

# SAFETY DATA SHEET



UVILUX 6790-03 - TS 21369 RAL 9003

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

### 1.1 Product identifier

**Product name** : UVILUX 6790-03 - TS 21369 RAL 9003

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

**Product use** : Paint.

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

Teknos Group Oy, Takkatie 3, FI-00370 HELSINKI, FINLAND. Tel. +358 9 506 091.

**e-mail address of person responsible for this SDS** : Prod-safe@teknos.com

### 1.4 Emergency telephone number

#### National advisory body/Poison Centre

**Telephone number** : In an emergency, call 112

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Product definition** : Mixture

#### Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Skin Irrit. 2, H315

Eye Irrit. 2, H319

Skin Sens. 1, H317

Aquatic Acute 1, H400

Aquatic Chronic 2, H411

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

### 2.2 Label elements

**Hazard pictograms** :



**Signal word** : Warning

**Hazard statements** : H315 - Causes skin irritation.  
H317 - May cause an allergic skin reaction.  
H319 - Causes serious eye irritation.  
H410 - Very toxic to aquatic life with long lasting effects.

#### Precautionary statements

**Prevention** : P280 - Wear protective gloves. Wear eye or face protection.  
P273 - Avoid release to the environment.  
P261 - Avoid breathing vapour.  
P264 - Wash thoroughly after handling.

**Response** : P391 - Collect spillage.

**Storage** : Not applicable.

## SECTION 2: Hazards identification

<b>Disposal</b>	: P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
<b>Hazardous ingredients</b>	: Contains: Hexamethylene diacrylate; Oligotriacrylate; Phosphine oxide, phenylbis (2,4,6-trimethylbenzoyl)- and Methylbenzoylformiat
<b>Supplemental label elements</b>	:
<b>Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles</b>	:

### 2.3 Other hazards

<b>Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII</b>	: This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
<b>Other hazards which do not result in classification</b>	: None known.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
Hexamethylene diacrylate	REACH #: 01-2119484737-22 EC: 235-921-9 CAS: 13048-33-4 Index: 607-109-00-8	≥25 - ≤50	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 2, H411	M [Acute] = 1	[1]
Oligotriacrylate	REACH #: 01-2119487948-12 EC: 500-114-5 CAS: 52408-84-1	≤5	Eye Irrit. 2, H319 Skin Sens. 1, H317	-	[1]
Acrylate resin	-	≤5	Eye Irrit. 2, H319	-	[1]
Benzene, (1-methylethenyl)-, homopolymer, ar-(2-hydroxy-2-methyl-1-oxopropyl) derivs.	CAS: 163702-01-0	<3	Repr. 2, H361f	-	[1]
Phosphine oxide, phenylbis (2,4,6-trimethylbenzoyl)-	REACH #: 01-2119489401-38 EC: 423-340-5 CAS: 162881-26-7 Index: 015-189-00-5	≤3	Skin Sens. 1A, H317 Aquatic Chronic 4, H413	-	[1]
Methylbenzoylformiat	REACH #: 01-2120101338-67 EC: 239-263-3 CAS: 15206-55-0	≤3	Skin Sens. 1, H317	-	[1]
(1-methyl-1,2-ethanediyl)bis [oxy(methyl-2,1-ethanediyl)] diacrylate	REACH #: 01-2119484613-34 EC: 256-032-2 CAS: 42978-66-5 Index: 607-249-00-X	<1	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 STOT SE 3, H335 Aquatic Chronic 2, H411	STOT SE 3, H335: C ≥ 10%	[1]

## SECTION 3: Composition/information on ingredients

2-Butoxyethanol	REACH #: 01-2119475108-36 EC: 203-905-0 CAS: 111-76-2 Index: 603-014-00-0	≤0.3	Acute Tox. 4, H302 Acute Tox. 3, H331 Skin Irrit. 2, H315 Eye Irrit. 2, H319  <b>See Section 16 for the full text of the H statements declared above.</b>	ATE [Oral] = 1200 mg/kg ATE [Inhalation (vapours)] = 3 mg/l	[1] [2]
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There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

### Type

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

Occupational exposure limits, if available, are listed in Section 8.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Skin contact** : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

### 4.2 Most important symptoms and effects, both acute and delayed

#### Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:  
irritation  
redness

## SECTION 4: First aid measures

**Ingestion** : No specific data.

### 4.3 Indication of any immediate medical attention and special treatment needed

**Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

**Specific treatments** : No specific treatment.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

**Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.

**Unsuitable extinguishing media** : None known.

### 5.2 Special hazards arising from the substance or mixture

**Hazards from the substance or mixture** : In a fire or if heated, a pressure increase will occur and the container may burst. This material is very toxic to aquatic life. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

**Hazardous combustion products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
nitrogen oxides  
phosphorus oxides  
metal oxide/oxides

### 5.3 Advice for firefighters

**Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

**Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. 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.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures


**For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

**For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

### 6.2 Environmental precautions

: Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

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

**Small spill** :  Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

## SECTION 6: Accidental release measures

**Large spill** : Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

**6.4 Reference to other sections** : See Section 1 for emergency contact information.  
See Section 8 for information on appropriate personal protective equipment.  
See Section 13 for additional waste treatment information.

## SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 7.1 Precautions for safe handling

**Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapour or mist. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

**Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

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

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. See Section 10 for incompatible materials before handling or use.

#### Seveso Directive - Reporting thresholds

##### Danger criteria

Category	Notification and MAPP threshold	Safety report threshold
1	100 tonnes	200 tonnes

