

Trade name: NanoVarnish

Substance number: 72013

Version: 2 / GB

Replaces Version: 1 / GB

Date revised: 11.09.2025

Print date: 11.09.2025

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

### 1.1. Product identifier

NanoVarnish

This substance/mixture contains components in nanoform

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

#### Use of the substance/preparation

Light-curing lacquer for plastic dental applications

### 1.3. Details of the supplier of the safety data sheet

#### Address/Manufacturer

Dreve Dentamid GmbH

Max-Planck-Straße 31

DE-59423 Unna

Telephone no. +49 2303 8807-0

Fax no. +49 2303 8807-29

Information provided by / telephone Department Research &amp; Development: Fax: +49 2303 8807-562

E-mail address of person responsible for this SDS [sicherheitsdatenblatt@dreve.com](mailto:sicherheitsdatenblatt@dreve.com)

### 1.4. Emergency telephone number

Henkel Fire Department / 24h-Emergency-Contact-No.: +49 211 797-3350

## SECTION 2: Hazards identification \*\*\*

### 2.1. Classification of the substance or mixture

#### Classification (Regulation (EC) No. 1272/2008)

Classification (Regulation (EC) No. 1272/2008)

Flam. Liq. 2	H225
Skin Irrit. 2	H315
Eye Dam. 1	H318
Skin Sens. 1	H317
Repr. 1B	H360Fd.
STOT SE 3	H335
Aquatic Chronic 3	H412

The product is classified and labelled in accordance with Regulation (EC) No 1272/2008

For explanation of abbreviations see section 16.

### 2.2. Label elements

#### Labelling according to regulation (EC) No 1272/2008

#### Hazard pictograms

Trade name: NanoVarnish

Substance number: 72013

Version: 2 / GB

Date revised: 11.09.2025

Replaces Version: 1 / GB

Print date: 11.09.2025

**Signal word**

Danger

**Hazard statements \*\*\***

H225	Highly flammable liquid and vapour.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H317	May cause an allergic skin reaction.
H360Fd.	May damage fertility. Suspected of damaging the unborn child.
H335	May cause respiratory irritation.
H412	Harmful to aquatic life with long lasting effects.

**Precautionary statements**

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER or doctor.

**Hazardous component(s) to be indicated on label (Regulation (EC) No. 1272/2008)**

contains	2-Propenoic acid, reaction products with pentaerythritol; Methyl methacrylate monomer, stabilized; Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide
----------	--

**Supplemental information****Further supplemental information \*\*\***

Restricted to professional users

**2.3. Other hazards**

No special hazards have to be mentioned.

The product contains no PBT substances. The product contains no vPvB substances. This product does not contain a substance that has endocrine disrupting properties with respect to human. The product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms.

## SECTION 3: Composition/information on ingredients \*\*\*

**3.2. Mixtures****Hazardous ingredients \*\*\*****Methyl methacrylate monomer, stabilized**

CAS No.	80-62-6			
EINECS no.	201-297-1			
Registration no.	01-2119452498-28			
Concentration	>= 25	< 50	%	
Classification (Regulation (EC) No. 1272/2008)	Flam. Liq. 2	H225		
	Skin Irrit. 2	H315		

Trade name: NanoVarnish

Substance number: 72013

Version: 2 / GB

Date revised: 11.09.2025

Replaces Version: 1 / GB

Print date: 11.09.2025

Skin Sens. 1	H317
STOT SE 3	H335

Additional remarks:

CLP

Regulation (EC) No 1272/2008, Annex VI, Note D

**Propan-2-ol**

CAS No. 67-63-0

EINECS no. 200-661-7

Registration no. 01-2119457558-25

Concentration  $\geq 10$  < 20 %

Classification (Regulation (EC) No. 1272/2008)

Flam. Liq. 2 H225

Eye Irrit. 2 H319

STOT SE 3 H336

**2-Propenoic acid, reaction products with pentaerythritol**

CAS No. 1245638-61-2

EINECS no. 629-850-6

Registration no. 01-2119490003-49

Concentration  $\geq 3$  < 10 %

Classification (Regulation (EC) No. 1272/2008)

Acute Tox. 4 H302

Skin Irrit. 2 H315

Eye Dam. 1 H318

Skin Sens. 1 H317

Aquatic Chronic 2 H411

ATE oral 540 mg/kg

**Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide**

CAS No. 75980-60-8

EINECS no. 278-355-8

Registration no. 01-2119972295-29

Concentration  $\geq 2,5$  < 10 %

Classification (Regulation (EC) No. 1272/2008)

Repr. 1B H360Fd.

