

Page 1 of 17
Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
Revision date / version: 20.10.2022 / 0004
Replacing version dated / version: 01.11.2021 / 0003
Valid from: 20.10.2022
PDF print date: 20.10.2022
LUX ELEMENTS(R)-TUB-(LINE) FINISH

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

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

1.1 Product identifier

LUX ELEMENTS(R)-TUB-(LINE) FINISH

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

Relevant identified uses of the substance or mixture:

This is an article.

Uses advised against:

No information available at present.

1.3 Details of the supplier of the safety data sheet

LUX ELEMENTS GmbH & Co. KG
An der Schusterinsel 7
51379 Leverkusen
Tel.: +49 (0)2171/72 12-0
Fax: +49 (0)2171/72 12-40
Email: info@luxelements.de
Homepage: www.luxelements.de

Qualified person's e-mail address: info@chemical-check.de, 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:

Telephone number of the company in case of emergencies:

+49 (0) 700 / 24 112 112 (LEC)
+1 872 5888271 (LEC)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

This is an article.

2.2 Label elements

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

Not applicable

This is an article.

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 %).

GB

Page 2 of 17
Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
Revision date / version: 20.10.2022 / 0004
Replacing version dated / version: 01.11.2021 / 0003
Valid from: 20.10.2022
PDF print date: 20.10.2022
LUX ELEMENTS(R)-TUB-(LINE) FINISH

May form explosible dust-air mixture if dispersed.

SECTION 3: Composition/information on ingredients

3.1 Substances

n.a.

3.2 Mixtures

Methyl methacrylate	Substance for which an EU exposure limit value applies.
Registration number (REACH)	---
Index	607-035-00-6
EINECS, ELINCS, NLP, REACH-IT List-No.	201-297-1
CAS	80-62-6
content %	<100
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Skin Sens. 1, H317 STOT SE 3, H335
n-butyl acrylate	Substance for which an EU exposure limit value applies.
Registration number (REACH)	---
Index	607-062-00-3
EINECS, ELINCS, NLP, REACH-IT List-No.	205-480-7
CAS	141-32-2
content %	<100
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 Skin Sens. 1, H317 STOT SE 3, H335 Aquatic Chronic 3, H412
Titanium dioxide (in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm)	
Registration number (REACH)	---
Index	022-006-002
EINECS, ELINCS, NLP, REACH-IT List-No.	236-675-5
CAS	13463-67-7
content %	<100
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Carc. 2, H351 (as inhalation)

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.

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

(GB)

Page 3 of 17
Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
Revision date / version: 20.10.2022 / 0004
Replacing version dated / version: 01.11.2021 / 0003
Valid from: 20.10.2022
PDF print date: 20.10.2022
LUX ELEMENTS(R)-TUB-(LINE) FINISH

On dust formation:
Remove person from danger area.
Supply person with fresh air and consult doctor according to symptoms.

Skin contact

Not required.

Eye contact

Irritating to eyes.

Immediately rinse the eyes with plenty of water for at least ten minutes, holding the eyelids properly open.

If applicable, consult doctor if necessary.

Ingestion

Typically no exposure pathway.

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.

4.3 Indication of any immediate medical attention and special treatment needed

n.c.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water jet spray/foam/CO2/dry extinguisher

Unsuitable extinguishing media

None

5.2 Special hazards arising from the substance or mixture

In case of fire the following can develop:

Metal oxides

Oxides of carbon

Iron oxides

Aluminium oxide

Note danger of explosive-dust

Monomer vapours

Aldehydes

5.3 Advice for firefighters

For personal protective equipment see Section 8.

Protective respirator with independent air supply.

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.

No special measures required.

Avoid breathing dust.

6.1.2 For emergency responders

See section 8 for suitable protective equipment and material specifications.

6.2 Environmental precautions

Normally not necessary.

6.3 Methods and material for containment and cleaning up

Pick up mechanically and dispose of according to Section 13.

Avoid build up of dust.

GB

Page 4 of 17
Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
Revision date / version: 20.10.2022 / 0004
Replacing version dated / version: 01.11.2021 / 0003
Valid from: 20.10.2022
PDF print date: 20.10.2022
LUX ELEMENTS(R)-TUB-(LINE) FINISH

Note danger of explosive-dust
Use non-sparking tools and explosion-proof equipment.

6.4 Reference to other sections

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

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

Eating, drinking, smoking, as well as food-storage, is prohibited in work-room.
Observe directions on label and instructions for use.
Do not breathe dust.
On dust formation:
Earth devices.

