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

Product name:
LOCTITE STYCAST UV 7993 5 GAL

Other means of identification:
LOCTITE STYCAST UV 7993 5 GAL

Product code:
IDH1694862
Recommended use of the chemical and restrictions on use

Intended use:
Ultraviolet adhesive
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
Carcinogenicity	Category 1B
Toxic to reproduction	Category 2
Chronic hazards to the aquatic environment	Category 2

GHS label elements:

Hazard pictogram:



Signal word:
Danger

Hazard statement:
H317 May cause an allergic skin reaction.
H350 May cause cancer.
H361 Suspected of damaging fertility or the unborn child.
H411 Toxic to aquatic life with long lasting effects.

Precaution:

Prevention:
P201 Obtain special instructions before use.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P272 Contaminated work clothing should not be allowed out of the workplace.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response:
P302+P352 IF ON SKIN: Wash with plenty of water.
P308+P313 IF exposed or concerned: Get medical advice/attention.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P391 Collect spillage.

Disposal:
P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Section 3. Composition / information on ingredients

Substance or Mixture:
Mixture

Declaration of hazardous chemical:

Hazard component CAS-No.	Content	GHS Classification
Hexane, 1,6-diisocyanato-, homopolymer, 2-hydroxyethyl acrylate-blocked 264888-31-5	10- 30 %	Skin sensitizer 1 H317 Acute hazards to the aquatic environment 3 H402 Chronic hazards to the aquatic environment 3 H412
Isobornyl acrylate 5888-33-5	10- 30 %	Acute toxicity 5; Oral H303 Skin sensitizer 1A H317 Acute hazards to the aquatic environment 1 H400 Chronic hazards to the aquatic environment 1 H410
2-Phenoxyethyl acrylate 48145-04-6	10- 30 %	Skin sensitizer 1A H317 Toxic to reproduction 2 H361 Acute hazards to the aquatic environment 2 H401 Chronic hazards to the aquatic environment 2 H411
HDI oligomers, isocyanurate 28182-81-2	10- 30 %	Acute toxicity 4; Inhalation H332 Skin sensitizer 1 H317 Specific target organ toxicity - single exposure 3 H335
Acrylate Proprietary	10- 30 %	Acute toxicity 4; Inhalation H332 Acute hazards to the aquatic environment 2 H401 Chronic hazards to the aquatic environment 2 H411
Ethanone, 2,2-dimethoxy-1,2-diphenyl- 24650-42-8	1- 10 %	Acute toxicity 4; Oral H302 Specific target organ toxicity - repeated exposure 2 H373 Acute hazards to the aquatic environment 3 H402 Chronic hazards to the aquatic environment 3 H412
Phenol, ethoxylated, esters with acrylic acid 56641-05-5	0.1- 1 %	Skin sensitizer 1A H317 Acute hazards to the aquatic environment 2 H401 Chronic hazards to the aquatic environment 2 H411
Benzophenone 119-61-9	0.1- 1 %	Acute toxicity 5; Oral H303 Acute toxicity 5; Dermal H313 Carcinogenicity 1B H350 Specific target organ toxicity - repeated exposure 2 H373 Acute hazards to the aquatic environment 2 H401 Chronic hazards to the aquatic environment 3 H412
Triphenyl phosphite 101-02-0	0.1- 1 %	Acute toxicity 4; Oral H302 Acute toxicity 5; Dermal H313 Skin corrosion/irritation 2 H315 Serious eye damage/eye irritation 2A

		H319 Skin sensitizer 1A H317 Specific target organ toxicity - repeated exposure 2 H373 Acute hazards to the aquatic environment 1 H400 Chronic hazards to the aquatic environment 1 H410
2-benzyl-2-dimethylamino-4-morpholinobutyrophenone 119313-12-1	0.1- 1 %	Acute toxicity 5; Dermal H313 Toxic to reproduction 2 H361 Acute hazards to the aquatic environment 1 H400 Chronic hazards to the aquatic environment 1 H410

Section 4. First aid measures

Inhalation:
Should not be a problem as product is of low volatility. However, if feeling unwell remove patient to fresh air.

Skin contact:
Rinse with running water and soap.
Obtain medical attention if irritation persists.

Eye contact:
Rinse immediately with plenty of running water (for 10 minutes), seek medical attention from a specialist.