Skin Sens. 1B H317

Aquatic Chronic 2 H411

Supplemental information

The substance is contained in the Candidate List for inclusion in Annex XIV of Regulation (EC) No. 1907/2006 (REACH).

**Silica, colloidal**

CAS No. 112926-00-8

EINECS no. 601-214-2

Concentration  $\geq 3$  < 6 %

10-15 nm

## SECTION 4: First aid measures

**4.1. Description of first aid measures****General information**

Trade name: NanoVarnish

Substance number: 72013

Version: 2 / GB

Replaces Version: 1 / GB

Date revised: 11.09.2025

Print date: 11.09.2025

Remove contaminated clothing immediately and dispose of safely. Adhere to personal protective measures when giving first aid

**After inhalation**

Remove the casualty into fresh air and keep him calm. In the event of symptoms take medical treatment.

**After skin contact**

After contact with skin, wash immediately with plenty of water and soap. Consult a doctor if skin irritation persists.

**After eye contact**

Separate eyelids, wash the eyes thoroughly with water (15 min.). Take medical treatment.

**After ingestion**

Call in a physician immediately and show him the Safety Data Sheet. Rinse mouth thoroughly with water. Let plenty of water be drunk in small gulps. Do not induce vomiting.

**Adhere to personal protective measures when giving first aid**

First aider: Pay attention to self-protection!

**4.2. Most important symptoms and effects, both acute and delayed**

Until now no symptoms known so far.

**4.3. Indication of any immediate medical attention and special treatment needed****Hints for the physician / hazards**

In the case of swallowing with subsequent vomiting, aspiration of the lungs can occur which can lead to chemical pneumonia or asphyxiation.

## SECTION 5: Firefighting measures

**5.1. Extinguishing media****Suitable extinguishing media**

Recommended: alcohol resistant foam, CO<sub>2</sub>, powders, water spray/mist, Extinguishing measures to suit surroundings

**Non suitable extinguishing media**

Full water jet

**5.2. Special hazards arising from the substance or mixture**

In case of combustion evolution of dangerous gases possible.

**5.3. Advice for firefighters****Special protective equipment for fire-fighting**

Do not inhale explosion and/or combustion gases. In case of combustion use a suitable breathing apparatus. Wear full protective suit.

**Other information**

Collect contaminated fire-fighting water separately, must not be discharged into the drains. Fire residues and contaminated fire-fighting water must be disposed of in accordance with the local regulations. Observe manufacturer's / distributor's instructions.

## SECTION 6: Accidental release measures

**6.1. Personal precautions, protective equipment and emergency procedures**

Keep away sources of ignition. Ensure adequate ventilation. Use breathing apparatus if exposed to

Trade name: NanoVarnish

Substance number: 72013

Version: 2 / GB

Replaces Version: 1 / GB

Date revised: 11.09.2025

Print date: 11.09.2025

vapours/dust/aerosol. Avoid contact with skin, eyes and clothing. Use personal protective clothing. Refer to protective measures listed in Sections 7 and 8.

## 6.2. Environmental precautions

Prevent spread over a wide area (e.g. by containment or oil barriers). Do not discharge into the drains/surface waters/groundwater. Do not discharge into the subsoil/soil. Retain and dispose of contaminated wash water. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

## 6.3. Methods and material for containment and cleaning up

Pick up rest with suitable absorbent materials. Do not pick up with the help of saw-dust or other combustible substances. Clean contaminated floors and objects thoroughly, observing environmental regulations. Containers in which spilt substance has been collected must be adequately labelled. Dispose of as prescribed.

## 6.4. Reference to other sections

Refer to protective measures listed in Sections 7 and 8.