Take precautions against electrostatic charges.
Use non-sparking tools and explosion-proof equipment.
Suction measures at the workplace or on the processing machines required.

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

No special measures required.
Store product closed and only in original packing.
Not to be stored in gangways or stair wells.


7.3 Specific end use(s)


No information available at present.


SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Materials are integrated into the product and should not lead to any exposure under normal handling conditions.

	Chemical Name	Methyl methacrylate		
WEL-TWA: 50 ppm (208 mg/m3) (WEL), 50 ppm (EU)		WEL-STEL: 100 ppm (416 mg/m3) (WEL), 100 ppm (EU)	---	
Monitoring procedures:		<ul style="list-style-type: none">- Compur - KITA-184 S (548 618) NIOSH 2537 (Methyl and ethyl metacrylate) - 2003 - EU project- BC/CEN/ENTR/000/2002-16 card 109-2 (2004)- OSHA 94 (Methyl Methacrylate) - 1992		
BMGV: ---			Other information: ---	

	Chemical Name	n-butyl acrylate		
WEL-TWA: 1 ppm (5 mg/m3) (WEL), 2 ppm (11 mg/m3) (EU)		WEL-STEL: 5 ppm (26 mg/m3) (WEL), 10 ppm (53 mg/m3) (EU)	---	
Monitoring procedures:		<ul style="list-style-type: none">- Compur - KITA-211 U (548 865)- OSHA PV2011 (Butyl Acrylate) - 1991		
BMGV: ---			Other information: ---	

	Chemical Name	Titanium dioxide (in powder form containing 1 % or more of particles with aerodynamic diameter <= 10 µm)		
WEL-TWA: 10 mg/m3 (total inhalable dust), 4 mg/m3 (respirable dust)		WEL-STEL: ---	---	
Monitoring procedures:		---		
BMGV: ---			Other information: ---	

GB

Page 5 of 17
Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
Revision date / version: 20.10.2022 / 0004
Replacing version dated / version: 01.11.2021 / 0003
Valid from: 20.10.2022
PDF print date: 20.10.2022
LUX ELEMENTS(R)-TUB-(LINE) FINISH

Chemical Name	Iron(III)oxide
WEL-TWA: 5 mg/m3 (fume, as Fe) / Rouge: 4 mg/m3 (resp. dust), 10 mg/m3 (total inh. dust)	WEL-STEL: 10 mg/m3 (fume, as Fe) ---
Monitoring procedures: ---	
BMGV: ---	Other information: ---

Chemical Name	general dust limit
WEL-TWA: 10 mg/m3 (inhal. dust), 4 mg/m3 (respir. dust)	WEL-STEL: --- ---
Monitoring procedures: ---	
BMGV: ---	Other information: ---

Methyl methacrylate						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	0,94	mg/l	
	Environment - soil		PNEC	1,47	mg/kg	
	Environment - sewage treatment plant		PNEC	10	mg/l	
	Environment - marine		PNEC	0,094	mg/l	
	Environment - sediment		PNEC	5,74	mg/kg	
	Environment - sediment, freshwater		PNEC	10,2	mg/kg	
	Environment - sediment, marine		PNEC	0,102	mg/kg	
Consumer	Human - inhalation	Short term, local effects	DNEL	208	mg/m3	
Consumer	Human - oral	Long term, systemic effects	DNEL	8,2	mg/kg	
Consumer	Human - dermal	Short term, local effects	DNEL	1,5	mg/cm2	
Consumer	Human - inhalation	Long term, local effects	DNEL	104	mg/m3	
Consumer	Human - dermal	Long term, local effects	DNEL	1,5	mg/cm2	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	74,3	mg/m3	
Consumer	Human - dermal	Long term, systemic effects	DNEL	8,2	mg/kg bw/day	
Consumer	Human - oral	Long term, local effects	DNEL	1,5	mg/cm2	
Industrial / commercial	Human - dermal	Long term, local effects	DNEL	1,5	mg/cm2	
Industrial / commercial	Human - inhalation	Long term, local effects	DNEL	208	mg/m3	
Industrial / commercial	Human - inhalation	Long term, systemic effects	DNEL	208	mg/m3	
Industrial / commercial	Human - dermal	Long term, systemic effects	DNEL	13,67	mg/kg	
Industrial / commercial	Human - dermal	Short term, local effects	DNEL	1,5	mg/cm2	
Workers / employees	Human - inhalation	Long term, local effects	DNEL	208	mg/m3	
Workers / employees	Human - dermal	Long term, local effects	DNEL	1,5	mg/cm2	
Workers / employees	Human - inhalation	Short term, local effects	DNEL	416	mg/m3	

