

## Safety data sheet according to Regulation (EC) No 1907/2006, Annex II (last amended by Regulation (EU) 2020/878)

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

#### 1.1 Product identifier

### Kebudur HT-Harz

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

##### Relevant identified uses of the substance or mixture:

Raw material

Manufacture of:

Plastic

##### Uses advised against:

No information available at present.

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

Kebulin-Gesellschaft Kettler GmbH & Co. KG

Ostring 9

45701 Herten-Westerholt

Tel.: ++49(0)209/9615-0

Fax: ++49(0)209/9615-190

Qualified person's e-mail address: [info@chemical-check.de](mailto:info@chemical-check.de), [k.schnurbusch@chemical-check.de](mailto:k.schnurbusch@chemical-check.de) Please DO NOT use for requesting Safety Data Sheets.

#### 1.4 Emergency telephone number

##### Emergency information services / official advisory body:

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##### Telephone number of the company in case of emergencies:

++49 209 9615 0

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

##### Classification according to Regulation (EC) 1272/2008 (CLP)

Hazard class	Hazard category	Hazard statement
Flam. Liq.	3	H226-Flammable liquid and vapour.
Acute Tox.	4	H332-Harmful if inhaled.
Eye Irrit.	2	H319-Causes serious eye irritation.
STOT SE	3	H335-May cause respiratory irritation.
Skin Irrit.	2	H315-Causes skin irritation.
Repr.	2	H361d-Suspected of damaging the unborn child.
Aquatic Chronic	3	H412-Harmful to aquatic life with long lasting effects.
STOT RE	1	H372-Causes damage to organs through prolonged or repeated exposure by inhalation (organs of hearing).

#### 2.2 Label elements

##### Labeling according to Regulation (EC) 1272/2008 (CLP)

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II (last amended by Regulation (EU) 2020/878)

Revision date / version: 23.09.2024 / 0005

Replacing version dated / version: 20.06.2023 / 0004

Valid from: 23.09.2024

PDF print date: 24.09.2024

Kebudur HT-Harz



Danger

H226-Flammable liquid and vapour. H332-Harmful if inhaled. H319-Causes serious eye irritation. H335-May cause respiratory irritation. H315-Causes skin irritation. H361d-Suspected of damaging the unborn child. H412-Harmful to aquatic life with long lasting effects. H372-Causes damage to organs through prolonged or repeated exposure by inhalation (organs of hearing).

P210-Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P260-Do not breathe dust or mist. P270-Do not eat, drink or smoke when using this product. P273-Avoid release to the environment. 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. P308+P313-IF exposed or concerned: Get medical advice / attention. P314-Get medical advice / attention if you feel unwell.

EUH208-Contains Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide. May produce an allergic reaction.

Methacrylic acid

Styrene

### 2.3 Other hazards

The mixture does not contain any vPvB substance (vPvB = very persistent, very bioaccumulative) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).

The mixture does not contain any PBT substance (PBT = persistent, bioaccumulative, toxic) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).

The mixture does not contain any substance with endocrine disrupting properties (< 0,1 %).

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

n.a.

### 3.2 Mixtures

Styrene	
Registration number (REACH)	01-2119457861-32-XXXX
Index	601-026-00-0
EINECS, ELINCS, NLP, REACH-IT List-No.	202-851-5
CAS	100-42-5
content %	30-<50
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Flam. Liq. 3, H226 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Repr. 2, H361d STOT SE 3, H335 STOT RE 1, H372 (organs of hearing) Asp. Tox. 1, H304 Aquatic Chronic 3, H412
Specific Concentration Limits and ATE	ATE (as inhalation, Dusts or mist): 1,5 mg/l/4h ATE (as inhalation, Vapours): 11,8 mg/l/4h

Methacrylic acid	
Registration number (REACH)	01-2119463884-26-XXXX

<b>Index</b>	607-088-00-5
<b>EINECS, ELINCS, NLP, REACH-IT List-No.</b>	201-204-4
<b>CAS</b>	79-41-4
<b>content %</b>	1-<3
<b>Classification according to Regulation (EC) 1272/2008 (CLP), M-factors</b>	Acute Tox. 4, H312 Acute Tox. 4, H302 Skin Corr. 1A, H314 Eye Dam. 1, H318
<b>Specific Concentration Limits and ATE</b>	STOT SE 3, H335: >=1 % ATE (oral): 1320 mg/kg ATE (dermal): 1100 mg/kg

<b>2,2-dimethoxy-1,2-diphenylethan-1-one</b>	
<b>Registration number (REACH)</b>	---
<b>Index</b>	---
<b>EINECS, ELINCS, NLP, REACH-IT List-No.</b>	246-386-6
<b>CAS</b>	24650-42-8
<b>content %</b>	0,25-<1
<b>Classification according to Regulation (EC) 1272/2008 (CLP), M-factors</b>	Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)

<b>Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide</b>	<b>SVHC-substance</b>
<b>Registration number (REACH)</b>	01-2119972295-29-XXXX
<b>Index</b>	015-203-00-X
<b>EINECS, ELINCS, NLP, REACH-IT List-No.</b>	278-355-8
<b>CAS</b>	75980-60-8
<b>content %</b>	0,1-<0,3
<b>Classification according to Regulation (EC) 1272/2008 (CLP), M-factors</b>	Skin Sens. 1B, H317 Repr. 1B, H360Fd Aquatic Chronic 2, H411

Impurities, test data and additional information may have been taken into account in classifying and labelling the product.

For the text of the H-phrases and classification codes (GHS/CLP), see Section 16.

The substances named in this section are given with their actual, appropriate classification!

For substances that are listed in appendix VI, table 3.1 of the regulation (EC) no. 1272/2008 (CLP regulation) this means that all notes that may be given here for the named classification have been taken into account.

The addition of the highest concentrations listed here can result in a classification. Only when this classification is listed in Section 2 does it apply. In all other cases the total concentration is below the classification.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

First-aiders should ensure they are protected!

Never pour anything into the mouth of an unconscious person!

#### Inhalation

Remove person from danger area.

Supply person with fresh air and consult doctor according to symptoms.

If the person is unconscious, place in a stable side position and consult a doctor.

For respiratory distress, give oxygen for inhalation.

#### Skin contact

Remove polluted, soaked clothing immediately, wash thoroughly with plenty of water and soap, in case of irritation of the skin (flare), consult a doctor.

#### Eye contact

Remove contact lenses.

Wash thoroughly for several minutes using copious water. Seek medical help if necessary.

#### Ingestion

Rinse the mouth thoroughly with water.

Do not induce vomiting. Consult doctor immediately.

In case of vomiting, keep head low so that the stomach content does not reach the lungs.

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

If applicable delayed symptoms and effects can be found in section 11 and the absorption route in section 4.1.

In certain cases, the symptoms of poisoning may only appear after an extended period / after several hours.

eyes, reddened  
watering eyes  
reddening of the skin  
Dermatitis (skin inflammation)  
coughing  
Irritant to mucosa of the nose and throat  
headaches  
nausea  
dizziness  
vomiting

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

Symptomatic treatment.

## **SECTION 5: Firefighting measures**

### **5.1 Extinguishing media**

#### **Suitable extinguishing media**

Water jet spray / alcohol resistant foam / CO<sub>2</sub> / dry extinguisher.

#### **Unsuitable extinguishing media**

High volume water jet

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

In case of fire the following can develop:

Oxides of carbon

Oxides of nitrogen

Toxic gases

Formation of highly flammable vapour/air mixtures possible.

### **5.3 Advice for firefighters**

For personal protective equipment see Section 8.

In case of fire and/or explosion do not breathe fumes.

Protective respirator with independent air supply.

According to size of fire

Full protection, if necessary.

Dispose of contaminated extinction water according to official regulations.

## **SECTION 6: Accidental release measures**

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

#### **6.1.1 For non-emergency personnel**

In case of spillage or accidental release, wear personal protective equipment as specified in section 8 to prevent contamination.

Ensure sufficient ventilation, remove sources of ignition.

Avoid dust formation with solid or powder products.

Leave the danger zone if possible, use existing emergency plans if necessary.

Keep unprotected persons away.

Avoid contact with eyes or skin.

If applicable, caution - risk of slipping.

#### **6.1.2 For emergency responders**

See section 8 for suitable protective equipment and material specifications.

### **6.2 Environmental precautions**

If leakage occurs, dam up.

Resolve leaks if this possible without risk.

Prevent surface and ground-water infiltration, as well as ground penetration.

Prevent from entering drainage system.

If accidental entry into drainage system occurs, inform responsible authorities.

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

Soak up with absorbent material (e.g. universal binding agent, sand, diatomaceous earth, sawdust) and dispose of according to Section 13.

Fill the absorbed material into lockable containers.

### **6.4 Reference to other sections**

For personal protective equipment see Section 8 and for disposal instructions see Section 13.

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 Revision date / version: 23.09.2024 / 0005  
 Replacing version dated / version: 20.06.2023 / 0004  
 Valid from: 23.09.2024  
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 Kebudur HT-Harz

## SECTION 7: Handling and storage

In addition to information given in this section, relevant information can also be found in section 8 and 6.1.

### 7.1 Precautions for safe handling

#### 7.1.1 General recommendations

- Ensure good ventilation.
- Avoid inhalation of the vapours.
- If applicable, suction measures at the workstation or on the processing machine necessary.
- Keep away from sources of ignition - Do not smoke.
- Take measures against electrostatic charging, if appropriate.
- Avoid contact with eyes or skin.
- Pregnant women should avoid contact with this product.
- Eating, drinking, smoking, as well as food-storage, is prohibited in work-room.
- Observe directions on label and instructions for use.
- Use working methods according to operating instructions.

#### 7.1.2 Notes on general hygiene measures at the workplace

- General hygiene measures for the handling of chemicals are applicable.
- Wash hands before breaks and at end of work.
- Keep away from food, drink and animal feedingstuffs.
- Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

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

- Keep locked away.
- Keep out of access to unauthorised individuals.
- Store product closed and only in original packing.
- Not to be stored in gangways or stair wells.
- Observe special storage conditions.
- Do not store with flammable or self-igniting materials.
- Protect from direct sunlight and warming.
- Store in a well ventilated place.
- Store in a dry place.

### 7.3 Specific end use(s)

- No information available at present.
- Observe the instructions for good working practice and the recommendations for risk assessment.
- Consult hazardous substance information systems, e.g. from the professional associations, the chemical industry or different industries, depending on the application (building materials, wood, chemistry, laboratory, leather, metal).

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

GB Chemical Name	Styrene	
WEL-TWA: 430 mg/m3 (100 ppm)	WEL-STEL: 1080 mg/m3 (250 ppm)	---
Monitoring procedures:	<ul style="list-style-type: none"> <li>- Draeger - Styrene 10/a (67 23 301)</li> <li>- Draeger - Styrene 10/b (67 33 141)</li> <li>- Draeger - Styrene 50/a (CH 27 601)</li> <li>- Compur - KITA-158 S (550 218)</li> <li>- Compur - KITA-158 SB (549 278)</li> <li>- DFG Meth. Nr. 3 (D) (Styrol), DFG Method No. 3 (E) (Styrene) - 1994, 2002</li> <li>- DFG Meth. Nr. 4 (D) (Styrol) - 1994</li> <li>- NIOSH 1501 (HYDROCARBONS, AROMATIC) - 2003</li> <li>- NIOSH 3800 (ORGANIC AND INORGANIC GASES BY EXTRACTIVE FTIR SPECTROMETRY) - 2016</li> <li>- OSHA 1014 (Styrene (Diffusive Samplers)) - 2009</li> <li>- OSHA 89 (Divinylbenzene Ethylvinylbenzene Styrene) - 1991</li> </ul>	
BMGV: ---	Other information: ---	
GB Chemical Name	Methacrylic acid	
WEL-TWA: 20 ppm (72 mg/m3)	WEL-STEL: 40 ppm (143 mg/m3)	---
Monitoring procedures:	---	
BMGV: ---	Other information: ---	

<b>Styrene</b>						
<b>Area of application</b>	<b>Exposure route / Environmental compartment</b>	<b>Effect on health</b>	<b>Descriptor</b>	<b>Value</b>	<b>Unit</b>	<b>Note</b>
	Environment - freshwater		PNEC	0,028	mg/l	
	Environment - marine		PNEC	0,014	mg/l	
	Environment - sediment, freshwater		PNEC	0,614	mg/kg dry weight	
	Environment - sediment, marine		PNEC	0,307	mg/kg dry weight	
	Environment - sporadic (intermittent) release		PNEC	0,04	mg/l	
	Environment - soil		PNEC	0,2	mg/kg dry weight	
	Environment - sewage treatment plant		PNEC	5	mg/l	
	Environment - periodic release		PNEC	0,04	mg/l	
Consumer	Human - oral	Long term, systemic effects	DNEL	2,1	mg/kg bw/day	
Consumer	Human - dermal	Long term, systemic effects	DNEL	343	mg/kg bw/day	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	10,2	mg/m3	
Consumer	Human - inhalation	Short term, systemic effects	DNEL	174,25	mg/m3	
Consumer	Human - inhalation	Short term, local effects	DNEL	182,75	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	406	mg/kg bw/day	
Workers / employees	Human - inhalation	Short term, systemic effects	DNEL	289	mg/m3	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	85	mg/m3	
Workers / employees	Human - inhalation	Short term, local effects	DNEL	306	mg/m3	

<b>Methacrylic acid</b>						
<b>Area of application</b>	<b>Exposure route / Environmental compartment</b>	<b>Effect on health</b>	<b>Descriptor</b>	<b>Value</b>	<b>Unit</b>	<b>Note</b>
Consumer	Human - inhalation	Long term, local effects	DNEL	6,55	mg/m3	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	6,3	mg/m3	
Consumer	Human - dermal	Long term, systemic effects	DNEL	2,55	mg/kg bw/d	
Consumer	Human - dermal	Short term, local effects	DNEL	1	% (w/w)	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	29,6	mg/m3	
Workers / employees	Human - inhalation	Long term, local effects	DNEL	88	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	4,25	mg/kg bw/d	

<b>Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide</b>						
<b>Area of application</b>	<b>Exposure route / Environmental compartment</b>	<b>Effect on health</b>	<b>Descriptor</b>	<b>Value</b>	<b>Unit</b>	<b>Note</b>

	Environment - freshwater		PNEC	1,4	µg/l	
	Environment - marine		PNEC	0,14	µg/l	
	Environment - water, sporadic (intermittent) release		PNEC	14	µg/l	
	Environment - sediment, freshwater		PNEC	0,115	mg/kg dw	
	Environment - sediment, marine		PNEC	0,0155	mg/kg dw	
	Environment - soil		PNEC	0,0222	mg/kg dw	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	0,145	mg/m3	
Consumer	Human - dermal	Long term, systemic effects	DNEL	0,0833	mg/kg bw/d	
Consumer	Human - oral	Long term, systemic effects	DNEL	0,0833	mg/kg bw/d	

GB - United Kingdom | WEL-TWA = Workplace Exposure Limit - Long-term exposure limit - 8-hour TWA (= time weighted average) reference period (EH40/2005 Workplace exposure limits (Fourth Edition 2020)).  
 (EU) = Directive 91/322/EEC, 98/24/EC, 2000/39/EC, 2004/37/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU or 2019/1831/EU:  
 (8) = Inhalable fraction (2004/37/CE, 2017/164/EU). (9) = Respirable fraction (2004/37/CE, 2017/164/EU). (11) = Inhalable fraction (2004/37/CE). (12) = Inhalable fraction. Respirable fraction in those Member States that implement, on the date of the entry into force of this Directive, a biomonitoring system with a biological limit value not exceeding 0,002 mg Cd/g creatinine in urine (2004/37/CE). |  
 | WEL-STEL = Workplace Exposure Limit - Short-term exposure limit - 15-minute reference period (EH40/2005 Workplace exposure limits (Fourth Edition 2020)).  
 (EU) = Directive 91/322/EEC, 98/24/EC, 2000/39/EC, 2004/37/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU or 2019/1831/EU:  
 (8) = Inhalable fraction (2004/37/EC, 2017/164/EU). (9) = Respirable fraction (2004/37/EC, 2017/164/EU). (10) = Short-term exposure limit value in relation to a reference period of 1 minute (2017/164/EU). |  
 | BMGV = Biological monitoring guidance value (EH40/2005 Workplace exposure limits (Fourth Edition 2020)).  
 (EU) = Directive 98/24/EC or 2004/37/EC or SCOEL (Biological Limit Value - BLV, Recommendation from the Scientific Committee on Occupational Exposure Limits (SCOEL)) |  
 | Other information (EH40/2005 Workplace exposure limits (Fourth Edition 2020)): Sen = Capable of causing occupational asthma. Sk = Can be absorbed through skin. Carc = Capable of causing cancer and/or heritable genetic damage.  
 (EU) = Directive 91/322/EEC, 98/24/EC, 2000/39/EC, 2004/37/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU or 2019/1831/EU:  
 (13) = The substance can cause sensitisation of the skin and of the respiratory tract (2004/37/CE), (14) = The substance can cause sensitisation of the skin (2004/37/CE). |

## 8.2 Exposure controls

### 8.2.1 Appropriate engineering controls

Ensure good ventilation. This can be achieved by local suction or general air extraction.

If this is insufficient to maintain the concentration under the WEL or AGW values, suitable breathing protection should be worn.

Applies only if maximum permissible exposure values are listed here.

Suitable assessment methods for reviewing the effectiveness of protection measures adopted include metrological and non-metrological investigative techniques.

These are specified by e.g. EN 14042.

EN 14042 "Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents".

### 8.2.2 Individual protection measures, such as personal protective equipment

General hygiene measures for the handling of chemicals are applicable.

Wash hands before breaks and at end of work.

Keep away from food, drink and animal feedingstuffs.

Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

Eye/face protection:

Tight fitting protective goggles with side protection (EN 166).

Skin protection - Hand protection:

Chemical resistant protective gloves (EN ISO 374).

Recommended

Protective gloves in butyl rubber (EN ISO 374).

Minimum layer thickness in mm:

0,7

Permeation time (penetration time) in minutes:

30

The breakthrough times determined in accordance with EN 16523-1 were not obtained under practical conditions.

The recommended maximum wearing time is 50% of breakthrough time.

Protective hand cream recommended.

Skin protection - Other:

Protective working garments (e.g. safety shoes EN ISO 20345, long-sleeved protective working garments).

Respiratory protection:

If OES or MEL is exceeded.

Gas mask filter A (EN 14387), code colour brown

At high concentrations:

Protective respirator with independent air supply.

Observe wearing time limitations for respiratory protection equipment.

Thermal hazards:

Not applicable

Additional information on hand protection - No tests have been performed.

In the case of mixtures, the selection has been made according to the knowledge available and the information about the contents.

Selection of materials derived from glove manufacturer's indications.

Final selection of glove material must be made taking the breakthrough times, permeation rates and degradation into account.

Selection of a suitable glove depends not only on the material but also on other quality characteristics and varies from manufacturer to manufacturer.

In the case of mixtures, the resistance of glove materials cannot be predicted and must therefore be tested before use.

The exact breakthrough time of the glove material can be requested from the protective glove manufacturer and must be observed.

### 8.2.3 Environmental exposure controls

No information available at present.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	Colourless, Transparent
Odour:	Characteristic
Melting point/freezing point:	There is no information available on this parameter.
Boiling point or initial boiling point and boiling range:	145 °C ((Particulars of main substances contained) )
Flammability:	There is no information available on this parameter.
Lower explosion limit:	1,1 Vol-% ((Particulars of main substances contained) )
Upper explosion limit:	6,1 Vol-% ((Particulars of main substances contained) )
Flash point:	33 °C (ISO 3679 (Setaflash, RECC))
Auto-ignition temperature:	490 °C ((Particulars of main substances contained) )
Decomposition temperature:	There is no information available on this parameter.
pH:	Mixture is non-soluble (in water).
Kinematic viscosity:	>61 s (23°C, ISO 2431 (6 mm), There is no information available on this parameter. )
Solubility:	There is no information available on this parameter.
Partition coefficient n-octanol/water (log value):	Does not apply to mixtures.
Vapour pressure:	6,67 hPa (20°C, (Particulars of main substances contained) )
Density and/or relative density:	1,07 g/cm <sup>3</sup> (20°C, DIN EN ISO 2811-1)
Relative vapour density:	There is no information available on this parameter.
Particle characteristics:	Does not apply to liquids.

### 9.2 Other information

No information available at present.

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

The product has not been tested.

### 10.2 Chemical stability



Stable with proper storage and handling.

**10.3 Possibility of hazardous reactions**

No dangerous reactions are known.

**10.4 Conditions to avoid**

Heating, open flame, ignition sources

**10.5 Incompatible materials**

Peroxides

Radical former (Initiators)

**10.6 Hazardous decomposition products**

No decomposition when used as directed.

**SECTION 11: Toxicological information**

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

Possibly more information on health effects, see Section 2.1 (classification).

Kebudur HT-Harz						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	ATE	>10000	mg/kg			calculated value
Acute toxicity, by dermal route:						n.d.a.
Acute toxicity, by inhalation:	ATE	39,19	mg/l			calculated value, Vapours
Acute toxicity, by inhalation:	ATE	4,98	mg/l			calculated value, Mist
Skin corrosion/irritation:						n.d.a.
Serious eye damage/irritation:						n.d.a.
Respiratory or skin sensitisation:						n.d.a.
Germ cell mutagenicity:						n.d.a.
Carcinogenicity:						n.d.a.
Reproductive toxicity:						n.d.a.
Specific target organ toxicity - single exposure (STOT-SE):						n.d.a.
Specific target organ toxicity - repeated exposure (STOT-RE):						n.d.a.
Aspiration hazard:						n.d.a.
Symptoms:						n.d.a.

Styrene						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	5000	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rat	OECD 402 (Acute Dermal Toxicity)	
Acute toxicity, by inhalation:	LC50	11,8	mg/l/4h	Rat		Vapours
Acute toxicity, by inhalation:	ATE	11,8	mg/l/4h			Vapours
Acute toxicity, by inhalation:	ATE	1,5	mg/l/4h			Dusts or mist
Skin corrosion/irritation:				Rabbit		Skin Irrit. 2
Serious eye damage/irritation:				Rabbit		Eye Irrit. 2
Respiratory or skin sensitisation:				Guinea pig		Not sensitising
Germ cell mutagenicity:				Mouse	OECD 474 (Mammalian Erythrocyte Micronucleus Test)	Negative(6h)
Germ cell mutagenicity:				Mouse	OECD 486 (Unscheduled DNA Synthesis (UDS) Test with Mammalian Liver Cells In Vivo)	Negative

Carcinogenicity:	NOAEC	>=0,00434	mg/m3	Rat	OECD 453 (Combined Chronic Toxicity/Carcinogenicity Studies)	Negativeinhalation
Reproductive toxicity (Developmental toxicity):	LOAEL	1,28	mg/l	Rat	OECD 414 (Prenatal Developmental Toxicity Study)	Positiveinhalation, 6-15d
Reproductive toxicity (Developmental toxicity):	NOAEC	1,08-2,15	mg/l	Rat		Positiveinhalation, > 50d
Reproductive toxicity (Effects on fertility):	NOAEL	100-200	mg/kg bw/d	Rat		Positiveinhalation, 60 d
Specific target organ toxicity - single exposure (STOT-SE), inhalative:				Mammalian		STOT SE 3, H335
Specific target organ toxicity - repeated exposure (STOT-RE), oral:	NOAEL	1000	mg/kg bw/d			Positive
Specific target organ toxicity - repeated exposure (STOT-RE), inhalat.:	NOAEL	0,8	mg/l	Rat	OECD 453 (Combined Chronic Toxicity/Carcinogenicity Studies)	
Specific target organ toxicity - repeated exposure (STOT-RE), inhalat.:	NOAEC	0,688-3,47	mg/l	Rat		Positive(28d)
Aspiration hazard:						Yes
Symptoms:						drowsiness, headaches, fatigue, muscle weakness, mucous membrane irritation, dizziness, nausea and vomiting., mental confusion

<b>Methacrylic acid</b>						
<b>Toxicity / effect</b>	<b>Endpoint</b>	<b>Value</b>	<b>Unit</b>	<b>Organism</b>	<b>Test method</b>	<b>Notes</b>
Acute toxicity, by oral route:	LD50	1320-2260	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by oral route:	LD50	1250	mg/kg	Mouse		
Acute toxicity, by oral route:	ATE	1320	mg/kg			
Acute toxicity, by dermal route:	ATE	1100	mg/kg			
Acute toxicity, by inhalation:	LC50	7,1	mg/l/4h	Rat		
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Corrosive
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Corrosive
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	Not sensitizing
Germ cell mutagenicity:					in vitro	Negative



12.3. Bioaccumulative potential:							n.d.a.
12.4. Mobility in soil:							n.d.a.
12.5. Results of PBT and vPvB assessment							n.d.a.
12.6. Endocrine disrupting properties:							Does not apply to mixtures.
12.7. Other adverse effects:							No information available on other adverse effects on the environment.

<b>Styrene</b>							
<b>Toxicity / effect</b>	<b>Endpoint</b>	<b>Time</b>	<b>Value</b>	<b>Unit</b>	<b>Organism</b>	<b>Test method</b>	<b>Notes</b>
12.1. Toxicity to fish:	LC50	96h	4,02-10	mg/l	Pimephales promelas	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to daphnia:	EC50	48h	4,7	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to daphnia:	NOEC/NOEL	21d	1,01	mg/l	Daphnia magna	OECD 211 (Daphnia magna Reproduction Test)	
12.1. Toxicity to daphnia:	LC50	96h	9,5	mg/l			Hyalella azteca, EPA OTS 797.1300
12.1. Toxicity to algae:	EC10	96h	0,28	mg/l	Pseudokirchneriella subcapitata		EPA OTS 797.1050
12.1. Toxicity to algae:	EC50	72h	4,9	mg/l	Pseudokirchneriella subcapitata		EPA OTS 797.1050
12.2. Persistence and degradability:	ThOD		70,9	%	activated sludge	ISO 9408	Readily biodegradable
12.2. Persistence and degradability:		20d	87	%		OECD 301 D (Ready Biodegradability - Closed Bottle Test)	References, Readily biodegradable
12.3. Bioaccumulative potential:	Log Pow		2,96			OECD 107 (Partition Coefficient (n-octanol/water) - Shake Flask Method)	A notable biological accumulation potential is not to be expected (LogPow 1-3).25°C
12.3. Bioaccumulative potential:	BCF		13,49-74				Low
12.4. Mobility in soil:	Koc		352				
12.4. Mobility in soil:	Log Koc		2,55				
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance

Toxicity to bacteria:	EC50	30min	500	mg/l	activated sludge	OECD 209 (Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation))	
Toxicity to annelids:	NOEC/NOEL	14d	34	mg/kg	Eisenia foetida	OECD 207 (Earthworm, Acute Toxicity Tests)	

**Methacrylic acid**

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	85	mg/l	Oncorhynchus mykiss	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to fish:	LC50	96h	100-180	mg/l	Brachydanio rerio	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to fish:	NOEC/NOEL	35d	10	mg/l	Brachydanio rerio	OECD 210 (Fish, Early-Life Stage Toxicity Test)	
12.1. Toxicity to daphnia:	EC50	48h	>130	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to daphnia:	NOEC/NOEL	21d	53	mg/l		OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to algae:	EC50	72h	45	mg/l	Selenastrum capricornutum	OECD 201 (Alga, Growth Inhibition Test)	
12.2. Persistence and degradability:		28d	86	%		OECD 301 D (Ready Biodegradability - Closed Bottle Test)	
12.3. Bioaccumulative potential:	Log Pow		0,93				Bioaccumulation is unlikely (LogPow < 1).

**2,2-dimethoxy-1,2-diphenylethan-1-one**

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	6	mg/l	Lepomis macrochirus		
12.1. Toxicity to daphnia:	EC50	24h	26	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to algae:	EC50	72h	0,17	mg/l	Scenedesmus subspicatus	OECD 201 (Alga, Growth Inhibition Test)	
12.2. Persistence and degradability:	BCF		<43			OECD 301 B (Ready Biodegradability - Co2 Evolution Test)	Not readily biodegradable

Toxicity to bacteria:	EC50	3h	>100	mg/l	activated sludge	OECD 209 (Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation))	
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Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	1-10	mg/l	Oryzias latipes		
12.1. Toxicity to daphnia:	EC50	48h	3,53	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to algae:	EC50	72h	>2,01	mg/l	Pseudokirchneriella subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
12.2. Persistence and degradability:		28d	0-10	%	activated sludge	OECD 301 F (Ready Biodegradability - Manometric Respirometry Test)	Not readily biodegradable

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### For the substance / mixture / residual amounts

EC disposal code no.:

The waste codes are recommendations based on the scheduled use of this product.

Owing to the user's specific conditions for use and disposal, other waste codes may be allocated under certain circumstances. (2014/955/EU)

07 02 08 other still bottoms and reaction residues

Recommendation:

Sewage disposal shall be discouraged.

Pay attention to local and national official regulations.

E.g. suitable incineration plant.

E.g. dispose at suitable refuse site.

#### For contaminated packing material

Pay attention to local and national official regulations.

Empty container completely.

Untampered packaging can be recycled.

Dispose of packaging that cannot be cleaned in the same manner as the substance.

## SECTION 14: Transport information

### General statements

#### Transport by road/by rail (ADR/RID)

Is not subject to ADR/RID, in accordance with 2.2.3.1.5 (<= 450 l)

14.1. UN number or ID number: Not applicable

14.2. UN proper shipping name:

Not applicable

14.3. Transport hazard class(es):

Not applicable

14.4. Packing group:

Not applicable

14.5. Environmental hazards:

Not applicable

Tunnel restriction code:

Not applicable

Classification code:

Not applicable

LQ:

Not applicable

Transport category: Not applicable

**Transport by sea (IMDG-code)**

Transport in accordance with 2.3.2.5 of the IMDG Code

14.1. UN number or ID number: Not applicable

14.2. UN proper shipping name:

Not applicable

14.3. Transport hazard class(es): Not applicable

14.4. Packing group: Not applicable

14.5. Environmental hazards: Not applicable

Marine Pollutant: Not applicable

EmS: Not applicable

**Transport by air (IATA)**

14.1. UN number or ID number: 1866

14.2. UN proper shipping name:

UN 1866 Resin solution

14.3. Transport hazard class(es): 3

14.4. Packing group: III

14.5. Environmental hazards: Not applicable



**14.6. Special precautions for user**

Persons employed in transporting dangerous goods must be trained.

All persons involved in transporting must observe safety regulations.

Precautions must be taken to prevent damage.

**14.7. Maritime transport in bulk according to IMO instruments**

Freighted as packaged goods rather than in bulk, therefore not applicable.

Minimum amount regulations have not been taken into account.

Danger code and packing code on request.

Comply with special provisions.

**SECTION 15: Regulatory information**

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

Observe restrictions:

Comply with national regulations/laws governing maternity protection (national implementation of the Directive 92/85/EEC)!

Comply with national regulations/laws governing the protection of young people at work (national implementation of the Directive 94/33/EC)!

Comply with trade association/occupational health regulations.

Directive 2012/18/EU ("Seveso III"), Annex I, Part 1 - The following categories apply to this product (others may also need to be considered according to storage, handling etc.):

Hazard categories	Notes to Annex I	Qualifying quantity (tonnes) of dangerous substances as referred to in Article 3(10) for the application of - Lower-tier requirements	Qualifying quantity (tonnes) of dangerous substances as referred to in Article 3(10) for the application of - Upper-tier requirements
P5c		5000	50000

The Notes to Annex 1 of Directive 2012/18/EU, in particular those named in the tables here and notes 1-6, must be taken into account when assigning categories and qualifying quantities.

Directive 2010/75/EU (VOC): 2,31 %

Observe incident regulations.

National requirements/regulations on safety and health protection must be applied when using work equipment.

**15.2 Chemical safety assessment**

A chemical safety assessment is not provided for mixtures.

**SECTION 16: Other information**

Revised sections: 3, 8, 11

Employee training in handling dangerous goods is required.

These details refer to the product as it is delivered.

Employee instruction/training in handling hazardous materials is required.

### Classification and processes used to derive the classification of the mixture in accordance with the ordinance (EG) 1272/2008 (CLP):

Classification in accordance with regulation (EC) No. 1272/2008 (CLP)	Evaluation method used
Flam. Liq. 3, H226	Classification based on test data.
Acute Tox. 4, H332	Classification according to calculation procedure.
Eye Irrit. 2, H319	Classification according to calculation procedure.
STOT SE 3, H335	Classification according to calculation procedure.
Skin Irrit. 2, H315	Classification according to calculation procedure.
Repr. 2, H361d	Classification according to calculation procedure.
Aquatic Chronic 3, H412	Classification according to calculation procedure.
STOT RE 1, H372	Classification according to calculation procedure.

The following phrases represent the posted Hazard Class and Risk Category Code (GHS/CLP) of the product and the constituents.

H314 Causes severe skin burns and eye damage.

H361d Suspected of damaging the unborn child.

H226 Flammable liquid and vapour.

H360Fd May damage fertility. Suspected of damaging the unborn child.

H317 May cause an allergic skin reaction.

H302 Harmful if swallowed.

H304 May be fatal if swallowed and enters airways.

H312 Harmful in contact with skin.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

H372 Causes damage to organs through prolonged or repeated exposure.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

H411 Toxic to aquatic life with long lasting effects.

H412 Harmful to aquatic life with long lasting effects.

Flam. Liq. — Flammable liquid

Acute Tox. — Acute toxicity - inhalation

Eye Irrit. — Eye irritation

STOT SE — Specific target organ toxicity - single exposure - respiratory tract irritation

Skin Irrit. — Skin irritation

Repr. — Reproductive toxicity

Aquatic Chronic — Hazardous to the aquatic environment - chronic

STOT RE — Specific target organ toxicity - repeated exposure

Asp. Tox. — Aspiration hazard

Acute Tox. — Acute toxicity - dermal

Acute Tox. — Acute toxicity - oral

Skin Corr. — Skin corrosion

Eye Dam. — Serious eye damage

Aquatic Acute — Hazardous to the aquatic environment - acute

Skin Sens. — Skin sensitization

### Key literature references and sources for data:

Regulation (EC) No 1907/2006 (REACH) and Regulation (EC) No 1272/2008 (CLP) as amended.

Guidelines for the preparation of safety data sheets as amended (ECHA).

Guidelines on labelling and packaging according to the Regulation (EG) Nr. 1272/2008 (CLP) as amended (ECHA).

Safety data sheets for the constituent substances.

ECHA Homepage - Information about chemicals.

GESTIS Substance Database (Germany).



German Environment Agency "Rigoletto" information site on substances that are hazardous to water (Germany).

EU Occupation Exposure Limits Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU, (EU) 2017/164, (EU) 2019/1831, each as amended.

National Lists of Occupational Exposure Limits for each country as amended.

Regulations on the transport of hazardous goods by road, rail, sea and air (ADR, RID, IMDG, IATA) as amended.

### Any abbreviations and acronyms used in this document:

acc., acc. to according, according to

ADR Accord européen relatif au transport international des marchandises Dangereuses par Route (= European Agreement concerning the International Carriage of Dangerous Goods by Road)

AOX Adsorbable organic halogen compounds

approx. approximately

Art., Art. no. Article number

ASTM ASTM International (American Society for Testing and Materials)

ATE Acute Toxicity Estimate

BAM Bundesanstalt für Materialforschung und -prüfung (= Federal Institute for Materials Research and Testing, Germany)

BAuA Bundesanstalt für Arbeitsschutz und Arbeitsmedizin (= Federal Institute for Occupational Health and Safety, Germany)

BCF Bioconcentration factor

BSEF The International Bromine Council

CAS Chemical Abstracts Service

CLP Classification, Labelling and Packaging (REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures)

CMR carcinogenic, mutagenic, reproductive toxic

DMEL Derived Minimum Effect Level

DNEL Derived No Effect Level

DOC Dissolved organic carbon

e.g. for example (abbreviation of Latin 'exempli gratia'), for instance

EbCx, EyCx, EbLx (x = 10, 50) Effect Concentration/Level of x % on reduction of the biomass (algae, plants)

EC European Community

ECHA European Chemicals Agency

ECx, ELx (x = 0, 3, 5, 10, 20, 50, 80, 100) Effect Concentration/Level for x % effect

EEC European Economic Community

EINECS European Inventory of Existing Commercial Chemical Substances

ELINCS European List of Notified Chemical Substances

EN European Norms

EPA United States Environmental Protection Agency (United States of America)

ErCx, EμCx, ErLx (x = 10, 50) Effect Concentration/Level of x % on inhibition of the growth rate (algae, plants)

etc. et cetera

EU European Union

EVAL Ethylene-vinyl alcohol copolymer

Fax. Fax number

gen. general

GHS Globally Harmonized System of Classification and Labelling of Chemicals

GWP Global warming potential

Koc Adsorption coefficient of organic carbon in the soil

Kow octanol-water partition coefficient

IARC International Agency for Research on Cancer

IATA International Air Transport Association

IBC (Code) International Bulk Chemical (Code)

IMDG-code International Maritime Code for Dangerous Goods

incl. including, inclusive

IUCLID International Uniform Chemical Information Database

IUPAC International Union for Pure Applied Chemistry

LC50 Lethal Concentration to 50 % of a test population

LD50 Lethal Dose to 50% of a test population (Median Lethal Dose)

Log Koc Logarithm of adsorption coefficient of organic carbon in the soil

Log Kow, Log Pow Logarithm of octanol-water partition coefficient

LQ Limited Quantities

MARPOL International Convention for the Prevention of Marine Pollution from Ships

mg/kg bw mg/kg body weight

mg/kg bw/d, mg/kg bw/day mg/kg body weight/day

mg/kg dw mg/kg dry weight

mg/kg wwt      mg/kg wet weight

n.a. not applicable

n.av. not available

n.c. not checked

n.d.a. no data available

NIOSH National Institute for Occupational Safety and Health (USA)

NLP No-longer-Polymer

NOEC, NOEL No Observed Effect Concentration/Level

OECD Organisation for Economic Co-operation and Development

org. organic

OSHA Occupational Safety and Health Administration (USA)

PBT persistent, bioaccumulative and toxic

PE Polyethylene

PNEC Predicted No Effect Concentration

ppm parts per million

PVC Polyvinylchloride

REACH Registration, Evaluation, Authorisation and Restriction of Chemicals (REGULATION (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals)

REACH-IT List-No. 6/7/8/9xx-xxx-x No. is automatically assigned, e.g. to pre-registrations without a CAS No. or other numerical identifier. List Numbers do not have any legal significance, rather they are purely technical identifiers for processing a submission via REACH-IT.

RID Règlement concernant le transport International ferroviaire de marchandises Dangereuses (= Regulation concerning the International Carriage of Dangerous Goods by Rail)

SVHC Substances of Very High Concern

Tel. Telephone

TOC Total organic carbon

UN RTDG United Nations Recommendations on the Transport of Dangerous Goods

VOC Volatile organic compounds

vPvB very persistent and very bioaccumulative

The statements made here should describe the product with regard to the necessary safety precautions - they are not meant to guarantee definite characteristics - but they are based on our present up-to-date knowledge.

No responsibility.

These statements were made by:

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