



Safety Data Sheet according to Singapore Standard SS 586.

Page 1 of 17

LOCTITE EDAG 452SS 1KG E&C

SDS No. : 326077

V001.10

Revision: 10.01.2025

printing date: 25.03.2026

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

Product name: LOCTITE EDAG 452SS 1KG E&C

Other means of identification: LOCTITE EDAG 452SS 1KG E&C

Product code: IDH1263489

Recommended use of the chemical and restrictions on use

Intended use: UV curable dielectric ink

Manufacturer/Importer/Distributor Representative Company

Henkel Singapore Pte Ltd

Science Park Drive 1B

Units 09-31 to 09-35

119315 Singapore

Singapore

Phone: +65 (6266) 0100

Fax-no.: +65 (6266) 1161

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: +65 6424 7016

Section 2. Hazards identification

GHS Classification:

<u>Hazard Class</u>	<u>Hazard Category</u>	<u>Target organ</u>
Skin corrosion/irritation	Category 2	
Serious eye damage/eye irritation	Category 2	
Skin sensitizer	Category 1	
Carcinogenicity	Category 1B	
Specific target organ toxicity - single exposure	Category 3	respiratory tract irritation
Chronic hazards to the aquatic environment	Category 2	

GHS label elements:

Hazard pictogram:



Signal word:

Danger

Hazard statement:

H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
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.
P264 Wash hands thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
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.
P304+P340+P312 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313 IF exposed or concerned: Get medical advice/attention.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P337+P313 If eye irritation persists: Get medical advice/attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P391 Collect spillage.

Storage:

P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.

Disposal:

P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, 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
2-[(3a,4,5,6,7,7a-Hexahydro-4,7-methano-1H-inden-6-yl)oxy]ethyl acrylate 65983-31-5	30- 60 %	Skin irritation 2 H315 Serious eye irritation 2 H319 Target Organ Systemic Toxicant - Single exposure 3 H335 Chronic hazards to the aquatic environment 2 H411
Acrylated urethane oligomer~	10- 30 %	Serious eye irritation 2 H319
Talc 14807-96-6	10- 30 %	
hexamethylene diacrylate 13048-33-4	1- 10 %	Skin irritation 2 H315 Serious eye irritation 2 H319 Skin Sensitization 1A H317 Acute hazards to the aquatic environment 1 H400 Chronic hazards to the aquatic environment 2 H411
2,2-Diethoxyacetophenone 6175-45-7	1- 10 %	Serious eye irritation 2 H319
Polyethylene 9002-88-4	1- 10 %	
Benzophenone 119-61-9	0.1- 1 %	Carcinogenicity 1B H350 Target Organ Systemic Toxicant - Repeated exposure 2 H373
Isobornyl acrylate 5888-33-5	0.1- 1 %	Skin Sensitization 1A H317 Acute hazards to the aquatic environment 1 H400 Chronic hazards to the aquatic environment 1 H410
(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate 42978-66-5	0.1- 1 %	Skin irritation 2 H315 Serious eye irritation 2 H319 Skin Sensitization 1 H317 Target Organ Systemic Toxicant - Single exposure 3 H335 Chronic hazards to the aquatic environment 2 H411

Section 4. First aid measures**Inhalation:**

Move to fresh air.
In case of adverse health effects seek medical advice.

Skin contact:

Rinse immediately with plenty of running water (for 10 minutes), seek medical attention from a specialist.
In case of adverse health effects seek medical advice.

Eye contact:

Immediately flush eyes with water for at least 15 minutes, while holding eyelids open.
Seek medical attention at once.

Ingestion: Rinse out mouth, drink 1-2 glasses of water, do not induce vomiting.
Seek medical attention from a specialist.

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
Water spray (fog), foam, dry chemical or carbon dioxide.

Improper extinguishing media: High pressure waterjet

Specific hazards arising from the chemical: The product may undergo spontaneous polymerization at high temperatures.
Polymerization is exothermic and may cause damage to the container and/or release of thermal decomposition products.

