Safety Data Sheet

According to Regulation (EC) No. 1272/2008 (CLP) and (EC) No. 1907/2006 (REACH)

Tough 2000 Resin

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

1.1 Product identifier

Product Name: Tough 2000 Resin

Product code: FLTO2001

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

Relevant identified uses: For use in Formlabs SLA Printers

Uses advised against: Not determined or not applicable.

Reasons why uses advised against: Not determined or not applicable.

1.3 Details of the manufacturer/supplier of the safety data sheet

Manufacturer:	**Supplier:**
United States	**Germany**
Formlabs, Inc	Formlabs GmbH
35 Medford St	Nalepastr. 18
Suite 201 Somerville, MA 02143	12459 Berlin
+1 617 855 0762	+49 30 555 795 880
sds@formlabs.com	

1.4 Emergency telephone number:

1-800-424-9300 (24/7)

SECTION 2: Hazard(s) identification

2.1 Classification of the substance or mixture:

Classification according to Regulation (EC) No. 1272/2008 (CLP):

Skin irritation, category 2
Eye Irritation, category 2
Skin sensitization, category 1
Specific target organ toxicity - single exposure, category 3, respiratory tract irritation
Chronic aquatic hazard, category 2

Hazard-determining components of labeling:

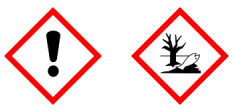
Urethane Dimethacrylate
Methacrylate Monomer
Isobornyl methacrylate
Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide

Additional Information: None

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP)

Hazard pictograms:



Signal word: Warning

Hazard statements:

H315 Causes skin irritation
H319 Causes serious eye irritation
H317 May cause an allergic skin reaction
H335 May cause respiratory irritation
H411 Toxic to aquatic life with long lasting effects

Precautionary statements:

P264 Wash skin thoroughly after handling
P280 Wear protective gloves/protective clothing/eye protection/face protection
P261 Avoid breathing dust/fume/gas/mist/vapors/spray
P272 Contaminated work clothing should not be allowed out of the workplace
P273 Avoid release to the environment
P271 Use only outdoors or in a well-ventilated area
P302+P352 IF ON SKIN: Wash with plenty of soap and water
P332+P313 If skin irritation occurs: Get medical advice/attention
P362 Take off contaminated clothing
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P337+P313 If eye irritation persists: Get medical advice/attention
P333+P313 If skin irritation or rash occurs: Get medical advice/attention
P363 Wash contaminated clothing before reuse
P391 Collect spillage
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing
P312 Call a POISON CENTER/doctor if you feel unwell
P403+P233 Store in a well-ventilated place. Keep container tightly closed
P405 Store locked up
P501 Dispose of contents/container in accordance with local/regional/national regulations

2.3 Other hazards: None known

SECTION 3: Composition/information on ingredients

3.1 Substance: Not applicable.

3.2 Mixture:

Identification	REACH Registration No.	Name	Classification according to Regulation (EC) No. 1272/2008 (CLP)	Weight %
CAS number: 72869-86-4 EC number: 276-957-5	–	Urethane Dimethacrylate	Skin Sens. 1; H317 Aquatic Chronic 2; H411	45-65
CAS number: Trade Secret EC number: Trade Secret	–	Methacrylate Monomer	Skin Sens. 1; H317 Eye Irrit. 2; H319	15-25
CAS number: 7534-94-3 EC number: 231-403-1	–	Isobornyl methacrylate	Skin Irrit. 2; H315 STOT SE 3 (RI); H335 Aquatic Chronic 3; H412 Eye Irrit. 2; H319	10-20

CAS number: 162881-26-7 EC number: 423-340-5	–	Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	Skin Sens. 1; H317 Aquatic Chronic 4; H413	<0.6

Additional information: None
Full Text of H and EUH statements: See section 16

SECTION 4: First aid measures

4.1 Description of first aid measures

General notes:

Show this Safety Data Sheet to the doctor in attendance.

Following inhalation:

Remove source of exposure or move person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or doctor.