GB

Page 6 of 17
Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
Revision date / version: 20.10.2022 / 0004
Replacing version dated / version: 01.11.2021 / 0003
Valid from: 20.10.2022
PDF print date: 20.10.2022
LUX ELEMENTS(R)-TUB-(LINE) FINISH

Workers / employees	Human - dermal	Long term, systemic effects	DNEL	13,67	mg/kg	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	348,4	mg/m3	
Workers / employees	Human - dermal	Short term, local effects	DNEL	1,5	mg/cm2	

Titanium dioxide (in powder form containing 1 % or more of particles with aerodynamic diameter $\leq 10 \mu\text{m}$)						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	0,184	mg/l	
	Environment - marine		PNEC	0,0184	mg/l	
	Environment - water, sporadic (intermittent) release		PNEC	0,193	mg/l	
	Environment - sewage treatment plant		PNEC	100	mg/l	
	Environment - sediment, freshwater		PNEC	1000	mg/kg dw	
	Environment - sediment, marine		PNEC	100	mg/kg dw	
	Environment - soil		PNEC	100	mg/kg dw	
	Environment - oral (animal feed)		PNEC	1667	mg/kg feed	
Consumer	Human - oral	Long term, systemic effects	DNEL	700	mg/kg bw/d	
Workers / employees	Human - inhalation	Long term, local effects	DNEL	10	mg/m3	

Iron(III)oxide						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
Workers / employees	Human - inhalation	Long term, local effects	DNEL	10	mg/m3	

Aluminium hydroxide						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Human - inhalation	Long term, local effects	DNEL	10,76	mg/m3	
	Human - inhalation	Long term, systemic effects	DNEL	10,76	mg/m3	
Consumer	Human - oral	Short term, systemic effects	DNEL	4,74	mg/kg bw/d	

WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period) EH40. AGW = "Arbeitsplatzgrenzwert" (workplace limit value, Germany).
(8) = Inhalable fraction (Directive 2017/164/EU, Directive 2004/37/CE). (9) = Respirable fraction (Directive 2017/164/EU, Directive 2004/37/CE). (11) = Inhalable fraction (Directive 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 (Directive 2004/37/CE). | WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period).
(8) = Inhalable fraction (2017/164/EU, 2017/2398/EU). (9) = Respirable fraction (2017/164/EU, 2017/2398/EU). (10) = Short-term

Page 7 of 17
Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
Revision date / version: 20.10.2022 / 0004
Replacing version dated / version: 01.11.2021 / 0003
Valid from: 20.10.2022
PDF print date: 20.10.2022
LUX ELEMENTS(R)-TUB-(LINE) FINISH

exposure limit value in relation to a reference period of 1 minute (2017/164/EU). | BMGV = Biological monitoring guidance value
EH40. BGW = "Biologischer Grenzwert" (biological limit value, Germany) | Other information: Sen = Capable of causing occupational
asthma. Sk = Can be absorbed through skin. Carc = Capable of causing cancer and/or heritable genetic damage.
** = The exposure limit for this substance is repealed through the TRGS 900 (Germany) of January 2006 with the goal of revision.
(13) = The substance can cause sensitisation of the skin and of the respiratory tract (Directive 2004/37/CE), (14) = The substance
can cause sensitisation of the skin (Directive 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:

--

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.

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

Respiratory protection:
Normally not necessary.
If the general dust-limit is exceeded, breathing masks with fine-dust filters are necessary (EN 143), code colour white.

Thermal hazards:
If applicable, these are included in the individual protective measures (eye/face protection, skin protection, respiratory protection).