# SECTION 7: Handling and storage

## 7.1. Precautions for safe handling

### Advice on safe handling

Provide good ventilation of working area (local exhaust ventilation if necessary). Avoid formation of aerosols. Avoid impact, friction and electro-static loading; risk of ignition! Keep container tightly closed.

### Advice on protection against fire and explosion

Keep away from sources of heat and ignition. No smoking. Take action to prevent static discharges. Avoid impact and friction. Use only explosion-proof equipment. Keep away from combustible material. Wear shoes with conductive soles.

## 7.2. Conditions for safe storage, including any incompatibilities

### Requirements for storage rooms and vessels

Keep in original packaging, tightly closed. Storage rooms must be properly ventilated. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

### Hints on storage assembly

Do not store together with foodstuffs. Do not store with strong oxidizing agents.

### Further information on storage conditions

Keep under lock and key or accessible only to specialists or people who are authorized. Keep container tightly closed and in a well-ventilated place. Keep in a cool place

# SECTION 8: Exposure controls/personal protection

## 8.1. Control parameters

### Exposure limit values

#### Methyl methacrylate monomer, stabilized

Value	50	ppm(V)
Short term exposure limit	100	ppm(V)

#### Methyl methacrylate monomer, stabilized

Value	208	mg/m <sup>3</sup>	50	ppm(V)
Short term exposure limit	416	mg/m <sup>3</sup>	100	ppm(V)

Trade name: NanoVarnish

Substance number: 72013

Version: 2 / GB

Date revised: 11.09.2025

Replaces Version: 1 / GB

Print date: 11.09.2025

**Propan-2-ol**

Value	999	mg/m <sup>3</sup>	400	ppm(V)
Short term exposure limit	1250	mg/m <sup>3</sup>	500	ppm(V)

**Biological limit values****Propan-2-ol**

List	BGW (TRGS 903)
Value	25 mg/l
Parameter	Acetone
Testing material	Whole blood (B)
Test date	End of exposure or end of shift (b)
Source	DFG

**Propan-2-ol**

List	BGW (TRGS 903)
Value	25 mg/l
Parameter	Acetone
Testing material	Urine (U)
Test date	End of exposure or end of shift (b)
Source	DFG

**Other information**

Contains no substances with occupational exposure limit values.

**Derived No/Minimal Effect Levels (DNEL/DMEL)****Methyl methacrylate monomer, stabilized**

Reference substance	Methyl methacrylate monomer, stabilized
Type of value	Derived No Effect Level (DNEL)
Reference group	Worker
Duration of exposure	Long term
Route of exposure	inhalative
Mode of action	Systemic effects
Concentration	348,4 mg/m <sup>3</sup>

Type of value	Methyl methacrylate monomer, stabilized
Reference group	Derived No Effect Level (DNEL)
Duration of exposure	Worker
Route of exposure	Long term
Mode of action	inhalative
Concentration	Local effects
	208 mg/m <sup>3</sup>

Type of value	Derived No Effect Level (DNEL)
Reference group	Worker
Duration of exposure	Lifetime
Route of exposure	inhalative
Concentration	416 mg/m <sup>3</sup>

Type of value	Derived No Effect Level (DNEL)
Reference group	Worker
Duration of exposure	Long term
Route of exposure	dermal
Mode of action	Systemic effects
Concentration	13,67 mg/kg

Type of value	Derived No Effect Level (DNEL)
Reference group	Worker
Duration of exposure	Long term



Trade name: NanoVarnish

Substance number: 72013

Version: 2 / GB

Date revised: 11.09.2025

Replaces Version: 1 / GB

Print date: 11.09.2025

Route of exposure	dermal	
Mode of action	Local effects	
Concentration	1,5	mg/cm <sup>2</sup>

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long term	
Route of exposure	oral	
Mode of action	Systemic effects	
Concentration	74,3	mg/m <sup>3</sup>

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	104	mg/m <sup>3</sup>

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Short term	
Route of exposure	inhalative	
Concentration	208	mg/m <sup>3</sup>

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long term	
Route of exposure	dermal	
Mode of action	Systemic effects	
Concentration	8,2	mg/kg

