

## 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

**Grundierfueller 400 ml**  
**Art.: 6047**

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

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

Priming  
Corrosion protection

##### Uses advised against:

No information available at present.

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

GB

LIQUI MOLY GmbH, Jerg-Wieland-Str. 4, 89081 Ulm-Lehr, Germany  
Phone:(+49) 0731-1420-0, Fax:(+49) 0731-1420-88

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 (LMR)

### 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
Eye Irrit.	2	H319-Causes serious eye irritation.
STOT SE	3	H336-May cause drowsiness or dizziness.
Aquatic Chronic	2	H411-Toxic to aquatic life with long lasting effects.
Aerosol	1	H222-Extremely flammable aerosol.
Aerosol	1	H229-Pressurised container: May burst if heated.

#### 2.2 Label elements

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

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 22.02.2019 / 0006  
 Replacing version dated / version: 05.07.2018 / 0005  
 Valid from: 22.02.2019  
 PDF print date: 09.03.2019  
 Grundierfueller 400 ml  
 Art.: 6047



Danger

H319-Causes serious eye irritation. H336-May cause drowsiness or dizziness. H411-Toxic to aquatic life with long lasting effects. H222-Extremely flammable aerosol. H229-Pressurised container: May burst if heated.

P101-If medical advice is needed, have product container or label at hand. P102-Keep out of reach of children.

P210-Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P211-Do not spray on an open flame or other ignition source. P251-Do not pierce or burn, even after use. P261-Avoid breathing vapours or spray. P271-Use only outdoors or in a well-ventilated area. P273-Avoid release to the environment. P280-Wear eye protection / face protection.

P305+P351+P338-IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P312-Call a POISON CENTRE / doctor if you feel unwell.

P405-Store locked up. P410+P412-Protect from sunlight. Do not expose to temperatures exceeding 50 °C.

P501-Dispose of contents / container to an approved waste disposal facility.

EUH066-Repeated exposure may cause skin dryness or cracking.

EUH208-Contains Reaction product: bisphenol-A-(epichlorhydrin). May produce an allergic reaction.

Without adequate ventilation, formation of explosive mixtures may be possible.

n-butyl acetate

Butan-1-ol

Hydrocarbons, C9, aromatics

Acetone

## 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 %).

## SECTION 3: Composition/information on ingredients

Aerosol

### 3.1 Substance

n.a.

### 3.2 Mixture

Dimethyl ether	Substance for which an EU exposure limit value applies.
Registration number (REACH)	01-2119472128-37-XXXX
Index	603-019-00-8
EINECS, ELINCS, NLP	204-065-8
CAS	115-10-6
content %	25-<50
Classification according to Regulation (EC) 1272/2008 (CLP)	Flam. Gas 1, H220

Acetone	Substance for which an EU exposure limit value applies.
Registration number (REACH)	01-2119471330-49-XXXX
Index	606-001-00-8
EINECS, ELINCS, NLP	200-662-2
CAS	67-64-1
content %	10-<25

Page 3 of 29  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 22.02.2019 / 0006  
 Replacing version dated / version: 05.07.2018 / 0005  
 Valid from: 22.02.2019  
 PDF print date: 09.03.2019  
 Grundierfueller 400 ml  
 Art.: 6047

<b>Classification according to Regulation (EC) 1272/2008 (CLP)</b>	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336
<b>Xylene</b>	<b>Substance for which an EU exposure limit value applies.</b>
<b>Registration number (REACH)</b>	---
<b>Index</b>	601-022-00-9
<b>EINECS, ELINCS, NLP</b>	215-535-7
<b>CAS</b>	1330-20-7
<b>content %</b>	1-<5
<b>Classification according to Regulation (EC) 1272/2008 (CLP)</b>	Flam. Liq. 3, H226 Acute Tox. 4, H332 Acute Tox. 4, H312 Skin Irrit. 2, H315
<b>Butan-1-ol</b>	
<b>Registration number (REACH)</b>	---
<b>Index</b>	603-004-00-6
<b>EINECS, ELINCS, NLP</b>	200-751-6
<b>CAS</b>	71-36-3
<b>content %</b>	1-<3
<b>Classification according to Regulation (EC) 1272/2008 (CLP)</b>	Flam. Liq. 3, H226 Acute Tox. 4, H302 STOT SE 3, H335 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H336
<b>Trizinc bis(orthophosphate)</b>	
<b>Registration number (REACH)</b>	---
<b>Index</b>	030-011-00-6
<b>EINECS, ELINCS, NLP</b>	231-944-3
<b>CAS</b>	7779-90-0
<b>content %</b>	1-<2,5
<b>Classification according to Regulation (EC) 1272/2008 (CLP)</b>	Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)
<b>Zinc oxide</b>	
<b>Registration number (REACH)</b>	---
<b>Index</b>	030-013-00-7
<b>EINECS, ELINCS, NLP</b>	215-222-5
<b>CAS</b>	1314-13-2
<b>content %</b>	1-<2,5
<b>Classification according to Regulation (EC) 1272/2008 (CLP)</b>	Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)
<b>Propan-2-ol</b>	
<b>Registration number (REACH)</b>	---
<b>Index</b>	603-117-00-0
<b>EINECS, ELINCS, NLP</b>	200-661-7
<b>CAS</b>	67-63-0
<b>content %</b>	1-<2,5
<b>Classification according to Regulation (EC) 1272/2008 (CLP)</b>	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336
<b>Hydrocarbons, C9, aromatics</b>	
<b>Registration number (REACH)</b>	01-2119455851-35-XXXX
<b>Index</b>	---
<b>EINECS, ELINCS, NLP</b>	918-668-5 (REACH-IT List-No.)
<b>CAS</b>	(64742-95-6)
<b>content %</b>	1-<2,5

Page 4 of 29  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 22.02.2019 / 0006  
 Replacing version dated / version: 05.07.2018 / 0005  
 Valid from: 22.02.2019  
 PDF print date: 09.03.2019  
 Grundierfueller 400 ml  
 Art.: 6047

<b>Classification according to Regulation (EC) 1272/2008 (CLP)</b>	Flam. Liq. 3, H226 Asp. Tox. 1, H304 STOT SE 3, H335 STOT SE 3, H336 Aquatic Chronic 2, H411
<b>Reaction product: bisphenol-A-(epichlorhydrin)</b>	
<b>Registration number (REACH)</b>	---
<b>Index</b>	603-074-00-8
<b>EINECS, ELINCS, NLP</b>	500-033-5 (NLP)
<b>CAS</b>	25068-38-6
<b>content %</b>	0,1-<1
<b>Classification according to Regulation (EC) 1272/2008 (CLP)</b>	Eye Irrit. 2, H319 Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chronic 2, H411

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

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.

#### 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

Typically no exposure pathway.

Rinse the mouth thoroughly with water.

Give copious water to drink - consult doctor immediately.

### 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.

The following may occur:

Irritation of the respiratory tract

Coughing

Headaches

Dizziness

Effects/damages the central nervous system

With long-term contact:

drying of the skin.

Dermatitis (skin inflammation)

Allergic reaction

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

Symptomatic treatment.

## SECTION 5: Firefighting measures

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

Revision date / version: 22.02.2019 / 0006

Replacing version dated / version: 05.07.2018 / 0005

Valid from: 22.02.2019

PDF print date: 09.03.2019

Grundierfueller 400 ml

Art.: 6047

## 5.1 Extinguishing media

### Suitable extinguishing media

CO<sub>2</sub>

Extinction powder

Water jet spray

Alcohol resistant foam

### 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

Toxic gases

Danger of bursting (explosion) when heated

Explosive vapour/air or gas/air mixtures.

