Manufacturer:
ÅngströmBond®

Product Name:
Desolite® 950-200 Optical Fiber Coating (Splicing and Recoat Coating), UV Cure (1 oz)

Manufacturer Part Number:
COV-950-200-1OZ

Safety Data Sheet according to Regulation (EU) No. 1907/2006 as amended

ÅNGSTRÖMBOND®

DeSolite 950-200

Version 2.1 Revision Date 27.01.2025 Print Date 28.01.2025

This document is formatted for A4 paper size

P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
P391 Collect spillage.

2.3 Other hazards

The following percentage of the mixture consists of ingredient(s) with unknown acute dermal toxicity: 29 %
The following percentage of the mixture consists of ingredient(s) with unknown acute inhalation toxicity: 89 %

The following percentage of the mixture consists of ingredient(s) with unknown hazards to the aquatic environment: 89 %

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

Type of product: Mixture

3.2 Mixtures

optical fiber coatings

Hazardous components

2-phenoxyethyl acrylate
Concentration [wt.-%]: >= 25 - < 50
EC-No.: 256-360-6
REACH Registration Number: 01-2119980532-35-0014, 01-2119980532-35-0013
Classification (1272/2008/CE): Skin Sens. 1A H317 Repr. 2 H361d Aquatic Chronic 2 H411

2,2-bis(acryloyloxymethyl)butyl acrylate; trimethylolpropane triacrylate
Concentration [wt.-%]: >= 5 - < 10
Index-No.: 607-111-00-9
EC-No.: 239-701-3
REACH Registration Number: 01-2119489896-11-0025, 01-2119489896-11-0010
CAS-No.: 15625-89-5
Classification (1272/2008/CE): Skin Irrit. 2 H315 Eye Irrit. 2 H319 Skin Sens. 1 H317 Carc. 2 H351
Aquatic Acute 1 H400 Aquatic Chronic 1 H410
M-factor (acute aquat. tox.): 1
M-factor (chron. aquat. tox.): 1

2,2-dimethoxy-1,2-diphenylethan-1-one
Concentration [wt.-%]: >= 3 - < 5
EC-No.: 246-386-6
CAS-No.: 24650-42-8
Classification (1272/2008/CE): Acute Tox. 4 Oral H302 STOT RE 2 H373 Aquatic Chronic 3 H412
ATE (oral): 1.470 mg/kg

Candidate List of Substances of Very High Concern for Authorisation
This product contains no substances of very high concern in concentrations where an information obligation applies (REACH Regulation (EC) No. 1907/2006, Article 59).

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice: Take off all contaminated clothing immediately.

For effective first-aid, special training / education is needed.

If inhaled: Take the person into the fresh air and keep him warm, let him rest; if there is difficulty in breathing, medical advice is required. If unconscious, place in recovery position and seek medical advice. Oxygen or artificial respiration if needed. If breathing is irregular or stopped, administer artificial respiration. Keep respiratory tract clear. Consult a physician if necessary.

Inhalation may provoke the following symptoms: respiratory tract irritation coughing

In the case of hazardous fumes, wear self contained breathing apparatus.

In case of skin contact: In case of skin contact wash affected areas thoroughly with soap and plenty of water. Wash off immediately with plenty of water for at least 15 minutes. Take off contaminated clothing and shoes immediately. Wash contaminated clothing before re-use. Thoroughly clean shoes before reuse. Consult a doctor in the event of a skin reaction.

Most important symptoms Skin irritation Redness

In case of eye contact: Hold the eyes open and rinse with preferably lukewarm water for a sufficiently long period of time (at least 10 minutes). Contact an ophthalmologist. Remove contact lenses.

Eye contact may provoke the following symptoms irritant effects eye redness

If swallowed: Do not induce vomiting without medical advice. Rinse mouth. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If a person vomits when lying on his back, place him in the recovery position. Never give anything by mouth to an unconscious person.

If victim is conscious: Give small amounts of water to drink.

If symptoms persist, call a physician or Poison Control Centre immediately.

4.2 Most important symptoms and effects, both acute and delayed

Notes to physician: Treat symptomatically.

4.3 Indication of any immediate medical attention and special treatment needed

Therapeutic measures: No information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

5.2 Special hazards arising from the substance or mixture

Formation of carbon monoxide, carbon dioxide and other toxic gases in the event of fire or during thermal decomposition. Fire will produce dense black smoke containing hazardous combustion products (see section 10). In case of fire, may produce hazardous decomposition products such as: Acrylate monomers Aldehydes Organic acids

In the event of fire and/or explosion do not breathe fumes. Cool endangered vessels and containers with sprayed water. Heating raises pressure with consequent risk of bursting and explosion.