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long term	
Route of exposure	dermal	
Mode of action	Local effects	
Concentration	1,5	mg/cm <sup>2</sup>

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long term	
Route of exposure	oral	
Mode of action	Systemic effects	
Concentration	8,2	mg/kg/d

**Propan-2-ol**

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	dermal	
Mode of action	Systemic effects	
Concentration	888	mg/kg/d

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	

Trade name: NanoVarnish

Substance number: 72013

Version: 2 / GB

Date revised: 11.09.2025

Replaces Version: 1 / GB

Print date: 11.09.2025

Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	500	mg/m <sup>3</sup>
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long term	
Route of exposure	dermal	
Mode of action	Systemic effects	
Concentration	319	mg/kg/d
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	89	mg/m <sup>3</sup>
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long term	
Route of exposure	oral	
Mode of action	Systemic effects	
Concentration	26	mg/kg/d
Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Acute	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	1000	mg/m <sup>3</sup>
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Acute	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	178	mg/m <sup>3</sup>
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Acute	
Route of exposure	oral	
Mode of action	Systemic effects	
Concentration	51	mg/kg

**Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide**

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	dermal	
Mode of action	Systemic effects	
Concentration	0,233	mg/kg/d
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	





Trade name: NanoVarnish

Substance number: 72013

Version: 2 / GB

Date revised: 11.09.2025

Replaces Version: 1 / GB

Print date: 11.09.2025

Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	0,145	mg/m <sup>3</sup>

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long term	
Route of exposure	dermal	
Mode of action	Systemic effects	
Concentration	0,0833	mg/kg/d

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long term	
Route of exposure	oral	
Mode of action	Systemic effects	
Concentration	0,0833	mg/kg/d

**Predicted No Effect Concentration (PNEC)****Methyl methacrylate monomer, stabilized**

Reference substance	Methyl methacrylate monomer, stabilized	
Type of value	PNEC	
Type	Freshwater	
Concentration	0,94	mg/l
Type of value	PNEC	
Type	Saltwater	
Concentration	0,094	mg/l
Type of value	PNEC	
Type	Soil	
Concentration	1,48	mg/kg
Type of value	PNEC	
Type	Freshwater sediment	
Concentration	10,2	mg/kg
Type of value	PNEC	
Type	Sewage treatment plant (STP)	
Concentration	10	mg/l
Type of value	PNEC	
Type	Man via the environment	
Concentration	8,2	mg/kg/d
Type of value	PNEC	
Type	Marine sediment	
Concentration	1,2	mg/kg

**Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide**

Type of value	PNEC	
Type	Saltwater	
Concentration	0,00014	mg/l
Type of value	PNEC	

Trade name: NanoVarnish

Substance number: 72013

Version: 2 / GB

Date revised: 11.09.2025

Replaces Version: 1 / GB

Print date: 11.09.2025

Type	Freshwater sediment	
Concentration	0,115	mg/kg
Type of value	PNEC	
Type	Marine sediment	
Concentration	0,0115	mg/kg
Type of value	PNEC	
Type	Soil	
Concentration	0,0222	mg/kg

**2-Propenoic acid, reaction products with pentaerythritol**

Type of value	PNEC	
Type	Freshwater	
Concentration	0,003	mg/l
Type of value	PNEC	
Type	Freshwater sediment	
Concentration	1,73	mg/kg
Type of value	PNEC	
Type	Marine sediment	
Concentration	0,173	mg/kg
Type of value	PNEC	
Type	Sewage treatment plant (STP)	
Concentration	10	mg/l
Type of value	PNEC	
Type	Soil	
Concentration	0,34	mg/kg

**8.2. Exposure controls****General protective and hygiene measures**

Do not smoke during work time. Hold emergency shower available. Hold eye wash fountain available. Do not inhale gases/vapours/aerosols. Avoid contact with skin and eyes. Take off immediately all contaminated clothing. Do not eat or drink during work time. Storage of foodstuffs in work rooms is forbidden. Wash hands before breaks and after work. Clean skin thoroughly after work; apply skin cream.