Following skin contact:

Wash off immediately with soap and plenty of water while removing contaminated clothing and shoes. Continue rinsing for at least 15 minutes. See a physician if irritation persists.

Following eye contact:

Immediately flush eyes, under eyelids with water for 15 minutes. Remove contact lenses, if easy to do so. Protect unexposed eye. Continue rinsing on the way to hospital.

Following ingestion:

If swallowed, DO NOT induce vomiting unless told to do so by physician or poison control center. Rinse mouth with water. Never give anything to drink to an unconscious person. Seek medical advice.

Self-Protection of the first aider:

Not determined or not available.

4.2 Most important symptoms and effects, both acute and delayed

Acute symptoms and effects:

Symptoms may include blistering, irritation, burns and pain. Effects are dependent on exposure (dose, concentration, contact time).

Delayed symptoms and effects:

Effects are dependent on exposure (dose, concentration, contact time).

4.3 Indication of any immediate medical attention and special treatment needed

Specific treatment:

None known.

Notes for the doctor:

Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media:

Alcohol- resistant foam, Dry chemical or Carbon dioxide

Unsuitable extinguishing media:

None known

5.2 Special hazards arising from the substance or mixture:

Evacuate all personnel to a predetermined safe location, no less than 2,500 feet in all directions. Can explode or detonate under fire conditions. Burning material may produce toxic vapors.

5.3 Advice for firefighters

Personal protection equipment:

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA)

Special precautions:

Avoid inhaling gases, fumes, mist, dust, vapor or aerosols. Avoid contact with eyes, skin, hair or clothing.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Clean and neutralize spill area, tools and equipment by washing with water and soap. Absorb rinsate and add to the collected waste. Waste must be classified and labeled prior to recycling or disposal. Dispose of waste as indicated in Section 13.

6.2 Environmental precautions:

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3 Methods and material for containment and cleaning up:

Clean and neutralize spill area, tools and equipment by washing with water and soap. Absorb reinstate and add to the collected waste. Waste must be classified and labeled prior to recycling or disposal. Dispose of waste as indicated in Section 13.

6.4 Reference to other sections:

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling:

Avoid contact with skin, eyes, and clothing. Follow good hygiene procedures when handling chemical materials. Refer to Section 8. Follow proper disposal methods. Refer to Section 13. Do not eat, drink, smoke, or use personal products when handling chemical substances.

7.2 Conditions for safe storage, including anyincompatibilities:

Store in a cool, dry, well ventilated place. Store away from sources of heat or ignition. Store away from incompatible materials described in Section 10. Keep containers closed when not in use

7.3 Specific end use(s):

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection



8.1 Control parameters

Only those substances with limit values have been included below.

Occupational Exposure limit values:

No occupational exposure limits noted for the ingredient(s).

Biological limit values:

No biological exposure limits noted for the ingredient(s).

Derived No Effect Level (DNEL):

Ingredient Name: Methacrylate Monomer

CAS #: Trade Secret

Workers - Systemic Effects	Acute - Oral	Not determined or not applicable.
	Acute - Inhalation	No hazard identified
	Acute - Dermal	No hazard identified
	Chronic - Oral	Not determined or not applicable.
	Chronic - Inhalation	14.7 mg/m³
	Chronic - Dermal	4.2 mg/kg bw/day
Workers - Local Effects	Acute - Oral	Not determined or not applicable.
	Acute - Inhalation	No hazard identified
	Acute - Dermal	No hazard identified
	Chronic - Oral	Not determined or not applicable.
	Chronic - Inhalation	No hazard identified
	Chronic - Dermal	Hazard identified but no DNEL available
General Population - Systemic Effects	Acute - Oral	No hazard identified
	Acute - Inhalation	No hazard identified
	Acute - Dermal	No hazard identified
	Chronic - Oral	2.5 mg/kg bw/day
	Chronic - Inhalation	8.8 mg/m³
	Chronic - Dermal	2.5 mg/kg bw/day
General Population - Local Effect	Acute - Oral	Not determined or not applicable.
	Acute - Inhalation	No hazard identified
	Acute - Dermal	No hazard identified
	Chronic - Oral	Not determined or not applicable.
	Chronic - Inhalation	No hazard identified
	Chronic - Dermal	Hazard identified but no DNEL available

