

SAFETY DATA SHEET (SDS)



Manufacturer:
ÅngströmBond®

Product Name:
DeSolite® DP-1032 Primary Optical Fiber Coating, UV Cure (1 kg)

Manufacturer Part Number:
COV-DP-1032-1KG

▶ Click here for more details on the DeSolite® DP-1032 Primary Optical Fiber Coating, UV Cure (1 kg)

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



DeSolite DP-1032

Version 2.0

Revision Date 29.01.2025

Print Date 30.01.2025

This document is formatted for A4 paper size

Data is subject to change without notice.

Contact the professionals at Fiber Optic Center for a quote or to get more details.

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DeSolute DP-1032

Version 2.0

Revision Date 29.01.2025

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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

DESOLITE DP-1032

Material number: 50025197

1.2 Relevant identified uses of the substance or mixture and uses advised against

Use:

UV-curable coatings, inks and matrix materials.

1.3 Details of the supplier of the safety data sheet

Covestro Deutschland AG
COV Global Product Safety
51365 Leverkusen

Tel.: +49 214 6009 8134
Email: ProductSafetyEMLA@covestro.com

1.4 Emergency telephone number

+1-703-527-3887 (Chemtrec)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Skin irritation, Category 2 (H315)
Eye irritation, Category 2 (H319)
Sensitization of the skin, Category 1 (H317)
Reproductive toxicity, Category 2 (H361fd)
|| Chronically hazardous to the aquatic environment, Category 2 (H411)

2.2 Label elements



Hazardous components which must be listed on the label

Ethoxylated nonyl phenol acrylate
2-phenoxyethyl acrylate
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide
3-Trimethoxysilylpropane-1-thiol
2-Ethyl-2-[(3-mercapto-1-oxopropoxy)methyl]propane-1,3-diyl bis[3-mercaptopropionate]
(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate

Hazard statements:

H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements:

P201 Obtain special instructions before use.

P261 Avoid breathing mist or vapours.

P264 Wash skin thoroughly after handling.

P273 Avoid release to the environment.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.

P391 Collect spillage.

2.3 Other hazards

The following percentage of the mixture consists of ingredient(s) with unknown acute dermal toxicity: 25 %

The following percentage of the mixture consists of ingredient(s) with unknown acute inhalation toxicity: 25 %

The following percentage of the mixture consists of ingredient(s) with unknown hazards to the aquatic environment: 25 %

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.

This substance/mixture contains components considered to have endocrine disrupting properties for environment, according to REACH Article 57(f), Commission Regulation (EU) 2018/605 or Commission Delegated Regulation (EU) 2017/2100.

SECTION 3: Composition/information on ingredients**Type of product:** Mixture**3.2 Mixtures**

optical fiber coatings

Hazardous components

Ethoxylated nonyl phenol acrylate

Concentration [wt.-%]: **>= 20 - < 25**

EC-No.: 614-163-6

CAS-No.: 678991-31-6

Classification (1272/2008/CE): Skin Irrit. 2 H315 Eye Irrit. 2 H319 Skin Sens. 1 H317 Aquatic Chronic 3 H412

2-phenoxyethyl acrylate

Concentration [wt.-%]: **>= 5 - < 10**

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

diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide

Concentration [wt.-%]: **>= 3 - < 5**

EC-No.: 278-355-8

CAS-No.: 75980-60-8

Classification (1272/2008/CE): Skin Sens. 1B H317 Repr. 2 H361f Aquatic Chronic 2 H411

3-Trimethoxysilylpropane-1-thiol

Concentration [wt.-%]: **>= 1 - < 2,5**

EC-No.: 224-588-5

CAS-No.: 4420-74-0

Classification (1272/2008/CE): Acute Tox. 4 Oral H302 Skin Sens. 1B H317 Aquatic Chronic 2 H411

ATE (oral): 741 mg/kg

2-Ethyl-2-[(3-mercapto-1-oxopropoxy)methyl]propane-1,3-diyl bis[3-mercaptopropionate]

Concentration [wt.-%]: **>= 0,3 - < 1**

EC-No.: 251-336-1

CAS-No.: 33007-83-9

Classification (1272/2008/CE): Acute Tox. 4 Oral H302 Skin Sens. 1A H317 Aquatic Acute 1 H400 Aquatic Chronic 1 H410

M-factor (acute aquat. tox.): 1
M-factor (chron. aquat. tox.): 1
ATE (oral): 500 mg/kg

Isononylphenol, ethoxylated

|| Concentration [wt.-%]: $\geq 0,3$ - < 1

EC-No.: 500-209-1

CAS-No.: 68412-54-4

Classification (1272/2008/CE): Aquatic Acute 1 H400 Aquatic Chronic 1 H410

M-factor (acute aquat. tox.): 1

M-factor (chron. aquat. tox.): 10

(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate

|| Concentration [wt.-%]: $\geq 0,3$ - < 1

Index-No.: 607-249-00-X

EC-No.: 256-032-2

REACH Registration Number: 01-2119484613-34-0018, 01-2119484613-34-0008

CAS-No.: 42978-66-5

Classification (1272/2008/CE): Skin Irrit. 2 H315 Eye Irrit. 2 H319 Skin Sens. 1 H317 STOT SE 3 H335
(Respiratory system) Aquatic Chronic 2 H411

Specific threshold concentration (GHS):

STOT SE 3 H335 $\geq 10 \%$

Candidate List of Substances of Very High Concern for Authorisation

This product contains substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 59).

diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide

CAS-No.: 75980-60-8

Isononylphenol, ethoxylated

CAS-No.: 68412-54-4

EU REACH Annex XIV, Authorisation list

This product contains an ingredient subject to Annex XIV of the REACH Regulation 1907/2006/EC.