### 7.3 Specific end use(s)

**Recommendations** : Not available.

**Industrial sector specific solutions** : Not available.

## SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

### 8.1 Control parameters

#### Occupational exposure limits

## SECTION 8: Exposure controls/personal protection

Product/ingredient name	Exposure limit values
2-Butoxyethanol	<b>Regulation on Limit Values - MAC (Austria, 12/2024)</b> Absorbed through skin. TWA 8 hours: 20 ppm. TWA 8 hours: 98 mg/m <sup>3</sup> . PEAK 30 minutes: 40 ppm 4 times per shift. PEAK 30 minutes: 200 mg/m <sup>3</sup> 4 times per shift.
2-Butoxyethanol	<b>Limit values (Belgium, 12/2023)</b> Absorbed through skin. TWA 8 hours: 20 ppm. TWA 8 hours: 98 mg/m <sup>3</sup> . STEL 15 minutes: 50 ppm. STEL 15 minutes: 246 mg/m <sup>3</sup> .
2-Butoxyethanol	<b>Ministry of Labour and Social Policy and the Ministry of Health - Ordinance No 13/2003. (Bulgaria, 4/2024)</b> Absorbed through skin. Limit value 8 hours: 98 mg/m <sup>3</sup> . Limit value 15 minutes: 246 mg/m <sup>3</sup> . Limit value 15 minutes: 50 ppm. Limit value 8 hours: 20 ppm.
2-Butoxyethanol	<b>Ordinance on the protection of workers from exposure to hazardous chemicals at work, exposure limit values (Annex I) (Croatia, 12/2023)</b> Absorbed through skin. STELV 15 minutes: 246 mg/m <sup>3</sup> . STELV 15 minutes: 50 ppm. ELV 8 hours: 98 mg/m <sup>3</sup> . ELV 8 hours: 20 ppm.
2-Butoxyethanol	<b>Department of labour inspection (Cyprus, 7/2021)</b> Absorbed through skin. STEL 15 minutes: 50 ppm. STEL 15 minutes: 246 mg/m <sup>3</sup> . TWA 8 hours: 20 ppm. TWA 8 hours: 98 mg/m <sup>3</sup> .
2-Butoxyethanol	<b>Government regulation of Czech Republic PEL/NPK-P (Czech Republic, 12/2023)</b> Absorbed through skin. TWA 8 hours: 98 mg/m <sup>3</sup> . TWA 8 hours: 20 ppm. STEL 15 minutes: 200 mg/m <sup>3</sup> . STEL 15 minutes: 40.7 ppm.
2-Butoxyethanol	<b>Working Environment Authority (Denmark, 12/2024)</b> Absorbed through skin. TWA 8 hours: 20 ppm. TWA 8 hours: 98 mg/m <sup>3</sup> . STEL 15 minutes: 246 mg/m <sup>3</sup> . STEL 15 minutes: 50 ppm.
2-Butoxyethanol	<b>Occupational exposure limits, Regulation No. 293 (Estonia, 4/2024)</b> Absorbed through skin , Sensitiser. TWA 8 hours: 98 mg/m <sup>3</sup> . TWA 8 hours: 20 ppm. STEL 15 minutes: 246 mg/m <sup>3</sup> . STEL 15 minutes: 50 ppm.
2-Butoxyethanol	<b>EU OEL (Europe, 1/2022)</b> Absorbed through skin. TWA 8 hours: 20 ppm. TWA 8 hours: 98 mg/m <sup>3</sup> . STEL 15 minutes: 50 ppm. STEL 15 minutes: 246 mg/m <sup>3</sup> .



## SECTION 8: Exposure controls/personal protection

2-Butoxyethanol	<p><b>Institute of Occupational Health, Ministry of Social Affairs (Finland, 10/2021)</b> Absorbed through skin.  TWA 8 hours: 20 ppm.  TWA 8 hours: 98 mg/m<sup>3</sup>.  STEL 15 minutes: 50 ppm.  STEL 15 minutes: 250 mg/m<sup>3</sup>.</p>
2-Butoxyethanol	<p><b>Ministry of Labor (France, 6/2024)</b> Absorbed through skin.  TWA 8 hours: 10 ppm. Notes: Binding regulatory limit values (article R. 4412-149 of the Labor Code)  TWA 8 hours: 49 mg/m<sup>3</sup>. Notes: Binding regulatory limit values (article R. 4412-149 of the Labor Code)  STEL 15 minutes: 246 mg/m<sup>3</sup>. Notes: Binding regulatory limit values (article R. 4412-149 of the Labor Code)  STEL 15 minutes: 50 ppm. Notes: Binding regulatory limit values (article R. 4412-149 of the Labor Code)</p>
Hexamethylene diacrylate (1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate 2-Butoxyethanol	<p><b>DFG MAC-values list (Germany, 7/2024)</b> Skin sensitiser.  <b>DFG MAC-values list (Germany, 7/2024)</b> Skin sensitiser.</p> <p><b>TRGS 900 OEL (Germany, 6/2024)</b> Absorbed through skin.  TWA 8 hours: 49 mg/m<sup>3</sup>.  PEAK 15 minutes: 98 mg/m<sup>3</sup>.  TWA 8 hours: 10 ppm.  PEAK 15 minutes: 20 ppm.</p> <p><b>DFG MAC-values list (Germany, 7/2024)</b> Develop C. Absorbed through skin.  TWA 8 hours: 10 ppm.  PEAK 15 minutes: 20 ppm 4 times per shift [Interval: 1 hour].  TWA 8 hours: 49 mg/m<sup>3</sup>.  PEAK 15 minutes: 98 mg/m<sup>3</sup> 4 times per shift [Interval: 1 hour].</p>
2-Butoxyethanol	<p><b>Presidential Decree 307/1986: Occupational exposure limit values (Greece, 8/2024)</b> Absorbed through skin.  TWA 8 hours: 25 ppm.  TWA 8 hours: 120 mg/m<sup>3</sup>.</p>
2-Butoxyethanol	<p><b>5/2020. (II. 6.) ITM Decree (Hungary, 1/2025)</b> Absorbed through skin.  TWA 8 hours: 98 mg/m<sup>3</sup>.  PEAK 15 minutes: 246 mg/m<sup>3</sup>.  PEAK 15 minutes: 50 ppm.  TWA 8 hours: 20 ppm.</p>
2-Butoxyethanol	<p><b>Ministry of Welfare, List of Exposure Limits (Iceland, 11/2024)</b>  Absorbed through skin.  STEL 15 minutes: 246 mg/m<sup>3</sup>.  STEL 15 minutes: 50 ppm.  TWA 8 hours: 100 mg/m<sup>3</sup>.  TWA 8 hours: 20 ppm.</p>
2-Butoxyethanol	<p><b>NAOSH (Ireland, 4/2024)</b> Absorbed through skin. Notes: EU derived Occupational Exposure Limit Values  OELV 8 hours: 20 ppm.  OELV 8 hours: 98 mg/m<sup>3</sup>.  OELV 15 minutes: 50 ppm.  OELV 15 minutes: 246 mg/m<sup>3</sup>.</p>
2-Butoxyethanol	<p><b>Legislative Decree No. 81/2008. Title IX. Protection from chemical agents, carcinogens and mutagens (Italy, 9/2024)</b>  Absorbed through skin.  Limit value 8 hours: 20 ppm.  Limit value 8 hours: 98 mg/m<sup>3</sup>.  Short Term 15 minutes: 50 ppm.  Short Term 15 minutes: 246 mg/m<sup>3</sup>.</p>