**Respiratory protection**

Do not inhale vapours; Use suitable respiratory protective device in case of insufficient ventilation

**Hand protection**

There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals.

The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.

Gloves should be replaced regularly and if there is any sign of damage to the glove material.

Hand protection must comply with EN 374.

Appropriate Material Butyl rubber

**Eye protection**

Safety glasses

**Body protection**

Clothing as usual in the chemical industry.

Trade name: NanoVarnish

Substance number: 72013

Version: 2 / GB

Date revised: 11.09.2025

Replaces Version: 1 / GB

Print date: 11.09.2025

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

**Physical state**

liquid

**Colour**

colourless

**Odour**

characteristic

**Melting point**

Remarks

not determined

**Freezing point**

Remarks

not determined

**Boiling point or initial boiling point and boiling range**

Value

101

°C

**Flammability**

evaluation

Not applicable

**Upper and lower explosive limits**

Lower explosion limit

2,1

% (V)

Upper explosion limit

12,5

% (V)

**Flash point**

Value

10

°C

Method

closed cup

**Auto-ignition temperature**

Value

430

°C

**Decomposition temperature**

Remarks

not determined

**Self Accelerating Decomposition / Polymerization Temperature (SADT/SAPT)**

Value

&gt; 50

°C

**pH value**

Remarks

not determined

**Viscosity****dynamic**

Remarks

not determined

**Solubility(ies)**

Remarks

not determined

**Partition coefficient n-octanol/water (log value)**

Remarks

not determined

**Vapour pressure**

Value

47

hPa

**Density and/or relative density**

Value

0,98

g/m<sup>3</sup>**Relative vapour density**

Remarks

not determined

### 9.2. Other information

**Odour threshold**

Trade name: NanoVarnish

Substance number: 72013

Version: 2 / GB

Date revised: 11.09.2025

Replaces Version: 1 / GB

Print date: 11.09.2025

Remarks not determined

**Evaporation rate (ether = 1) :**

Remarks not determined

**Solubility in water**

Remarks virtually insoluble

**Explosive properties**

evaluation not determined

**Oxidising properties**

Remarks not determined

**Other information**

None known

## SECTION 10: Stability and reactivity

**10.1. Reactivity**

No hazardous reactions when stored and handled according to prescribed instructions.

**10.2. Chemical stability**

No hazardous reactions known.

**10.3. Possibility of hazardous reactions**

No hazardous reactions known.

**10.4. Conditions to avoid**

Protect from heat and direct sunlight

**10.5. Incompatible materials**

None known

**10.6. Hazardous decomposition products**

Irritant gases/vapours

## SECTION 11: Toxicological information

**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008****Acute oral toxicity**

ATE 8.600,09 mg/kg  
56

Method calculated value according to GHS (e.g see UN GHS)

**Acute oral toxicity (Components)****Methyl methacrylate monomer, stabilized**

Species rat  
LD50 appr. 7900 mg/kg

**Propan-2-ol**

Species rat  
LD50 5840 mg/kg  
Method OECD 401

**Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide**

Species rat

Trade name: NanoVarnish

Substance number: 72013

Version: 2 / GB

Date revised: 11.09.2025

Replaces Version: 1 / GB

Print date: 11.09.2025

LD50 > 5000 mg/kg  
Method OECD 401

**2-Propenoic acid, reaction products with pentaerythritol**

Species rat  
LD50 540 mg/kg  
Method OECD 401

**Silica, colloidal**

LD50 > 2000 mg/kg

**Acute dermal toxicity**

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

**Acute dermal toxicity (Components)****Methyl methacrylate monomer, stabilized**

Species rabbit  
LD50 > 5000 mg/kg  
Method OECD 402

**Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide**

Species rat  
LD50 > 2000 mg/kg  
Method OECD 402

**2-Propenoic acid, reaction products with pentaerythritol**

Species rabbit  
LD50 > 2000 mg/kg  
Method OECD 402

**Silica, colloidal**

LD50 > 2000 mg/kg

**Acute inhalational toxicity**

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

**Acute inhalative toxicity (Components)****Methyl methacrylate monomer, stabilized**

Species rat  
LC50 29,8 mg/l  
Duration of exposure 4 h  
Administration/Form Vapors

**Propan-2-ol**

Species rat  
LC50 > 10000 ppm(V)  
Duration of exposure 6 h  
Administration/Form Vapors  
Method OECD 403

**Skin corrosion/irritation**

evaluation irritant  
Remarks The classification criteria are met.