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

Additional fire fighting advice: Cool endangered containers with water spray jet.

Section 6. Accidental release measures

Personal precautions: Avoid skin and eye contact.

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

Clean-up methods: Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Dispose of contaminated material as waste according to Section 13.

Section 7. Handling and storage

Handling: Avoid skin and eye contact.
Ensure good ventilation/suction at the workplace.
See advice in section 8

Storage: Store in sealed original container.
Keep away from sources of ignition.
Store in a dry place.
Refer to Technical Data Sheet.

Section 8. Exposure controls / personal protection**Components with specific control parameters for workplace:**

TALC, CONTAINING NO ASBESTOS FIBERS, RESPIRABLE FRACTION 14807-96-6	Value type	Time Weighted Average (TWA):
	mg/m³	2
	Remarks	ACGIH The value is for particulate matter containing no asbestos and <1% crystalline silica.
TALC 14807-96-6	Value type	Time Weighted Average (TWA):
	mg/m³	2
	Remarks	SG OEL
PARTICLES (INSOLUBLE OR POORLY SOLUBLE) NOT OTHERWISE SPECIFIED, INHALABLE PARTICLES 9002-88-4	Value type	Time Weighted Average (TWA):
	mg/m³	10
	Remarks	ACGIH
NUISANCE PARTICULATES 9002-88-4	Value type	Time Weighted Average (TWA):
	mg/m³	10
	Remarks	SG OEL
PARTICLES (INSOLUBLE OR POORLY SOLUBLE) NOT OTHERWISE SPECIFIED, RESPIRABLE PARTICLES 9002-88-4	Value type	Time Weighted Average (TWA):
	mg/m³	3
	Remarks	ACGIH

Respiratory protection:

In case of aerosol formation, we recommend wearing of appropriate respiratory protection equipment with ABEK P2 filter (EN 14387).
This recommendation should be matched to local conditions.

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): Polychloroprene (CR; ≥ 1 mm thickness) or natural rubber (NR; ≥ 1 mm thickness) Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374): Polychloroprene (CR; ≥ 1 mm thickness) or natural rubber (NR; ≥ 1 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:

Tightly fitting safety goggles
Protective eye equipment should conform to EN166.

Body protection:

Wear 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.

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:	green liquid
Odor:	None
Odor threshold (CA):	No data available.
pH:	Not applicable, Product is non-soluble (in water).
Melting point / freezing point:	Not applicable, Product is a liquid
Specific gravity:	No data available.
Boiling point:	240 °C (464 °F)
Flash point:	> 93 °C (> 199.4 °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))	< 1 hPa
Vapor density:	> 1
Density:	1.27 g/cm ³ 10.3 - 10.7 lb/gal
Solubility:	No data available.
Partition coefficient: n-octanol/water:	No data available.
Auto ignition:	Not available.
Decomposition temperature:	No data available.
Viscosity:	12,000 cp (; Method: no method / method unknown) 9,000 - 17,000 cp (; 25 °C (77 °F); Method: ;; Internal Henkel specification)
VOC content: (2010/75/EC)	< 3 %

Section 10. Stability and reactivity

Reactivity/Incompatible materials:	Strong oxidizing agents. Reducing agents. Peroxides. Strong bases.
Chemical stability:	Stable under recommended storage conditions.
Conditions to avoid:	Avoid heating. Protect from direct sunlight.
Hazardous decomposition products:	None if used for intended purpose.

Section 11. Toxicological information

Symptoms of Overexposure: EYE: Irritation, conjunctivitis.
SKIN: Redness, inflammation.
SKIN: Rash, Urticaria.
RESPIRATORY: Irritation, coughing, shortness of breath, chest tightness.