Ingredient Name: Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide
CAS #: 162881-26-7

Workers - Systemic Effects	Acute - Oral	Not determined or not applicable.
	Acute - Inhalation	No hazard identified; 7.84 mg/m³; 16.46 mg/m³
	Acute - Dermal	No hazard identified; 3.33 mg/kg bw/day; 4.67 mg/kg bw/day
	Chronic - Oral	Not determined or not applicable.
	Chronic - Inhalation	7.84 mg/m³; 11.75 mg/m³; 16.46 mg/m³; 21 mg/m³
	Chronic - Dermal	3 mg/kg bw/day; 3.33 mg/kg bw/day; 4.67 mg/kg bw/day
Workers - Local Effects	Acute - Oral	Not determined or not applicable.
	Acute - Inhalation	No hazard identified; Hazard identified but no DNEL available
	Acute - Dermal	Hazard identified but no DNEL available; No hazard identified
	Chronic - Oral	Not determined or not applicable.
	Chronic - Inhalation	No hazard identified; Hazard identified but no DNEL available
	Chronic - Dermal	Hazard identified but no DNEL available; No hazard identified

General Population - Systemic Effects	Acute - Oral	No hazard identified; 1.67 mg/kg bw/day; Hazard identified but no DNEL available
	Acute - Inhalation	3.92 mg/m³; Hazard identified but no DNEL available; 1.93 mg/m³; 2.92 mg/m³; 3.92 mg/m³
	Acute - Dermal	No hazard identified; 1.67 mg/kg bw/day
	Chronic - Oral	No hazard identified; 1.5 mg/kg bw/day; 1.67 mg/kg bw/day
	Chronic - Inhalation	1.93 mg/m³; 2.9 mg/m³; 2.92 mg/m³; 3.92 mg/m³; 5.2 mg/m³; 1.67 mg/kg bw/day
	Chronic - Dermal	1.5 mg/kg bw/day
General Population - Local Effect	Acute - Oral	Not determined or not applicable.
	Acute - Inhalation	Hazard identified but no DNEL available; No hazard identified
	Acute - Dermal	Hazard identified but no DNEL available; No hazard identified
	Chronic - Oral	Not determined or not applicable.
	Chronic - Inhalation	No hazard identified; Hazard identified but no DNEL available
	Chronic - Dermal	Hazard identified but no DNEL available; No hazard identified

Predicted No Effect Concentration (PNEC):

Ingredient Name: Methacrylate Monomer

CAS #: Trade Secret

Environmental Protection Target	PNEC
Fresh water	0.904 mg/L
Freshwater sediments	6.28 mg/kg
Marine water	0.904 mg/L
Marine sediments	6.28 mg/kg
Food chain	Not determined or not available.
Microorganisms in sewage treatment	10 mg/L
Soil (agricultural)	0.727 mg/kg
Air	No hazard identified

Ingredient Name: Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide

CAS #: 162881-26-7

Environmental Protection Target	PNEC
Fresh water	0.8 µg/L
Freshwater sediments	0.712 mg/kg
Marine water	0.8 µg/L; 1 µg/L; 1 µg/L
Marine sediments	0.712 mg/kg
Food chain	Not determined or not available.
Microorganisms in sewage treatment	1 mg/L
Soil (agricultural)	Not determined or not available.
Air	No hazard identified

Information on monitoring procedures:

Not determined or not applicable.

8.2 Exposure controls

Appropriate engineering controls:

Effective ventilation in all processing areas.

Personal protection equipment

Eye and face protection:
Safety goggles or safety glasses with side shields
Skin and body protection:
Impervious clothing and chemical resistant gloves
Respiratory protection:
In case of insufficient ventilation, wear suitable respiratory protection

General hygienic measures:
Handle in accordance with good industrial hygiene and safety measures. Wash hands and face after handling chemical products. Wash hands before eating, drinking and smoking. Wash hands at the end of the workday.