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. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

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. Wear a positive-pressure supplied-air respirator with full facepiece. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

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. Avoid contact during pregnancy and while nursing.

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.

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

Respirator with a gas filter

Hand protection

Protective gloves complying with EN 374.

Nitrile rubber: thickness $\geq 0,12\text{mm}$; Break through time: $< 60\text{ min}$

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 Face-shield

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:	viscous
Colour:	colourless to yellowish
Odour:	characteristic
Odour Threshold:	not established
pH:	not applicable
Melting point/freezing point:	not established
Boiling point/boiling range:	not established
Flash point:	$> 100\text{ °C}$, 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:	$0,9\text{ g/cm}^3$ 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, kinematic:	not established

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

Toxicological studies on the product are not yet available.

Please find below the toxicological data available to us for the components (hazardous components).

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

Ethoxylated nonyl phenol acrylate

LD50 rat: > 5.000 mg/kg

2-phenoxyethyl acrylate

LD50 rat, male/female: > 5.000 mg/kg

Method: OECD Test Guideline 401

diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide

LD50 rat, male/female: > 5.000 mg/kg

Method: OECD Test Guideline 401

3-Trimethoxysilylpropane-1-thiol

LD50 rat, male: 893 mg/kg

Method: OECD Test Guideline 401

LD50 rat, female: 741 mg/kg
Method: OECD Test Guideline 401

2-Ethyl-2-[(3-mercapto-1-oxopropoxy)methyl]propane-1,3-diyl bis[3-mercaptopropionate]
LD50 rat, female: 500 mg/kg
Method: OECD Test Guideline 423
Studies of a comparable product.

LD50 rat, female: > 1.000 - < 2.000 mg/kg
Method: OECD Test Guideline 423
Studies of a comparable product.

LD50 rat, female: > 815 - < 1.630 mg/kg
Method: OECD Test Guideline 423
Studies of a comparable product.

Isononylphenol, ethoxylated
LD50 rat: 8.400 mg/kg
Studies of a comparable product.

(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate
LD50 rat, female: > 2.000 mg/kg
Method: OECD Test Guideline 423

Acute toxicity, dermal

Ethoxylated nonyl phenol acrylate
Assessment: No data available, supplier information

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

diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide
LD50 rat, male/female: > 2.000 mg/kg
Method: OECD Test Guideline 402

3-Trimethoxysilylpropane-1-thiol
LD50 rabbit, male/female: > 2.000 mg/kg
Method: OECD Test Guideline 402

2-Ethyl-2-[(3-mercapto-1-oxopropoxy)methyl]propane-1,3-diyl bis[3-mercaptopropionate]
Assessment: no data available
Study not required according to Regulation (EC) No. 1907/2006 (REACH).

Isononylphenol, ethoxylated
LD50 rabbit: > 3.000 mg/kg
Studies of a comparable product.

(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate
LD50 rabbit, male/female: > 2.000 mg/kg
Method: OECD Test Guideline 402

Acute toxicity, inhalation

Ethoxylated nonyl phenol acrylate
Assessment: No data available, supplier information

2-phenoxyethyl acrylate
Assessment: Study scientifically not justified.

diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide
No data available.

3-Trimethoxysilylpropane-1-thiol

rat, male/female:

Test atmosphere: vapour

Assessment: The substance or mixture has no acute inhalation toxicity

Method: OECD Test Guideline 403

An LC50/inhalation/4h/rat could not be determined because no mortality of rats was observed at the maximum achievable concentration.

2-Ethyl-2-[(3-mercapto-1-oxopropoxy)methyl]propane-1,3-diyl bis[3-mercaptopropionate]

LC50 rat, male/female: > 3.363 mg/m3, 4 h

Test atmosphere: vapour

Assessment: The substance or mixture has no acute inhalation toxicity

Method: OECD Test Guideline 403

Studies of a comparable product.

LC50 rat, male/female: > 2.700 mg/m3, 4 h

Assessment: The substance or mixture has no acute inhalation toxicity

Method: OECD Test Guideline 403

Studies of a comparable product.

Isononylphenol, ethoxylated

Assessment: no data available

Studies of a comparable product.

(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate

Inhalation risk test (IRT): No mortality after 8 h exposure in studies with rats.

Primary skin irritation

Ethoxylated nonyl phenol acrylate

Species: rabbit

Result: irritating

Classification: Causes skin irritation.