**Skin corrosion/irritation (Components)****Methyl methacrylate monomer, stabilized**

Species Human  
evaluation irritant

**2-Propenoic acid, reaction products with pentaerythritol**

Species rabbit  
evaluation irritant  
Method OECD 404

Trade name: NanoVarnish

Substance number: 72013

Version: 2 / GB

Date revised: 11.09.2025

Replaces Version: 1 / GB

Print date: 11.09.2025

**Serious eye damage/irritation**

evaluation

corrosive

Remarks

The classification criteria are met.

**Serious eye damage/irritation (Components)****Propan-2-ol**

Species

rabbit

evaluation

irritant

Method

OECD 405

**2-Propenoic acid, reaction products with pentaerythritol**

Species

rabbit

evaluation

corrosive

Method

OECD 405

**Sensitization**

evaluation

May cause sensitization by skin contact.

Remarks

The classification criteria are met.

**Sensitization (Components)****Methyl methacrylate monomer, stabilized**

Route of exposure

dermal

Species

mouse

evaluation

sensitizing

Method

OECD 429

**Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide**

Route of exposure

dermal

Species

mouse

evaluation

May cause sensitization by skin contact.

**2-Propenoic acid, reaction products with pentaerythritol**

Species

guinea pig

evaluation

non-sensitizing

Method

OECD 406

**2-Propenoic acid, reaction products with pentaerythritol**

Species

Human

evaluation

Possible sensitization potential with human beings.

**Subacute, subchronic, chronic toxicity**

Remarks

not determined

**Mutagenicity**

Remarks

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

**Reproductive toxicity**

Remarks

The classification criteria are met.

**Reproduction toxicity (Components)****Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide**

evaluation

Suspected of damaging fertility.

**Carcinogenicity**

Remarks

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

**Specific Target Organ Toxicity (STOT)****Single exposure**

Remarks

The classification criteria are met.

evaluation

May cause respiratory irritation.

**Repeated exposure**

Remarks

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

Trade name: NanoVarnish

Substance number: 72013

Version: 2 / GB

Replaces Version: 1 / GB

Date revised: 11.09.2025

Print date: 11.09.2025

**Specific Target Organ Toxicity (STOT) (Components)****Methyl methacrylate monomer, stabilized****Single exposure**

evaluation

May cause respiratory irritation.

Route of exposure inhalative

**Propan-2-ol****Single exposure**

evaluation

May cause drowsiness or dizziness.

Organs: Nervous system

**Aspiration hazard**

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

**11.2. Information on other hazards****Endocrine disrupting properties with respect to humans**

The product does not contain a substance that has endocrine disrupting properties with respect to humans.

**Experience in practice**

Inhalation may lead to irritation of the respiratory tract.

**Other information**

No toxicological data are available.

## SECTION 12: Ecological information

**12.1. Toxicity****General information**

not determined

**Fish toxicity (Components)****Methyl methacrylate monomer, stabilized**

Species	rainbow trout ( <i>Oncorhynchus mykiss</i> )		
LC50	85		mg/l
Duration of exposure	96	h	

**Methyl methacrylate monomer, stabilized**

Species	zebra fish ( <i>Brachydanio rerio</i> )		
NOEC	9,4		mg/l
Duration of exposure	35	d	
Method	OECD 210		

**Propan-2-ol**

Species	Fathead minnow ( <i>Pimephales promelas</i> )		
LC50	9640		mg/l
Duration of exposure	96	h	
Method	OECD 203		

**Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide**

Species	carp ( <i>Cyprinus carpio</i> )		
LC50	1,4		mg/l
Duration of exposure	96	h	
Method	OECD 203		

**2-Propenoic acid, reaction products with pentaerythritol**

Species	carp ( <i>Cyprinus carpio</i> )		
---------	---------------------------------	--	--