## 5.3 Advice for firefighters

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.

Cool container at risk with water.

Dispose of contaminated extinction water according to official regulations.

## SECTION 6: Accidental release measures

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

Remove possible causes of ignition - do not smoke.

Ensure sufficient supply of air.

Avoid contact with eyes or skin.

If applicable, caution - risk of slipping.

### 6.2 Environmental precautions

Prevent penetration into drains, cellars, working pits or other places in which accumulation could be hazardous.

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

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

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

If spray or gas escapes, ensure ample fresh air is available.

Without adequate ventilation, formation of explosive mixtures may be possible.

Active substance:

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

### 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

Ensure good ventilation.

Avoid inhalation of the vapours.

Avoid contact with eyes or skin.

Keep away from sources of ignition - Do not smoke.

Take measures against electrostatic charging, if appropriate.

Do not use on hot surfaces.

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.

GB

Page 6 of 29  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 22.02.2019 / 0006  
 Replacing version dated / version: 05.07.2018 / 0005  
 Valid from: 22.02.2019  
 PDF print date: 09.03.2019  
 Grundierfueller 400 ml  
 Art.: 6047

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 out of access to unauthorised individuals.  
 Not to be stored in gangways or stair wells.  
 Store product closed and only in original packing.  
 Observe special regulations for aerosols!  
 Observe special storage conditions.  
 Do not store with flammable or self-igniting materials.  
 Keep protected from direct sunlight and temperatures over 50°C.  
 Store in a well-ventilated place.  
 Store cool.

### 7.3 Specific end use(s)

No information available at present.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

Workplace exposure limit (WEL) of the total hydrocarbon solvent content of the mixture (RCP method according to EH40):  
 500 mg/m<sup>3</sup>

Chemical Name	Dimethyl ether	Content %:25- <50
WEL-TWA: 400 ppm (766 mg/m <sup>3</sup> ) (WEL), 1000 ppm (1920 mg/m <sup>3</sup> ) (EU)	WEL-STEL: 500 ppm (958 mg/m <sup>3</sup> ) (WEL)	---
Monitoring procedures:	- Compur - KITA-123 S (549 129)	
BMGV: ---		Other information: ---

Chemical Name	Acetone	Content %:10- <25
WEL-TWA: 500 ppm (1210 mg/m <sup>3</sup> ) (WEL, EU)	WEL-STEL: 1500 ppm (3620 mg/m <sup>3</sup> ) (WEL)	---
Monitoring procedures:	- Compur - KITA-102 SA (548 534) - Compur - KITA-102 SC (548 550) - Compur - KITA-102 SD (551 109) - Draeger - Acetone 40/a (5) (81 03 381) - Draeger - Acetone 100/b (CH 22 901) MTA/MA-031/A96 (Determination of ketones (acetone, methyl ethyl ketone, methyl isobutyl ketone) in air - Charcoal tube method / Gas chromatography) - 1996 - EU project BC/CEN/ENTR/000/2002-16 card 67-1 (2004) - MDHS 72 (Volatile organic compounds in air – Laboratory method using pumped solid sorbent tubes, thermal desorption and gas chromatography) - 1993	
BMGV: ---		Other information: ---

Chemical Name	Xylene	Content %:1-<5
WEL-TWA: 50 ppm (220 mg/m <sup>3</sup> ) (WEL), 50 ppm (221 mg/m <sup>3</sup> ) (EU)	WEL-STEL: 100 ppm (441 mg/m <sup>3</sup> ) (WEL), 100 ppm (442 mg/m <sup>3</sup> ) (EU)	---
Monitoring procedures:	- Compur - KITA-143 SA (550 325) - Compur - KITA-143 SB (505 998) - Draeger - Xylene 10/a (67 33 161) MTA/MA-030/A92 (Determination of aromatic hydrocarbons (benzene, toluene, ethylbenzene, p-xylene, 1,2,4-trimethylbenzene) in air - Charcoal tube method / Gas chromatography) - 1992 - EU project BC/CEN/ENTR/000/2002-16 card 47-1 (2004)	
BMGV: 650 mmol methyl hippuric acid/mol creatinine in urine, post shift (Xylene, o-, m-, p- or mixed isomers) (BMGV)		Other information: Sk (WEL)

Chemical Name	Butan-1-ol	Content %:1-<3
WEL-TWA: ---	WEL-STEL: 50 ppm (154 mg/m <sup>3</sup> )	---
Monitoring procedures:	- Compur - KITA-190 U(C) (548 873) - Draeger - Alcohol 25/a n-Butanol (81 01 631) DFG (D) (Loesungsmittelgemische), DFG (E) (Solvent mixtures 6) - 1998, 2002 - EU project BC/CEN/ENTR/000/2002-16 card 70-3 (2004)	

GB

Page 7 of 29  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 22.02.2019 / 0006  
 Replacing version dated / version: 05.07.2018 / 0005  
 Valid from: 22.02.2019  
 PDF print date: 09.03.2019  
 Grundierfueller 400 ml  
 Art.: 6047

- Draeger - Alcohol 100/a (CH 29 701)	
BMGV: ---	Other information: Sk

Chemical Name	Propan-2-ol	Content %:1-<2,5
WEL-TWA: 400 ppm (999 mg/m3)	WEL-STEL: 500 ppm (1250 mg/m3)	---
Monitoring procedures:	<ul style="list-style-type: none"> <li>- Compur - KITA-122 SA(C) (549 277)</li> <li>- Compur - KITA-150 U (550 382)</li> <li>- Draeger - Alcohol 25/a i-Propanol (81 01 631)</li> <li>- DFG (D) (Loesungsmittelgemische), DFG (E) (Solvent mixtures 6) - 1998, 2002 - EU project BC/CEN/ENTR/000/2002-16 card 66-3 (2004)</li> <li>- Draeger - Alcohol 100/a (CH 29 701)</li> </ul>	
BMGV: ---	Other information: ---	

Chemical Name	Hydrocarbons, C9, aromatics	Content %:1-<2,5
WEL-TWA: 500 mg/m3 (Aromatics)	WEL-STEL: ---	---
Monitoring procedures:	<ul style="list-style-type: none"> <li>- Draeger - Hydrocarbons 2/a (81 03 581)</li> <li>- Draeger - Hydrocarbons 0,1%/c (81 03 571)</li> <li>- Compur - KITA-187 S (551 174)</li> </ul>	
BMGV: ---	Other information: ---	

Chemical Name	n-butyl acetate	Content %:
WEL-TWA: 150 ppm (724 mg/m3)	WEL-STEL: 200 ppm (966 mg/m3)	---
Monitoring procedures:	<ul style="list-style-type: none"> <li>- Compur - KITA-139 SB(C) (549 731)</li> <li>- Compur - KITA-138 U (548 857)</li> </ul>	
BMGV: ---	Other information: ---	

Dimethyl ether						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	0,155	mg/l	
	Environment - sediment, freshwater		PNEC	0,681	mg/kg	
	Environment - soil		PNEC	0,045	mg/kg	
	Environment - sewage treatment plant		PNEC	160	mg/l	
	Environment - marine		PNEC	0,016	mg/l	
	Environment - water, sporadic (intermittent) release		PNEC	1,549	mg/l	
	Environment - sediment, marine		PNEC	0,069	mg/kg	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	471	mg/m3	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	1894	mg/m3	