Acute oral toxicity:

2-[(3a,4,5,6,7,7a-Hexahydro-4,7-methano-1H-inden-6-yl)oxy]ethyl acrylate 65983-31-5	Value type	LD50
	Value	> 5,000 mg/kg
	Species	rat
	Method	
Talc 14807-96-6	Value type	LD50
	Value	> 5,000 mg/kg
	Species	rat
	Method	OECD Guideline 423 (Acute Oral toxicity)
hexamethylene diacrylate 13048-33-4	Value type	LD50
	Value	> 5,000 mg/kg
	Species	rat
	Method	OECD Guideline 401 (Acute Oral Toxicity)
2,2-Diethoxyacetophenone 6175-45-7	Value type	LD50
	Value	5,660 mg/kg
	Species	rat
	Method	not specified
Polyethylene 9002-88-4	Value type	LD50
	Value	> 6,400 mg/kg
	Species	rat
	Method	not specified
Benzophenone 119-61-9	Value type	LD50
	Value	2,895 mg/kg
	Species	mouse
	Method	OECD Guideline 401 (Acute Oral Toxicity)
Isobornyl acrylate 5888-33-5	Value type	LD50
	Value	4,350 mg/kg
	Species	rat
	Method	not specified
(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate 42978-66-5	Value type	LD50
	Value	> 2,000 mg/kg
	Species	rat
	Method	OECD Guideline 423 (Acute Oral toxicity)

Acute inhalative toxicity:

Talc 14807-96-6	Value type	LC50
	Value	> 2.1 mg/l
	Exposure time	4 h
	Species	rat
	Method	OECD Guideline 403 (Acute Inhalation Toxicity)

Acute dermal toxicity:

2-[(3a,4,5,6,7,7a-Hexahydro-4,7-methano-1H-inden-6-yl)oxy]ethyl acrylate 65983-31-5	Value type	LD50
	Value	> 5,000 mg/kg
	Species	rabbit
	Method	
Talc 14807-96-6	Value type	LD50
	Value	> 2,000 mg/kg
	Species	rat
	Method	OECD Guideline 402 (Acute Dermal Toxicity)
hexamethylene diacrylate 13048-33-4	Value type	LD50
	Value	3,650 mg/kg
	Species	rabbit
	Method	OECD Guideline 402 (Acute Dermal Toxicity)
2,2-Diethoxyacetophenone 6175-45-7	Value type	LD50
	Value	11,300 mg/kg
	Species	rat
	Method	not specified
Polyethylene 9002-88-4	Value type	LD50
	Value	> 2,000 mg/kg
	Species	rabbit
	Method	not specified
Benzophenone 119-61-9	Value type	LD50
	Value	3,535 mg/kg
	Species	rabbit
	Method	not specified
Isobornyl acrylate 5888-33-5	Value type	LD50
	Value	> 3,000 mg/kg
	Species	rabbit
	Method	not specified
(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate 42978-66-5	Value type	LD50
	Value	> 2,000 mg/kg
	Species	rabbit
	Method	equivalent or similar to OECD Guideline 402 (Acute Dermal Toxicity)

Skin corrosion/irritation:

Talc 14807-96-6	Result	slightly irritating
	Exposure time	4 h
	Species	rabbit
	Method	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
hexamethylene diacrylate 13048-33-4	Result	irritating
	Exposure time	4 h
	Species	rabbit
	Method	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Benzophenone 119-61-9	Result	not irritating
	Exposure time	4 h
	Species	rabbit
	Method	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Isobornyl acrylate 5888-33-5	Result	not irritating
	Exposure time	24 h
	Species	rabbit
	Method	other guideline:
(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate 42978-66-5	Result	irritating
	Exposure time	4 h
	Species	rabbit
	Method	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Serious eye damage/irritation:

Talc 14807-96-6	Result	not irritating
	Exposure time	
	Species	rabbit
	Method	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
hexamethylene diacrylate 13048-33-4	Result	irritating
	Exposure time	
	Species	rabbit
	Method	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Benzophenone 119-61-9	Result	slightly irritating
	Exposure time	
	Species	rabbit
	Method	not specified
Isobornyl acrylate 5888-33-5	Result	not irritating
	Exposure time	
	Species	rabbit
	Method	other guideline:
(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate 42978-66-5	Result	moderately irritating
	Exposure time	
	Species	rabbit
	Method	OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Respiratory or skin sensitization:

Talc 14807-96-6	Result	not sensitising
	Test type	Guinea pig maximisation test
	Species	guinea pig
	Method	OECD Guideline 406 (Skin Sensitisation)
hexamethylene diacrylate 13048-33-4	Result	sensitising
	Test type	Guinea pig maximisation test
	Species	guinea pig
	Method	OECD Guideline 406 (Skin Sensitisation)
Benzophenone 119-61-9	Result	not sensitising
	Test type	Draize Test
	Species	guinea pig
	Method	OECD Guideline 406 (Skin Sensitisation)
Benzophenone 119-61-9	Result	not sensitising
	Test type	Patch-Test
	Species	human
	Method	Patch Test
Isobornyl acrylate 5888-33-5	Result	sensitising
	Test type	Mouse local lymphnode assay (LLNA)
	Species	mouse
	Method	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate 42978-66-5	Result	sensitising
	Test type	Mouse local lymphnode assay (LLNA)
	Species	mouse
	Method	not specified

Germ cell mutagenicity:

Talc 14807-96-6	Result	negative
	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)
Talc 14807-96-6	Result	negative
	Type of study / Route of administration	in vitro mammalian cell transformation assay
	Metabolic activation / Exposure time	without
	Method	equivalent or similar to OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
Talc 14807-96-6	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)
hexamethylene diacrylate 13048-33-4	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)
hexamethylene diacrylate 13048-33-4	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)
hexamethylene diacrylate 13048-33-4	Result	negative
	Type of study / Route of administration	intraperitoneal
	Metabolic activation / Exposure time	
	Species	mouse
	Method	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
Benzophenone 119-61-9	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)
Benzophenone 119-61-9	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	with and without
	Method	not specified
Benzophenone 119-61-9	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)
Benzophenone 119-61-9	Result	negative
	Type of study / Route of administration	intraperitoneal
	Metabolic activation / Exposure time	
	Species	mouse
	Method	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
Isobornyl acrylate 5888-33-5	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)
Isobornyl acrylate 5888-33-5	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)
Isobornyl acrylate 5888-33-5	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)
(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate	Result	negative
	Type of study / Route of administration	bacterial reverse mutation assay (e.g Ames test)
	Metabolic activation / Exposure time	with and without

42978-66-5 (1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate 42978-66-5	Method	OECD Guideline 471 (Bacterial Reverse Mutation Assay)
	Result	negative
	Type of study / Route of administration	bacterial reverse mutation assay (e.g Ames test)
	Metabolic activation / Exposure time	with and without
42978-66-5 (1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate 42978-66-5	Method	OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
	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:

Talc 14807-96-6	Result	NOAEL=100 mg/kg
	Route of application	oral: feed
	Exposure time / Frequency of treatment	101 d7 d/w
	Species	rat
	Method	equivalent or similar to OECD Guideline 452 (Chronic Toxicity Studies)
hexamethylene diacrylate 13048-33-4	Result	NOAEL=250 mg/kg
	Route of application	oral: gavage
	Exposure time / Frequency of treatment	28 - 52 ddaily
	Species	rat
	Method	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
Benzophenone 119-61-9	Result	NOAEL=< 75 mg/kg
	Route of application	oral: feed
	Exposure time / Frequency of treatment	14 wdaily
	Species	rat
	Method	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
Isobornyl acrylate 5888-33-5	Result	NOAEL=100 mg/kg
	Route of application	oral: gavage
	Exposure time / Frequency of treatment	once daily
	Species	rat
	Method	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate 42978-66-5	Result	NOAEL=250 mg/kg
	Route of application	oral: gavage
	Exposure time / Frequency of treatment	28 - 52 ddaily
	Species	rat
	Method	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)

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:

2-[(3a,4,5,6,7,7a-Hexahydro-4,7-methano-1H-inden-6-yl)oxy]ethyl acrylate 65983-31-5	Value type	LC50
	Value	9 mg/l
	Acute Toxicity Study	Fish
	Exposure time	96 h
	Species	Lepomis macrochirus
	Method	OECD Guideline 203 (Fish, Acute Toxicity Test)