2-phenoxyethyl acrylate

Species: rabbit

Result: slight irritant

Classification: No skin irritation

diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide

Species: rabbit

Result: slight irritant

Classification: No skin irritation

3-Trimethoxysilylpropane-1-thiol

Species: rabbit

Result: non-irritant

Classification: No skin irritation

Method: OECD Test Guideline 404

2-Ethyl-2-[(3-mercapto-1-oxopropoxy)methyl]propane-1,3-diyl bis[3-mercaptopropionate]

Species: rabbit

Result: slight irritant

Classification: No skin irritation

Method: OECD Test Guideline 404

Studies of a comparable product.

Isononylphenol, ethoxylated

Species: rabbit

Result: irritating

Classification: Causes skin irritation.

Method: OECD Test Guideline 404

Studies of a comparable product.

(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate

Species: rabbit

Result: irritating

Classification: Causes skin irritation.

Primary mucosae irritation

Ethoxylated nonyl phenol acrylate

Result: irritating

Classification: Causes serious eye irritation.

2-phenoxyethyl acrylate

Species: rabbit

Result: slight irritant

Classification: No eye irritation

diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide

Species: rabbit

Result: slight irritant

Classification: No eye irritation

3-Trimethoxysilylpropane-1-thiol

Species: rabbit

Result: slight irritant

Classification: No eye irritation

Method: OECD Test Guideline 405

2-Ethyl-2-[(3-mercapto-1-oxopropoxy)methyl]propane-1,3-diyl bis[3-mercaptopropionate]

Species: rabbit

Result: slight irritant

Classification: No eye irritation

Method: OECD Test Guideline 405

Studies of a comparable product.

Isononylphenol, ethoxylated

Species: rabbit

Result: irritating

Classification: Causes serious eye irritation.

Method: OECD Test Guideline 405

Studies of a comparable product.

(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate

Species: rabbit

Result: irritating

Classification: Causes serious eye irritation.

Sensitisation

Ethoxylated nonyl phenol acrylate

Skin sensitisation:

Species: Guinea pig

Result: negative

Classification: May cause sensitization by skin contact.

Respiratory sensitization

No data available.

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.

diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide

Skin sensitization (local lymph node assay (LLNA)):

Species: Mouse

Result: positive

Classification: May cause sensitization by skin contact (Sub cat. 1B)

Method: OECD Test Guideline 429

Respiratory sensitization

No data available.

3-Trimethoxysilylpropane-1-thiol

Skin sensitisation according to Buehler (epicutaneous test):

Species: Guinea pig

Result: positive

Classification: May cause sensitization by skin contact (Sub cat. 1B)

Method: OECD Test Guideline 406

Respiratory sensitization

No data available.

2-Ethyl-2-[(3-mercapto-1-oxopropoxy)methyl]propane-1,3-diyl bis[3-mercaptopropionate]

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.

Isononylphenol, ethoxylated

Skin sensitisation according to Magnusson/Kligmann (maximizing test):

Species: Guinea pig

Result: negative

Classification: Does not cause skin sensitization.

Method: OECD Test Guideline 406

Studies of a comparable product.

Respiratory sensitization

No data available.

(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate

Skin sensitization (local lymph node assay (LLNA)):

Species: Mouse

Result: positive

Classification: May cause sensitization by skin contact.

Method: OECD Test Guideline 429

Skin sensitization (local lymph node assay (LLNA)):

Species: Mouse

Result: positive

Method: OECD Test Guideline 429

Respiratory sensitization

no data available

Subacute, subchronic and prolonged toxicity

Ethoxylated nonyl phenol acrylate

NOAEL: 40 mg/kg

Species: rat, male/female

Exposure duration: 90 d

NOAEL: 200 mg/kg

Species: rat, male/female

Exposure duration: 2 Years

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

diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide
NOAEL: 100 mg/kg bw/day
LOAEL (Lowest observable adverse effect level): 300 mg/kg bw/day
Application Route: Oral
Species: rat, male/female
Dose Levels: 0 - 100 - 300 - 1000 mg/kg bw/day
Method: OECD Test Guideline 408

NOAEL: 50 mg/kg bw/day
LOAEL (Lowest observable adverse effect level): 250 mg/kg bw/day
Application Route: Oral
Species: rat, male/female
Dose Levels: 0 - 50 - 250 - 750 mg/kg bw/day

3-Trimethoxysilylpropane-1-thiol
No data available.

2-Ethyl-2-[(3-mercapto-1-oxopropoxy)methyl]propane-1,3-diyl bis[3-mercaptopropionate]
NOAEL: 50 mg/kg bw/day
Application Route: Oral
Species: rat, male/female
Dose Levels: 0 - 12.5 - 50 - 200 mg/kg bw/day
Frequency of treatment: daily
Method: OECD Test Guideline 408
Studies of a comparable product.

NOAEL: 40 mg/kg bw/day
Application Route: Oral
Species: rat, male/female
Method: OECD Test Guideline 407
Studies of a comparable product.

Isononylphenol, ethoxylated
NOAEL: 50 mg/kg
LOAEL (Lowest observable adverse effect level): 150 mg/kg
Application Route: Oral
Species: rat, male/female
Dose Levels: 0 - 15 - 50 - 150 mg/kg/day
Exposure duration: 90 d
Frequency of treatment: daily
Studies of a comparable product.