Acetone						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - marine		PNEC	1,06	mg/l	Assesment factor 500
	Environment - freshwater		PNEC	10,6	mg/l	Assesment factor 50
	Environment - sediment, freshwater		PNEC	30,4	mg/l	
	Environment - sediment, marine		PNEC	3,04	mg/l	
	Environment - soil		PNEC	29,5	mg/kg dw	
	Environment - sewage treatment plant		PNEC	19,5	mg/l	



Page 8 of 29  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 22.02.2019 / 0006  
 Replacing version dated / version: 05.07.2018 / 0005  
 Valid from: 22.02.2019  
 PDF print date: 09.03.2019  
 Grundierfueller 400 ml  
 Art.: 6047

	Environment - sporadic (intermittent) release		PNEC	21	mg/l	Assesment factor 100
	Environment - sewage treatment plant		PNEC	100	mg/l	
Consumer	Human - oral	Long term, systemic effects	DNEL	62	mg/kg bw/day	Overall assesment factor 2
Consumer	Human - dermal	Long term, systemic effects	DNEL	62	mg/kg bw/day	Overall assesment factor 20
Consumer	Human - inhalation	Long term, systemic effects	DNEL	200	mg/m3	Overall assesment factor 5
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	186	mg/kg bw/day	
Workers / employees	Human - inhalation	Short term, local effects	DNEL	2420	mg/m3	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	1210	mg/m3	

<b>Xylene</b>						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	0,327	mg/l	
	Environment - sediment, freshwater		PNEC	12,46	mg/kg	
	Environment - soil		PNEC	2,31	mg/kg	
	Environment - marine		PNEC	0,327	mg/l	
	Environment - sediment, marine		PNEC	12,46	mg/kg	
	Environment - sewage treatment plant		PNEC	6,58	mg/l	
Consumer	Human - inhalation	Short term, local effects	DNEL	174	mg/m3	
Consumer	Human - inhalation	Short term, systemic effects	DNEL	174	mg/m3	
Consumer	Human - dermal	Long term, systemic effects	DNEL	108	mg/kg bw/day	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	14,8	mg/m3	
Workers / employees	Human - inhalation	Short term, local effects	DNEL	289	mg/m3	
Workers / employees	Human - inhalation	Short term, systemic effects	DNEL	289	mg/m3	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	77	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	180	mg/kg	

<b>Butan-1-ol</b>						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	0,082	mg/l	
	Environment - marine		PNEC	0,0082	mg/l	
	Environment - sewage treatment plant		PNEC	2476	mg/l	
	Environment - sediment, freshwater		PNEC	0,178	mg/kg	



Page 9 of 29  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 22.02.2019 / 0006  
 Replacing version dated / version: 05.07.2018 / 0005  
 Valid from: 22.02.2019  
 PDF print date: 09.03.2019  
 Grundierfueller 400 ml  
 Art.: 6047

	Environment - sediment, marine		PNEC	0,0178	mg/l	
	Environment - soil		PNEC	0,015	mg/kg	
	Environment - water, sporadic (intermittent) release		PNEC	2,25	mg/kg	
Consumer	Human - inhalation	Long term, local effects	DNEL	55	mg/m3	
Workers / employees	Human - oral	Long term, systemic effects	DNEL	3125	mg/kg	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	310	mg/m3	

<b>Trizinc bis(orthophosphate)</b>						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	20,6	µg/l	Zn
	Environment - marine		PNEC	6,1	µg/l	Zn
	Environment - sediment, freshwater		PNEC	117,8	mg/kg dry weight	Zn
	Environment - sediment, marine		PNEC	56,5	mg/kg dry weight	Zn
	Environment - soil		PNEC	35,6	mg/kg	Zn
	Environment - sewage treatment plant		PNEC	100	µg/l	Zn
Consumer	Human - dermal	Long term, systemic effects	DNEL	83	mg/kg bw/day	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	2,5	mg/kg bw/day	
Consumer	Human - oral	Long term, systemic effects	DNEL	0,83	mg/kg bw/day	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	83	mg/kg bw/day	Zn, soluble
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	5	mg/m3	Zn, insoluble

<b>Zinc oxide</b>						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	20,6	µg/l	
	Environment - marine		PNEC	6,1	µg/l	
	Environment - sewage treatment plant		PNEC	100	µg/l	
	Environment - sediment, freshwater		PNEC	118	mg/kg	
	Environment - sediment, marine		PNEC	56,5	mg/kg	
	Environment - soil		PNEC	35,6	mg/kg	
Consumer	Human - inhalation	Short term, local effects	DNEL	3,1	mg/m3	
Consumer	Human - inhalation	Long term, local effects	DNEL	1,5	mg/m3	
Consumer	Human - dermal	Long term, systemic effects	DNEL	83	mg/kg	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	2,5	mg/m3	
Consumer	Human - oral	Long term, systemic effects	DNEL	0,83	mg/kg bw/day	
Workers / employees	Human - dermal	Short term, local effects	DNEL	6223	mg/kg bw/day	

Page 10 of 29  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 22.02.2019 / 0006  
 Replacing version dated / version: 05.07.2018 / 0005  
 Valid from: 22.02.2019  
 PDF print date: 09.03.2019  
 Grundierfueller 400 ml  
 Art.: 6047

Workers / employees	Human - dermal	Long term, local effects	DNEL	83	mg/kg bw/day	
Workers / employees	Human - inhalation	Long term, local effects	DNEL	0,5	mg/m <sup>3</sup>	
Workers / employees	Human - oral	Short term, local effects	DNEL	62,2	mg/kg bw/day	
Workers / employees	Human - inhalation	Short term, local effects	DNEL	6,2	mg/m <sup>3</sup>	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	5	mg/m <sup>3</sup>	

<b>Propan-2-ol</b>						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	140,9	mg/l	
	Environment - marine		PNEC	140,9	mg/l	
	Environment - sediment, freshwater		PNEC	552	mg/kg	
	Environment - sediment, marine		PNEC	552	mg/kg	
	Environment - soil		PNEC	28	mg/kg	
	Environment - sewage treatment plant		PNEC	2251	mg/l	
	Environment - water, sporadic (intermittent) release		PNEC	140,9	mg/l	
Consumer	Human - dermal	Long term	DNEL	319	mg/kg	(1 d)
Consumer	Human - inhalation	Long term	DNEL	89	mg/m <sup>3</sup>	
Consumer	Human - oral	Long term	DNEL	26	mg/kg	(1 d)
Workers / employees	Human - dermal	Long term	DNEL	888	mg/kg	(1 d)
Workers / employees	Human - inhalation	Long term	DNEL	500	mg/m <sup>3</sup>	

<b>Hydrocarbons, C9, aromatics</b>						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
Consumer	Human - inhalation	Long term, systemic effects	DNEL	32	mg/m <sup>3</sup>	
Consumer	Human - dermal	Long term, systemic effects	DNEL	11	mg/kg bw/day	
Consumer	Human - oral	Long term, systemic effects	DNEL	11	mg/kg bw/day	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	25	mg/kg bw/day	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	150	mg/m <sup>3</sup>	

