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

Finish Spray exterior

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

Relevant identified uses of the substance or mixture:

Cleaner

Sector of use [SU]:
SU 3 - Industrial uses: Uses of substances as such or in preparations at industrial sites
SU 22 - Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Chemical product category [PC]:
PC 31 - Polishes and wax blends

Process category [PROC]:
PROC 7 - Industrial spraying
PROC 10 - Roller application or brushing

Environmental Release Category [ERC]:
ERC 8a - Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor)
ERC 8d - Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor)

Uses advised against:
No information available at present.

1.3 Details of the supplier of the safety data sheet

Koch-Chemie GmbH, Einsteinstrasse 42, 59423 Unna, Germany
Phone:+49 (0) 2303/9 86 70 - 0, Fax:+49 (0) 2303/9 86 70 - 26
KCU@KOCH-CHEMIE.de, www.KOCH-CHEMIE.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:

National Poisons Information Centre, Beaumont Hospital, Dublin 9, Ireland, Tel.:
+353 (0)1 809 2166 (Public Poisons Info Line, 8am-10pm, 7 days a week)
+353 (0)1 809 2566 (Info for Healthcare Professionals ONLY, 24 h, 7 days a week)

Telephone number of the company in case of emergencies:
+49 (0) 700 / 24 112 112 (KCC)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) 1272/2008 (CLP)
The mixture is not classified as dangerous in the terms of the Regulation (EC) 1272/2008 (CLP).

2.2 Label elements

Labeling according to Regulation (EC) 1272/2008 (CLP)
EUH210-Safety data sheet available on request.

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 %). Repeated exposure may cause skin dryness or cracking.

SECTION 3: Composition/information on ingredients

3.1 Substance
n.a.
3.2 Mixture
2-Butoxyethanol

<table>
<thead>
<tr>
<th>Substance for which an EU exposure limit value applies.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registration number (REACH)</td>
</tr>
<tr>
<td>01-2119475108-36-XXXX</td>
</tr>
<tr>
<td>Index</td>
</tr>
<tr>
<td>603-014-00-0</td>
</tr>
<tr>
<td>EINECS, ELINCS, NLP</td>
</tr>
<tr>
<td>203-905-0</td>
</tr>
<tr>
<td>CAS</td>
</tr>
<tr>
<td>111-76-2</td>
</tr>
<tr>
<td>content %</td>
</tr>
<tr>
<td>1-&lt;5</td>
</tr>
<tr>
<td>Classification according to Regulation (EC) 1272/2008 (CLP)</td>
</tr>
<tr>
<td>Acute Tox. 4, H302</td>
</tr>
<tr>
<td>Eye Irrit. 2, H319</td>
</tr>
<tr>
<td>Skin Irrit. 2, H315</td>
</tr>
<tr>
<td>Acute Tox. 4, H312</td>
</tr>
<tr>
<td>Acute Tox. 4, H332</td>
</tr>
</tbody>
</table>

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 3.1/3.2 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
Supply person with fresh air and consult doctor according to symptoms.

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.
Unsuitable cleaning product:
Solvent
Thinners

Eye contact
Remove contact lenses.
Wash thoroughly for several minutes using copious water. Seek medical help if necessary.

Ingestion
Rinse the mouth thoroughly with water.
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.
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
Adapt to the nature and extent of fire.
Water jet spray / alcohol resistant foam / CO2 / dry extinguisher

Unsuitable extinguishing media
None known

5.2 Special hazards arising from the substance or mixture
In case of fire the following can develop:
Oxides of carbon
Toxic gases

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.
Dispose of contaminated extinction water according to official regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Ensure sufficient supply of air.
Avoid contact with eyes or skin.
If applicable, caution - risk of slipping.

6.2 Environmental precautions
If leakage occurs, dam up.
Resolve leaks if this possible without risk.
Prevent surface and ground-water infiltration, as well as ground penetration.
Do not pour down the drain undiluted.