NOAEL: 100 mg/kg
LOAEL (Lowest observable adverse effect level): 400 mg/kg
Application Route: Oral
Species: rat, male/female
Dose Levels: 25 - 100 - 400
Exposure duration: 28 d
Frequency of treatment: daily
Method: OECD Test Guideline 407
Studies of a comparable product.

(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate
NOAEL: 375 mg/kg bw/day
Application Route: Oral
Species: rat, male/female
Dose Levels: 0 - 40 - 125 - 375 mg/kg bw/day
Frequency of treatment: daily
Method: OECD Test Guideline 422

NOAEL: 66,7 mg/kg bw/day
Application Route: Dermal
Species: rat, male/female
Dose Levels: 0 - 20 - 66,7 - 200 mg/kg bw/day

Frequency of treatment: 5 days/week

Method: OECD Test Guideline 424

Carcinogenicity

Ethoxylated nonyl phenol acrylate

No data available, supplier information

2-phenoxyethyl acrylate

No data available.

diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide

no data available

3-Trimethoxysilylpropane-1-thiol

No data available.

2-Ethyl-2-[(3-mercapto-1-oxopropoxy)methyl]propane-1,3-diyl bis[3-mercaptopropionate]

No data available.

Isononylphenol, ethoxylated

No data available.

(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate

NOAEL (Toxicity): > 25 mg/kg bw/day

Species: Mouse, male

Application Route: Dermal

Dose Levels: 0 - 25 mg/kg bw/day

Frequency of treatment: 2 times/week

Reproductive toxicity/Fertility

Ethoxylated nonyl phenol acrylate

No data available, supplier information

2-phenoxyethyl acrylate

NOAEL (parents, generally 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

diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide

NOAEL (parents, generally toxicity): 200 mg/kg bw/day

NOAEL (parents, fertility): 60 mg/kg bw/day

NOAEL (offspring): 200 mg/kg bw/day

Test type: One-generation study

Species: rat, male/female

Application Route: Oral

Dose Levels: 0 - 60 - 200 - 600 mg/kg bw/day

Frequency of treatment: daily

Method: OECD Test Guideline 421

3-Trimethoxysilylpropane-1-thiol

No data available.

2-Ethyl-2-[(3-mercapto-1-oxopropoxy)methyl]propane-1,3-diyl bis[3-mercaptopropionate]

No data available.

Isononylphenol, ethoxylated

No data available.

(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate

NOAEL (parents, generally toxicity): 375 mg/kg bw/day

NOAEL (offspring): 375 mg/kg bw/day

Species: rat, male/female

Application Route: Oral

Dose Levels: 0 - 40 - 125 - 375 mg/kg bw/day
Frequency of treatment: daily
Method: OECD Test Guideline 422

NOAEL (parents, generally toxicity): 100 mg/kg bw/day
NOAEL (parents, fertility): 100 mg/kg bw/day
NOAEL (offspring): 100 mg/kg bw/day
Species: rat, male/female
Application Route: Oral
Dose Levels: 0 - 10 - 30 - 100 mg/kg bw/day
Frequency of treatment: daily
Method: OECD Test Guideline 443

Reproductive toxicity/Developmental Toxicity/Teratogenicity

Ethoxylated nonyl phenol acrylate
No data available, supplier information

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

diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide
NOAEL (teratogenicity): 150 mg/kg bw/day
NOAEL (maternal): 150 mg/kg bw/day
LOAEL (teratogenicity): 500 mg/kg bw/day
LOAEL (maternal): 500 mg/kg bw/day
Test type: Pre-/postnatal development
Species: rat, female
Application Route: Oral
Dose Levels: 0 - 50 - 150 - 500 mg/kg bw/day
Method: OECD Test Guideline 414

NOAEL (teratogenicity): >100 mg/kg bw/day
NOAEL (maternal): >100 mg/kg bw/day
LOAEL (developmental toxicity): 100 mg/kg bw/day
Test type: Pre-/postnatal development
Species: rabbit, female
Application Route: Oral
Dose Levels: 0 - 10 - 30 - 100 mg/kg bw/day
Method: OECD Test Guideline 414

3-Trimethoxysilylpropane-1-thiol
No data available.

2-Ethyl-2-[(3-mercapto-1-oxopropoxy)methyl]propane-1,3-diyl bis[3-mercaptopropionate]
No data available.

Isononylphenol, ethoxylated
No data available.