<b>Reaction product: bisphenol-A-(epichlorhydrin)</b>						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	0,003	mg/l	
	Environment - marine		PNEC	0,0003	mg/l	
	Environment - water, sporadic (intermittent) release		PNEC	0,018	mg/l	
	Environment - sewage treatment plant		PNEC	10	mg/l	
	Environment - sediment, freshwater		PNEC	0,5	mg/kg dw	

Page 11 of 29  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 22.02.2019 / 0006  
 Replacing version dated / version: 05.07.2018 / 0005  
 Valid from: 22.02.2019  
 PDF print date: 09.03.2019  
 Grundierfueller 400 ml  
 Art.: 6047

	Environment - sediment, marine		PNEC	0,5	mg/kg dw	
	Environment - soil		PNEC	0,05	mg/kg dw	
	Environment - oral (animal feed)		PNEC	11	mg/kg	
Consumer	Human - dermal	Short term, systemic effects	DNEL	3,571	mg/kg bw/day	
Consumer	Human - oral	Short term, systemic effects	DNEL	0,75	mg/kg bw/day	
Consumer	Human - oral	Long term, systemic effects	DNEL	0,75	mg/kg bw/day	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	0,75	mg/m <sup>3</sup>	
Consumer	Human - inhalation	Short term, systemic effects	DNEL	0,75	mg/m <sup>3</sup>	
Consumer	Human - dermal	Long term, systemic effects	DNEL	3,6	mg/kg bw/day	
Workers / employees	Human - dermal	Short term, systemic effects	DNEL	8,33	mg/kg bw/day	
Workers / employees	Human - inhalation	Short term, systemic effects	DNEL	12,25	mg/m <sup>3</sup>	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	8,3	mg/kg bw/day	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	12,3	mg/m <sup>3</sup>	

<b>n-butyl acetate</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	0,18	mg/l	
	Environment - marine		PNEC	0,018	mg/l	
	Environment - periodic release		PNEC	0,36	mg/l	
	Environment - sediment, freshwater		PNEC	0,981	mg/kg	
	Environment - sediment, marine		PNEC	0,0981	mg/kg	
	Environment - soil		PNEC	0,0903	mg/kg	
	Environment - sewage treatment plant		PNEC	35,6	mg/l	
Consumer	Human - dermal	Long term, systemic effects	DNEL	6	mg/kg bw/d	
Consumer	Human - inhalation	Short term, systemic effects	DNEL	300	mg/m <sup>3</sup>	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	35,7	mg/m <sup>3</sup>	
Consumer	Human - inhalation	Short term, local effects	DNEL	300	mg/m <sup>3</sup>	
Consumer	Human - inhalation	Long term, local effects	DNEL	35,7	mg/m <sup>3</sup>	
Consumer	Human - dermal	Short term, systemic effects	DNEL	6	mg/kg bw/day	
Consumer	Human - oral	Long term, systemic effects	DNEL	2	mg/kg bw/day	
Consumer	Human - oral	Short term, systemic effects	DNEL	2	mg/kg bw/day	
Workers / employees	Human - inhalation	Short term, systemic effects	DNEL	600	mg/m <sup>3</sup>	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	300	mg/m <sup>3</sup>	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	11	mg/kg bw/d	

CE

Page 12 of 29  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 22.02.2019 / 0006  
 Replacing version dated / version: 05.07.2018 / 0005  
 Valid from: 22.02.2019  
 PDF print date: 09.03.2019  
 Grundierfueller 400 ml  
 Art.: 6047

Workers / employees	Human - dermal	Short term, systemic effects	DNEL	11	mg/kg bw/day	
Workers / employees	Human - inhalation	Short term, local effects	DNEL	600	mg/m3	
Workers / employees	Human - inhalation	Long term, local effects	DNEL	300	mg/m3	

CE 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 (2017/164/EU, 2017/2398/EU). (9) = Respirable fraction (2017/164/EU, 2017/2398/EU). | 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 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.

## 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. BS EN 14042.

BS 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 374).

Recommended

Protective gloves in butyl rubber (EN 374).

Minimum layer thickness in mm:

>= 0,5

Permeation time (penetration time) in minutes:

<= 480

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.

Filter A2 P2 (EN 14387), code colour brown, white

At high concentrations:

Respiratory protection appliance (insulation device) (e.g. EN 137 or EN 138)

Observe wearing time limitations for respiratory protection equipment.

Thermal hazards:

Not applicable

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

Page 13 of 29  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 22.02.2019 / 0006  
 Replacing version dated / version: 05.07.2018 / 0005  
 Valid from: 22.02.2019  
 PDF print date: 09.03.2019  
 Grundierfueller 400 ml  
 Art.: 6047

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:	Aerosol. Active substance: liquid.
Colour:	Grey
Odour:	Characteristic
Odour threshold:	Not determined
pH-value:	n.a.
Melting point/freezing point:	Not determined
Initial boiling point and boiling range:	n.a.
Flash point:	n.a.
Evaporation rate:	n.a.
Flammability (solid, gas):	n.a.
Lower explosive limit:	1,2 Vol-%
Upper explosive limit:	18,6 Vol-%
Vapour pressure:	4000 hPa (20°C)
Vapour density (air = 1):	Not determined
Density:	0,82 g/cm <sup>3</sup> (20°C)
Bulk density:	n.a.
Solubility(ies):	Not determined
Water solubility:	Not miscible
Partition coefficient (n-octanol/water):	Not determined
Auto-ignition temperature:	235 °C
Auto-ignition temperature:	No
Decomposition temperature:	Not determined
Viscosity:	Not determined
Explosive properties:	Product is not explosive. Possible build up of explosive/highly flammable vapour/air mixture.
Oxidising properties:	No

### 9.2 Other information

Miscibility:	Not determined
Fat solubility / solvent:	Not determined
Conductivity:	Not determined
Surface tension:	Not determined
Solvents content:	Not determined

## 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  
 Pressure increase will result in danger of bursting.

### 10.5 Incompatible materials

Avoid contact with strong oxidizing agents.

Page 14 of 29  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 22.02.2019 / 0006  
 Replacing version dated / version: 05.07.2018 / 0005  
 Valid from: 22.02.2019  
 PDF print date: 09.03.2019  
 Grundierfueller 400 ml  
 Art.: 6047

Avoid contact with strong alkalis.  
 Avoid contact with strong acids.

### 10.6 Hazardous decomposition products

No decomposition when used as directed.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

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

#### Grundierfueller 400 ml

Art.: 6047

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	ATE	>2000	mg/kg			calculated value
Acute toxicity, by dermal route:	ATE	>2000	mg/kg			calculated value
Acute toxicity, by inhalation:	ATE	>20	mg/l/4h			calculated value, Vapours
Acute toxicity, by inhalation:	ATE	>5	mg/l/4h			calculated value, Aerosol, 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.