## SECTION 8: Exposure controls/personal protection

2-Butoxyethanol	<b>Ministers Cabinet Regulations Nr.325 - AER (Latvia, 3/2024)</b> Absorbed through skin. TWA 8 hours: 98 mg/m <sup>3</sup> . TWA 8 hours: 20 ppm. STEL 15 minutes: 50 ppm. STEL 15 minutes: 246 mg/m <sup>3</sup> .
2-Butoxyethanol	<b>Lithuanian Hygiene Standard HN 23 (Lithuania, 1/2024)</b> Absorbed through skin. TWA 8 hours: 50 mg/m <sup>3</sup> . TWA 8 hours: 10 ppm. STEL 15 minutes: 100 mg/m <sup>3</sup> . STEL 15 minutes: 20 ppm.
2-Butoxyethanol	<b>Grand-Duchy Regulation 2016. Chemical agents. Annex I (Luxembourg, 3/2021)</b> Absorbed through skin. TWA 8 hours: 20 ppm. TWA 8 hours: 98 mg/m <sup>3</sup> . STEL 15 minutes: 50 ppm. STEL 15 minutes: 246 mg/m <sup>3</sup> .
2-Butoxyethanol	<b>EU OEL (Europe, 1/2022)</b> Absorbed through skin. TWA 8 hours: 20 ppm. TWA 8 hours: 98 mg/m <sup>3</sup> . STEL 15 minutes: 50 ppm. STEL 15 minutes: 246 mg/m <sup>3</sup> .
2-Butoxyethanol	<b>Ministry of Social Affairs and Employment, Legal limit values (Netherlands, 5/2024)</b> Absorbed through skin. TWA 8 hours: 100 mg/m <sup>3</sup> . STEL 15 minutes: 246 mg/m <sup>3</sup> . TWA 8 hours: 20.4 ppm. STEL 15 minutes: 50 ppm.
2-Butoxyethanol	<b>FOR-2011-12-06-1358 (Norway, 5/2024)</b> Absorbed through skin. TWA 8 hours: 10 ppm. TWA 8 hours: 50 mg/m <sup>3</sup> .
2-Butoxyethanol	<b>Regulation of the Minister of Family, Labor and Social Policy of June 12, 2018 on the maximum permissible concentrations and intensities of factors harmful to health in the work environment (Journal of Laws of 2018, item 1286) (Poland, 7/2024)</b> Absorbed through skin. TWA 8 hours: 98 mg/m <sup>3</sup> . STEL 15 minutes: 200 mg/m <sup>3</sup> .
2-Butoxyethanol	<b>Portuguese Institute of Quality (Portugal, 11/2014) A3.</b> TWA 8 hours: 20 ppm. <b>Decree-Law 24/2012 - Occupational exposure limits for chemical agents (Portugal, 6/2021)</b> Absorbed through skin. STEL 15 minutes: 50 ppm. STEL 15 minutes: 246 mg/m <sup>3</sup> . TWA 8 hours: 20 ppm. TWA 8 hours: 98 mg/m <sup>3</sup> .
2-Butoxyethanol	<b>HG 1218/2006, Annex 1, with subsequent modifications and additions (Romania, 3/2024)</b> Absorbed through skin. VLA 8 hours: 98 mg/m <sup>3</sup> . VLA 8 hours: 20 ppm. Short term 15 minutes: 246 mg/m <sup>3</sup> . Short term 15 minutes: 50 ppm.
2-Butoxyethanol	<b>Government regulation SR c. 355/2006 (Slovakia, 6/2024)</b> Absorbed through skin , Inhalation sensitiser. TWA 8 hours: 98 mg/m <sup>3</sup> . TWA 8 hours: 20 ppm. STEL 15 minutes: 246 mg/m <sup>3</sup> . STEL 15 minutes: 50 ppm.



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2-Butoxyethanol	<p><b>Regulation on protection of workers from the risks related to exposure to chemical substances at work (Slovenia, 4/2024)</b>  Absorbed through skin.  TWA 8 hours: 98 mg/m<sup>3</sup>.  TWA 8 hours: 20 ppm.  KTV 15 minutes: 246 mg/m<sup>3</sup> 4 times per shift [time between two exposure events at this concentration must be at least 60 minutes].  KTV 15 minutes: 50 ppm 4 times per shift [time between two exposure events at this concentration must be at least 60 minutes].</p>
2-Butoxyethanol	<p><b>National institute of occupational safety and health (Spain, 1/2024)</b> Absorbed through skin.  TWA 8 hours: 20 ppm.  TWA 8 hours: 98 mg/m<sup>3</sup>.  STEL 15 minutes: 245 mg/m<sup>3</sup>.  STEL 15 minutes: 50 ppm.</p>
2-Butoxyethanol	<p><b>Work environment authority Regulation 2018:1 (Sweden, 11/2022)</b> Absorbed through skin.  TWA 8 hours: 10 ppm.  TWA 8 hours: 50 mg/m<sup>3</sup>.  STEL 15 minutes: 50 ppm.  STEL 15 minutes: 246 mg/m<sup>3</sup>.</p>
2-Butoxyethanol	<p><b>SUVA (Switzerland, 1/2025)</b> Absorbed through skin.  TWA 8 hours: 10 ppm.  TWA 8 hours: 49 mg/m<sup>3</sup>.  STEL 15 minutes: 20 ppm.  STEL 15 minutes: 98 mg/m<sup>3</sup>.</p>
2-Butoxyethanol	<p><b>EH40/2005 WELs (United Kingdom (UK), 1/2020)</b> Absorbed through skin.  STEL 15 minutes: 50 ppm.  TWA 8 hours: 25 ppm.  STEL 15 minutes: 246 mg/m<sup>3</sup>.  TWA 8 hours: 123 mg/m<sup>3</sup>.</p>