(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate
NOAEL (maternal): > 375 mg/kg bw/day
NOAEL (developmental toxicity): > 375 mg/kg bw/day
Test type: Combined Repeated Dose Toxicity Study with the Reproduction/Developmental Toxicity Screening Test
Species: rat, female
Application Route: Oral
Dose Levels: 0 - 40 - 125 - 375 mg/kg bw/day
Frequency of treatment: daily
Method: OECD Test Guideline 422

NOAEL (maternal): 450 mg/kg bw/day

NOAEL (developmental toxicity): 450 mg/kg bw/day
Test type: Pre-/postnatal development
Species: rabbit, female
Application Route: Oral
Dose Levels: 0 - 50 - 150 - 450 mg/kg bw/day
Frequency of treatment: daily
Method: OECD Test Guideline 414

NOAEL (teratogenicity): 250 mg/kg bw/day
NOAEL (maternal): 250 mg/kg bw/day
NOAEL (developmental toxicity): 250 mg/kg bw/day
Test type: Pre-/postnatal development
Species: rat, female
Application Route: Oral
Dose Levels: 0 - 250 mg/kg bw/day
Frequency of treatment: daily
Method: OECD Test Guideline 414

Genotoxicity in vitro

Ethoxylated nonyl phenol acrylate
No data available, supplier information

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

diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide
Test type: Ames test
Test system: Salmonella typhimurium
Metabolic activation: with/without
Result: negative
Method: OECD Test Guideline 471

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

Test type: Chromosome aberration test in vitro
Test system: Chinese hamster lung cells
Metabolic activation: with/without
Result: negative
Method: OECD Test Guideline 473

Test type: Chromosome aberration test in vitro
 Test system: Chinese hamster V79 cell line
 Metabolic activation: with/without
 Result: negative
 Method: OECD Test Guideline 476

3-Trimethoxysilylpropane-1-thiol
 Test type: Ames test
 Test system: Salmonella typhimurium
 Metabolic activation: with/without
 Result: negative
 Method: OECD Test Guideline 471

Test type: Ames test
 Test system: Escherichia coli
 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 490

Test type: Chromosome aberration test in vitro
 Test system: Chinese hamster V79 cell line
 Metabolic activation: with/without
 Result: negative
 Method: OECD Test Guideline 473

2-Ethyl-2-[(3-mercapto-1-oxopropoxy)methyl]propane-1,3-diyl bis[3-mercaptopropionate]
 Test type: Ames test
 Test system: Salmonella typhimurium
 Metabolic activation: with/without
 Result: negative
 Method: OECD Test Guideline 471
 Studies of a comparable product.

Test type: Ames test
 Test system: Escherichia coli
 Metabolic activation: with/without
 Result: negative
 Method: OECD Test Guideline 471
 Studies of a comparable product.

Test type: Chromosome aberration test in vitro
 Test system: Chinese hamster lung cells
 Metabolic activation: with/without
 Result: negative
 Method: OECD Test Guideline 473
 Studies of a comparable product.

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
 Studies of a comparable product.

Isononylphenol, ethoxylated
 Test type: Ames test
 Metabolic activation: with/without
 Result: negative
 Method: OECD Test Guideline 471
 Studies of a comparable product.

Test type: Chromosome aberration test in vitro
Metabolic activation: with/without
Result: negative
Method: OECD Test Guideline 473
Studies of a comparable product.

Test type: In vitro mammalian cell gene mutation test
Metabolic activation: with/without
Result: negative
Method: OECD Test Guideline 476
Studies of a comparable product.

(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate
Test type: In vitro mammalian cell gene mutation test
Test system: Chinese hamster ovary (CHO) cells
Metabolic activation: with/without
Result: negative
Method: OECD Test Guideline 476

Test type: In vitro mammalian cell gene mutation test
Test system: Mouse lymphoma cells
Metabolic activation: with/without
Result: positive

Genotoxicity in vivo

Ethoxylated nonyl phenol acrylate
No data available, supplier information

2-phenoxyethyl acrylate
no data available

diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide
No data available.

3-Trimethoxysilylpropane-1-thiol
No data available.

2-Ethyl-2-[(3-mercapto-1-oxopropoxy)methyl]propane-1,3-diyl bis[3-mercaptopropionate]
No data available.

Isononylphenol, ethoxylated
No data available.

(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate
Test type: In vivo micronucleus test
Species: Mouse, male/female
Application Route: intraperitoneal
Result: negative
Method: OECD Test Guideline 474

Test type: In vivo micronucleus test
Species: Mouse, female
Application Route: intraperitoneal
Result: negative

STOT evaluation – one-time exposure

Ethoxylated nonyl phenol acrylate
No data available.

2-phenoxyethyl acrylate
Based on available data, the classification criteria are not met.

diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide
No data available.

3-Trimethoxysilylpropane-1-thiol
Based on available data, the classification criteria are not met.

2-Ethyl-2-[(3-mercapto-1-oxopropoxy)methyl]propane-1,3-diyl bis[3-mercaptopropionate]
Based on available data, the classification criteria are not met.

Isononylphenol, ethoxylated
Based on available data, the classification criteria are not met.

(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate
Target Organs: Respiratory tract
May cause respiratory irritation.

STOT evaluation – repeated exposure

Ethoxylated nonyl phenol acrylate
No data available.

2-phenoxyethyl acrylate
Based on available data, the classification criteria are not met.

diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide
No data available.

3-Trimethoxysilylpropane-1-thiol
No data available.

2-Ethyl-2-[(3-mercapto-1-oxopropoxy)methyl]propane-1,3-diyl bis[3-mercaptopropionate]
Based on available data, the classification criteria are not met.

Isononylphenol, ethoxylated
Based on available data, the classification criteria are not met.

(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate
Based on available data, the classification criteria are not met.