#### Dimethyl ether

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by inhalation:	LC50	164	mg/l/4h	Rat		
Acute toxicity, by inhalation:	LC50	308	mg/l/4h	Rat		
Skin corrosion/irritation:						Not irritant
Serious eye damage/irritation:						Not irritant
Respiratory or skin sensitisation:						No (skin contact)
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative
Germ cell mutagenicity:					OECD 473 (In Vitro Mammalian Chromosome Aberration Test)	Negative
Germ cell mutagenicity:					OECD 477 (Genetic Toxicology - Sex-Linked Recessive Lethal Test in Drosophila melanogaster)	Negative
Carcinogenicity:						Negative
Reproductive toxicity:						Negative
Specific target organ toxicity - repeated exposure (STOT-RE):	NOAEC	47106	mg/kg	Rat	OECD 452 (Chronic Toxicity Studies)	Negative(2 a)
Aspiration hazard:						No

Page 15 of 29  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 22.02.2019 / 0006  
 Replacing version dated / version: 05.07.2018 / 0005  
 Valid from: 22.02.2019  
 PDF print date: 09.03.2019  
 Grundierfueller 400 ml  
 Art.: 6047

Symptoms:						unconsciousness , headaches, mucous membrane irritation, dizziness, nausea and vomiting., frostbite, gastrointestinal disturbances, respiratory distress, circulatory collapse
-----------	--	--	--	--	--	--

Acetone						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	5800	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by dermal route:	LD50	>15800	mg/kg	Rat		
Acute toxicity, by inhalation:	LC50	~76	mg/l/4h	Rat		
Skin corrosion/irritation:				Guinea pig		Slightly irritant, Repeated exposure may cause skin dryness or cracking.
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Irritant
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	Not sensitising
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative
Germ cell mutagenicity:					OECD 473 (In Vitro Mammalian Chromosome Aberration Test)	Negative
Germ cell mutagenicity:					OECD 476 (In Vitro Mammalian Cell Gene Mutation Test)	Negative
Symptoms:						unconsciousness , vomiting, headaches, gastrointestinal disturbances, fatigue, mucous membrane irritation, dizziness, nausea, drowsiness

Xylene						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	2840	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	>1700	mg/kg	Rabbit		
Acute toxicity, by inhalation:	LC50	21,7	mg/l/4h	Rat		Vapours, Does not conform with EU classification.
Skin corrosion/irritation:				Rabbit		Irritant
Serious eye damage/irritation:				Rabbit		Slightly irritant



GB

Page 16 of 29  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 22.02.2019 / 0006  
 Replacing version dated / version: 05.07.2018 / 0005  
 Valid from: 22.02.2019  
 PDF print date: 09.03.2019  
 Grundierfueller 400 ml  
 Art.: 6047

Respiratory or skin sensitisation:					(Patch-Test)	Negative
Symptoms:						breathing difficulties, drying of the skin., drowsiness, unconsciousness , burning of the membranes of the nose and throat, vomiting, skin afflictions, heart/circulatory disorders, coughing, headaches, drowsiness, dizziness, nausea

Butan-1-ol						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	2292	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	Does not conform with EU classification.
Acute toxicity, by dermal route:	LD50	3430	mg/kg	Rabbit	OECD 402 (Acute Dermal Toxicity)	
Acute toxicity, by inhalation:	LC50	24	mg/l/4h	Rat		
Skin corrosion/irritation:				Rabbit		Irritant
Serious eye damage/irritation:						Eye Dam. 1
Respiratory or skin sensitisation:						No indications of such an effect.
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	References, Negative
Symptoms:						respiratory distress, drowsiness, unconsciousness , drop in blood pressure, heart/circulatory disorders, coughing, headaches, intoxication, drowsiness, mucous membrane irritation, dizziness, nausea and vomiting.

Trizinc bis(orthophosphate)						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>5000	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by inhalation:	LC50	>5,7	mg/l/4h	Rat		
Skin corrosion/irritation:						Not irritant
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Not irritant

Page 17 of 29  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 22.02.2019 / 0006  
 Replacing version dated / version: 05.07.2018 / 0005  
 Valid from: 22.02.2019  
 PDF print date: 09.03.2019  
 Grundierfueller 400 ml  
 Art.: 6047

Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	No (skin contact), Analogous conclusion
Germ cell mutagenicity:						Analogous conclusion, Negative
Carcinogenicity:						Analogous conclusion, Negative
Reproductive toxicity:						Analogous conclusion, Negative
Specific target organ toxicity - single exposure (STOT-SE):						Analogous conclusion, No
Specific target organ toxicity - repeated exposure (STOT-RE):						Analogous conclusion, No
Aspiration hazard:						n.a.
Symptoms:						breathing difficulties, fever, headaches, stomach pain, dizziness, nausea and vomiting.
Specific target organ toxicity - single exposure (STOT-SE), inhalative:						Not irritant (respiratory tract), Analogous conclusion

<b>Zinc oxide</b>						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>15000	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by inhalation:	LC50	>5,7	mg/l/4h	Rat	OECD 403 (Acute Inhalation Toxicity)	
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
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	Not sensitising
Germ cell mutagenicity:					(Ames-Test)	Negative
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative

<b>Propan-2-ol</b>						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	4570-5840	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by dermal route:	LD50	13900	mg/kg	Rabbit	OECD 402 (Acute Dermal Toxicity)	
Acute toxicity, by inhalation:	LC50	30	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)	Eye Irrit. 2
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	Not sensitising

Page 18 of 29  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 22.02.2019 / 0006  
 Replacing version dated / version: 05.07.2018 / 0005  
 Valid from: 22.02.2019  
 PDF print date: 09.03.2019  
 Grundierfueller 400 ml  
 Art.: 6047

Germ cell mutagenicity:				Salmonella typhimurium	(Ames-Test)	Negative
Carcinogenicity:						Negative
Reproductive toxicity:						Negative
Specific target organ toxicity - repeated exposure (STOT-RE):						Target organ(s): liver
Aspiration hazard:						No
Symptoms:						breathing difficulties, unconsciousness, vomiting, headaches, fatigue, dizziness, nausea
Specific target organ toxicity - repeated exposure (STOT-RE), oral:	NOAEL	900	mg/kg	Rat	OECD 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)	

Hydrocarbons, C9, aromatics						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	3492	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by dermal route:	LD50	>3160	mg/kg	Rabbit	OECD 402 (Acute Dermal Toxicity)	
Acute toxicity, by inhalation:	LC50	>5,693	mg/l/4h	Rat	OECD 403 (Acute Inhalation Toxicity)	
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
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	No (skin contact)
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative
Germ cell mutagenicity:					OECD 475 (Mammalian Bone Marrow Chromosome Aberration Test)	Negative
Germ cell mutagenicity:					OECD 476 (In Vitro Mammalian Cell Gene Mutation Test)	Negative
Germ cell mutagenicity:					OECD 479 (Genetic Toxicology - In Vitro Sister Chromatid Exchange assay in Mammalian Cells)	Negative
Carcinogenicity:						Negative
Reproductive toxicity:					OECD 414 (Prenatal Developmental Toxicity Study)	Negative
Reproductive toxicity:					OECD 416 (Two-generation Reproduction Toxicity Study)	Negative
Specific target organ toxicity - single exposure (STOT-SE):						STOT SE 3, H335, STOT SE 3, H336

Page 19 of 29  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 22.02.2019 / 0006  
 Replacing version dated / version: 05.07.2018 / 0005  
 Valid from: 22.02.2019  
 PDF print date: 09.03.2019  
 Grundierfueller 400 ml  
 Art.: 6047

Specific target organ toxicity - repeated exposure (STOT-RE):					OECD 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)	Negative
Specific target organ toxicity - repeated exposure (STOT-RE):					OECD 452 (Chronic Toxicity Studies)	Negative
Aspiration hazard:						Yes
Symptoms:						respiratory distress, coughing, burning of the membranes of the nose and throat, drowsiness, dizziness, headaches, nausea, unconsciousness, fever, ear noises, drying of the skin.