5.3 Advice for fire-fighters

Wear an approved positive pressure self-contained breathing apparatus in addition to standard fire fighting gear.

Do not allow contaminated extinguishing water to enter the soil, ground-water or surface waters. Immediately evacuate personnel to safe areas.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Immediately evacuate personnel to safe areas. Avoid breathing mist or vapours. Put on protective equipment (see section 8). Ensure adequate ventilation/exhaust extraction. Keep unauthorized persons away. In case of insufficient ventilation, wear suitable respiratory equipment.

6.2 Environment related measures

Do not allow to escape into waterways, wastewater or soil. If the product contaminates rivers and lakes or drains inform respective authorities. Inform the responsible authorities in case of gas leakage, or of entry into waterways, soil or drains. Collect spillage. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

6.3 Methods and material for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Dispose of wastes in an approved waste disposal facility. Do not discharge large quantities of concentrated spills or residues into surface water or sanitary sewer system.

6.4 Reference to other sections

For personal protection see section 8. For further disposal measures see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

For personal protection see section 8. Avoid contact with skin, eyes and clothing. Do not breathe mist or vapours. Do not ingest. Ensure adequate ventilation and, if necessary, exhaust ventilation when handling or transferring the product. In case of insufficient ventilation, wear suitable respiratory equipment. The precautions required in the handling of acrylic acid esters must be taken. Do not re-use empty containers.

Smoking, eating and drinking should be prohibited in the application area. Wash skin thoroughly after handling. Remove contaminated clothing and protective equipment before entering eating areas.

Persons who suffer from skin complaints or other hypersensitivity reactions of skin should not work with the product.

The personal protective measures described in section 8 must be observed. Avoid contact with skin and eyes absolutely.

Keep away from foodstuffs, drinks and tobacco. Wash hands before breaks and at end of work and use skin-protecting ointment. Keep working clothes separately. Change contaminated or soaked clothing immediately.

7.2 Conditions for safe storage, including any incompatibilities

Keep container dry and tightly closed in a cool and well ventilated place. Store in original container. Protect against heat and direct sunlight. Store locked up. When not in use, keep containers tightly closed. Keep in properly labelled containers. Use appropriate container to avoid environmental contamination.
Polymerisation is a highly exothermic reaction and may generate sufficient heat to cause thermal decomposition and/or rupture containers. Inhibitor only effective in the presence of oxygen.

Storage class (TRGS 510) : 10: Combustible liquids
Recommended storage temperature: 15 - 30 °C

7.3 Specific end use(s)

UV-curable coatings, inks and matrix materials.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Contains no substances with occupational exposure limit values.

Derived No Effect Level (DNEL)

2,2-bis(acryloyloxymethyl)butyl acrylate; trimethylolpropane triacrylate

Value type	Route of exposure	Health Effects	Value	Remarks
Workers	Inhalation	Long-term systemic effects	17,1 mg/m3	Most sensitive endpoint: Repeated dose toxicity oral
Workers	Inhalation	Acute systemic effects		No hazard identified
Workers	Inhalation	Long-term local effects		Hazard unknown (no further information necessary)
Workers	Inhalation	Acute local effects		No hazard identified
Workers	Dermal	Long-term systemic effects	404 mg/kg bw/day	Most sensitive endpoint: Repeated dose toxicity oral
Workers	Dermal	Acute systemic effects		No hazard identified
Workers	Dermal	Long-term local effects		Medium hazard (no threshold derived) Most sensitive endpoint: Sensitization/irritation (skin)
Workers	Dermal	Acute local effects		Medium hazard (no threshold derived) Most sensitive endpoint: Sensitisation (skin)
Workers	Eye contact	Local effects		Low hazard (no threshold derived) Most sensitive endpoint: Irritation (eye)

Predicted No Effect Concentration (PNEC)

2,2-bis(acryloyloxymethyl)butyl acrylate; trimethylolpropane triacrylate

Compartment	Value	Remarks
Fresh water	0,00087 mg/l	
Fresh water sediment	0,017 mg/kg dry weight	
Marine water	0,000087 mg/l	
Marine sediment	0,002 mg/kg dry weight	
Sewage treatment plant	6,25 mg/l	
Air		No hazard identified
Soil	0,003 mg/kg dry weight	
Oral	10 mg/kg	
Intermittent use/release	0,0087 mg/l	Fresh water

8.2 Exposure controls

Appropriate engineering controls
If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Respiratory protection
Respiratory protection required in insufficiently ventilated working areas and during spraying. Respirator with a gas filter

Hand protection
Protective gloves complying with EN 374.
Nitrile rubber: thickness >=0,12mm; Break through time: < 60 min
Contaminated and/or damaged gloves must be changed. Avoid natural rubber gloves. Do not wear PVC gloves, as PVC absorbs acrylates.