Aspiration toxicity

Ethoxylated nonyl phenol acrylate
No data available.

2-phenoxyethyl acrylate
No data available.

diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide
No data available.

3-Trimethoxysilylpropane-1-thiol
Based on available data, the classification criteria are not met.

2-Ethyl-2-[(3-mercapto-1-oxopropoxy)methyl]propane-1,3-diyl bis[3-mercaptopropionate]
Based on available data, the classification criteria are not met.

Isononylphenol, ethoxylated
Based on available data, the classification criteria are not met.

(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate
Based on available data, the classification criteria are not met.

CMR Assessment

Ethoxylated nonyl phenol acrylate
Carcinogenicity: No data available.
Mutagenicity: No data available.
Teratogenicity: No data available.
Reproductive toxicity/Fertility: No data available.

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.

diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide

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: Suspected of damaging fertility (Repr. 2).

3-Trimethoxysilylpropane-1-thiol

Carcinogenicity: No data available.

Mutagenicity: Based on available data, the classification criteria are not met.

Teratogenicity: No data available.

Reproductive toxicity/Fertility: No data available.

2-Ethyl-2-[(3-mercapto-1-oxopropoxy)methyl]propane-1,3-diyl bis[3-mercaptopropionate]

Carcinogenicity: No data available.

Mutagenicity: Based on available data, the classification criteria are not met.

Teratogenicity: No data available.

Reproductive toxicity/Fertility: No data available.

Isononylphenol, ethoxylated

Carcinogenicity: No data available.

Mutagenicity: Based on available data, the classification criteria are not met.

Teratogenicity: No data available.

Reproductive toxicity/Fertility: No data available.

(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate

Carcinogenicity: Based on available data, the classification criteria are not met.

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

Ethoxylated nonyl phenol acrylate

Acute effects: Causes skin irritation. Causes serious eye irritation.

Sensitization: May cause an allergic skin reaction.

2-phenoxyethyl acrylate

Acute effects: Based on available data, the classification criteria are not met.

Sensitization: May cause an allergic skin reaction.

diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide

Acute effects: Based on available data, the classification criteria are not met.

Sensitization: May cause an allergic skin reaction.

3-Trimethoxysilylpropane-1-thiol

Acute effects: Harmful if swallowed.

Sensitization: May cause an allergic skin reaction.

2-Ethyl-2-[(3-mercapto-1-oxopropoxy)methyl]propane-1,3-diyl bis[3-mercaptopropionate]

Acute effects: Harmful if swallowed.

Sensitization: May cause an allergic skin reaction.

Isononylphenol, ethoxylated

Acute effects: Based on available data, the classification criteria are not met.

Sensitization: Based on available data, the classification criteria are not met.

(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate

Acute effects: Causes skin irritation. Causes serious eye irritation.

Sensitization: May cause an allergic skin reaction.

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

Ecotoxicological studies of the product are not available.

Do not allow to escape into waterways, wastewater or soil.

Please find below the ecotoxicological data available to us for the components.

12.1 Toxicity

Acute Fish toxicity

Ethoxylated nonyl phenol acrylate

No data available, supplier information

2-phenoxyethyl acrylate

LC50 10 mg/l

Species: *Leuciscus idus* (Golden orfe)

Exposure duration: 96 h

Method: OECD Test Guideline 203

diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide

LC50 1,4 mg/l

Species: *Cyprinus carpio* (Carp)

Exposure duration: 96 h

Method: OECD Test Guideline 203

3-Trimethoxysilylpropane-1-thiol

LC50 439 mg/l

Species: *Danio rerio* (zebra fish)

Exposure duration: 96 h

Method: Regulation (EC) No. 440/2008, Annex, C.1

2-Ethyl-2-[(3-mercapto-1-oxopropoxy)methyl]propane-1,3-diyl bis[3-mercaptopropionate]

LC50 0,624 mg/l

Species: *Oncorhynchus mykiss* (rainbow trout)

Exposure duration: 96 h

Method: OECD Test Guideline 203

Isononylphenol, ethoxylated

LC50 0,323 mg/l

Species: *Pimephales promelas* (fathead minnow)

Exposure duration: 96 h

Studies of a comparable product.

(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate

LC50 1 - 10 mg/l

Species: *Leuciscus idus* (Golden orfe)

Exposure duration: 96 h

Method: DIN 38412

Chronic Fish toxicity

Ethoxylated nonyl phenol acrylate

No data available, supplier information

2-phenoxyethyl acrylate

No data available.

diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide

No data available.

3-Trimethoxysilylpropane-1-thiol

No data available.

2-Ethyl-2-[(3-mercapto-1-oxopropoxy)methyl]propane-1,3-diyl bis[3-mercaptopropionate]

No data available.

Isononylphenol, ethoxylated
NOEC (Growth inhibition) 6 µg/l
Species: Fish
Exposure duration: 91 d
Studies of a comparable product.

(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate
No data available.