Reaction product: bisphenol-A-(epichlorhydrin)						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rabbit	OECD 402 (Acute Dermal Toxicity)	
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Skin Irrit. 2
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Eye Irrit. 2
Respiratory or skin sensitisation:				Mouse	OECD 429 (Skin Sensitisation - Local Lymph Node Assay)	Sensitising (skin contact)
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	Sensitising (skin contact)
Germ cell mutagenicity:				Salmonella typhimurium	OECD 471 (Bacterial Reverse Mutation Test)	Positive
Carcinogenicity:				Rat	OECD 453 (Combined Chronic Toxicity/Carcinogenicity Studies)	Negative
Reproductive toxicity:	NOEL	540	mg/kg		OECD 416 (Two-generation Reproduction Toxicity Study)	
Reproductive toxicity:				Rat	OECD 414 (Prenatal Developmental Toxicity Study)	Negative
Specific target organ toxicity - repeated exposure (STOT-RE):	NOAEL	50	mg/kg bw/d			
Aspiration hazard:						No
Symptoms:						diarrhoea, weight loss

n-butyl acetate						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	10760	mg/kg	Rat	OECD 423 (Acute Oral Toxicity - Acute Toxic Class Method)	
Acute toxicity, by dermal route:	LD50	>14112	mg/kg	Rabbit	OECD 402 (Acute Dermal Toxicity)	

Page 20 of 29  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 22.02.2019 / 0006  
 Replacing version dated / version: 05.07.2018 / 0005  
 Valid from: 22.02.2019  
 PDF print date: 09.03.2019  
 Grundierfueller 400 ml  
 Art.: 6047

Acute toxicity, by inhalation:	LC50	21,1	mg/l/4h	Rat	OECD 403 (Acute Inhalation Toxicity)	Mist
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
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	No (skin contact)
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative
Specific target organ toxicity - single exposure (STOT-SE):						Vapours may cause drowsiness and dizziness.
Specific target organ toxicity - repeated exposure (STOT-RE):						Negative
Symptoms:						drowsiness, unconsciousness, headaches, drowsiness, mucous membrane irritation, dizziness, nausea and vomiting.

## SECTION 12: Ecological information

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

Grundierfueller 400 ml Art.: 6047							
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.
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. Other adverse effects:							n.d.a.

Dimethyl ether							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC0	96h	2695	mg/l	Pimephales promelas		
12.1. Toxicity to fish:	LC50	96h	3082	mg/l	Salmo gairdneri		
12.1. Toxicity to fish:	LC50	96h	>4000	mg/l	Poecilia reticulata		
12.1. Toxicity to daphnia:	EC50	48h	>4000	mg/l	Daphnia magna		
12.1. Toxicity to algae:	EC0	96h	154,9	mg/l	Chlorella vulgaris	QSAR	
12.2. Persistence and degradability:		28d	5	%		OECD 301 D (Ready Biodegradability - Closed Bottle Test)	Not readily biodegradable

Page 21 of 29  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 22.02.2019 / 0006  
 Replacing version dated / version: 05.07.2018 / 0005  
 Valid from: 22.02.2019  
 PDF print date: 09.03.2019  
 Grundierfueller 400 ml  
 Art.: 6047

12.3. Bioaccumulative potential:	Log Pow		-0,07				Bioaccumulation is unlikely (LogPow < 1).25°C (pH 7)
12.4. Mobility in soil:	H (Henry)		518,6	Pa*m3/mol			No adsorption in soil.
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
Toxicity to bacteria:	EC10		>1600	mg/l	Pseudomonas putida		
Other information:							Does not contain any organically bound halogens which can contribute to the AOX value in waste water.DIN EN 1485
Water solubility:			45,60	mg/l			25°C

Acetone							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to daphnia:	NOEC/NOEL	28d	2212	mg/l	Daphnia pulex		
Toxicity to bacteria:	EC10	30min	1000	mg/l	activated sludge	OECD 209 (Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation))	
12.2. Persistence and degradability:		28d	91	%		OECD 301 A (Ready Biodegradability - DOC Die-Away Test)	Readily biodegradable
12.1. Toxicity to fish:	LC50	96h	5540	mg/l	Oncorhynchus mykiss		
12.1. Toxicity to fish:	LC50	96h	7500	mg/l	Leuciscus idus		
12.1. Toxicity to daphnia:	EC50	48h	6100-12700	mg/l	Daphnia magna		
12.1. Toxicity to algae:	EC50	48h	4740	mg/l	Pseudokirchneriella subcapitata		
12.1. Toxicity to algae:	NOEC/NOEL	48h	3400	mg/l	Pseudokirchneriella subcapitata		
12.3. Bioaccumulative potential:	Log Pow		-0,24				
12.3. Bioaccumulative potential:	BCF		0,19				
12.4. Mobility in soil:							No adsorption in soil.
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
Toxicity to bacteria:	BOD/COD	16h	1700	mg/l	Pseudomonas putida		
Other information:	BOD5		1760-1900	mg/g			
Other information:	COD		2100	mg/g			
Other information:	AOX		0	%			

Xylene							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes

Page 22 of 29  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 22.02.2019 / 0006  
 Replacing version dated / version: 05.07.2018 / 0005  
 Valid from: 22.02.2019  
 PDF print date: 09.03.2019  
 Grundierfueller 400 ml  
 Art.: 6047

12.1. Toxicity to fish:	LC50	96h	86	mg/l	Leuciscus idus		
12.1. Toxicity to fish:	LC50	96h	8,2	mg/l	Oncorhynchus mykiss		
12.1. Toxicity to daphnia:	EC50	24h	75,5	mg/l	Daphnia magna		
12.1. Toxicity to algae:	IC50	72h	10	mg/l			
12.2. Persistence and degradability:							Readily biodegradable
12.3. Bioaccumulative potential:	Log Pow		>3				
12.3. Bioaccumulative potential:	BCF		0,6-15				

Butan-1-ol							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	1376	mg/l	Pimephales promelas	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to daphnia:	NOEC/NOEL	21d	4,1	mg/l	Daphnia magna	OECD 211 (Daphnia magna Reproduction Test)	
12.1. Toxicity to algae:	IC50	72h	4787	mg/l	Chlorella vulgaris	OECD 201 (Alga, Growth Inhibition Test)	
12.2. Persistence and degradability:		28d	98	%		OECD 301 B (Ready Biodegradability - Co2 Evolution Test)	
12.3. Bioaccumulative potential:							Not to be expected
Toxicity to bacteria:	EC10	17h	2476	mg/l	Pseudomonas putida	DIN 38412 T.8	References

Trizinc bis(orthophosphate)							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	0,09	mg/l	Oncorhynchus mykiss		
12.1. Toxicity to fish:	LC50	96h	0,177	mg/l	Oncorhynchus mykiss	U.S. EPA ECOTOX Database	
12.1. Toxicity to daphnia:	EC50	48h	28,2	mg/l	Daphnia magna		
12.1. Toxicity to algae:	ErC50	72h	11	mg/l	Desmodesmus subspicatus		
12.1. Toxicity to algae:	EC50	72h	0,136-0,15	mg/l	Selenastrum capricornutum		Analogous conclusion
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
Toxicity to bacteria:	NOEC/NOEL	4h	0,1	mg/l	activated sludge		Analogous conclusion