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

(GB)

Page 8 of 17
Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
Revision date / version: 20.10.2022 / 0004
Replacing version dated / version: 01.11.2021 / 0003
Valid from: 20.10.2022
PDF print date: 20.10.2022
LUX ELEMENTS(R)-TUB-(LINE) FINISH

Physical state:	Solid
Colour:	According to specification
Odour:	Odourless
Melting point/freezing point:	There is no information available on this parameter.
Boiling point or initial boiling point and boiling range:	There is no information available on this parameter.
Flammability:	Not combustible.
Lower explosion limit:	Does not apply to solids.
Upper explosion limit:	Does not apply to solids.
Flash point:	Does not apply to solids.
Auto-ignition temperature:	Does not apply to solids.
Decomposition temperature:	There is no information available on this parameter.
pH:	Mixture is non-soluble (in water).
Kinematic viscosity:	Does not apply to solids.
Solubility:	Insoluble
Partition coefficient n-octanol/water (log value):	Does not apply to mixtures.
Vapour pressure:	There is no information available on this parameter.
Density and/or relative density:	1,6-1,8 g/cm ³
Relative vapour density:	Does not apply to solids.
9.2 Other information	
Explosives:	There is no information available on this parameter.
Oxidizing solids:	There is no information available on this parameter.

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 decomposition if used as intended.

10.4 Conditions to avoid

Stable with proper storage and handling.

10.5 Incompatible materials

Avoid contact with other chemicals.

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).

LUX ELEMENTS(R)-TUB-(LINE) FINISH

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	ATE	>2000	mg/kg			calculated valueestimated
Acute toxicity, by dermal route:						n.d.a.
Acute toxicity, by inhalation:	ATE	>5	mg/l/4h			calculated value, Vapoursestimat ed
Skin corrosion/irritation:						n.d.a.
Serious eye damage/irritation:						n.d.a.
Respiratory or skin sensitisation:						n.d.a.

GB

Page 9 of 17
Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
Revision date / version: 20.10.2022 / 0004
Replacing version dated / version: 01.11.2021 / 0003
Valid from: 20.10.2022
PDF print date: 20.10.2022
LUX ELEMENTS(R)-TUB-(LINE) FINISH

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.

Methyl methacrylate						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>6000	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by dermal route:	LD50	>5000	mg/kg	Rabbit	OECD 402 (Acute Dermal Toxicity)	
Acute toxicity, by inhalation:	LC50	29,8	mg/l/4h	Rat		Vapours
Skin corrosion/irritation:				Rabbit		Skin Irrit. 2
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Mild irritant
Respiratory or skin sensitisation:				Human being		Skin Sens. 1
Respiratory or skin sensitisation:				Mouse	OECD 429 (Skin Sensitisation - Local Lymph Node Assay)	Yes (skin contact)
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative
Carcinogenicity:						Negative
Reproductive toxicity:						Negative
Specific target organ toxicity - repeated exposure (STOT-RE):	NOAEL	2000	ppm	Rat		
Aspiration hazard:						No indications of such an effect.
Specific target organ toxicity - repeated exposure (STOT-RE), inhalat.:	NOAEL	25	ppm	Rat	OECD 453 (Combined Chronic Toxicity/Carcinogenicity Studies)	
Symptoms:						breathing difficulties, respiratory distress, drowsiness, drop in blood pressure, coughing, headaches, fatigue, mucous membrane irritation, watering eyes, mental confusion

GB

Page 10 of 17
Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
Revision date / version: 20.10.2022 / 0004
Replacing version dated / version: 01.11.2021 / 0003
Valid from: 20.10.2022
PDF print date: 20.10.2022
LUX ELEMENTS(R)-TUB-(LINE) FINISH

Titanium dioxide (in powder form containing 1 % or more of particles with aerodynamic diameter $\leq 10 \mu\text{m}$)						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>5000	mg/kg	Rat	OECD 425 (Acute Oral Toxicity - Up-and-Down Procedure)	
Acute toxicity, by dermal route:	LD50	>5000	mg/kg	Rabbit		
Acute toxicity, by inhalation:	LC50	>6,8	mg/l/4h	Rat		
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Not irritant
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Not irritant, Mechanical irritation possible.
Respiratory or skin sensitisation:				Mouse	OECD 429 (Skin Sensitisation - Local Lymph Node Assay)	Not sensitizing
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	No (skin contact)
Germ cell mutagenicity:				Mouse	OECD 474 (Mammalian Erythrocyte Micronucleus Test)	Negative
Germ cell mutagenicity:				Mammalian	OECD 473 (In Vitro Mammalian Chromosome Aberration Test)	Negative
Germ cell mutagenicity:				Salmonella typhimurium	(Ames-Test)	Negative
Germ cell mutagenicity:					OECD 476 (In Vitro Mammalian Cell Gene Mutation Test)	Negative
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative
Reproductive toxicity (Developmental toxicity):				Rat	OECD 414 (Prenatal Developmental Toxicity Study)	No indications of such an effect.
Specific target organ toxicity - single exposure (STOT-SE):						Not irritant (respiratory tract).
Symptoms:						mucous membrane irritation, coughing, respiratory distress, drying of the skin.
Specific target organ toxicity - repeated exposure (STOT-RE), oral:	NOAEL	3500	mg/kg/d	Rat		90d
Specific target organ toxicity - repeated exposure (STOT-RE), inhalat.:	NOAEC	10	mg/m3	Rat		90d