Eye protection
Safety glasses with side-shields
Equipment should conform to EN 166

Skin and body protection
Use protective clothing (chemically resistant). Protective suit
Equipment should conform to EN 1149

Further protective measures
Wash face, hands and any exposed skin thoroughly after handling. Use appropriate degowning techniques to remove potentially contaminated clothing. Take off contaminated clothing and wash it before reuse. Ensure that eyewash stations and safety showers are close to the workstation location.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state:	liquid at 20 °C at 1.013 hPa
Appearance:	liquid
Colour:	amber
Odour:	characteristic
Odour Threshold:	not established
pH:	not applicable
Melting point/freezing point:	not established
Boiling point/boiling range:	not established
Flash point:	> 93 °C, closed cup
Evaporation rate:	not established
Flammability (solid, gas):	not applicable
Burning number:	not applicable
Upper/lower flammability or explosive limits:	not established
Vapour pressure:	not established
Relative vapour density:	not established
Density:	1,05 g/cm³ at 20 °C
Miscibility with water:	not established
Water solubility:	not established
Surface tension:	not established
Partition coefficient (n−octanol/water):	not established
Auto-ignition temperature:	not applicable
Ignition temperature:	not established
Decomposition temperature:	not established
Heat of combustion:	not established
Viscosity, dynamic:	2.200 - 2.800 mPa.s at 20 °C
Viscosity, kinematic:	> 2095 mm2/s at 20 °C

9.2 Other information

The indicated values do not necessarily correspond to the product specification. Please refer to the technical information sheet for specification data.

Explosive properties:	not established
Dust explosion class:	not applicable
Oxidising properties:	not established

SECTION 10: Stability and reactivity

10.1 Reactivity

None known.

10.2 Chemical stability

Stable under recommended storage conditions. The product is chemically stable.

10.3 Possibility of hazardous reactions

In case of heating risk of exothermic polymerisation. Strong exothermic reactions with peroxides may occur in presence of heavy metal ions.

10.4 Conditions to avoid

Keep away from heat and sources of ignition.
Exposure to sunlight.

10.5 Incompatible materials

Exothermic reaction with: Strong acids and strong bases polymerisation initiators Avoid radical-forming starting agents, peroxides and reactive metals.

10.6 Hazardous decomposition products

No hazardous decomposition products when stored and handled correctly.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity, oral
ATEmix (oral): > 2.000 mg/kg
Method: Calculation method

2-phenoxyethyl acrylate
LD50 rat, male/female: > 5.000 mg/kg
Method: OECD Test Guideline 401

2,2-bis(acryloyloxymethyl)butyl acrylate; trimethylolpropane triacrylate
LD50 rat, male/female: 3.680 mg/kg

2,2-dimethoxy-1,2-diphenylethan-1-one
LD50 rat, male/female: 1.470 mg/kg
Method: QSAR

Acute toxicity, dermal
2-phenoxyethyl acrylate
LD50 rat, male/female: > 2.000 mg/kg
Method: Regulation (EC) No. 440/2008, Annex, B.3

2,2-bis(acryloyloxymethyl)butyl acrylate; trimethylolpropane triacrylate
LD50 rabbit: 5.170 mg/kg

2,2-dimethoxy-1,2-diphenylethan-1-one
Study scientifically not justified. No data available.

Acute toxicity, inhalation
2-phenoxyethyl acrylate
Assessment: Study scientifically not justified.

2,2-bis(acryloyloxymethyl)butyl acrylate; trimethylolpropane triacrylate
LC50 rat, male/female: 0,55 mg/l, 6 h
Test atmosphere: vapour
Assessment: The substance or mixture has no acute inhalation toxicity

2,2-dimethoxy-1,2-diphenylethan-1-one
Assessment: Study scientifically not justified.
No data available.

Primary skin irritation
2-phenoxyethyl acrylate
Species: rabbit
Result: slight irritant
Classification: No skin irritation

2,2-bis(acryloyloxymethyl)butyl acrylate; trimethylolpropane triacrylate
Species: rabbit
Result: irritating
Classification: Causes skin irritation.
Method: OECD Test Guideline 404

2,2-dimethoxy-1,2-diphenylethan-1-one
Classification: No skin irritation
Regulation (EC) No 1272/2008
Studies of a comparable product.