Zinc oxide							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	1,1-2,5	ppm	Oncorhynchus mykiss		
12.1. Toxicity to fish:	LC50	96h	3,31-8,062	mg/l	Brachydanio rerio		
12.1. Toxicity to fish:	LC50	96h	>320	mg/l	Lepomis macrochirus		



Page 23 of 29  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 22.02.2019 / 0006  
 Replacing version dated / version: 05.07.2018 / 0005  
 Valid from: 22.02.2019  
 PDF print date: 09.03.2019  
 Grundierfueller 400 ml  
 Art.: 6047

12.1. Toxicity to daphnia:	EC50	48h	1	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to algae:	EC50	72h	0,136	mg/l	Selenastrum capricornutum		
12.1. Toxicity to algae:	EC50	72h	0,17	mg/l	Selenastrum capricornutum		
12.1. Toxicity to algae:	NOEC/NOEL	72h	0,017	mg/l	Pseudokirchneriella subcapitata		
12.2. Persistence and degradability:							Readily biodegradable
12.4. Mobility in soil:			158,5	L/kg			

Propan-2-ol							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	>100	mg/l	Leuciscus idus		
12.1. Toxicity to daphnia:	EC50	48h	2285	mg/l	Daphnia magna		
12.1. Toxicity to algae:	EC50	72h	>100	mg/l	Desmodesmus subspicatus		
12.2. Persistence and degradability:		21d	95	%		OECD 301 E (Ready Biodegradability - Modified OECD Screening Test)	Readily biodegradable
12.2. Persistence and degradability:			99,9	%		OECD 303 A (Simulation Test - Aerobic Sewage Treatment - Activated Sludge Units)	Readily biodegradable
12.3. Bioaccumulative potential:	Log Pow		0,05			OECD 107 (Partition Coefficient (n-octanol/water) - Shake Flask Method)	
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
12.4. Mobility in soil:	Koc		1,1				Expert judgement
Toxicity to bacteria:	EC50		>1000	mg/l	activated sludge		
Other information:	ThOD		2,4	g/g			
Other information:	BOD5		53	%			
Other information:	COD		96	%			References
Other information:	COD		2,4	g/g			
Other information:	BOD		1171	mg/g			

Hydrocarbons, C9, aromatics							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	9,2	mg/l	Oncorhynchus mykiss	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to daphnia:	EC50	48h	3,2	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to algae:	ErL50	72h	2,9	mg/l	Pseudokirchneriella subcapitata	OECD 201 (Alga, Growth Inhibition Test)	

Page 24 of 29  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 22.02.2019 / 0006  
 Replacing version dated / version: 05.07.2018 / 0005  
 Valid from: 22.02.2019  
 PDF print date: 09.03.2019  
 Grundierfueller 400 ml  
 Art.: 6047

12.2. Persistence and degradability:		28d	54-56	%		OECD 301 B (Ready Biodegradability - Co2 Evolution Test)	
12.2. Persistence and degradability:		28d	78	%		OECD 301 E (Ready Biodegradability - Modified OECD Screening Test)	Readily biodegradable
12.2. Persistence and degradability:		28d	78	%		OECD 301 F (Ready Biodegradability - Manometric Respirometry Test)	
12.3. Bioaccumulative potential:	Log Pow		3,7 - 4,5				
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance

Reaction product: bisphenol-A-(epichlorhydrin)							
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	1,2	mg/l	Oncorhynchus mykiss	U.S. EPA ECOTOX Database	
12.1. Toxicity to daphnia:	EC50	48h	1,1	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to daphnia:	NOEC/NOEL	21d	0,3	mg/l	Daphnia magna	OECD 211 (Daphnia magna Reproduction Test)	
12.1. Toxicity to algae:	EC50	72h	9,4	mg/l	Selenastrum capricornutum	U.S. EPA ECOTOX Database	
12.1. Toxicity to fish:	LC50	96h	2	mg/l	Leuciscus idus		
12.2. Persistence and degradability:		28d	5	%		OECD 301 F (Ready Biodegradability - Manometric Respirometry Test)	Not readily biodegradable
12.3. Bioaccumulative potential:	Log Pow		3,8				
12.1. Toxicity to algae:	EC50	96h	220	mg/l	Scenedesmus subspicatus		
Other information:							Contains organically bound halogens, which may contribute to the AOX value in wastewater.

n-butyl acetate							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	18	mg/l	Pimephales promelas	OECD 203 (Fish, Acute Toxicity Test)	

Page 25 of 29  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 22.02.2019 / 0006  
 Replacing version dated / version: 05.07.2018 / 0005  
 Valid from: 22.02.2019  
 PDF print date: 09.03.2019  
 Grundierfueller 400 ml  
 Art.: 6047

12.1. Toxicity to daphnia:	EC50	48h	44	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to daphnia:	NOEC/NOEL	21d	23	mg/l	Daphnia magna	OECD 211 (Daphnia magna Reproduction Test)	
12.1. Toxicity to algae:	EC50	72h	397	mg/l	Scenedesmus subspicatus	OECD 201 (Alga, Growth Inhibition Test)	
12.1. Toxicity to algae:	NOEC/NOEL	72h	200	mg/l	Desmodesmus subspicatus		
12.2. Persistence and degradability:		28d	98	%		OECD 301 D (Ready Biodegradability - Closed Bottle Test)	Readily biodegradable
12.3. Bioaccumulative potential:	Log Pow		1,85-2,3				Low, Product floats on the water surface.
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
Toxicity to bacteria:	EC10		959	mg/l	Pseudomonas putida		

## 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)

16 05 04 gases in pressure containers (including halons) containing hazardous substances

Recommendation:

Sewage disposal shall be discouraged.

Pay attention to local and national official regulations.

Take full aerosol cans to problem waste collection.

Take emptied aerosol cans to valuable material collection.

#### For contaminated packing material

Pay attention to local and national official regulations.

Recommendation:

Do not perforate, cut up or weld uncleaned container.

Recycling

15 01 04 metallic packaging

## SECTION 14: Transport information

### General statements

14.1. UN number: 1950

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

14.2. UN proper shipping name:

UN 1950 AEROSOLS

14.3. Transport hazard class(es): 2.1

14.4. Packing group: -

Classification code: 5F

LQ: 1 L

14.5. Environmental hazards: environmentally hazardous



Page 26 of 29  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 22.02.2019 / 0006  
 Replacing version dated / version: 05.07.2018 / 0005  
 Valid from: 22.02.2019  
 PDF print date: 09.03.2019  
 Grundierfueller 400 ml  
 Art.: 6047

Tunnel restriction code:

D

### Transport by sea (IMDG-code)

14.2. UN proper shipping name:  
AEROSOLS (TRIZINC BIS(ORTHOPHOSPHATE),ZINC OXIDE)

14.3. Transport hazard class(es):

2.1

14.4. Packing group:

-

EmS:

F-D, S-U

Marine Pollutant:

Yes

14.5. Environmental hazards:

environmentally hazardous



### Transport by air (IATA)

14.2. UN proper shipping name:

Aerosols, flammable

14.3. Transport hazard class(es):

2.1

14.4. Packing group:

-

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. Transport in bulk according to Annex II of MARPOL and the IBC Code

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 the protection of young people at work (national implementation of the Directive 94/33/EC)!