Iron(III)oxide						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes

GB

Page 11 of 17
Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
Revision date / version: 20.10.2022 / 0004
Replacing version dated / version: 01.11.2021 / 0003
Valid from: 20.10.2022
PDF print date: 20.10.2022
LUX ELEMENTS(R)-TUB-(LINE) FINISH

Acute toxicity, by oral route:	LD50	>5000	mg/kg	Rat		Analogous conclusion
Acute toxicity, by inhalation:	LC50	>210	mg/m3	Rat		
Skin corrosion/irritation:				Rabbit		Not irritant, Analogous conclusion, Mechanical irritation possible.
Serious eye damage/irritation:				Rabbit		Not irritant, Analogous conclusion, Mechanical irritation possible.
Germ cell mutagenicity:						No indications of such an effect.
Carcinogenicity:						No indications of such an effect.
Reproductive toxicity:						No indications of such an effect.
Aspiration hazard:						No
Symptoms:						respiratory distress, coughing, mucous membrane irritation

11.2. Information on other hazards

This is an article.

LUX ELEMENTS(R)-TUB-(LINE) FINISH						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Endocrine disrupting properties:						Does not apply to mixtures.
Other information:						No other relevant information available on adverse effects on health.

SECTION 12: Ecological information

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

LUX ELEMENTS(R)-TUB-(LINE) FINISH							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:							n.d.a.
12.1. Toxicity to daphnia:							n.d.a.
12.1. Toxicity to algae:							n.d.a.

GB

Page 12 of 17
Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
Revision date / version: 20.10.2022 / 0004
Replacing version dated / version: 01.11.2021 / 0003
Valid from: 20.10.2022
PDF print date: 20.10.2022
LUX ELEMENTS(R)-TUB-(LINE) FINISH

12.2. Persistence and degradability:							n.d.a.
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.

Methyl methacrylate							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to algae:	NOEC/NOEL	72h	49	mg/l	Pseudokirchneria subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
12.1. Toxicity to daphnia:	NOEC/NOEL	21d	37	mg/l	Daphnia magna	OECD 211 (Daphnia magna Reproduction Test)	
12.1. Toxicity to fish:	LC50	96h	130	mg/l	Pimephales promelas	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to daphnia:	EC50	48h	69	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to algae:	EC50	96h	37	mg/l	Selenastrum capricornutum	OECD 201 (Alga, Growth Inhibition Test)	
12.2. Persistence and degradability:		28d	>95	%		OECD 302 B (Inherent Biodegradability - Zahn-Wellens/EMPA Test)	Readily biodegradable
12.3. Bioaccumulative potential:	Log Pow		1,32-1,38			OECD 107 (Partition Coefficient (n-octanol/water) - Shake Flask Method)	A notable biological accumulation potential is not to be expected (LogPow 1-3).
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance

Titanium dioxide (in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm)							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	>100	mg/l	Oncorhynchus mykiss	OECD 203 (Fish, Acute Toxicity Test)	

GB

Page 13 of 17
Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
Revision date / version: 20.10.2022 / 0004
Replacing version dated / version: 01.11.2021 / 0003
Valid from: 20.10.2022
PDF print date: 20.10.2022
LUX ELEMENTS(R)-TUB-(LINE) FINISH

12.1. Toxicity to daphnia:	LC50	48h	>100	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to algae:	EC50	72h	16	mg/l	Pseudokirchneriella subcapitata	U.S. EPA-600/9-78-018	
12.2. Persistence and degradability:							Not relevant for inorganic substances.
12.3. Bioaccumulative potential:	BCF	42d	9,6				Not to be expected
12.3. Bioaccumulative potential:	BCF	14d	19-352				Oncorhynchus mykiss
12.4. Mobility in soil:							Negative
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
Toxicity to bacteria:			>5000	mg/l	Escherichia coli		
Toxicity to bacteria:	LC0	24h	>10000	mg/l	Pseudomonas fluorescens		
Toxicity to annelids:	NOEC/NOEL		>1000	mg/kg	Eisenia foetida		
Water solubility:							Insoluble 20°C