Primary mucosae irritation
2-phenoxyethyl acrylate
Species: rabbit
Result: slight irritant
Classification: No eye irritation

2,2-bis(acryloyloxymethyl)butyl acrylate; trimethylolpropane triacrylate
Species: rabbit
Result: irritating
Classification: Causes serious eye irritation.
Method: Draize Test

2,2-dimethoxy-1,2-diphenylethan-1-one
Classification: No eye irritation
Regulation (EC) No 1272/2008
Studies of a comparable product.

Sensitisation
2-phenoxyethyl acrylate
Skin sensitisation according to Magnusson/Kligmann (maximizing test):
Species: Guinea pig
Result: positive
Classification: May cause sensitization by skin contact (Sub cat. 1A)
Method: OECD Test Guideline 406

Respiratory sensitization
No data available.

2,2-bis(acryloyloxymethyl)butyl acrylate; trimethylolpropane triacrylate
Skin sensitisation:
Species: Guinea pig
Result: positive
Classification: May cause sensitization by skin contact.

Respiratory sensitization
No data available.

2,2-dimethoxy-1,2-diphenylethan-1-one
Skin sensitisation:
Result: Does not cause skin sensitization.
Regulation (EC) No 1272/2008
Studies of a comparable product.

Respiratory sensitization
No data available.

Subacute, subchronic and prolonged toxicity
2-phenoxyethyl acrylate
NOAEL: 300 mg/kg
Application Route: Oral
Species: rat, male/female
Dose Levels: 0 - 100 - 300 - 800
Method: OECD Test Guideline 422

NOAEL: 350 mg/kg
Application Route: Oral
Species: rat, male/female
Dose Levels: 0 - 30 - 100 - 350
Method: OECD Test Guideline 408

2,2-bis(acryloyloxymethyl)butyl acrylate; trimethylolpropane triacrylate
NOAEL: 300 mg/kg
Application Route: Oral
Species: rat, male/female
Frequency of treatment: daily
Method: OECD Test Guideline 422

LOAEL (Lowest observable adverse effect level): 0,3 mg/kg
Application Route: Dermal
Species: rat, male/female
Exposure duration: 105 Weeks
Frequency of treatment: 5 days/week
Method: OECD Test Guideline 453

NOAEL: 0,3 mg/kg
Application Route: Dermal
Species: Mouse, male/female
Exposure duration: 105 Weeks
Frequency of treatment: 5 days/week
Method: OECD Test Guideline 453

2,2-dimethoxy-1,2-diphenylethan-1-one
NOAEL: 42,8 mg/kg
Species: rat, male/female
Exposure duration: 45 d
Studies of a comparable product.

Carcinogenicity
2-phenoxyethyl acrylate
No data available.

2,2-bis(acryloyloxymethyl)butyl acrylate; trimethylolpropane triacrylate
NOAEL (Toxicity): 50 mg/kg body weight/day
Species: Mouse, male
Application Route: Dermal
Exposure duration: 80 weeks
Frequency of treatment: 2 times/week

2,2-dimethoxy-1,2-diphenylethan-1-one
No data available.

Reproductive toxicity/Fertility
2-phenoxyethyl acrylate
NOAEL (parents, generelly toxicity): 100 mg/kg bw/day
NOAEL (parents, fertility): 300 mg/kg bw/day

Test type: Combined Repeated Dose Toxicity Study with the Reproduction/Developmental Toxicity Screening Test
Species: rat, male/female
Application Route: Oral
Dose Levels: 0 - 100 - 300 - 800 mg/kg bw/day
Method: OECD Test Guideline 422

2,2-bis(acryloyloxymethyl)butyl acrylate; trimethylolpropane triacrylate
NOAEL - Parents: 300 mg/kg
NOAEL – F1: 300 mg/kg
Species: rat, male/female
Application Route: Oral
Frequency of treatment: daily
Method: OECD Test Guideline 422

2,2-dimethoxy-1,2-diphenylethan-1-one
NOAEL - Parents: 358 mg/kg bw/day
NOAEL (parents, fertility): 358 mg/kg bw/day
Species: rat
Application Route: Oral
Test period: 45 d
Studies of a comparable product.