Environmental exposure controls:
Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

Product (substance / mixture) related measures to prevent exposure:	Not determined or not applicable.
Instruction measures to prevent exposure:	Not determined or not applicable.
Organisational measures to prevent exposure:	Not determined or not applicable.
Technical measures to prevent exposure:	Not determined or not applicable.

Risk management measures to control exposure:
Not determined or not applicable.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	Grey Liquid
Odor	Characteristic acrylate
Odor threshold	Not determined or not available.
pH	Not determined or not available.
Melting point/freezing point	Not determined or not available.
Initial boiling point/range	> 100°C
Flash point (closed cup)	> 93.5°C
Evaporation rate	Not determined or not available.
Flammability (solid, gas)	Not Flammable
Upper flammability/explosive limit	Not determined or not available.
Lower flammability/explosive limit	Not determined or not available.
Vapor pressure	Not determined or not available.
Vapor density	Not determined or not available.
Density	1.11 g/cm3
Relative density	Not determined or not available.
Solubilities	Not determined or not available.
Partition coefficient (n-octanol/water)	Not determined or not available.
Auto/Self-ignition temperature	Not determined or not available.
Decomposition temperature	Not determined or not available.

Dynamic viscosity	1600 cps @ 25°C
Kinematic viscosity	Not determined or not available.
Explosive properties	Not determined or not available.
Oxidizing properties	Not determined or not available.

9.2 Other information

SECTION 10: Stability and reactivity

10.1 Reactivity:
Does not react under normal conditions of use and storage.

10.2 Chemical stability:
Stable under normal storage and handling conditions.

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

10.4 Conditions to avoid:
Incompatible materials.
Avoid storage >38°C (100°F) and exposure to light/direct sunlight and heat.

10.5 Incompatible materials:
Strong oxidizing agents.
Polymerization initiators, including peroxides, strong oxidizing agents, alcohols, copper, copper alloys, carbon steel, iron, rust, and strong bases.

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 toxicological effects

Acute toxicity

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

Product data: No data available.

Substance data:

Name	Route	Result
Methacrylate Monomer	oral	LD50 Rat: >2000 mg/kg
	dermal	LD50 Rabbit : >5000 mg/kg
Isobornyl methacrylate	oral	LD50 Rat: >2000 mg/kg
	dermal	LD50 Rabbit: >3000 mg/kg

Skin corrosion/irritation

Assessment:
Causes skin irritation.

Product data:
No data available.

Substance data:

Name	Result
Isobornyl methacrylate	Causes skin irritation

Serious eye damage/irritation

Assessment:
Causes serious eye irritation.

Product data:
No data available.

Substance data:

Name	Result
Methacrylate Monomer	Causes serious eye irritation.
Isobornyl methacrylate	Causes serious eye irritation

Respiratory or skin sensitization

Assessment:
May cause an allergic skin reaction.

Product data:
No data available.

Substance data:

Name	Result
Urethane Dimethacrylate	May cause an allergic skin reaction.
Methacrylate Monomer	May cause an allergic skin reaction.
Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	May cause an allergic skin reaction.

Carcinogenicity

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

Product data: No data available.

Substance data: No data available.

International Agency for Research on Cancer (IARC): None of the ingredients are listed.

National Toxicology Program (NTP): None of the ingredients are listed.

Germ cell mutagenicity

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

Product data: No data available.

Substance data: No data available.

Reproductive Toxicity

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

Product data:
No data available.

Substance data: No data available.

Specific target organ toxicity (single exposure)

Assessment:
May cause respiratory irritation.

Product data:
No data available.

Substance data:

Name	Result
Isobornyl methacrylate	May cause respiratory irritation

Specific target organ toxicity (repeated exposure)

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

Product data:

No data available.

Substance data: No data available.

Aspiration toxicity

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

Product data:

No data available.

Substance data: No data available.

Information on likely routes of exposure:

No data available.

Symptoms related to the physical, chemical and toxicological characteristics:

No data available.

Other information:

No data available.