Trade name: NanoVarnish

Substance number: 72013

Version: 2 / GB

Date revised: 11.09.2025

Replaces Version: 1 / GB

Print date: 11.09.2025

LC50	3,2		mg/l
Duration of exposure	96	h	
Method	OECD 203		

**Silica, colloidal**

Species	zebra fish ( <i>Brachydanio rerio</i> )		
LC50	> 100		mg/l
Duration of exposure	96	h	
Method	OECD 203		

**Daphnia toxicity (Components)****Methyl methacrylate monomer, stabilized**

Species	Daphnia magna		
EC50	69		mg/l
Duration of exposure	48	h	

**Methyl methacrylate monomer, stabilized**

Species	Daphnia magna		
NOEC	37		mg/l
Duration of exposure	21	d	
Method	OECD 211		

**Propan-2-ol**

Species	Daphnia magna		
LC50	> 10000		mg/l
Duration of exposure	24	h	
Method	OECD 202		

**Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide**

Species	Daphnia magna		
EC50	3,53		mg/l
Duration of exposure	48	h	
Method	OECD 202		

**2-Propenoic acid, reaction products with pentaerythritol**

Species	Daphnia magna		
EC50	13		mg/l
Duration of exposure	48	h	
Method	OECD 202		

**Silica, colloidal**

Species	Daphnia magna		
EC50	> 2000		mg/l
Duration of exposure	24	h	
Method	OECD 202		

**Algae toxicity (Components)****Methyl methacrylate monomer, stabilized**

Species	Pseudokirchneriella subcapitata		
EC50	> 110		mg/l
Duration of exposure	72	h	
Method	OECD 201		

**Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide**

Species	Pseudokirchneriella subcapitata		
EC50	> 2,01		mg/l
Duration of exposure	72	h	
Method	OECD 201		

**2-Propenoic acid, reaction products with pentaerythritol**

Species	Pseudokirchneriella subcapitata		
EL50	33		mg/l
Duration of exposure	96	h	



Trade name: NanoVarnish

Substance number: 72013

Version: 2 / GB

Date revised: 11.09.2025

Replaces Version: 1 / GB

Print date: 11.09.2025

Method OECD 201

**Silica, colloidal**

Species Desmodesmus subspicatus

EC50 &gt; 173 mg/l

Duration of exposure 72 h

Method OECD 201

**Bacteria toxicity (Components)****Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide**

Species activated sludge

EC50 &gt; 1000 mg/l

Duration of exposure 3 h

Method OECD 209

**2-Propenoic acid, reaction products with pentaerythritol**

Species activated sludge

EC50 &gt; 100 mg/l

Duration of exposure 3 h

Method OECD 209

**Silica, colloidal**

EC50 &gt; 1000 mg/l

Duration of exposure 3 h

Method OECD 209

**12.2. Persistence and degradability****General information**

not determined

**Biodegradability (Components)****Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide**

Value &lt; 0 to 10 %

Duration of test 28 d

evaluation not readily degradable

**2-Propenoic acid, reaction products with pentaerythritol**

Value 6 to 14 %

Duration of test 28 d

evaluation not readily degradable

**Methyl methacrylate monomer, stabilized**

Value 94 %

Duration of test 14 d

evaluation Readily biodegradable (according to OECD criteria)

Method OECD 301 C

**Propan-2-ol**

Value 53 %

Duration of test 5 d

evaluation Readily biodegradable (according to OECD criteria)

Method OECD 301B / ISO 9439 / EEC 84/449 C5

**Silica, colloidal**

Remarks Inorganic product, cannot be eliminated from the water by biological purification processes.