Ingestion:
Rinse mouth, drink 1-2 glasses of water, do not induce vomiting, consult a doctor.

Indication of immediate medical attention and special treatment needed:
See section: Description of first aid measures

Section 5. Fire fighting measures

Suitable extinguishing media:
water, carbon dioxide, foam, powder

Improper extinguishing media:
High pressure waterjet

Specific hazards arising from the chemical:
In the event of a fire, carbon monoxide (CO) and carbon dioxide (CO2) can be released.

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:
In case of fire, keep containers cool with water spray.

Section 6. Accidental release measures

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

See advice in section 8

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

Clean-up methods:
For small spills wipe up with paper towel and place in container for disposal.
For large spills absorb onto inert absorbent material and place in sealed container for disposal.
Dispose of contaminated material as waste according to Section 13.

Section 7. Handling and storage

Handling:
Avoid skin and eye contact.
See advice in section 8

Storage:
Ensure good ventilation/extraction.
Keep container tightly sealed.
Refer to Technical Data Sheet.
Store in a cool, well-ventilated place.

Section 8. Exposure controls / personal protection

Components with specific control parameters for workplace:

Respiratory protection:
Ensure adequate ventilation.
An approved mask or respirator fitted with an organic vapour cartridge should be worn if the product is used in a poorly ventilated area
Filter type: A (EN 14387)

Hand protection:
Chemical-resistant protective gloves (EN 374).
Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to > 30 minutes permeation time as per EN 374):
nitrile rubber (NBR; >= 0.4 mm thickness)
Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374):
nitrile rubber (NBR; >= 0.4 mm thickness)
This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced.

Eye protection:
Safety glasses with sideshields or chemical safety goggles should be worn if there is a risk of splashing.
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:	Light yellow, Off white liquid
Odor:	Sweet
Odor threshold (CA):	No data available.
pH:	Product is non-soluble (in water)., Not applicable
Melting point / freezing point:	Not applicable, Product is a liquid
Specific gravity:	1.04
Boiling point:	No data available.
Flash point: (Closed cup)	> 100 °C (> 212 °F)
Evaporation rate:	Not 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:	1.04 g/cm3
Solubility:	Insoluble (20 °C)
Partition coefficient: n-octanol/water:	No data available.
Auto ignition:	Not available.
Decomposition temperature:	No data available.
Viscosity:	No data available.
VOC content: (2010/75/EC)	< 3 %

Section 10. Stability and reactivity

Reactivity/Incompatible materials:
Strong oxidizing agents.
Strong bases.
Acids.
Reducing agents.
Chemical stability:
Stable under recommended storage conditions.
Possibility of hazardous reactions:
Rapid polymerization may generate excessive heat and pressure.

Conditions to avoid:
Protect from direct sunlight.
Hazardous decomposition products:
carbon oxides.
Hydrocarbons
nitrogen oxides

Section 11. Toxicological information

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

Inhalative toxicity: Acute toxicity estimate (ATE) : > 5 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: Calculation method

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

Acute oral toxicity:

Isobornyl acrylate 5888-33-5	Value type	LD50
	Value	4,350 mg/kg
	Species	rat
	Method	not specified
2-Phenoxyethyl acrylate 48145-04-6	Value type	LD50
	Value	> 5,000 mg/kg
	Species	rat
	Method	OECD Guideline 401 (Acute Oral Toxicity)
HDI oligomers, isocyanurate 28182-81-2	Value type	LD50
	Value	> 2,000 mg/kg
	Species	rat
	Method	OECD Guideline 423 (Acute Oral toxicity)
Acrylate Proprietary	Value type	LD50
	Value	> 5,000 mg/kg
	Species	rat
	Method	not specified
Ethanone, 2,2-dimethoxy-1,2-diphenyl- 24650-42-8	Value type	LD50
	Value	1,470 mg/kg
	Species	rat
	Method	QSAR (Quantitative Structure Activity Relationship)
Benzophenone 119-61-9	Value type	LD50
	Value	2,895 mg/kg
	Species	mouse
	Method	OECD Guideline 401 (Acute Oral Toxicity)
Triphenyl phosphite 101-02-0	Value type	LD50
	Value	1,590 mg/kg
	Species	rat
	Method	OECD Guideline 401 (Acute Oral Toxicity)
2-benzyl-2-dimethylamino-4-morpholinobutyrophenone 119313-12-1	Value type	LD50
	Value	> 5,000 mg/kg
	Species	rat
	Method	OECD Guideline 401 (Acute Oral Toxicity)