Iron(III)oxide							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
12.1. Toxicity to fish:	LC50	96h	>1000	mg/l	Leuciscus idus		Analogous conclusion
12.1. Toxicity to daphnia:	EC50	48h	>100	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.2. Persistence and degradability:							Not relevant for inorganic substances.
12.3. Bioaccumulative potential:							Not to be expected
Toxicity to bacteria:	EC50	3h	>10000	mg/l	activated sludge	ISO 8192	

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)

17 06 04 insulation materials other than those mentioned in 17 06 01 and 17 06 03

17 09 04 mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03

Recommendation:

Sewage disposal shall be discouraged.

Pay attention to local and national official regulations.

E.g. dispose at suitable refuse site.

GB

Page 14 of 17
Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
Revision date / version: 20.10.2022 / 0004
Replacing version dated / version: 01.11.2021 / 0003
Valid from: 20.10.2022
PDF print date: 20.10.2022
LUX ELEMENTS(R)-TUB-(LINE) FINISH

E.g. suitable incineration plant.
For contaminated packing material
Pay attention to local and national official regulations.
Recommendation:

SECTION 14: Transport information

General statements

14.1. UN number or ID number: Not applicable

Transport by road/by rail (ADR/RID)

14.2. UN proper shipping name:
14.3. Transport hazard class(es): n.a.
14.4. Packing group: Not applicable
Classification code: Not applicable
LQ: Not applicable
14.5. Environmental hazards: Not applicable
Tunnel restriction code:

Transport by sea (IMDG-code)

14.2. UN proper shipping name:
14.3. Transport hazard class(es): n.a.
14.4. Packing group: Not applicable
Marine Pollutant: n.a.
14.5. Environmental hazards: Not applicable

Transport by air (IATA)

14.2. UN proper shipping name:
14.3. Transport hazard class(es): n.a.
14.4. Packing group: Not applicable
14.5. Environmental hazards: Not applicable

14.6. Special precautions for user

Unless specified otherwise, general measures for safe transport must be followed.

14.7. Maritime transport in bulk according to IMO instruments

Non-dangerous material according to Transport Regulations.

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)!
General hygiene measures for the handling of chemicals are applicable.

Directive 2010/75/EU (VOC): n.a.

15.2 Chemical safety assessment

A chemical safety assessment is not provided for mixtures.

SECTION 16: Other information

Revised sections: 8

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

Not applicable

Page 15 of 17
Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
Revision date / version: 20.10.2022 / 0004
Replacing version dated / version: 01.11.2021 / 0003
Valid from: 20.10.2022
PDF print date: 20.10.2022
LUX ELEMENTS(R)-TUB-(LINE) FINISH

The following phrases represent the posted Hazard Class and Risk Category Code (GHS/CLP) of the product and the constituents (specified in Section 2 and 3).

H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapour.
H351 Suspected of causing cancer by inhalation.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H412 Harmful to aquatic life with long lasting effects.

Flam. Liq. — Flammable liquid
Skin Irrit. — Skin irritation
Skin Sens. — Skin sensitization
STOT SE — Specific target organ toxicity - single exposure - respiratory tract irritation
Acute Tox. — Acute toxicity - inhalation
Eye Irrit. — Eye irritation
Aquatic Chronic — Hazardous to the aquatic environment - chronic
Carc. — Carcinogenicity

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
bw body weight
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
dw dry weight

Page 16 of 17
Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
Revision date / version: 20.10.2022 / 0004
Replacing version dated / version: 01.11.2021 / 0003
Valid from: 20.10.2022
PDF print date: 20.10.2022
LUX ELEMENTS(R)-TUB-(LINE) FINISH

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, EpCx, 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
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. 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

Page 17 of 17
Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
Revision date / version: 20.10.2022 / 0004
Replacing version dated / version: 01.11.2021 / 0003
Valid from: 20.10.2022
PDF print date: 20.10.2022
LUX ELEMENTS(R)-TUB-(LINE) FINISH

VOC Volatile organic compounds
vPvB very persistent and very bioaccumulative
wwt wet weight

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:

Chemical Check GmbH, Chemical Check Platz 1-7, D-32839 Steinheim, Tel.: +49 5233 94 17 0, Fax: +49 5233 94 17 90

© by Chemical Check GmbH Gefahrstoffberatung. The copying or changing of this document is forbidden except with consent of the Chemical Check GmbH Gefahrstoffberatung.