Reproductive toxicity/Developmental Toxicity/Teratogenicity
2-phenoxyethyl acrylate
NOAEL (teratogenicity): 600 mg/kg bw/day
NOAEL (maternal): 600 mg/kg bw/day
NOAEL (developmental toxicity): 600 mg/kg bw/day
Test type: Pre-/postnatal development
Species: rat
Application Route: Oral
Dose Levels: 0 - 65- 200 - 600 mg/kg bw/day
Method: OECD Test Guideline 414

2,2-bis(acryloyloxymethyl)butyl acrylate; trimethylolpropane triacrylate
NOAEL (teratogenicity): >= 130 mg/kg
NOAEL (maternal): >= 130 mg/kg
NOAEL (developmental toxicity): 130 mg/kg body weight/day
Species: rabbit, male and female
Application Route: Oral
Frequency of treatment: daily
Method: OECD Test Guideline 414

NOAEL (teratogenicity): >= 130 mg/kg
NOAEL (maternal): >= 130 mg/kg
NOAEL (developmental toxicity): 130 mg/kg body weight/day
Species: rabbit, male and female
Application Route: Oral
Frequency of treatment: daily
Method: OECD Test Guideline 414

2,2-dimethoxy-1,2-diphenylethan-1-one
NOAEL (teratogenicity): 757 mg/kg bw/day
NOAEL (developmental toxicity): 757 mg/kg bw/day
Species: rat
Test period: 45 d
Studies of a comparable product.

NOAEL (teratogenicity): 757 mg/kg bw/day
NOAEL (developmental toxicity): 757 mg/kg bw/day
Species: rabbit
Test period: 45 d
Studies of a comparable product.

Genotoxicity in vitro

2-phenoxyethyl acrylate
Test type: Ames test
Test system: Escherichia coli
Metabolic activation: with/without
Result: negative
Method: OECD Test Guideline 471

Test type: Ames test
Test system: Salmonella typhimurium
Metabolic activation: with/without
Result: negative
Method: OECD Test Guideline 471

Test type: In vitro mammalian cell gene mutation test
Test system: Mouse lymphoma cells
Metabolic activation: with/without
Result: negative
Method: OECD Test Guideline 476

Test type: Chromosome aberration test in vitro
Test system: Human lymphocytes
Metabolic activation: with/without
Result: negative
Method: OECD Test Guideline 473

2,2-bis(acryloyloxymethyl)butyl acrylate; trimethylolpropane triacrylate
Test type: Ames test
Test system: Salmonella typhimurium
Metabolic activation: with/without
Result: negative
Method: OECD Test Guideline 471

Test type: Chromosome aberration test in vitro
Test system: Human lymphocytes
Metabolic activation: with/without
Result: negative
Method: OECD Test Guideline 473

Test type: In vitro mammalian cell gene mutation test
Test system: mouse lymphoma cells
Metabolic activation: with/without
Result: negative
Method: OECD Test Guideline 476

2,2-dimethoxy-1,2-diphenylethan-1-one
Test type: In vitro mammalian cell gene mutation test
Test system: Mouse lymphoma cells
Metabolic activation: with
Result: positive
Method: OECD Test Guideline 476
Studies of a comparable product.

Genotoxicity in vivo
2-phenoxyethyl acrylate
no data available

2,2-bis(acryloyloxymethyl)butyl acrylate; trimethylolpropane triacrylate
Test type: In vivo micronucleus test
Species: Mouse, male/female
Application Route: Oral
Result: negative
Method: OECD Test Guideline 474

2,2-dimethoxy-1,2-diphenylethan-1-one
Test type: Micronucleus test
Species: Mouse
Result: Ambiguous.
Method: OECD Test Guideline 474
Studies of a comparable product.

STOT evaluation – one-time exposure
2-phenoxyethyl acrylate
Based on available data, the classification criteria are not met.

2,2-bis(acryloyloxymethyl)butyl acrylate; trimethylolpropane triacrylate
Based on available data, the classification criteria are not met.

2,2-dimethoxy-1,2-diphenylethan-1-one
Based on available data, the classification criteria are not met.

STOT evaluation – repeated exposure
2-phenoxyethyl acrylate
Based on available data, the classification criteria are not met.

2,2-bis(acryloyloxymethyl)butyl acrylate; trimethylolpropane triacrylate
Based on available data, the classification criteria are not met.

2,2-dimethoxy-1,2-diphenylethan-1-one
May cause damage to organs through prolonged or repeated exposure.

Aspiration toxicity

2-phenoxyethyl acrylate
No data available.

2,2-bis(acryloyloxymethyl)butyl acrylate; trimethylolpropane triacrylate
Based on available data, the classification criteria are not met.

2,2-dimethoxy-1,2-diphenylethan-1-one
Based on available data, the classification criteria are not met.