**12.3. Bioaccumulative potential****General information**

not determined

**Partition coefficient n-octanol/water (log value)**

Trade name: NanoVarnish

Substance number: 72013

Version: 2 / GB

Date revised: 11.09.2025

Replaces Version: 1 / GB

Print date: 11.09.2025

Remarks not determined

**Octanol/water partition coefficient (log Pow) (Components)****Methyl methacrylate monomer, stabilized**

log Pow	1,38	
Temperature	20	°C
Method	OECD 107	

**Propan-2-ol**

log Pow	0,05	
Temperature	25	°C

**Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide**

log Pow	3,1	
Temperature	23	°C

**2-Propenoic acid, reaction products with pentaerythritol**

log Pow	3,11	
---------	------	--

**Bioconcentration factor (BCF) (Components)****Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide**

BCF	47	to	55
Concentration	0,1	mg/l	
Duration of exposure	8	Weeks	
Medium	Freshwater		
Species	carp (Cyprinus carpio)		

**12.4. Mobility in soil****General information**

not determined

**Mobility in soil (Components)****Propan-2-ol**

Mobile in soils

**12.5. Results of PBT and vPvB assessment****General information**

not determined

**Results of PBT and vPvB assessment**

The product contains no PBT substances  
The product contains no vPvB substances.

**12.6 Endocrine disrupting properties****Endocrine disrupting properties with respect to the environment**

The product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms.

**12.7. Other adverse effects****General information**

not determined

**General information / ecology**

Do not allow to enter soil, waterways or waste water canal. Avoid release into the atmosphere.

## SECTION 13: Disposal considerations

Trade name: NanoVarnish

Substance number: 72013

Version: 2 / GB

Date revised: 11.09.2025

Replaces Version: 1 / GB

Print date: 11.09.2025

**13.1. Waste treatment methods****Disposal recommendations for the product**




Must not be disposed together with household garbage.

Dispose of waste according to applicable legislation.

**Disposal recommendations for packaging**

Packaging that cannot be cleaned should be disposed off as product waste.

**SECTION 14: Transport information \*\*\***

	Land transport ADR/RID ***	Marine transport IMDG/GGVSee ***	Air transport ICAO/IATA ***
14.1. UN number or ID number	1247	1247	1247
14.2. UN proper shipping name	METHYL METHACRYLATE MONOMER, STABILIZED, Solution	METHYL METHACRYLATE MONOMER, STABILIZED, Solution	METHYL METHACRYLATE MONOMER, STABILIZED, Solution
14.3. Transport hazard class(es)	3	3	3
Label			
14.4. Packing group	II	II	II
Limited Quantity	1 I	1 I	
Transport category	2		
Tunnel restriction code	D/E		

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****Restriction according to annex XVII to regulation (EU) No 1907/2006**

The product is subject to restrictions according to Annex XVII Regulation (EU) No. 1907/2006: Entry No. 3

**Other information**

All components are contained in the TSCA inventory or exempted.

**15.2. Chemical safety assessment**

For this preparation a chemical safety assessment has not been carried out.



Trade name: NanoVarnish

Substance number: 72013

Version: 2 / GB

Date revised: 11.09.2025

Replaces Version: 1 / GB

Print date: 11.09.2025

## SECTION 16: Other information

### Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Classification (Regulation (EC) No. 1272/2008)

Flam. Liq. 2	H225	On basis of test data
Skin Irrit. 2	H315	Calculation method
Eye Dam. 1	H318	Calculation method
Skin Sens. 1	H317	Calculation method
Repr. 1B	H360Fd.	Calculation method
STOT SE 3	H335	Calculation method
Aquatic Chronic 3	H412	Calculation method

### Hazard statements listed in Chapter 2/3

H225	Highly flammable liquid and vapour.
H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H360Fd.	May damage fertility. Suspected of damaging the unborn child.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

### CLP categories listed in Chapter 2/3

Acute Tox. 4	Acute toxicity, Category 4
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic, Category 3
Eye Dam. 1	Serious eye damage, Category 1
Eye Irrit. 2	Eye irritation, Category 2
Flam. Liq. 2	Flammable liquid, Category 2
Repr. 1B	Reproductive toxicity, Category 1B
Skin Irrit. 2	Skin irritation, Category 2
Skin Sens. 1	Skin sensitization, Category 1
Skin Sens. 1B	Skin sensitization, Category 1B
STOT SE 3	Specific target organ toxicity - single exposure, Category 3

### Supplemental information

Relevant changes compared with the previous version of the safety data sheet are marked with: \*\*\*  
This information is based on our present state of knowledge. However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship.