965-84-9	Bioconcentration factor (BCF)	54
	Exposure time	28 d
	Species	Lepomis macrochirus
	Temperature	
	Method	OECD Guideline 305 E (Bioaccumulation: Flow-through Fish Test)
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone (3:1) 55965-84-9	LogPow	> -0.71 - 0.75
	Temperature	20 °C
	Method	OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC 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. (Isothiazolinones)

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. (Isothiazolinones)

Inland water transport ADN:

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. (Isothiazolinones)

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. (Isothiazolinones)

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. (Isothiazolinones)

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), NZ 4.3(10) may be applied, which can result in a deviation from the transport classification for packed goods.

Section 15. Regulatory information

Regulatory Information:
Ministry of Industry Notice. The system to classify and communicate the hazard of hazardous material, BE. 2555

Global inventory status:

Regulatory list	Notification
TSCA	yes
DSL	yes
KECI (KR)	yes
IECSC	yes
NZIOC	yes

Section 16. Other information

Disclaimer:
This Safety Data Sheet has been generated based on Ministry of Industry Notice. The system to classify and communicate the hazard of hazardous material, BE. 2555 only. 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.
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