CMR Assessment
2-phenoxyethyl acrylate
Carcinogenicity: Based on available data, the classification criteria are not met.
Mutagenicity: Based on available data, the classification criteria are not met.
Teratogenicity: Suspected of damaging the unborn child (Repr. 2).
Reproductive toxicity/Fertility: Based on available data, the classification criteria are not met.

2,2-bis(acryloyloxymethyl)butyl acrylate; trimethylolpropane triacrylate
Carcinogenicity: Suspected of causing cancer (Carc. 2).
Mutagenicity: Based on available data, the classification criteria are not met.
Teratogenicity: Based on available data, the classification criteria are not met.
Reproductive toxicity/Fertility: Based on available data, the classification criteria are not met.

2,2-dimethoxy-1,2-diphenylethan-1-one
Carcinogenicity: No data available.
Mutagenicity: Based on available data, the classification criteria are not met.
Teratogenicity: Based on available data, the classification criteria are not met.
Reproductive toxicity/Fertility: Based on available data, the classification criteria are not met.

Toxicology Assessment
2-phenoxyethyl acrylate
Acute effects: Based on available data, the classification criteria are not met.
Sensitization: May cause an allergic skin reaction.

2,2-bis(acryloyloxymethyl)butyl acrylate; trimethylolpropane triacrylate
Acute effects: Causes skin irritation. Causes serious eye irritation.
Sensitization: May cause an allergic skin reaction.

2,2-dimethoxy-1,2-diphenylethan-1-one
Acute effects: Harmful if swallowed.
Sensitization: Based on available data, the classification criteria are not met.

11.2 Information on other hazards

Endocrine disrupting properties
The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 12: Ecological information

12.1 Toxicity

Acute Fish toxicity
2-phenoxyethyl acrylate
LC50 10 mg/l
Species: Leuciscus idus (Golden orfe)
Exposure duration: 96 h
Method: OECD Test Guideline 203

2,2-bis(acryloyloxymethyl)butyl acrylate; trimethylolpropane triacrylate
LC50 0,87 mg/l
Species: Danio rerio (zebra fish)
Exposure duration: 96 h
Method: OECD Test Guideline 203

2,2-dimethoxy-1,2-diphenylethan-1-one
LC50 29,67 mg/l
Species: Fish
Exposure duration: 96 h
Method: QSAR

Chronic Fish toxicity
2-phenoxyethyl acrylate
No data available.

2,2-bis(acryloyloxymethyl)butyl acrylate; trimethylolpropane triacrylate
No data available.

2,2-dimethoxy-1,2-diphenylethan-1-one
NOEC 3,215 mg/l
Species: Fish
Exposure duration: 30 d
Method: QSAR

Acute toxicity for daphnia
2-phenoxyethyl acrylate
EC50 1,21 mg/l
Species: Daphnia magna (Water flea)
Exposure duration: 48 h
Method: OECD Test Guideline 202

2,2-bis(acryloyloxymethyl)butyl acrylate; trimethylolpropane triacrylate
LC50 19,9 mg/l
Species: Daphnia magna (Water flea)
Exposure duration: 48 h
Method: Regulation (EC) No. 440/2008, Annex, C.2

2,2-dimethoxy-1,2-diphenylethan-1-one
LC50 18,387 mg/l
Species: Daphnia magna (Water flea)
Exposure duration: 48 h
Method: QSAR

Chronic toxicity to daphnia

2-phenoxyethyl acrylate
EC10 0,1 mg/l
Species: Daphnia magna (Water flea)
Exposure duration: 21 d
Method: OECD Test Guideline 211
Studies of a comparable product.

2,2-bis(acryloyloxymethyl)butyl acrylate; trimethylolpropane triacrylate
no data available

2,2-dimethoxy-1,2-diphenylethan-1-one
NOEC 2,288 mg/l
Species: Daphnia magna (Water flea)
Exposure duration: 21 d
Method: QSAR

Acute toxicity for algae
2-phenoxyethyl acrylate
EC50 4,4 mg/l
Species: Desmodesmus subspicatus (Green algae)
Exposure duration: 72 h
Method: ISO 8692

EC10 0,71 mg/l
Species: Desmodesmus subspicatus (Green algae)
Exposure duration: 72 h
Method: ISO 8692

2,2-bis(acryloyloxymethyl)butyl acrylate; trimethylolpropane triacrylate
ErC50 4,86 mg/l
Species: scenedesmus subspicatus
Exposure duration: 72 h
Method: OECD Test Guideline 201

EC50 18,8 mg/l
Species: Desmodesmus subspicatus (Green algae)
Exposure duration: 72 h
Method: Regulation (EC) No. 440/2008, Annex, C.3