6.3 Methods and material for containment and cleaning up
Soak up with absorbent material (e.g. universal binding agent, sand, diatomaceous earth, sawdust) and dispose of according to Section 13.
Flush residue using copious water.

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
Avoid contact with eyes.
Avoid long lasting or intensive contact with skin.
Eating, drinking, smoking, as well as food-storage, is prohibited in work-room.
Observe directions on label and instructions for use.

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
Store product closed and only in original packing.
Finish Spray exterior
Not to be stored in gangways or stair wells.
Store at room temperature.
Protect from frost.

7.3 Specific end use(s)
No information available at present.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>2-Butoxyethanol</th>
<th>Content %: 1-&lt;5</th>
</tr>
</thead>
<tbody>
<tr>
<td>WEL-TWA: 25 ppm (123 mg/m³) (WEL), 20 ppm (98 mg/m³) (EU)</td>
<td>WEL-STEL: 50 ppm (246 mg/m³) (WEL, EU)</td>
<td>---</td>
</tr>
</tbody>
</table>

Monitoring procedures:
- Compur - KITA-190 U(C) (548 873)

BMGV: 240 mmol butoxyacetic acid/mol creatinine in urine, post shift (BMGV) Other information: Sk (WEL)

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>2-Butoxyethanol</th>
<th>Content %: 1-&lt;5</th>
</tr>
</thead>
<tbody>
<tr>
<td>OELV-8h: 20 ppm (98 mg/m³) (OELV-8h, EC)</td>
<td>OELV-15min: 50 ppm (246 mg/m³) (OELV-15min, EC)</td>
<td>---</td>
</tr>
</tbody>
</table>

Monitoring procedures:
- Compur - KITA-190 U(C) (548 873)

BLV: 200 mg/g creatinine (Butoxyacetic acid (BAA) in urine, h) (ACGIH-BEI) Other information: Sk, OELV

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>2-Butoxyethanol</th>
<th>Content %: 1-&lt;5</th>
</tr>
</thead>
<tbody>
<tr>
<td>OELV-8h: 20 ppm (98 mg/m³) (OELV-8h, UE)</td>
<td>OELV-ST: 50 ppm (246 mg/m³) (OELV-ST, UE)</td>
<td>---</td>
</tr>
</tbody>
</table>

Monitoring procedures:
- Compur - KITA-190 U(C) (548 873)

BMGV: 240 mmol butoxyacetic acid/mol creatinine in urine, post shift (BMGV) Other information: Skin

---

WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period) EH40. AGW = "Arbeitsplatzgrenzwert" (workplace limit value, Germany).


** = The exposure limit for this substance is repealed through the TRGS 900 (Germany) of January 2006 with the goal of revision.


(8) = Inhalable fraction (2017/164/EU). (9) = Respirable fraction (2017/164/EU). (10) = Short-term exposure limit value in relation to a reference period of 1 minute (2017/164/EU). | BLV = Biological limit value | Other information: Carc1A, Carc1B = carcinogenic substance, Cat. 1A or 1B. Muta1A, Muta1B = mutagenic substance, Cat. 1A or 1B. Repr1A, Repr1B = Substances known to be toxic for reproduction, Cat. 1A or 1B. Sk = can be absorbed through skin. Asphx = asphyxiant. Sen = Respiratory sensitizer. BOELV = Binding Occupational Exposure Limit Values. IOELV = Indicative Occupational Exposure Limit Values.