### Biological exposure indices

Product/ingredient name	Exposure indices
No exposure indices known.	<p><b>Government regulation of Czech Republic Limit Values of Biological Exposure Tests (Czech Republic, 9/2015)</b>  Biological limit values: 0.17 mmol/mmol creatinine, butoxyacetic acid (after hydrolysis) [in urine]. Sampling time: the end of the shift at the end of the week.  Biological limit values: 200 mg/g creatinine, butoxyacetic acid (after hydrolysis) [in urine]. Sampling time: the end of the shift at the end of the week.</p> <p><b>Biological limit values (BLV) - Labour Code / ANSES (France, 4/2023) [2- butoxyéthanol et son acétate]</b>  BLV: 100 mg/g Cr, 2-butoxyacetic acid [in urine]. Sampling time: end of shift (regardless of the day of the week).</p>
No exposure indices known.	
No exposure indices known.	
No exposure indices known.	
No exposure indices known.	
2-Butoxyethanol	
No exposure indices known.	
No exposure indices known.	
No exposure indices known.	
No exposure indices known.	
2-Butoxyethanol	

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2-Butoxyethanol

**DFG BEI-values list (Germany, 7/2024)** Notes: danger from percutaneous absorption (see p. 211 and p. 228).  
BEI: 150 mg/g creatinine, butoxyacetic acid (after hydrolysis) [in urine]. Sampling time: at the end of the shift, for long-term exposures after several previous shifts.  
**TRGS 903 - BEI Values (Germany, 10/2024)**  
BEI: 150 mg/g creatinine, butoxy acetic acid (after hydrolysis) [in urine]. Sampling time: at the end of the shift, for long-term exposure after several previous shifts.

No exposure indices known.

No exposure indices known.

No exposure indices known.

2-Butoxyethanol

**NAOSH BGVs (Ireland, 1/2011)**

BMGV: 200 mg/g creatinine, BAA [in urine]. Sampling time: end of shift - As soon as possible after exposure ceases.

No exposure indices known.

No exposure indices known.

No exposure indices known.

No exposure indices known.

No exposure indices known.

No exposure indices known.

No exposure indices known.

No exposure indices known.

2-Butoxyethanol

**Portuguese Institute of Quality (Portugal, 11/2014)**

BEI: 200 mg/g creatinine, butoxyacetic acid (BAA) [in urine].  
Sampling time: end of shift.

No exposure indices known.

No exposure indices known.

2-Butoxyethanol

**Regulation on protection of workers from the risks related to exposure to chemical substances at work (Slovenia, 4/2024)**

BAT: 150 mg/g creatinine, butoxyacetic acid (after hydrolysis) [in urine]. Sampling time: at the end of the work shift, at long-term exposure: at the end of the work shift after several consecutive workdays.

2-Butoxyethanol

**National institute of occupational safety and health (Spain, 1/2024)**

VLB: 200 mg/g creatinine, butoxyacetic acid [in urine]. Sampling time: end of shift.

No exposure indices known.

2-Butoxyethanol

**SUVA (Switzerland, 1/2025)**

BEI: 150 mg/g creatinine, 2-butoxy acetic acid (after hydrolysis) [in urine]. Sampling time: immediately after exposure or after working hours. In case of long-term exposure: after more than one shift.

2-Butoxyethanol

**EH40/2005 BMGVs (United Kingdom (UK), 1/2020)**

BGV: 240 mmol/mol creatinine, butoxyacetic acid [in urine].  
Sampling time: post shift.

### Recommended monitoring procedures

: Reference should be made to monitoring standards, such as the following:  
European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be

## SECTION 8: Exposure controls/personal protection

required.

### DNELs/DMELs

#### Product/ingredient name

Hexamethylene diacrylate

#### Result

**DNEL - General population - Long term - Dermal**

1.66 mg/kg bw/day

Effects: Systemic

**DNEL - General population - Long term - Oral**

2.1 mg/kg bw/day

Effects: Systemic

**DNEL - Workers - Long term - Dermal**

2.77 mg/kg bw/day

Effects: Systemic

**DNEL - General population - Long term - Inhalation**

7.2 mg/m<sup>3</sup>

Effects: Systemic

**DNEL - Workers - Long term - Inhalation**

24.5 mg/m<sup>3</sup>

Effects: Systemic

Oligotriacrylate

**DNEL - Workers - Long term - Dermal**

2.1 mg/kg bw/day

Effects: Systemic

**DNEL - Workers - Long term - Inhalation**

7.4 mg/m<sup>3</sup>

Effects: Systemic

Benzene, (1-methylethenyl)-, homopolymer,  
ar-(2-hydroxy-2-methyl-1-oxopropyl) derivs.