EC10 1,9 mg/l
Species: Desmodesmus subspicatus (Green algae)
Exposure duration: 72 h
Method: Regulation (EC) No. 440/2008, Annex, C.3

2,2-dimethoxy-1,2-diphenylethan-1-one
EC50 19,666 mg/l
Species: algae
Exposure duration: 96 h
Method: QSAR

NOEC 6,258 mg/l
Species: algae
Exposure duration: 96 h
Method: QSAR

Acute bacterial toxicity
2-phenoxyethyl acrylate
EC50 177 mg/l
Species: activated sludge
Method: OECD Test Guideline 209

2,2-bis(acryloyloxymethyl)butyl acrylate; trimethylolpropane triacrylate
EC20 625 mg/l
Species: activated sludge
Exposure duration: 0,5 h
Method: ISO 8192

2,2-dimethoxy-1,2-diphenylethan-1-one
IC50 194 mg/l
Species: Tetrahymena pyriformis
Exposure duration: 48 h
Studies of a comparable product.

Ecotoxicology Assessment
2-phenoxyethyl acrylate
Acute aquatic toxicity: Based on available data, the classification criteria are not met.
Chronic aquatic toxicity: Toxic to aquatic life with long lasting effects.

2,2-bis(acryloyloxymethyl)butyl acrylate; trimethylolpropane triacrylate
Acute aquatic toxicity: Very toxic to aquatic life.
Chronic aquatic toxicity: Very toxic to aquatic life with long lasting effects.

2,2-dimethoxy-1,2-diphenylethan-1-one
Acute aquatic toxicity: Based on available data, the classification criteria are not met.
Chronic aquatic toxicity: Harmful to aquatic life with long lasting effects.

M-Factor
2,2-bis(acryloyloxymethyl)butyl acrylate; trimethylolpropane triacrylate
M-factor (acute aquat. tox.): 1
M-factor (chron. aquat. tox.): 1

12.2 Persistence and degradability

Biodegradability
2-phenoxyethyl acrylate
Test type: aerobic
Inoculum: Sewage sludge
Biodegradation: 22 %, 28 d, i.e. readily biodegradable
Method: OECD Test Guideline 301 D

2,2-bis(acryloyloxymethyl)butyl acrylate; trimethylolpropane triacrylate
Test type: aerobic
Inoculum: activated sludge
Biodegradation: 82 - 90 %, 28 d, i.e. readily biodegradable
Method: OECD Test Guideline 301 B

2,2-dimethoxy-1,2-diphenylethan-1-one
Biodegradation: 50 %, 900 h, i.e. inherently degradable
Method: QSAR

12.3 Bioaccumulative potential

Bioaccumulation
2-phenoxyethyl acrylate
Due to the distribution coefficient n-octanol/water, accumulation in organisms is not expected.

2,2-bis(acryloyloxymethyl)butyl acrylate; trimethylolpropane triacrylate
Bioconcentration factor (BCF): 123
Method: (calculated)
Accumulation in aquatic organisms is unlikely.

2,2-dimethoxy-1,2-diphenylethan-1-one
Bioconcentration factor (BCF): 10,63
Method: QSAR
Accumulation in aquatic organisms is unlikely.

Partition coefficient (n-octanol/water)
2-phenoxyethyl acrylate

log Pow: 2,58
2,2-dimethoxy-1,2-diphenylethan-1-one

log Pow: 3,42

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Endocrine disrupting properties

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects

No data available.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. Reference number 2008/98/EC

Dispose in accordance with applicable international, national and local laws, ordinances and statutes. For disposal within the EC, the appropriate code according to the European Waste Catalogue (EWC) should be used. The classification of the product may meet the criteria for a hazardous waste. Offer surplus and non-recyclable solutions to a licensed disposal company. Do not dispose of waste into sewer.

13.1 Waste treatment methods

After containers have been emptied as thoroughly as possible (e.g. by pouring, scraping or draining until "drip-dry"), they can be sent to an appropriate collection point set up within the framework of the existing take-back scheme of the chemical industry. Empty containers retain residue and can be dangerous. Containers must be recycled in compliance with national legislation and environmental regulations. Dispose of empty containers and wastes safely. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Where possible recycling is preferred to disposal or incineration.

No disposal into waste water.

SECTION 14: Transport information

ADR/RID

14.1 UN number or ID number	:	UN 3082
14.2 UN proper shipping name	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-Phenoxyethyl acrylate, Trimethylolpropane triacrylate)
14.3 Transport hazard class(es)	:	9
Hazard Identification Number	:	90
14.4 Packing group	:	III
14.5 Environmental hazards	:	yes

Limited quantity regulations applicable in accordance with chapter 3.4 ADR/RID in compliance with threshold value

ADN

14.1 UN number or ID number	:	UN 3082
14.2 UN proper shipping name	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-Phenoxyethyl acrylate, Trimethylolpropane triacrylate)
14.3 Transport hazard class(es)	:	9
Hazard Identification Number	:	90
14.4 Packing group	:	III
14.5 Environmental hazards	:	yes

This classification data does not apply to transportation by tanker. If required, additional information can be requested from the manufacturer.

IATA

14.1 UN number or ID number	:	UN 3082
14.2 UN proper shipping name	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-Phenoxyethyl acrylate, Trimethylolpropane triacrylate)

14.3 Transport hazard class(es)	:	9
14.4 Packing group	:	III
14.5 Environmental hazards	:	yes

IMDG

14.1 UN number or ID number	:	UN 3082
14.2 UN proper shipping name	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-Phenoxyethyl acrylate, Trimethylolpropane triacrylate)
14.3 Transport hazard class(es)	:	9
14.4 Packing group	:	III
14.5 Environmental hazards	:	Marine pollutant
EmS Code	:	F-A - S-F
Segregation Group IMDG	:	not applicable

14.6 Special precautions for user

See section 6 - 8.

Additional information	:	Environmentally hazardous substance. Keep separated from foodstuffs.

14.7 Maritime transport in bulk according to IMO instruments

Product is not transported by us in bulk.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances.
E2 Environmental hazards
Quantity1: 200 t Quantity2: 500 t

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII)
Conditions of restriction for the following entries should be considered: 3

TA Luft List (Germany)
Type: 5.2.1 Total dust
Fraction of other substances: 3,01 %

Type: 5.2.5 Organic Substances
Fraction of other substances: 0,2 %

portion Class 1: 36,4 %

Water contaminating class (Germany)
1 slightly hazardous to water

Other regulations
Take note of Law on the protection of mothers at work, in education and in studies (Maternity Protection Act - MuSchG).
Take note of Directive 94/33/EC on the protection of young people at work or stricter national regulations, where applicable.

15.2 Chemical Safety Assessment

A Chemical Safety Assessment has been carried out for:
2,2-bis(acryloyloxymethyl)butyl acrylate; trimethylolpropane triacrylate

SECTION 16: Other information

Full text of the hazard statements of the CLP classification (1272/2008/CE) referred to under sections 2, 3 and 10.

H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H351	Suspected of causing cancer.
H361d	Suspected of damaging the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Abbreviations and acronyms

ADN	Accord européen relatif au transport international des marchandises Dangereuses par voie de Navigation intérieure
ADR	Accord européen relatif au transport international des marchandises Dangereuses par Route
ANSI	American National Standards Institute
ASTM	American Society of Testing and Materials (US)
ATE	Acute Toxic Estimate
AwSv	Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen
BCF	Bioconcentration Factor
CAS	Chemical Abstract Service
CLP	Regulation on Classification, Labelling and Packaging of Substances and Mixtures
CMR	Cancerogenic Mutagenic Reprotoxic
DIN	Deutsches Institut für Normung
DNEL	Derived No-Effect Level
EC…	Effect Concentration ... %
EWC	European Waste Catalogue
IATA	International Air Transport Association
IBC	Intermediate Bulk Container
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
ISO	International Organization for Standardization
IUPAC	International Union of Pure and Applied Chemistry
LOAEL	Lowest Observable Adverse Effect Level
LC…	Lethal Concentration, ...%
LD…	Lethal Dose, ...%
MARPOL	International Convention for the Prevention of Pollution From Ships
NOAEL	No Observed Adverse Effect Level
NOEL/NOEC	No Observed Effect Level/Concentration
OECD	Organisation for Economic Co-operation and Development
PBT	persistent, bioaccumulative, toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Règlement concernant le transport International ferroviaire de marchandises Dangereuses
STOT	Specific Target Organ Toxicity
TRGS	Technische Regeln für Gefahrstoffe
vPvB	very Persistent, very Bioaccumulative
WGK	Wassergefährdungsklasse

Relevant changes since the last version are highlighted in the margin. This version replaces all previous versions.

Further information

Classification of the mixture:	Classification procedure:
Skin Sens. 1 H317	Calculation method
Carc. 2 H351	Calculation method
Repr. 2 H361d	Calculation method
Aquatic Chronic 2 H411	Calculation method

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality

specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.