Acute inhalative toxicity:

HDI oligomers, isocyanurate 28182-81-2	Value type	Acute toxicity estimate (ATE)
	Value	3.9 mg/l
	Exposure time	4 h
	Species	
	Method	Expert judgement
Acrylate Proprietary	Value type	LC50
	Value	> 2.79 mg/l
	Exposure time	4 h
	Species	rat
	Method	not specified
Acrylate Proprietary	Value type	Acute toxicity estimate (ATE)
	Value	2.791 mg/l
	Exposure time	4 h
	Species	
	Method	Expert judgement
Triphenyl phosphite 101-02-0	Value type	LC50
	Value	> 6.7 mg/l
	Exposure time	1 h
	Species	rat
	Method	equivalent or similar to OECD Guideline 403 (Acute Inhalation Toxicity)

Acute dermal toxicity:

Isobornyl acrylate 5888-33-5	Value type	LD50
	Value	> 3,000 mg/kg
	Species	rabbit
	Method	not specified
2-Phenoxyethyl acrylate 48145-04-6	Value type	LD50
	Value	> 2,000 mg/kg
	Species	rat
	Method	EU Method B.3 (Acute Toxicity (Dermal)
HDI oligomers, isocyanurate 28182-81-2	Value type	LD50
	Value	> 2,000 mg/kg
	Species	rat
	Method	OECD Guideline 402 (Acute Dermal Toxicity)
Acrylate Proprietary	Value type	LD50
	Value	> 5,000 mg/kg
	Species	rabbit
	Method	not specified
Ethanone, 2,2-dimethoxy-1,2-diphenyl- 24650-42-8	Value type	LD50
	Value	> 5,000 mg/kg
	Species	rat
	Method	not specified
Benzophenone 119-61-9	Value type	LD50
	Value	3,535 mg/kg
	Species	rabbit
	Method	not specified
Triphenyl phosphite 101-02-0	Value type	LD50
	Value	> 2,000 - < 5,000 mg/kg
	Species	rabbit
	Method	OECD Guideline 402 (Acute Dermal Toxicity)
Triphenyl phosphite 101-02-0	Value type	Acute toxicity estimate (ATE)
	Value	2,500 mg/kg
	Species	
	Method	Expert judgement
2-benzyl-2-dimethylamino-4-morpholinobutyrophenone 119313-12-1	Value type	LD50
	Value	> 2,000 mg/kg
	Species	rat
	Method	OECD Guideline 402 (Acute Dermal Toxicity)
2-benzyl-2-dimethylamino-4-morpholinobutyrophenone 119313-12-1	Value type	Acute toxicity estimate (ATE)
	Value	2,500 mg/kg
	Species	
	Method	Expert judgement

Skin corrosion/irritation:

Isobornyl acrylate 5888-33-5	Result	not irritating
	Exposure time	24 h
	Species	rabbit
	Method	other guideline:
2-Phenoxyethyl acrylate 48145-04-6	Result	not irritating
	Exposure time	4 h
	Species	rabbit
	Method	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
HDI oligomers, isocyanurate 28182-81-2	Result	slightly irritating
	Exposure time	4 h
	Species	rabbit
	Method	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Acrylate Proprietary	Result	slightly irritating
	Exposure time	24 h
	Species	rabbit
	Method	not specified
Benzophenone 119-61-9	Result	not irritating
	Exposure time	4 h
	Species	rabbit
	Method	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
2-benzyl-2-dimethylamino-4-morpholinobutyrophenone 119313-12-1	Result	not irritating
	Exposure time	4 h
	Species	rabbit
	Method	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Serious eye damage/irritation:

Isobornyl acrylate 5888-33-5	Result	not irritating
	Exposure time	
	Species	rabbit
	Method	other guideline:
2-Phenoxyethyl acrylate 48145-04-6	Result	not irritating
	Exposure time	
	Species	rabbit
	Method	Draize Test
HDI oligomers, isocyanurate 28182-81-2	Result	slightly irritating
	Exposure time	
	Species	rabbit
	Method	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Acrylate Proprietary	Result	not irritating
	Exposure time	
	Species	rabbit
	Method	not specified
Benzophenone 119-61-9	Result	slightly irritating
	Exposure time	
	Species	rabbit
	Method	not specified
2-benzyl-2-dimethylamino-4-morpholinobutyrophenone 119313-12-1	Result	not irritating
	Exposure time	
	Species	rabbit
	Method	OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Respiratory or skin sensitization:

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)
2-Phenoxyethyl acrylate 48145-04-6	Result	Sub-Category 1A (sensitising)
	Test type	Guinea pig maximisation test
	Species	guinea pig
	Method	equivalent or similar to OECD Guideline 406 (Skin Sensitisation)
HDI oligomers, isocyanurate 28182-81-2	Result	sensitising
	Test type	Guinea pig maximisation test
	Species	guinea pig
	Method	OECD Guideline 406 (Skin Sensitisation)
Acrylate Proprietary	Result	not sensitising
	Test type	Buehler test
	Species	guinea pig
	Method	not specified
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
Triphenyl phosphite 101-02-0	Result	sensitising
	Test type	Mouse local lymphnode assay (LLNA)
	Species	mouse
	Method	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
Triphenyl phosphite 101-02-0	Result	sensitising
	Test type	Guinea pig maximisation test
	Species	guinea pig
	Method	EPA OPPTS 870.2600 (Skin Sensitisation)
2-benzyl-2-dimethylamino-4-morpholinobutyrophenone 119313-12-1	Result	not sensitising
	Test type	Guinea pig maximisation test
	Species	guinea pig
	Method	OECD Guideline 406 (Skin Sensitisation)

Germ cell mutagenicity:

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)
2-Phenoxyethyl acrylate 48145-04-6	Result	negative
	Type of study / Route of administration	bacterial reverse mutation assay (e.g Ames test)
	Metabolic activation / Exposure time	with and without
	Method	OECD Guideline 471 (Bacterial Reverse Mutation Assay)
2-Phenoxyethyl acrylate 48145-04-6	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-Phenoxyethyl acrylate 48145-04-6	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)
HDI oligomers, isocyanurate 28182-81-2	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)
HDI oligomers, isocyanurate 28182-81-2	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)
HDI oligomers, isocyanurate 28182-81-2	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)
Acrylate Proprietary	Result	negative
	Type of study / Route of administration	bacterial reverse mutation assay (e.g Ames test)
	Metabolic activation / Exposure time	
	Method	not specified
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)
2-benzyl-2-dimethylamino-4-	Result	negative

morpholinobutyrophenone 119313-12-1	Type of study / Route of administration	bacterial reverse mutation assay (e.g Ames test)
	Metabolic activation / Exposure time	with and without
	Method	
2-benzyl-2-dimethylamino-4-morpholinobutyrophenone 119313-12-1	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)
2-benzyl-2-dimethylamino-4-morpholinobutyrophenone 119313-12-1	Result	negative
	Type of study / Route of administration	oral: unspecified
	Metabolic activation / Exposure time	
	Species	hamster, Chinese
	Method	EU Method B.12 (Mutagenicity

Repeated dose toxicity:

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)
2-Phenoxyethyl acrylate 48145-04-6	Result	NOAEL=350 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)
HDI oligomers, isocyanurate 28182-81-2	Result	NOAEL=0.003 mg/l
	Route of application	inhalation: aerosol
	Exposure time / Frequency of treatment	13 weeks6 h/d, 5 d/week
	Species	rat
	Method	OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day)
Ethanone, 2,2-dimethoxy-1,2-diphenyl- 24650-42-8	Result	NOAEL=42.8 mg/kg
	Route of application	oral: unspecified
	Exposure time / Frequency of treatment	45 d
	Species	rat
	Method	QSAR (Quantitative Structure Activity Relationship)
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)
Triphenyl phosphite 101-02-0	Result	NOAEL=15 mg/kg
	Route of application	oral: gavage
	Exposure time / Frequency of treatment	16 weeksdaily
	Species	rat
	Method	equivalent or similar to OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reprod./Develop. Tox. Screening Test)
2-benzyl-2-dimethylamino-4-morpholinobutyrophenone 119313-12-1	Result	NOAEL=50 mg/kg
	Route of application	oral: unspecified
	Exposure time / Frequency of treatment	28 ddaily
	Species	rat
	Method	EU Method B.7 (Repeated Dose (28 Days) Toxicity (Oral))

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:

Hexane, 1,6-diisocyanato-, homopolymer, 2-hydroxyethyl acrylate-blocked 264888-31-5	Value type	LC50
	Value	> 100 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)
Hexane, 1,6-diisocyanato-, homopolymer, 2-hydroxyethyl acrylate-blocked 264888-31-5	Value type	EC50
	Value	58 mg/l
	Acute Toxicity Study	Daphnia
	Exposure time	48 h
	Species	Daphnia magna
	Method	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Hexane, 1,6-diisocyanato-, homopolymer, 2-hydroxyethyl acrylate-blocked 264888-31-5	Value type	EC50
	Value	> 100 mg/l
	Acute Toxicity Study	Algae
	Exposure time	72 h
	Species	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)
Isobornyl acrylate 5888-33-5	Value type	LC50
	Value	0.704 mg/l
	Acute Toxicity Study	Fish
	Exposure time	96 h
	Species	Danio rerio
	Method	OECD Guideline 203 (Fish, Acute Toxicity Test)
Isobornyl acrylate 5888-33-5	Value type	EC50
	Value	1 mg/l
	Acute Toxicity Study	Daphnia
	Exposure time	48 h
	Species	Daphnia magna
	Method	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Isobornyl acrylate 5888-33-5	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
	Species	Pseudokirchneriella subcapitata
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)
2-Phenoxyethyl acrylate 48145-04-6	Value type	LC50
	Value	10 mg/l
	Acute Toxicity Study	Fish
	Exposure time	96 h
	Species	Leuciscus idus
	Method	OECD Guideline 203 (Fish, Acute Toxicity Test)
2-Phenoxyethyl acrylate 48145-04-6	Value type	EC50
	Value	1.21 mg/l
	Acute Toxicity Study	Daphnia
	Exposure time	48 h
	Species	Daphnia magna
	Method	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
2-Phenoxyethyl acrylate 48145-04-6	Value type	EC10
	Value	0.71 mg/l
	Acute Toxicity Study	Algae
	Exposure time	72 h
	Species	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)
	Method	ISO 8692 (Water Quality)
	Value type	EC50
	Value	4.4 mg/l

	Acute Toxicity Study	Algae
	Exposure time	72 h
	Species	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)
	Method	ISO 8692 (Water Quality)
HDI oligomers, isocyanurate 28182-81-2	Value type	LC50
	Value	> 100 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)
HDI oligomers, isocyanurate 28182-81-2	Value type	EC50
	Value	> 100 mg/l
	Acute Toxicity Study	Daphnia
	Exposure time	48 h
	Species	Daphnia magna
	Method	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
HDI oligomers, isocyanurate 28182-81-2	Value type	EC50
	Value	> 1,000 mg/l
	Acute Toxicity Study	Algae
	Exposure time	72 h
	Species	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)
HDI oligomers, isocyanurate 28182-81-2	Value type	EC50
	Value	> 1,000 mg/l
	Acute Toxicity Study	Bacteria
	Exposure time	3 h
	Species	activated sludge
	Method	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
Acrylate Proprietary	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)
Ethanone, 2,2-dimethoxy-1,2-diphenyl- 24650-42-8	Value type	LC50
	Value	29.67 mg/l
	Acute Toxicity Study	Fish
	Exposure time	96 h
	Species	QSAR
	Method	QSAR (Quantitative Structure Activity Relationship)
	Value type	NOEC
	Value	3.215 mg/l
	Acute Toxicity Study	Fish
	Exposure time	30 d
	Species	QSAR
	Method	QSAR (Quantitative Structure Activity Relationship)
Ethanone, 2,2-dimethoxy-1,2-diphenyl- 24650-42-8	Value type	EC50
	Value	18.387 mg/l
	Acute Toxicity Study	Daphnia
	Exposure time	48 h
	Species	QSAR
	Method	QSAR (Quantitative Structure Activity Relationship)
Ethanone, 2,2-dimethoxy-1,2-diphenyl- 24650-42-8	Value type	EC50
	Value	19.66 mg/l
	Acute Toxicity Study	Algae
	Exposure time	96 h
	Species	other:
	Method	QSAR (Quantitative Structure Activity Relationship)
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
	Species	Pseudokirchneriella subcapitata
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)
Benzophenone 119-61-9	Value type	EC50
	Value	787 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)
Triphenyl phosphite 101-02-0	Value type	LC50
	Value	> 16 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)
Triphenyl phosphite 101-02-0	Value type	EC50
	Value	> 1 - 5 mg/l
	Acute Toxicity Study	Daphnia
	Exposure time	48 h
	Species	Daphnia sp.
	Method	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Triphenyl phosphite 101-02-0	Value type	EC50
	Value	> 100 mg/l
	Acute Toxicity Study	Bacteria
	Exposure time	3 h
	Species	
	Method	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
2-benzyl-2-dimethylamino-4-morpholinobutyrophenone 119313-12-1	Value type	LC50
	Value	> 0.142 mg/l
	Acute Toxicity Study	Fish
	Exposure time	96 h
	Species	Danio rerio (reported as Brachydanio rerio)
	Method	OECD Guideline 203 (Fish, Acute Toxicity Test)
2-benzyl-2-dimethylamino-4-morpholinobutyrophenone 119313-12-1	Value type	EC50
	Value	0.5 mg/l
	Acute Toxicity Study	Daphnia
	Exposure time	48 h
	Species	Daphnia magna
	Method	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
2-benzyl-2-dimethylamino-4-morpholinobutyrophenone 119313-12-1	Value type	IC50
	Value	> 5.9 mg/l
	Acute Toxicity Study	Bacteria
	Exposure time	30 min
	Species	not specified
	Method	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)

Persistence and degradability:

Hexane, 1,6-diisocyanato-, homopolymer, 2-hydroxyethyl acrylate-blocked 264888-31-5	Result	not readily biodegradable.
	Route of application	aerobic
	Degradability	> 0 - < 60 %
	Method	OECD 301 A - F

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 BiodegradabilityCO2 in Sealed Vessels (Headspace Test)
2-Phenoxyethyl acrylate 48145-04-6	Result	
	Route of application	aerobic
	Degradability	22.3 %
	Method	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
HDI oligomers, isocyanurate 28182-81-2	Result	not readily biodegradable.
	Route of application	aerobic
	Degradability	0 %
	Method	OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))
Acrylate Proprietary	Result	not readily biodegradable.
	Route of application	aerobic
	Degradability	0 %
	Method	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
Ethanone, 2,2-dimethoxy-1,2-diphenyl- 24650-42-8	Result	not readily biodegradable.
	Route of application	aerobic
	Degradability	3 %
	Method	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution 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)
Triphenyl phosphite 101-02-0	Result	readily biodegradable
	Route of application	aerobic
	Degradability	84 %
	Method	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
2-benzyl-2-dimethylamino-4-morpholinobutyrophenone 119313-12-1	Result	not readily biodegradable.
	Route of application	not specified
	Degradability	3 %
	Method	Directive 84/449/EEC, C.5

Bioaccumulative potential / Mobility in soil:

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)
2-Phenoxyethyl acrylate 48145-04-6	LogPow	2.58
	Temperature	
	Method	OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)
HDI oligomers, isocyanurate 28182-81-2	Bioconcentration factor (BCF)	3.2
	Exposure time	
	Species	calculation
	Temperature	
	Method	OECD Guideline 305 (Bioconcentration: Flow-through Fish Test)
Acrylate Proprietary	LogPow	3.39
	Temperature	
	Method	not specified
Ethanone, 2,2-dimethoxy-1,2-diphenyl- 24650-42-8	LogPow	2.95
	Temperature	25 °C
	Method	QSAR (Quantitative Structure Activity Relationship)
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)
Triphenyl phosphite 101-02-0	LogPow	6.62
	Temperature	25 °C
	Method	QSAR (Quantitative Structure Activity Relationship)
2-benzyl-2-dimethylamino-4-morpholinobutyrophenone 119313-12-1	LogPow	2.91
	Temperature	25 °C
	Method	other guideline:

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. (2,2-Dimethoxy-1,2-diphenylethan-1-one,Isobornyl 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. (2,2-Dimethoxy-1,2-diphenylethan-1-one,Isobornyl 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. (2,2-Dimethoxy-1,2-diphenylethan-1-one,Isobornyl 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. (2,2-Dimethoxy-1,2-diphenylethan-1-one,Isobornyl 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. (2,2-Dimethoxy-1,2-diphenylethan-1-one,Isobornyl 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:
Ministry of Industry Notice. The system to classify and communicate the hazard of hazardous material, BE. 2555

Global inventory status:

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