OELV-8h = Occupational Exposure Limit Value - 8 h (8-hour reference period as a time-weighted average)

### 2-Butoxyethanol

#### Exposure route / Environmental compartment

<table>
<thead>
<tr>
<th>Area of application</th>
<th>Effect on health</th>
<th>Descriptor</th>
<th>Value</th>
<th>Unit</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environment - freshwater</td>
<td>PNEC</td>
<td>8.8</td>
<td>mg/l</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environment - marine</td>
<td>PNEC</td>
<td>0.88</td>
<td>mg/l</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environment - sediment, freshwater</td>
<td>PNEC</td>
<td>34.6</td>
<td>mg/kg dw</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environment - soil</td>
<td>PNEC</td>
<td>2.8</td>
<td>mg/kg dw</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environment - sewage treatment plant</td>
<td>PNEC</td>
<td>463</td>
<td>mg/l</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environment - sediment, marine</td>
<td>PNEC</td>
<td>3.46</td>
<td>mg/kg dw</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environment - sporadic (intermittent) release</td>
<td>PNEC</td>
<td>9.1</td>
<td>mg/l</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consumer Human - dermal</td>
<td>Short term, systemic effects</td>
<td>DNEL</td>
<td>44.5</td>
<td>mg/kg bw/d</td>
<td></td>
</tr>
<tr>
<td>Consumer Human - inhalation</td>
<td>Short term, systemic effects</td>
<td>DNEL</td>
<td>428</td>
<td>mg/m3</td>
<td></td>
</tr>
<tr>
<td>Consumer Human - oral</td>
<td>Short term, systemic effects</td>
<td>DNEL</td>
<td>13.4</td>
<td>mg/kg bw/d</td>
<td></td>
</tr>
<tr>
<td>Consumer Human - inhalation</td>
<td>Short term, local effects</td>
<td>DNEL</td>
<td>123</td>
<td>mg/m3</td>
<td></td>
</tr>
<tr>
<td>Consumer Human - dermal</td>
<td>Long term, systemic effects</td>
<td>DNEL</td>
<td>38</td>
<td>mg/kg bw/d</td>
<td></td>
</tr>
<tr>
<td>Consumer Human - inhalation</td>
<td>Long term, systemic effects</td>
<td>DNEL</td>
<td>49</td>
<td>mg/m3</td>
<td></td>
</tr>
<tr>
<td>Consumer Human - oral</td>
<td>Long term, systemic effects</td>
<td>DNEL</td>
<td>3.2</td>
<td>mg/kg bw/d</td>
<td></td>
</tr>
<tr>
<td>Workers / employees Human - dermal</td>
<td>Short term, systemic effects</td>
<td>DNEL</td>
<td>89</td>
<td>mg/kg bw/d</td>
<td></td>
</tr>
<tr>
<td>Workers / employees Human - inhalation</td>
<td>Short term, systemic effects</td>
<td>DNEL</td>
<td>663</td>
<td>mg/m3</td>
<td></td>
</tr>
<tr>
<td>Workers / employees Human - inhalation</td>
<td>Short term, local effects</td>
<td>DNEL</td>
<td>246</td>
<td>mg/m3</td>
<td></td>
</tr>
<tr>
<td>Workers / employees Human - dermal</td>
<td>Long term, systemic effects</td>
<td>DNEL</td>
<td>75</td>
<td>mg/kg bw/d</td>
<td></td>
</tr>
<tr>
<td>Workers / employees Human - inhalation</td>
<td>Long term, systemic effects</td>
<td>DNEL</td>
<td>98</td>
<td>mg/m3</td>
<td></td>
</tr>
</tbody>
</table>

#### 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 (EN 166) with side protection, with danger of projections.
Skin protection - Hand protection:
Rubber gloves (EN 374).
Protective hand cream recommended.
The breakthrough times determined in accordance with EN 374 Part 3 were not obtained under practical conditions. The recommended maximum wearing time is 50% of breakthrough time.

Skin protection - Other:
Usual protective working garments

Respiratory protection:
Normally not necessary.

Thermal hazards:
Not applicable

Additional information on hand protection - No tests have been performed.
In the case of mixtures, the selection has been made according to the knowledge available and the information about the contents. Selection of materials derived from glove manufacturer's indications.
Final selection of glove material must be made taking the breakthrough times, permeation rates and degradation into account. Selection of a suitable glove depends not only on the material but also on other quality characteristics and varies from manufacturer to manufacturer.
In the case of mixtures, the resistance of glove materials cannot be predicted and must therefore be tested before use.
The exact breakthrough time of the glove material can be requested from the protective glove manufacturer and must be observed.

8.2.3 Environmental exposure controls
No information available at present.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties
Physical state: Liquid
Colour: White
Odour: Fruity
Odour threshold: Not determined
pH-value: 2.5
Melting point/freezing point: Not determined
Initial boiling point and boiling range: Not determined
Flash point: Not determined
Evaporation rate: Not determined
Flammability (solid, gas): n.a.
Lower explosive limit: n.a.
Upper explosive limit: n.a.
Vapour pressure: Not determined
Vapour density (air = 1): Not determined
Density: 1 g/ml
Bulk density: n.a.
Solubility(ies): Not determined
Water solubility: Mixable
Partition coefficient (n-octanol/water): Not determined
Auto-ignition temperature: Not determined
Decomposition temperature: Not determined
Viscosity: Not determined
Explosive properties: Product is not explosive.
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
None known

10.5 Incompatible materials
Avoid contact with strong alkalis.

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).

<table>
<thead>
<tr>
<th>Finish Spray exterior</th>
<th>Toxicity / effect</th>
<th>Endpoint</th>
<th>Value</th>
<th>Unit</th>
<th>Organism</th>
<th>Test method</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity, by oral route: ATE</td>
<td>&gt;2000</td>
<td>mg/kg</td>
<td></td>
<td></td>
<td></td>
<td>calculated value</td>
<td></td>
</tr>
<tr>
<td>Acute toxicity, by dermal route: ATE</td>
<td>&gt;2000</td>
<td>mg/kg</td>
<td></td>
<td></td>
<td></td>
<td>calculated value</td>
<td></td>
</tr>
<tr>
<td>Acute toxicity, by inhalation: ATE</td>
<td>&gt;20</td>
<td>mg/l/4h</td>
<td></td>
<td></td>
<td></td>
<td>calculated value, Vapours</td>
<td></td>
</tr>
<tr>
<td>Acute toxicity, by inhalation: ATE</td>
<td>&gt;5</td>
<td>mg/l/4h</td>
<td></td>
<td></td>
<td></td>
<td>calculated value, Aerosol</td>
<td></td>
</tr>
<tr>
<td>Skin corrosion/irritation:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>n.d.a.</td>
<td></td>
</tr>
<tr>
<td>Serious eye damage/irritation:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>n.d.a.</td>
<td></td>
</tr>
<tr>
<td>Respiratory or skin sensitisation:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>n.d.a.</td>
<td></td>
</tr>
<tr>
<td>Germ cell mutagenicity:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>n.d.a.</td>
<td></td>
</tr>
<tr>
<td>Carcinogenicity:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>n.d.a.</td>
<td></td>
</tr>
<tr>
<td>Reproductive toxicity:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>n.d.a.</td>
<td></td>
</tr>
<tr>
<td>Aspiration hazard:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>n.d.a.</td>
<td></td>
</tr>
<tr>
<td>Symptoms:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>n.d.a.</td>
<td></td>
</tr>
<tr>
<td>Other information:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Repeated exposure may cause skin dryness or cracking.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2-Butoxyethanol</th>
<th>Toxicity / effect</th>
<th>Endpoint</th>
<th>Value</th>
<th>Unit</th>
<th>Organism</th>
<th>Test method</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity, by oral route: LD50</td>
<td>1746</td>
<td>mg/kg</td>
<td>Rat</td>
<td>OECD 401 (Acute Oral Toxicity)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute toxicity, by dermal route: LD50</td>
<td>2275</td>
<td>mg/kg</td>
<td>Rabbit</td>
<td>OECD 402 (Acute Dermal Toxicity)</td>
<td>Does not conform with EU classification.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute toxicity, by inhalation: LC50</td>
<td>2-20</td>
<td>mg/l</td>
<td>Rat</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Finish Spray exterior

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Serious eye damage/irritation:</td>
<td>Rabbit</td>
<td>OECD 405 (Acute Eye Irritation/Corrosion)</td>
<td>Eye Irrit. 2</td>
</tr>
<tr>
<td>Respiratory or skin sensitisation:</td>
<td>Guinea pig</td>
<td>OECD 406 (Skin Sensitisation)</td>
<td>Not sensitising</td>
</tr>
<tr>
<td>Germ cell mutagenicity:</td>
<td>Mouse</td>
<td>OECD 474 (Mammalian Erythrocyte Micronucleus Test)</td>
<td>Negative</td>
</tr>
<tr>
<td>Germ cell mutagenicity:</td>
<td>Salmonella typhimurium</td>
<td>OECD 471 (Bacterial Reverse Mutation Test)</td>
<td>Negative</td>
</tr>
<tr>
<td>Carcinogenicity:</td>
<td>Rat</td>
<td>OECD 451 (Carcinogenicity Studies)</td>
<td>Negative</td>
</tr>
<tr>
<td>Carcinogenicity:</td>
<td>NOAEC 125 ppm Mouse</td>
<td>OECD 451 (Carcinogenicity Studies)</td>
<td>Negative</td>
</tr>
<tr>
<td>Symptoms:</td>
<td></td>
<td></td>
<td>acidosis, ataxia, breathing difficulties, respiratory distress, drowsiness, unconsciousness, annoyance, coughing, headaches, gastrointestinal disturbances, insomnia, mucous membrane irritation, dizziness</td>
</tr>
<tr>
<td>Specific target organ toxicity - repeated exposure (STOT-RE), oral:</td>
<td>NOAEL &lt;69 mg/kg bw/d Rat</td>
<td>OECD 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)</td>
<td></td>
</tr>
<tr>
<td>Specific target organ toxicity - repeated exposure (STOT-RE), dermal:</td>
<td>NOAEL &gt;150 mg/kg bw/d Rabbit</td>
<td>OECD 411 (Subchronic Dermal Toxicity - 90-day Study)</td>
<td></td>
</tr>
</tbody>
</table>

### SECTION 12: Ecological information

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

<table>
<thead>
<tr>
<th>Toxicity / effect</th>
<th>Endpoint</th>
<th>Time</th>
<th>Value</th>
<th>Unit</th>
<th>Organism</th>
<th>Test method</th>
<th>Notes</th>
</tr>
</thead>
</table>
12.2. Persistence and degradability:

The surfactant(s) contained in this mixture comply with the biodegradability criteria as laid down in Regulation (EC) No. 648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.


12.5. Results of PBT and vPvB assessment n.d.a.

12.6. Other adverse effects: n.d.a.

### 2-Butoxyethanol

<table>
<thead>
<tr>
<th>Toxicity / effect</th>
<th>Endpoint</th>
<th>Time</th>
<th>Value</th>
<th>Unit</th>
<th>Organism</th>
<th>Test method</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.1. Toxicity to fish:</td>
<td>LC50</td>
<td>96h</td>
<td>1474</td>
<td>mg/l</td>
<td>Oncorhynchus mykiss</td>
<td>OECD 203 (Fish, Acute Toxicity Test)</td>
<td></td>
</tr>
<tr>
<td>12.1. Toxicity to fish:</td>
<td>NOEC/NOEL</td>
<td>21d</td>
<td>&gt;100</td>
<td>mg/l</td>
<td>Brachydanio rerio</td>
<td>OECD 204 (Fish, Prolonged Toxicity Test - 14-Day Study)</td>
<td></td>
</tr>
<tr>
<td>12.1. Toxicity to daphnia:</td>
<td>EC50</td>
<td>48h</td>
<td>1550</td>
<td>mg/l</td>
<td>112</td>
<td>OECD 202 (Daphnia sp. Acute Immobilisation Test)</td>
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</tr>
<tr>
<td>12.1. Toxicity to daphnia:</td>
<td>NOEC/NOEL</td>
<td>21d</td>
<td>100</td>
<td>mg/l</td>
<td>Daphnia magna</td>
<td>OECD 211 (Daphnia magna Reproduction Test)</td>
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<tr>
<td>12.1. Toxicity to algae:</td>
<td>EC50</td>
<td>72h</td>
<td>1840</td>
<td>mg/l</td>
<td>Pseudokirchneriella subcapitata</td>
<td>OECD 201 (Alga, Growth Inhibition Test)</td>
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</tr>
<tr>
<td>12.1. Toxicity to algae:</td>
<td>NOEC/NOEL</td>
<td>72h</td>
<td>286</td>
<td>mg/l</td>
<td>Pseudokirchneriella subcapitata</td>
<td>OECD 201 (Alga, Growth Inhibition Test)</td>
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</tbody>
</table>
12.2. Persistence and degradability:

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>28d</td>
<td>95%</td>
<td>0</td>
<td>OECD 301 E (Ready Biodegradability - Modified OECD Screening Test)</td>
<td></td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability:

<p>| | | | | |</p>
<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>28d</td>
<td>&gt;99%</td>
<td>OECD 302 B (Inherent Biodegradability - Zahn-Wellens/EMPA Test)</td>
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<td></td>
</tr>
</tbody>
</table>

12.3. Bioaccumulative potential:

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>BCF</td>
<td>3.2</td>
<td></td>
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</table>

12.3. Bioaccumulative potential:

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Log Pow</td>
<td>0.83</td>
<td>Negative</td>
</tr>
</tbody>
</table>

12.4. Mobility in soil:

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>H (Henry)</td>
<td>0.00000 atm*m³/mol</td>
<td>0</td>
</tr>
</tbody>
</table>

12.5. Results of PBT and vPvB assessment

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Toxicity to bacteria:</td>
<td>EC0</td>
<td>16h</td>
<td>700 mg/l</td>
</tr>
</tbody>
</table>

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)
20 01 29 detergents containing hazardous substances
Recommendation:
Sewage disposal shall be discouraged. Pay attention to local and national official regulations. E.g. suitable incineration plant. E.g. dispose at suitable refuse site.

For contaminated packing material
Pay attention to local and national official regulations. Empty container completely. Uncontaminated packaging can be recycled. Dispose of packaging that cannot be cleaned in the same manner as the substance. Recommended cleaner: Water

SECTION 14: Transport information

General statements
14.1. UN number: n.a.

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

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

Transport by air (IATA)
14.2. UN proper shipping name: n.a.
14.3. Transport hazard class(es): n.a.
14.4. Packing group: n.a.
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. Transport in bulk according to Annex II of MARPOL and the IBC Code
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:
General hygiene measures for the handling of chemicals are applicable.

Directive 2010/75/EU (VOC): < 3,05 %
Directive 2010/75/EU (VOC): < 30,5 g/l
REGULATION (EC) No 648/2004
perfumes
LIMONENE

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

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).
H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.

Acute Tox. — Acute toxicity - oral
Eye Irrit. — Eye irritation
Skin Irrit. — Skin irritation
Acute Tox. — Acute toxicity - dermal
Acute Tox. — Acute toxicity - inhalation

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
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
e.t.c. et cetera
EU European Union
EWC European Waste Catalogue
Fax. Fax number
gen. general
GHG 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
### Glossary

- **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
- **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
- **PC**: Chemical product category
- **PE**: Polyethylene
- **PNEC**: Predicted No Effect Concentration
- **POCP**: Photochemical ozone creation potential
- **ppm**: parts per million
- **PROC**: Process category
- **PTFE**: Polytetrafluoroethylene
- **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)
- **SDAT**: 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
- **WHO**: World Health Organization
- **wet**: 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