Acute toxicity for daphnia

Ethoxylated nonyl phenol acrylate
No data available, supplier information

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

diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide
EC50 3,53 mg/l
Species: Daphnia magna (Water flea)
Exposure duration: 48 h
Method: OECD Test Guideline 202

3-Trimethoxysilylpropane-1-thiol
EC50 6,7 mg/l
Species: Daphnia magna (Water flea)
Exposure duration: 48 h
Method: Regulation (EC) No. 440/2008, Annex, C.2

2-Ethyl-2-[(3-mercapto-1-oxopropoxy)methyl]propane-1,3-diyl bis[3-mercaptopropionate]
EC50 > 0,72 mg/l
Species: Daphnia magna (Water flea)
Exposure duration: 48 h
Method: OECD Test Guideline 202
Studies of a comparable product.

Isononylphenol, ethoxylated
LC50 0,716 mg/l
Species: Ceriodaphnia dubia
Exposure duration: 48 h
Studies of a comparable product.

(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate
EC50 10 - 100 mg/l
Species: Daphnia magna (Water flea)
Exposure duration: 48 h
Method: OECD Test Guideline 202

Chronic toxicity to daphnia

Ethoxylated nonyl phenol acrylate
No data available, supplier information

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.

diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide
No data available.

3-Trimethoxysilylpropane-1-thiol
No data available.

2-Ethyl-2-[(3-mercapto-1-oxopropoxy)methyl]propane-1,3-diyl bis[3-mercaptopropionate]
No data available.

Isononylphenol, ethoxylated
NOEC (Reproduction) 100 µg/l
Species: *Daphnia magna* (Water flea)
Exposure duration: 21 d
Method: OECD Test Guideline 211
Studies of a comparable product.

(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate
No data available.

Acute toxicity for algae

Ethoxylated nonyl phenol acrylate
No data available, supplier information

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

diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide
EC50 > 2,01 mg/l
Species: *Pseudokirchneriella subcapitata* (green algae)
Exposure duration: 72 h
Method: OECD Test Guideline 201

EC10 1,56 mg/l
Species: *Pseudokirchneriella subcapitata* (green algae)
Exposure duration: 72 h
Method: OECD Test Guideline 201

3-Trimethoxysilylpropane-1-thiol
NOEC 40 mg/l
endpoint: Growth inhibition
Species: *Desmodesmus subspicatus* (Green algae)
Exposure duration: 72 h
Method: Regulation (EC) No. 440/2008, Annex, C.3

EC50 931 mg/l
endpoint: Growth inhibition
Species: *Desmodesmus subspicatus* (Green algae)
Exposure duration: 72 h
Method: Regulation (EC) No. 440/2008, Annex, C.3

2-Ethyl-2-[(3-mercapto-1-oxopropoxy)methyl]propane-1,3-diyl bis[3-mercaptopropionate]
EC50 > 0,55 mg/l
endpoint: Growth inhibition
Species: *Desmodesmus subspicatus* (Green algae)
Exposure duration: 72 h
Method: OECD Test Guideline 201
Studies of a comparable product.

EC10 > 0,55 mg/l
endpoint: Growth inhibition
Species: *Desmodesmus subspicatus* (Green algae)
Exposure duration: 72 h
Method: OECD Test Guideline 201
Studies of a comparable product.

Isononylphenol, ethoxylated
EC10 1,22 mg/l
endpoint: Growth inhibition
Species: *Pseudokirchneriella subcapitata* (green algae)
Exposure duration: 72 h
Method: OECD Test Guideline 201
Studies of a comparable product.

(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate
ErC50 10 - 100 mg/l
Species: *scenedesmus subspicatus*
Exposure duration: 72 h
Method: OECD Test Guideline 201

Acute bacterial toxicity

Ethoxylated nonyl phenol acrylate
No data available, supplier information

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

diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide
EC50 > 1.000 mg/l
Species: activated sludge
Method: OECD Test Guideline 209

3-Trimethoxysilylpropane-1-thiol
EC50 463 mg/l
Species: activated sludge

2-Ethyl-2-[(3-mercapto-1-oxopropoxy)methyl]propane-1,3-diyl bis[3-mercaptopropionate]
No data available.

Isononylphenol, ethoxylated
EC20 > 1.000 mg/l
Species: activated sludge
Exposure duration: 3 h
Method: OECD Test Guideline 209
Studies of a comparable product.

(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate
EC50 > 10.000 mg/l
Species: *Pseudomonas putida*
Exposure duration: 0,5 h
Method: DIN 38412

Ecotoxicology Assessment

Ethoxylated nonyl phenol acrylate
Acute aquatic toxicity: no data available
Chronic aquatic toxicity: Harmful to aquatic life with long lasting effects.

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.

diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide
Acute aquatic toxicity: Based on available data, the classification criteria are not met.
Chronic aquatic toxicity: Toxic to aquatic life with long lasting effects.

3-Trimethoxysilylpropane-1-thiol
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-Ethyl-2-[(3-mercapto-1-oxopropoxy)methyl]propane-1,3-diyl bis[3-mercaptopropionate]

Acute aquatic toxicity: Very toxic to aquatic life.

Chronic aquatic toxicity: Very toxic to aquatic life with long lasting effects.

Isononylphenol, ethoxylated

Acute aquatic toxicity: Very toxic to aquatic life.