**DNEL - General population - Long term - Oral**

5.28 µg/kg bw/day

Effects: Systemic

**DNEL - General population - Long term - Dermal**

5.28 µg/kg bw/day

Effects: Systemic

**DNEL - General population - Long term - Inhalation**

9.18 µg/m<sup>3</sup>

Effects: Systemic

**DNEL - Workers - Long term - Dermal**

14.8 µg/kg bw/day

Effects: Systemic

**DNEL - Workers - Long term - Inhalation**

52.1 µg/m<sup>3</sup>

Effects: Systemic

Phosphine oxide, phenylbis  
(2,4,6-trimethylbenzoyl)-

**DNEL - Workers - Long term - Inhalation**

21 mg/m<sup>3</sup>

Effects: Systemic

**DNEL - Workers - Short term - Inhalation**

21 mg/m<sup>3</sup>

Effects: Systemic

**DNEL - Workers - Long term - Dermal**

3.3 mg/kg

Effects: Systemic

**DNEL - Workers - Short term - Dermal**

3.3 mg/kg

## SECTION 8: Exposure controls/personal protection

Effects: Systemic

**DNEL - General population - Consumers - Long term - Inhalation**

5.2 mg/m<sup>3</sup>

Effects: Systemic

**DNEL - General population - Consumers - Long term - Dermal**

1.5 mg/kg

Effects: Systemic

**DNEL - General population - Consumers - Long term - Oral**

1.5 mg/kg

Effects: Systemic

**DNEL - General population - Short term - Oral**

1.67 ng/kg bw/day

Effects: Systemic

**DNEL - General population - Long term - Oral**

1.5 mg/kg bw/day

Effects: Systemic

**DNEL - General population - Long term - Dermal**

1.5 mg/kg bw/day

Effects: Systemic

**DNEL - General population - Short term - Dermal**

1.67 mg/kg bw/day

Effects: Systemic

**DNEL - General population - Short term - Inhalation**

1.93 mg/m<sup>3</sup>

Effects: Systemic

**DNEL - General population - Long term - Inhalation**

1.93 mg/m<sup>3</sup>

Effects: Systemic

**DNEL - Workers - Long term - Dermal**

3 mg/kg bw/day

Effects: Systemic

**DNEL - Workers - Short term - Dermal**

3.33 mg/kg bw/day

Effects: Systemic

**DNEL - Workers - Short term - Inhalation**

7.84 mg/m<sup>3</sup>

Effects: Systemic

**DNEL - Workers - Long term - Inhalation**

7.84 mg/m<sup>3</sup>

Effects: Systemic

**DNEL - Workers - Long term - Dermal**

1.7 mg/kg bw/day

Effects: Systemic

**DNEL - Workers - Long term - Inhalation**

2.35 mg/m<sup>3</sup>

Effects: Systemic

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

## SECTION 8: Exposure controls/personal protection

2-Butoxyethanol

**DNEL - General population - Long term - Oral**

6.3 mg/kg bw/day

Effects: Systemic

**DNEL - General population - Short term - Oral**

26.7 mg/kg bw/day

Effects: Systemic

**DNEL - General population - Long term - Inhalation**

59 mg/m<sup>3</sup>

Effects: Systemic

**DNEL - Workers - Long term - Inhalation**

98 mg/m<sup>3</sup>

Effects: Systemic

**DNEL - General population - Short term - Inhalation**

147 mg/m<sup>3</sup>

Effects: Local

**DNEL - Workers - Short term - Inhalation**

246 mg/m<sup>3</sup>

Effects: Local

**DNEL - General population - Short term - Inhalation**

426 mg/m<sup>3</sup>

Effects: Systemic

**DNEL - Workers - Short term - Inhalation**

1091 mg/m<sup>3</sup>

Effects: Systemic

### PNECs

Not available.

## 8.2 Exposure controls

### **Appropriate engineering controls**

: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

### Individual protection measures

#### **Hygiene measures**

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

#### **Eye/face protection**

: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

### Skin protection

#### **Hand protection**

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Recommendations : Wear suitable gloves tested to EN374.

## SECTION 8: Exposure controls/personal protection

< 1 hour (breakthrough time): Nitrile gloves. thickness > 0.3 mm

1 - 4 hours (breakthrough time): 4H / Silver Shield® gloves.

- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.  
Filter type: A  
Filter type (spray application): A P
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

## SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

### 9.1 Information on basic physical and chemical properties

#### Appearance

- Physical state** : Liquid.
- Colour** : Greyish-white.
- Odour** : Slight
- Odour threshold** : Not available.
- Melting point/freezing point** : Not available.
- Initial boiling point and boiling range** :

Ingredient name	°C	°F	Method
Phosphine oxide, phenylbis(2,4,6-trimethylbenzoyl)-	>168	>334.4	EU A.2

- Flammability** : Not available.
- Lower and upper explosion limit** : Lower: Not applicable.  
Upper: Not applicable.
- Flash point** : Closed cup: >100°C (>212°F)
- Auto-ignition temperature** :

Ingredient name	°C	°F	Method
Phosphine oxide, phenylbis(2,4,6-trimethylbenzoyl)-	>131.4	>268.5	EU A.16
Hexamethylene diacrylate	235	455	DIN 51794

- Decomposition temperature** : Not available.
- pH** : Not applicable.
- Viscosity** : Not available.
- Solubility(ies)** :  
Not available.
- Solubility in water** : Not available.
- Partition coefficient: n-octanol/ water** : Not applicable.
- Vapour pressure** :



## SECTION 9: Physical and chemical properties

Ingredient name	Vapour Pressure at 20°C			Vapour pressure at 50°C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
Hexamethylene diacrylate	0.00045	0.00006	EU A.4			
Oligotriacrylate	0.000024	0.0000032	OECD 104			

**Relative density** : Not available.

**Density** : 1.4 g/cm<sup>3</sup>

**Vapour density** : Not available.

### Particle characteristics

**Median particle size** : Not applicable.

## 9.2 Other information

### 9.2.1 Information with regard to physical hazard classes

**Explosive properties** : Not available.

**Oxidising properties** : Not available.

### 9.2.2 Other safety characteristics

Not applicable.

## SECTION 10: Stability and reactivity

**10.1 Reactivity** : No specific test data related to reactivity available for this product or its ingredients.

**10.2 Chemical stability** : The product is stable.

**10.3 Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.

**10.4 Conditions to avoid** : No specific data.

**10.5 Incompatible materials** : No specific data.

**10.6 Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

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

#### Acute toxicity

##### Product/ingredient name

Hexamethylene diacrylate

##### Result

**Rat - Oral - LD50**  
5 g/kg

Phosphine oxide, phenylbis  
(2,4,6-trimethylbenzoyl)-

**Rat - Oral - LD50**  
>2000 mg/kg  
OECD [Acute Oral Toxicity]

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

**Rat - Oral - LD50**  
6200 mg/kg  
Toxic effects: Eye - Ptosis Lung, Thorax, or Respiration -  
Respiratory depression Other - Hair

**Conclusion/Summary [Product]** : Not available.

#### Acute toxicity estimates

## SECTION 11: Toxicological information

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
UVILUX 6790-03	N/A	N/A	N/A	1671.7	N/A
Hexamethylene diacrylate	5000	N/A	N/A	N/A	N/A
(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate	6200	N/A	N/A	N/A	N/A
2-Butoxyethanol	1200	N/A	N/A	3	N/A

### Skin corrosion/irritation

#### Product/ingredient name

Hexamethylene diacrylate

#### Result

**Rabbit - Skin - Severe irritant**

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 500 mg

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

**Rabbit - Skin - Moderate irritant**

Amount/concentration applied: 500 mg

2-Butoxyethanol

**Rabbit - Skin - Mild irritant**

Amount/concentration applied: 500 mg

**Conclusion/Summary [Product]** : Not available.

### Serious eye damage/eye irritation

#### Product/ingredient name

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

#### Result

**Rabbit - Eyes - Severe irritant**

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 100 uL

2-Butoxyethanol

**Rabbit - Eyes - Moderate irritant**

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 100 mg

**Rabbit - Eyes - Severe irritant**

Amount/concentration applied: 100 mg

**Conclusion/Summary [Product]** : Not available.

### Respiratory corrosion/irritation

Not available.