SECTION 12: Ecological information

12.1 Toxicity

Acute (short-term) toxicity

Assessment:

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

Product data: No data available.

Substance data:

Name	Result
Isobornyl methacrylate	LC50 Danio rerio: 1.79 mg/L (96 hours)
	EC50 Daphnia magna: 2.57 mg/L (48 hours)

Chronic (long-term) toxicity

Assessment: Toxic to aquatic life with long lasting effects.

Product data: No data available.

Substance data:

Name	Result
Isobornyl methacrylate	NOEC Daphnia magna: 0.233 mg/L (21 days)
Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	EC50 Activated sludge : 100 mg/L

12.2 Persistence and degradability

Product data: No data available.

Substance data:

Name	Result
Urethane Dimethacrylate	This substance is not readily biodegradable.
Methacrylate Monomer	This substance is readily biodegradable.
Isobornyl methacrylate	Readily biodegradable
Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	This substance is not readily biodegradable.

12.3 Bioaccumulative potential

Product data: No data available.

Substance data:

Name	Result
Methacrylate Monomer	The substance has low potential to bioaccumulate because of log Kow value (0.97 at 20 deg C).
Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	Bioaccumulation in organisms is not to be expected.

12.4 Mobility in soil

Product data: No data available.

Substance data:

Name	Result
Urethane Dimethacrylate	This substance is expected to disturb between the water column and organic soil and sediment particles.
Methacrylate Monomer	The substance has a low potential for adsorption to soil.
Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	Based upon the log Koc of 3.85 an adsorption to the soil is expected.

12.5 Results of PBT and vPvB assessment

PBT assessment:

Urethane Dimethacrylate	This substance is not PBT.
Methacrylate Monomer	This substance is not PBT.
Isobornyl methacrylate	This substance in not PBT
Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	This substance is not PBT.

vPvB assessment:

Urethane Dimethacrylate	This substance is not vPvB.
Methacrylate Monomer	This substance is not vPvB.
Isobornyl methacrylate	This substance is not vPvB
Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	This substance is not vPvB.

12.6 Other adverse effects: No data available.

12.7 Hazard to the ozone layer

Assessment: Based on available data, the classification criteria are not met.
Product data: No data available.
Substance data: No data available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

13.1.1 Product / Packaging disposal: Not determined or not available.

Waste codes / waste designations according to LoW: Not determined or not available.

13.1.2 Waste treatment-relevant information: Not determined or not available.

13.1.3 Sewage disposal-relevant information: Not determined or not available.

13.1.4 Other disposal recommendations: It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities

SECTION 14: Transport information

International Carriage of Dangerous Goods by Road/Rail (ADR/RID)

UN number	UN 3082
UN proper shipping name	Environmentally hazardous liquid, N.O.S. Methacrylate Polymer
UN transport hazard class(es)	9 
Packing group	III
Environmental hazards	Marine Pollutant
Special precautions for user	None
Additional Information	This product is not regulated as a dangerous good when transported in sizes of <5L or <5 kg provided the packaging meets the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8

International Carriage of Dangerous Goods by Inland Waterways (ADN)

UN number	UN 3082
UN proper shipping name	Environmentally hazardous liquid, N.O.S. Methacrylate Polymer
UN transport hazard class(es)	9 
Packing group	III
Environmental hazards	Marine Pollutant
Special precautions for user	None
Additional Information	This product is not regulated as a dangerous good when transported in sizes of <5L or <5 kg provided the packaging meets the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8

International Maritime Dangerous Goods (IMDG)

UN number	UN 3082
UN proper shipping name	Environmentally hazardous liquid, N.O.S. Methacrylate Polymer
UN transport hazard class(es)	9 
Packing group	III
Environmental hazards	Marine Pollutant
Special precautions for user	None

Additional Information	This product is not regulated as a dangerous good when transported in sizes of <5L or <5 kg provided the packaging meets the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8

International Air Transport Association Dangerous Goods Regulations (IATA-DGR)

UN number	UN 3082
UN proper shipping name	Environmentally hazardous liquid, N.O.S. Methacrylate Polymer
UN transport hazard class(es)	9 
Packing group	III
Environmental hazards	Marine Pollutant
Special precautions for user	None
Additional Information	This product is not regulated as a dangerous good when transported in sizes of ≤5L or 5≤ kg provided the packaging meet the general provisions of 5.0.2.4.1, 5.0.2.6.1 and 5.0.2.8

Transport in bulk according to Annex II of MARPOL and the IBC Code	
Bulk Name	None
Ship type	None
Pollution category	None

SECTION 15: Regulatory information

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

European regulations

Inventory listing (EINECS):

72869-86-4	Urethane Dimethacrylate	Listed
Trade Secret	Methacrylate Monomer	Listed
7534-94-3	Isobornyl methacrylate	Listed
162881-26-7	Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	Not Listed

REACH SVHC candidate list:

72869-86-4	Urethane Dimethacrylate	Not Listed
Trade Secret	Methacrylate Monomer	Not Listed
7534-94-3	Isobornyl methacrylate	Not Listed
162881-26-7	Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	Not Listed

REACH SVHC Authorizations:

72869-86-4	Urethane Dimethacrylate	Not Listed

Trade Secret	Methacrylate Monomer	Not Listed
7534-94-3	Isobornyl methacrylate	Not Listed
162881-26-7	Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	Not Listed

REACH Restriction:

72869-86-4	Urethane Dimethacrylate	Not Listed
Trade Secret	Methacrylate Monomer	Not Listed
7534-94-3	Isobornyl methacrylate	Not Listed
162881-26-7	Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	Not Listed

Water hazard class (WGK) (Product): Not determined.

Water hazard class (WGK) (Substance):

Ingredient Name	CAS	Class
Urethane Dimethacrylate	72869-86-4	Water hazard class 1: slightly hazardous to water
Methacrylate Monomer	Trade Secret	Water hazard class 1: slightly hazardous to water
Isobornyl methacrylate	7534-94-3	Water hazard class 1: slightly hazardous to water
Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	162881-26-7	Water hazard class 1: slightly hazardous to water

Other regulations

Germany TA Luft:

Ingredient Name	CAS	Class	Base Emission Rate	Max Concentration
Urethane Dimethacrylate	72869-86-4	Not Applicable		
Methacrylate Monomer	Trade Secret	Not Applicable		
Isobornyl methacrylate	7534-94-3	Not Applicable		mg/m³
Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	162881-26-7	Not Applicable		

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

SECTION 16: Other information

Abbreviations and Acronyms: None

Classification procedure:

Classification according to Regulation (EC) No. 1272/2008 (CLP)	Method Used
Skin irritation, category 2	Calculation method
Eye Irritation, category 2	Calculation method
Skin sensitization, category 1	Calculation method

Classification according to Regulation (EC) No. 1272/2008 (CLP)	Method Used
Specific target organ toxicity - single exposure, category 3, respiratory tract irritation	Calculation method
Chronic aquatic hazard, category 2	Calculation method

Summary of classification(s) in section 3:

Skin Sens. 1	Skin sensitization, category 1
Eye Irrit. 2	Eye Irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3 (RI)	Specific target organ toxicity - single exposure, category 3, respiratory tract irritation
Aquatic Chronic 2	Chronic aquatic hazard, category 2
Aquatic Chronic 3	Chronic aquatic hazard, category 3
Aquatic Chronic 4	Chronic aquatic hazard, category 4

Summary of hazard statements in section 3:

H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H315	Causes skin irritation
H335	May cause respiratory irritation
H411	Toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects
H413	May cause long lasting harmful effects to aquatic life

Disclaimer:

This product has been classified in accordance with EC No. 1272/2008 (CLP) and EC No. 1907/2006 (REACH). The information provided in this SDS is correct, to the best of our knowledge, based on information available. The information given is designed only as a guidance for safe handling, use, storage, transportation and disposal and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials, unless specified in the text. The responsibility to provide a safe workplace remains with the user.

Initial preparation date: 2020.02.24

End of Safety Data Sheet