Chronic aquatic toxicity: Very toxic to aquatic life with long lasting effects.

(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate

Acute aquatic toxicity: Based on available data, the classification criteria are not met.

Chronic aquatic toxicity: Toxic to aquatic life with long lasting effects.

M-Factor

2-Ethyl-2-[(3-mercapto-1-oxopropoxy)methyl]propane-1,3-diyl bis[3-mercaptopropionate]

M-factor (acute aquat. tox.): 1

M-factor (chron. aquat. tox.): 1

Isononylphenol, ethoxylated

M-factor (acute aquat. tox.): 1

M-factor (chron. aquat. tox.): 10

12.2 Persistence and degradability

Biodegradability

Ethoxylated nonyl phenol acrylate

No data available, supplier information

2-phenoxyethyl acrylate

Test type: aerobic

Inoculum: Sewage sludge

Biodegradation: 22 %, 28 d, i.e. readily biodegradable

Method: OECD Test Guideline 301 D

diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide

Test type: aerobic

Inoculum: activated sludge, non-adapted

Biodegradation: 0 - 10 %, 28 d, i.e. not readily degradable

Method: OECD Test Guideline 301 F

3-Trimethoxysilylpropane-1-thiol

Test type: aerobic

Inoculum: activated sludge

Biodegradation: 51 %, 28 d, i.e. not readily degradable

Method: Regulation (EC) No. 440/2008, Annex, C.4-A

2-Ethyl-2-[(3-mercapto-1-oxopropoxy)methyl]propane-1,3-diyl bis[3-mercaptopropionate]

Test type: aerobic

Inoculum: Sewage sludge

Biodegradation: 9,1 %, 28 d, i.e. not readily degradable

Method: OECD Test Guideline 301 D

Test type: aerobic

Inoculum: Sewage sludge

Biodegradation: 3,2 %, 28 d, i.e. not readily degradable

Method: OECD Test Guideline 301 F

Isononylphenol, ethoxylated

Biodegradation: 58,7 %, 35 d, i.e. not readily degradable

Method: OECD Test Guideline 301 B

Studies of a comparable product.

(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate

Biodegradation: 40 - 50 %, i.e. not readily degradable

Method: OECD Test Guideline 301 B

12.3 Bioaccumulative potential

Bioaccumulation

Ethoxylated nonyl phenol acrylate

No data available, supplier information

2-phenoxyethyl acrylate

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

diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide

Bioconcentration factor (BCF): 18 - 22

Species: Cyprinus carpio (Carp)

Exposure duration: 8 Weeks

3-Trimethoxysilylpropane-1-thiol

no data available

2-Ethyl-2-[(3-mercapto-1-oxopropoxy)methyl]propane-1,3-diyl bis[3-mercaptopropionate]

no data available

Isononylphenol, ethoxylated

no data available

(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate

Accumulation in aquatic organisms is unlikely.

Partition coefficient (n-octanol/water)

2-phenoxyethyl acrylate

log Pow: 2,58

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

This substance/mixture contains components considered to have endocrine disrupting properties for environment, according to REACH Article 57(f), Commission Regulation (EU) 2018/605 or Commission Delegated Regulation (EU) 2017/2100.

12.7 Other adverse effects

diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide

The product contains none organically bound halogens.

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.
(Ethoxylated Isononylphenol)
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.
(Ethoxylated Isononylphenol)
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.
(Ethoxylated Isononylphenol)
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.
(Ethoxylated Isononylphenol)
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****Candidate List of Substances of Very High Concern for Authorisation**

This product contains substances identified as SVHC according to REACH Regulation (EC) no. 1907/2006, Article 59. Please refer to section 3.

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, 46

This product contains substances subject to EU Regulation 1907/2006 (REACH), Annex XVII.

Ethoxylated nonyl phenol acrylate

CAS-No.: 678991-31-6, EC-No.: 614-163-6

Subject to REACH Annex XVII, No. 3

Isononylphenol, ethoxylated

CAS-No.: 68412-54-4, EC-No.: 500-209-1

Subject to REACH Annex XVII, No. 46

Regulation (EU) No 649/2012 concerning the export and import of hazardous chemicals

This product is subject to Regulation (EU) No 649/2012. It contains:

Isononylphenol, ethoxylated

CAS-No.: 68412-54-4, EC-No.: 500-209-1

TA Luft List (Germany)

Type: 5.2.1 Total dust

Fraction of other substances: 0,03 %

Type: 5.2.5 Organic Substances

portion Class 1: 7,08 %

Fraction of other substances: 92,1 %

Water contaminating class (Germany)

2 obviously hazardous to water

Classification according to AwSV, Annex 1 (5.2)

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 not been conducted for this substance / mixture resp. its components.

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.
H335	May cause respiratory irritation.
H361d	Suspected of damaging the unborn child.
H361f	Suspected of damaging fertility.
H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child.
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:

Skin Irrit. 2 H315

Eye Irrit. 2 H319

Skin Sens. 1 H317

Repr. 2 H361fd

|| Aquatic Chronic 2 H411

Classification procedure:

Calculation method

Calculation method

Calculation method

Calculation method

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.