Talc 14807-96-6	Value type	LC50
	Value	Toxicity > Water solubility
	Acute Toxicity Study	Fish
	Exposure time	96 h
	Species	Brachydanio rerio (new name: Danio rerio)
	Method	OECD Guideline 203 (Fish, Acute Toxicity Test)
hexamethylene diacrylate 13048-33-4	Value type	LC50
	Value	0.38 mg/l
	Acute Toxicity Study	Fish
	Exposure time	96 h
	Species	Oryzias latipes
	Method	OECD Guideline 203 (Fish, Acute Toxicity Test)
	Value type	NOEC
	Value	0.072 mg/l
	Acute Toxicity Study	Fish
	Exposure time	39 d
	Species	Oryzias latipes
	Method	OECD Guideline 210 (fish early lite stage toxicity test)
hexamethylene diacrylate 13048-33-4	Value type	EC50
	Value	2.7 mg/l
	Acute Toxicity Study	Daphnia
	Exposure time	48 h
	Species	Daphnia magna
	Method	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
hexamethylene diacrylate 13048-33-4	Value type	EC50
	Value	2.33 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	0.9 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)
hexamethylene diacrylate 13048-33-4	Value type	EC20
	Value	60 mg/l
	Acute Toxicity Study	Bacteria
	Exposure time	30 min
	Species	activated sludge
	Method	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
Benzophenone 119-61-9	Value type	LC50
	Value	15.3 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	5.86 mg/l
	Acute Toxicity Study	Fish
	Exposure time	7 d
	Species	Pimephales promelas
	Method	OECD Guideline 212 (Fish, Short-term Toxicity Test on Embryo and Sac-Fry Stages)
Benzophenone 119-61-9	Value type	EC50
	Value	6.78 mg/l
	Acute Toxicity Study	Daphnia
	Exposure time	48 h
	Species	Daphnia magna
	Method	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Benzophenone 119-61-9	Value type	NOEC
	Value	1 mg/l
	Acute Toxicity Study	Algae
	Exposure time	72 h
	Species	Pseudokirchneriella subcapitata
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)
	Value type	EC50
	Value	3.5 mg/l
	Acute Toxicity Study	Algae
	Exposure time	72 h

Benzophenone 119-61-9	Species	Pseudokirchneriella subcapitata
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)
	Value type	EC 50
	Value	787 mg/l
	Acute Toxicity Study	Bacteria
	Exposure time	3 h
Isobornyl acrylate 5888-33-5	Species	activated sludge of a predominantly domestic sewage
	Method	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
	Value type	LC50
	Value	0.704 mg/l
	Acute Toxicity Study	Fish
	Exposure time	96 h
Isobornyl acrylate 5888-33-5	Species	Danio rerio
	Method	OECD Guideline 203 (Fish, Acute Toxicity Test)
	Value type	EC50
	Value	1 mg/l
	Acute Toxicity Study	Daphnia
	Exposure time	48 h
Isobornyl acrylate 5888-33-5	Species	Daphnia magna
	Method	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
	Value type	NOEC
	Value	0.405 mg/l
	Acute Toxicity Study	Algae
	Exposure time	72 h
	Species	Pseudokirchneriella subcapitata
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)
	Value type	EC50
	Value	1.98 mg/l
	Acute Toxicity Study	Algae
	Exposure time	72 h
(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate 42978-66-5	Species	Pseudokirchneriella subcapitata
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)
	Value type	LC50
	Value	> 4.5 - 10 mg/l
	Acute Toxicity Study	Fish
	Exposure time	96 h
(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate 42978-66-5	Species	Leuciscus idus
	Method	DIN 38412-15
	Value type	EC50
	Value	88.7 mg/l
	Acute Toxicity Study	Daphnia
	Exposure time	48 h
(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate 42978-66-5	Species	Daphnia magna
	Method	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
	Value type	EC50
	Value	28 mg/l
	Acute Toxicity Study	Algae
	Exposure time	72 h
(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate 42978-66-5	Species	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)
	Value type	EC 50
	Value	> 10,000 mg/l
	Acute Toxicity Study	Bacteria
	Exposure time	30 min
	Species	
	Method	not specified