**Conclusion/Summary [Product]** : Not available.

### Respiratory or skin sensitization

#### Product/ingredient name

Phosphine oxide, phenylbis(2,4,6-trimethylbenzoyl)-

#### Result

**Guinea pig - skin**

OECD [Skin Sensitization]

Result: Sensitising

### Skin

**Conclusion/Summary [Product]** : Not available.

### Respiratory

**Conclusion/Summary [Product]** : Not available.

### Germ cell mutagenicity

## SECTION 11: Toxicological information

### Product/ingredient name

Phosphine oxide, phenylbis  
(2,4,6-trimethylbenzoyl)-

### Result

#### Bacteria

Result: Negative

**Conclusion/Summary [Product]** : Not available.

### Carcinogenicity

Not available.

**Conclusion/Summary [Product]** : Not available.

### Ingredient name

Phosphine oxide, phenylbis  
(2,4,6-trimethylbenzoyl)-

### Conclusion/Summary

No results available.

### Reproductive toxicity

Not available.

**Conclusion/Summary [Product]** : Not available.

### Specific target organ toxicity (single exposure)

#### Product/ingredient name

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

#### Result

STOT SE 3, H335 (Respiratory tract irritation)

### Specific target organ toxicity (repeated exposure)

Not available.

### Aspiration hazard

Not available.

### Information on likely routes of exposure

Not available.

### Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Causes skin irritation. May cause an allergic skin reaction.
- Ingestion** : No known significant effects or critical hazards.

### Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:
  - pain or irritation
  - watering
  - redness
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:
  - irritation
  - redness
- Ingestion** : No specific data.

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

#### Short term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

#### Long term exposure

## SECTION 11: Toxicological information

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

### Potential chronic health effects

Not available.

**Conclusion/Summary [Product]** : Not available.

**General** : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

**Carcinogenicity** : No known significant effects or critical hazards.

**Mutagenicity** : No known significant effects or critical hazards.

**Reproductive toxicity** : No known significant effects or critical hazards.

## 11.2 Information on other hazards

### 11.2.1 Endocrine disrupting properties

Not available.

**Conclusion/Summary [Product]** : The product does not meet the criteria to be considered as having endocrine disrupting properties according to the criteria set out in either Regulation (EC) No. 1907/2006 or Regulation (EC) No 1272/2008.

### 11.2.2 Other information

Not available.

## SECTION 12: Ecological information

### 12.1 Toxicity

#### **Product/ingredient name**

Hexamethylene diacrylate

#### **Result**

##### **NOEC**

OECD [Alga, Growth Inhibition Test]  
Algae - Algae - *Desmodesmus subspicatus*  
0.5 mg/l [72 hours]

##### **EC50**

OECD [Alga, Growth Inhibition Test]  
Algae - Algae - *Selenastrum capricornutum*  
1.09 mg/l [72 hours]

##### **LC50**

OECD [Fish, Acute Toxicity Test]  
Fish - *Oryzias latipes*  
0.38 mg/l [96 hours]

##### **NOEC**

OECD [Fish, Early-Life Stage Toxicity Test]  
Fish - *Oryzias latipes*  
0.072 mg/l [96 hours]

##### **EC50**

OECD [Daphnia sp. Acute Immobilization Test and Reproduction Test]  
Daphnia - Daphnia - *Daphnia magna*  
2.7 mg/l [48 hours]

##### **NOEC**

OECD [Daphnia sp. Acute Immobilization Test and Reproduction Test]  
Daphnia - Daphnia - *Daphnia magna*  
0.14 mg/l [21 days]

Phosphine oxide, phenylbis  
(2,4,6-trimethylbenzoyl)-

##### **Acute - LC50**

OECD [Fish, Acute Toxicity Test]  
Fish - *Brachydanio rerio*  
>0.09 mg/l [96 hours]

## SECTION 12: Ecological information

### Acute - EC50

Daphnia sp. Acute Immobilization Test and Reproduction Test  
Daphnia - *Daphnia magna*  
>1.175 mg/l [48 hours]

### EC50

Alga, Growth Inhibition Test  
Aquatic plants - *Desmodesmus subspicatus*  
≥0.26 mg/l [72 hours]

### NOEC - Fresh water

OECD [Daphnia Magna Reproduction Test]  
Daphnia - *Daphnia magna*  
≥0.008 mg/l [21 days]

2-Butoxyethanol

### Acute - LC50 - Marine water

Fish - Inland silverside - *Menidia beryllina*  
Size: 40 to 100 mm  
1250000 µg/l [96 hours]  
Effect: Mortality

### Acute - LC50 - Marine water

Crustaceans - Common shrimp, sand shrimp - *Crangon crangon*  
800000 µg/l [48 hours]  
Effect: Mortality

Conclusion/Summary [Product] : Not available.

### 12.2 Persistence and degradability

Not available.

Conclusion/Summary [Product] : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Phosphine oxide, phenylbis (2,4,6-trimethylbenzoyl)-	-	-	Not readily

### 12.3 Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
Hexamethylene diacrylate	2.81	-	Low
Oligotriacrylate	2.52	-	Low
Phosphine oxide, phenylbis (2,4,6-trimethylbenzoyl)-	5.77	<5	Low
(1-methyl-1,2-ethanediyl)bis [oxy(methyl-2,1-ethanediyl)] diacrylate	2	-	Low
2-Butoxyethanol	0.81	-	Low

### 12.4 Mobility in soil

#### Soil/water partition coefficient

Product/ingredient name	logK <sub>oc</sub>	K <sub>oc</sub>
Hexamethylene diacrylate	2.5	332.947
Phosphine oxide, phenylbis (2,4,6-trimethylbenzoyl)-	5	108908
Methylbenzoylformiat	1.6	38.9998
(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate	2.9	803.136
2-Butoxyethanol	1.8	67.3685

#### Results of PMT and vPvM assessment

## SECTION 12: Ecological information

Product/ingredient name	PMT	P	M	T	vPvM	vP	vM
Hexamethylene diacrylate	No	No	No	No	No	No	No
Oligotriacrylate	No	No	No	No	No	No	No
Acrylate resin	No	No	No	No	No	No	No
Benzene, (1-methylethenyl)-, homopolymer, ar-(2-hydroxy-2-methyl-1-oxopropyl) derivs.	No	No	No	No	No	No	No
Phosphine oxide, phenylbis (2,4,6-trimethylbenzoyl)-Methylbenzoylformiat	No	No	No	No	No	No	No
(1-methyl-1,2-ethanediyl)bis [oxy(methyl-2,1-ethanediyl)] diacrylate	No	No	No	No	No	No	No
2-Butoxyethanol	No	No	No	No	No	No	No

**Mobility** : Not available.

**Conclusion/Summary** : The product does not meet the criteria to be considered as a PMT or vPvM.

### 12.5 Results of PBT and vPvB assessment

#### Regulation (EC) No. 1907/2006 [REACH]

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
Hexamethylene diacrylate	No	N/A	N/A	No	N/A	N/A	N/A
Oligotriacrylate	No	N/A	N/A	No	N/A	N/A	N/A
Acrylate resin	No	N/A	N/A	No	N/A	N/A	N/A
Benzene, (1-methylethenyl)-, homopolymer, ar-(2-hydroxy-2-methyl-1-oxopropyl) derivs.	N/A	N/A	N/A	Yes	N/A	N/A	N/A
Phosphine oxide, phenylbis (2,4,6-trimethylbenzoyl)-Methylbenzoylformiat	No	N/A	No	Yes	No	N/A	No
(1-methyl-1,2-ethanediyl)bis [oxy(methyl-2,1-ethanediyl)] diacrylate	No	N/A	N/A	No	N/A	N/A	N/A
2-Butoxyethanol	No	N/A	N/A	No	N/A	N/A	N/A

#### Regulation (EC) No. 1272/2008 [CLP]

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
Hexamethylene diacrylate	No	No	No	No	No	No	No
Oligotriacrylate	No	No	No	No	No	No	No
Acrylate resin	No	No	No	No	No	No	No
Benzene, (1-methylethenyl)-, homopolymer, ar-(2-hydroxy-2-methyl-1-oxopropyl) derivs.	No	No	No	No	No	No	No
Phosphine oxide, phenylbis (2,4,6-trimethylbenzoyl)-Methylbenzoylformiat	No	No	No	No	No	No	No
(1-methyl-1,2-ethanediyl)bis [oxy(methyl-2,1-ethanediyl)] diacrylate	No	No	No	No	No	No	No
2-Butoxyethanol	No	No	No	No	No	No	No

**Conclusion/Summary** : The product does not meet the criteria to be considered as a PBT or vPvB.

#### Regulation (EC) No. 1272/2008 [CLP]

### 12.6 Endocrine disrupting properties

Not available.

**Conclusion/Summary [Product]** : The product does not meet the criteria to be considered as having endocrine disrupting properties according to the criteria set out in either Regulation (EC) No. 1907/2006 or Regulation (EC) No 1272/2008.



## SECTION 12: Ecological information

### 12.7 Other adverse effects

No known significant effects or critical hazards.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Product

**Methods of disposal** : Avoid release to the environment. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Dispose of contents and container in accordance with all local, regional, national and international regulations.

**Hazardous waste** : The classification of the product may meet the criteria for a hazardous waste.









**European waste catalogue (EWC)** : 080111\*

#### Packaging

**Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

**Special precautions** : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

## SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
<b>14.1 UN number or ID number</b>	UN3082	UN3082	UN3082	UN3082
<b>14.2 UN proper shipping name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PAINT)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PAINT)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PAINT)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PAINT)
<b>14.3 Transport hazard class(es)</b>	9  	9  	9  	9  
<b>14.4 Packing group</b>	III	III	III	III
<b>14.5 Environmental hazards</b>	Yes.	Yes.	Yes.	Yes.

### Additional information

**ADR/RID** : This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

**Tunnel code** (-)

**ADN** : This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

**IMDG** : This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

**IATA** : This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.

## SECTION 14: Transport information

**14.6 Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**14.7 Maritime transport in bulk according to IMO instruments** : Not relevant/applicable due to nature of the product.

## SECTION 15: Regulatory information

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

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Product/ingredient name	%	Designation [Usage]
UVILUX 6790-03	≥90	3

**Labelling** :

Synthetic polymer microparticles - Designation 78

**Generic identity of polymer(s)** : 3909 - Amino-resins, phenolic resins and polyurethanes.

**Total percentage of synthetic polymer microparticles** : 2.2%

The synthetic polymer microparticles supplied is subject to conditions laid down by entry 78 of Annex XVII to Regulation (EC) No 1907/2006 of the European Parliament and of the Council.

Other EU regulations

**Industrial emissions (integrated pollution prevention and control) - Air** : Not listed

**Industrial emissions (integrated pollution prevention and control) - Water** : Not listed

**Explosive precursors** : Not applicable.

Ozone depleting substances (EU 2024/590)

Not listed.

Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

Persistent Organic Pollutants

Not listed.

Seveso Directive

This product is controlled under the Seveso Directive.

Danger criteria

Category
1

## SECTION 15: Regulatory information

### National regulations

#### Austria

Limitation of the use of organic solvents : Permitted.

#### Belgium

#### Czech Republic

Storage code : IV

#### Denmark

Fire class : W-1

### Executive Order No. 1795/2015

Ingredient name	Annex I Section A	Annex I Section B
Titanium dioxide	Listed	-

MAL-code : 00-5

Protection based on MAL : According to the regulations on work involving coded products, the following stipulations apply to the use of personal protective equipment:

**General:** Gloves must be worn for all work that may result in soiling. Apron/coveralls/protective clothing must be worn when soiling is so great that regular work clothes do not adequately protect skin against contact with the product. A face shield must be worn in work involving spattering if a full mask is not required. In this case, other recommended use of eye protection is not required.

In all spraying operations in which there is return spray, the following must be worn: respiratory protection and arm protectors/apron/coveralls/protective clothing as appropriate or as instructed.

MAL-code: 00-5

**Application:** When using scraper or knife, brush, roller etc. for pre- and post-treatments in a spray booth where the operator is outside the spray zone and when working in similar new\* facilities of the combined-cabin, spray-cabin and spray-booth type where the operator is working inside the spray zone. When spraying in new\* booths and cabins with non-atomizing guns. During downtimes, cleaning and repair in closed facilities, spray booths or cabins, if there is a risk of contact with wet paint or organic solvents. During non-atomising spraying in existing\* facilities of the combined-cabin, spray-cabin and spray-booth type where the operator is working inside the spray zone. When using scraper or knife, brush, roller, etc. for pre- and post-treatments in cabins or booths of the existing\* facility type, if the operator is inside the spray zone. When using scraper or knife, brush, roller, etc. for pre- and post-treatments outside a closed facility, spray booth or spray cabin.

- Protective clothing must be worn.

When spraying in existing\* spray booths, if the operator is outside the spray zone.

- Air-supplied full mask and protective clothing must be worn.

During all spraying where atomisation occurs in cabins or spray booths where the operator is inside the spray zone and during spraying outside a closed facility, cabin or booth.

- Air-supplied full mask, protective clothing and hood must be worn.

## SECTION 15: Regulatory information

**Drying:** Items for drying/drying ovens that are temporarily placed on such things as rack trolleys, etc, must be equipped with a mechanical exhaust system to prevent fumes from wet items from passing through workers' inhalation zone.

**Polishing:** When polishing treated surfaces, a mask with dust filter must be worn. When machine grinding, eye protection must be worn. Work gloves must always be worn.

**Caution** The regulations contain other stipulations in addition to the above.

\*See Regulations.

- Restrictions on use** : Not to be used by professional users below 18 years of age. See the National Working Environment Authorities Executive Order regarding Young People At Work.
- List of undesirable substances** : Not listed
- Carcinogenic waste** : Waste containers must be labeled: Contains a substance or substances regulated by Danish working environment legislation on cancer risks.
- Epoxy/Isocyanate** : The product is covered by the rules for epoxy resins and isocyanates in Executive Order no. 1793 of 18/12/2015 on working with substances and materials (chemical agents). Pay attention to the rules, for example: the user of the product must have undergone special training and waste must be labelled. This requirement is in addition to the training requirement described in the REACH regulation, Annex XVII, entry 74 (COMMISSION REGULATION (EU) 2020/1149).

### Finland

### France

- Social Security Code, Articles L 461-1 to L 461-7** : 1-methyl-1,2-ethanediyl]bis[oxy(methyl-2,1-ethanediyl)] diacrylate RG 84  
2-Butoxyethanol RG 84

- Reinforced medical surveillance** : Act of July 11, 1977 determining the list of activities which require reinforced medical surveillance: not applicable

### Germany

- Storage class (TRGS 510)** : 10

### Hazardous incident ordinance

This product is controlled under the Germany Hazardous Incident Ordinance.

### Danger criteria

Category	Reference number
E1	1.3.1

- Hazard class for water** : 2

### Technical instruction on air quality control (TA Luft)

Number [Class]	Description	%
5.2.1	Total dust	42.8
5.2.5	Organic substances	56.9
5.2.5 [I]	Organic substances	3.3

- AOX** : The product contains organically bound halogens and can contribute to the AOX value in waste water.

### Italy

- D.Lgs. 152/06** : Not determined.


### Netherlands

- Water Discharge Policy (ABM)** : A(1) Highly toxic for aquatic organisms, may have long-term hazardous effects in aquatic environment. Decontamination effort: A

### Norway

### Sweden

## SECTION 15: Regulatory information

**Epoxy/Isocyanate** :  The product is covered by the specific rules for certain allergenic chemical products (acrylates, epoxies, diisocyanates, formaldehyde resins and organic acid anhydrides) in provision AFS 2023:10 Chemical Hazards in the Working Environment. Pay attention to that handling the product requires certificate of undergone necessary training and can require medical examination (AFS 2023:15). Waste must be labelled with named substance and as Hazardous waste. This requirement is in addition to the training requirement described in the REACH regulation, Annex XVII, entry 74 (COMMISSION REGULATION (EU) 2020/1149).

### Switzerland

**VOC content** : Exempt.

### International regulations

#### Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

#### Montreal Protocol

Not listed.

#### Stockholm Convention on Persistent Organic Pollutants

Not listed.

#### Rotterdam Convention on Prior Informed Consent (PIC)


Not listed.

#### UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

**15.2 Chemical safety assessment** : This product contains substances for which Chemical Safety Assessments are still required.

## SECTION 16: Other information

 Indicates information that has changed from previously issued version.


**Abbreviations and acronyms** : ATE = Acute Toxicity Estimate  
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]  
DMEL = Derived Minimal Effect Level  
DNEL = Derived No Effect Level  
EUH statement = CLP-specific Hazard statement  
N/A = Not available  
PBT = Persistent, Bioaccumulative and Toxic  
PNEC = Predicted No Effect Concentration  
RRN = REACH Registration Number  
SGG = Segregation Group  
vPvB = Very Persistent and Very Bioaccumulative

#### Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]


Classification	Justification
Skin Irrit. 2, H315	Calculation method
Eye Irrit. 2, H319	Calculation method
Skin Sens. 1, H317	Calculation method
Aquatic Acute 1, H400	Calculation method
Aquatic Chronic 2, H411	Calculation method

#### Full text of abbreviated H statements

## SECTION 16: Other information

 H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H335	May cause respiratory irritation.
H361f	Suspected of damaging fertility.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

### Full text of classifications [CLP/GHS]

 Acute Tox. 3	ACUTE TOXICITY - Category 3
Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Acute 1	SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1
Aquatic Chronic 2	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2
Aquatic Chronic 4	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 4
Eye Irrit. 2	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
Repr. 2	REPRODUCTIVE TOXICITY - Category 2
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1	SKIN SENSITISATION - Category 1
Skin Sens. 1A	SKIN SENSITISATION - Category 1A
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3

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### Notice to reader

The information in this SDS is based on the present state of our knowledge and on current laws. The product is not to be used for purposes other than those specified under section 1 without first obtaining written handling instructions. It is always the responsibility of the user to take all necessary steps to fulfil the demands set out in the local rules and legislation. The information in this SDS is meant to be a description of the safety requirements for our product. It is not to be considered a guarantee of the product's properties.