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

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
E2		200	500
P3a	11.1	150 (netto)	500 (netto)

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):

84,71 %

### REGULATION (EC) No 648/2004

n.a.

Observe incident regulations.

### 15.2 Chemical safety assessment

A chemical safety assessment is not provided for mixtures.

## SECTION 16: Other information

Revised sections:

2, 3, 8, 11, 12, 16

Employee training in handling dangerous goods is required.

Page 27 of 29  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 22.02.2019 / 0006  
 Replacing version dated / version: 05.07.2018 / 0005  
 Valid from: 22.02.2019  
 PDF print date: 09.03.2019  
 Grundierfueller 400 ml  
 Art.: 6047

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
Eye Irrit. 2, H319	Classification according to calculation procedure.
STOT SE 3, H336	Classification according to calculation procedure.
Aquatic Chronic 2, H411	Classification according to calculation procedure.
Aerosol 1, H222	Classification according to calculation procedure.
Aerosol 1, H229	Classification based on the form or physical state.

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.  
 H302 Harmful if swallowed.  
 H304 May be fatal if swallowed and enters airways.  
 H312 Harmful in contact with skin.  
 H315 Causes skin irritation.  
 H317 May cause an allergic skin reaction.  
 H318 Causes serious eye damage.  
 H319 Causes serious eye irritation.  
 H332 Harmful if inhaled.  
 H335 May cause respiratory irritation.  
 H336 May cause drowsiness or dizziness.  
 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.  
 H220 Extremely flammable gas.

Eye Irrit. — Eye irritation  
 STOT SE — Specific target organ toxicity - single exposure - narcotic effects  
 Aquatic Chronic — Hazardous to the aquatic environment - chronic  
 Aerosol — Aerosols  
 Flam. Gas — Flammable gases (including chemically unstable gases)  
 Flam. Liq. — Flammable liquid  
 Acute Tox. — Acute toxicity - inhalation  
 Acute Tox. — Acute toxicity - dermal  
 Skin Irrit. — Skin irritation  
 Acute Tox. — Acute toxicity - oral  
 STOT SE — Specific target organ toxicity - single exposure - respiratory tract irritation  
 Eye Dam. — Serious eye damage  
 Aquatic Acute — Hazardous to the aquatic environment - acute  
 Asp. Tox. — Aspiration hazard  
 Skin Sens. — Skin sensitization

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

AC Article Categories  
 acc., acc. to according, according to  
 ACGIH American Conference of Governmental Industrial Hygienists  
 ADR Accord européen relatif au transport international des marchandises Dangereuses par Route (= European Agreement concerning the International Carriage of Dangerous Goods by Road)  
 AOEL Acceptable Operator Exposure Level  
 AOX Adsorbable organic halogen compounds

Page 28 of 29  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 22.02.2019 / 0006  
 Replacing version dated / version: 05.07.2018 / 0005  
 Valid from: 22.02.2019  
 PDF print date: 09.03.2019  
 Grundierfueller 400 ml  
 Art.: 6047

approx. approximately  
 Art., Art. no. Article number  
 ATE Acute Toxicity Estimate according to Regulation (EC) 1272/2008 (CLP)  
 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  
 BGV Berufsgenossenschaftliche Vorschrift (= Accident Prevention Regulation)  
 BHT Butylhydroxytoluol (= 2,6-Di-t-butyl-4-methyl-phenol)  
 BMGV Biological monitoring guidance value (EH40, UK)  
 BOD Biochemical oxygen demand  
 BSEF Bromine Science and Environmental Forum  
 bw body weight  
 CAS Chemical Abstracts Service  
 CEC Coordinating European Council for the Development of Performance Tests for Fuels, Lubricants and Other Fluids  
 CESIO Comité Européen des Agents de Surface et de leurs Intermédiaires Organiques  
 CIPAC Collaborative International Pesticides Analytical Council  
 CLP Classification, Labelling and Packaging (REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures)  
 CMR carcinogenic, mutagenic, reproductive toxic  
 COD Chemical oxygen demand  
 CTFA Cosmetic, Toiletry, and Fragrance Association  
 DMEL Derived Minimum Effect Level  
 DNEL Derived No Effect Level  
 DOC Dissolved organic carbon  
 DT50 Dwell Time - 50% reduction of start concentration  
 DVS Deutscher Verband für Schweißen und verwandte Verfahren e.V. (= German Association for Welding and Allied Processes)  
 dw dry weight  
 e.g. for example (abbreviation of Latin 'exempli gratia'), for instance  
 EC European Community  
 ECHA European Chemicals Agency  
 EEA European Economic Area  
 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)  
 ERC Environmental Release Categories  
 ES Exposure scenario  
 etc. et cetera  
 EU European Union  
 EWC European Waste Catalogue  
 Fax. Fax number  
 gen. general  
 GHS Globally Harmonized System of Classification and Labelling of Chemicals  
 GWP Global warming potential  
 HET-CAM Hen's Egg Test - Chorionallantoic Membrane  
 HGWP Halocarbon Global Warming Potential  
 IARC International Agency for Research on Cancer  
 IATA International Air Transport Association  
 IBC Intermediate Bulk Container  
 IBC (Code) International Bulk Chemical (Code)  
 IC Inhibitory concentration  
 IMDG-code International Maritime Code for Dangerous Goods  
 incl. including, inclusive  
 IUCLID International Uniform Chemical Information Database  
 LC lethal concentration  
 LC50 lethal concentration 50 percent kill  
 LCLo lowest published lethal concentration  
 LD Lethal Dose of a chemical  
 LD50 Lethal Dose, 50% kill  
 LDLo Lethal Dose Low  
 LOAEL Lowest Observed Adverse Effect Level  
 LOEC Lowest Observed Effect Concentration

Page 29 of 29  
Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
Revision date / version: 22.02.2019 / 0006  
Replacing version dated / version: 05.07.2018 / 0005  
Valid from: 22.02.2019  
PDF print date: 09.03.2019  
Grundierfueller 400 ml  
Art.: 6047

LOEL Lowest Observed Effect Level  
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 of Occupational Safety and Health (United States of America)  
NOAEC No Observed Adverse Effective Concentration  
NOAEL No Observed Adverse Effect Level  
NOEC No Observed Effect Concentration  
NOEL No Observed Effect Level  
ODP Ozone Depletion Potential  
OECD Organisation for Economic Co-operation and Development  
org. organic  
PAH polycyclic aromatic hydrocarbon  
PBT persistent, bioaccumulative and toxic  
PC Chemical product category  
PE Polyethylene  
PNEC Predicted No Effect Concentration  
POCP Photochemical ozone creation potential  
ppm parts per million  
PROC Process category  
PTFE Polytetrafluorethylene  
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)  
SADT Self-Accelerating Decomposition Temperature  
SAR Structure Activity Relationship  
SU Sector of use  
SVHC Substances of Very High Concern  
Tel. Telephone  
ThOD Theoretical oxygen demand  
TOC Total organic carbon  
TRGS Technische Regeln für Gefahrstoffe (=Technical Regulations for Hazardous Substances)  
UN RTDG United Nations Recommendations on the Transport of Dangerous Goods  
VbF Verordnung über brennbare Flüssigkeiten (= Regulation for flammable liquids (Austria))  
VOC Volatile organic compounds  
vPvB very persistent and very bioaccumulative  
WEL-TWA, WEL-STEL WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period), WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period) (EH40, UK).  
WHO World Health Organization  
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.