Persistence and degradability:

2-[(3a,4,5,6,7,7a-Hexahydro-4,7-methano-1H-inden-6-yl)oxy]ethyl acrylate 65983-31-5	Result	
	Route of application	aerobic
	Degradability	0 %
	Method	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
hexamethylene diacrylate 13048-33-4	Result	readily biodegradable
	Route of application	aerobic
	Degradability	69 %
	Method	OECD Guideline 310 (Ready Biodegradability CO ₂ in Sealed Vessels (Headspace Test))

	Result	inherently biodegradable
	Route of application	aerobic
	Degradability	> 70 %
	Method	OECD Guideline 302 B (Inherent biodegradability: Zahn-Wellens/EMPA Test)
Benzophenone 119-61-9	Result	readily biodegradable
	Route of application	aerobic
	Degradability	66 - 84 %
	Method	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
Isobornyl acrylate 5888-33-5	Result	inherently biodegradable
	Route of application	aerobic
	Degradability	73.9 %
	Method	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
	Result	not readily biodegradable.
	Route of application	aerobic
	Degradability	57 %
	Method	OECD Guideline 310 (Ready Biodegradability CO ₂ in Sealed Vessels (Headspace Test))
(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate 42978-66-5	Result	not readily biodegradable.
	Route of application	aerobic
	Degradability	48 %
	Method	EU Method C.4-C (Determination of the "Ready" Biodegradability Carbon Dioxide Evolution Test)

Bioaccumulative potential / Mobility in soil:

Talc 14807-96-6	LogPow	-9.4
	Temperature	25 °C
	Method	QSAR (Quantitative Structure Activity Relationship)
hexamethylene diacrylate 13048-33-4	LogPow	2.81
	Temperature	25 °C
	Method	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)
Benzophenone 119-61-9	Bioconcentration factor (BCF)	3.4 - 12
	Exposure time	56 d
	Species	Oryzias latipes
	Temperature	
	Method	other guideline:
Benzophenone 119-61-9	LogPow	3.18
	Temperature	25 °C
	Method	EU Method A.8 (Partition Coefficient)
Isobornyl acrylate 5888-33-5	Bioconcentration factor (BCF)	37
	Exposure time	56 h
	Species	Danio rerio
	Temperature	24 °C
	Method	OECD Guideline 305 (Bioconcentration: Flow-through Fish Test)
Isobornyl acrylate 5888-33-5	LogPow	4.52
	Temperature	
	Method	OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)
(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate 42978-66-5	LogPow	< 4
	Temperature	
	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. (Dicyclopentyloxyethyl acrylate)

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. (Dicyclopentyloxyethyl acrylate)

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. (Dicyclopentyloxyethyl acrylate)

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. (Dicyclopentyloxyethyl acrylate)

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. (Dicyclopentyloxyethyl acrylate)

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: Workplace Safety And Health Act (Chapter 354A, Section 40B) Workplace Safety And Health (Approved Codes of Practice) Notification 2020.
Workplace Safety And Health Act (Chapter 354A, Section 65) Workplace Safety And Health (General Provisions) (Amendment No.2) Regulations 2024

Global inventory status:

Regulatory list	Notification
TSCA	yes
KECI (KR)	yes
ENCS (JP)	yes
IECSC	yes
AIIC	yes
TCSI	yes
EINECS	yes

Section 16. Other information**Disclaimer:**

This Safety Data Sheet has been generated based on Workplace Safety And Health Act (Chapter 354A, Section 40B) Workplace Safety And Health (Approved Codes of Practice) Notification 2020 and Workplace Safety And Health Act (Chapter 354A, Section 65) Workplace Safety And Health (General Provisions) (Amendment No.2) Regulations 2024 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.

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).

