

Cleaning set for laser scanners



With this cleaning set, soiling on laser scanners and their front screens can be removed gently and thoroughly. The set includes a bottle of cleaning fluid as well as lint-free cleaning cloths.

Features

- Highly effective cleaning fluid with anti-static substances
- Cleaning cloths with good absorption capacity, super-soft, wood-free, lint-free

Application cases

For the cleaning of laser scanners and their front screens in the event of soiling such as dust, oil and grease.

Cleaning

Clean the front screen and diffusing plate as required by the application-related load rating (see figures).



The wrong cleaning agents or cloths will damage the front screen

↪ Do not use any scouring cleaning agents or scratching cloths.



If cleaning takes longer than four seconds, e.g. with fingerprints, the safety sensor displays the fault of front screen monitoring. After cleaning, you must then reset the safety sensor with the start/restart button.

↪ Vacuum or blow off any loose particles without making contact.

↪ Soak the cloth with the cleaning agent (1).

↪ In a single motion, wipe the front screen clean (2).

↪ In a single motion, wipe the diffusing plates clean (3).

If the front screen is scratched, have it replaced by a competent person.

①



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Safety data sheet in accordance with regulation (EC) no. 1907/2006

Tele-Wash

SDB-No.: 207722
V002.0
Revised on: March 21, 2018
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Replaces version from: October 1, 2013

SECTION 1: Designation of the substance/mixture and of the company

1.1 Product Identifier

Tele-Wash KTN (6x1l)

1.2 Relevant identified uses of the substance or mixture and uses that are not recommended

Intended use:

Cleaner for industrial uses

1.3 Details on the supplier who provided the safety data sheet

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64390 Erzhhausen

Germany

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1.4 Emergency number

Emergency information +49 6131 19240

SECTION 2: Possible dangers

2.1 Classification of the substance or mixture

Classification (CLP):

The substance or mixture is not hazardous acc. to regulation (EC) no. 1272/2008 (CLP).

2.2 Label elements

Label elements (CLP):

The substance or mixture is not hazardous acc. to regulation (EC) no. 1272/2008 (CLP).

Additional information

EUH210 safety data sheet available on request.

2.3 Possible dangers

None if used as intended.

Does not satisfy the criteria for persistent, bioaccumulative and toxic (PBT), very persistent and very bioaccumulative (vPvB).

SECTION 3: Composition/details on the ingredients

3.1 Mixtures

Declaration of ingredients acc. to CLP (EC) no. 1272/2008:

| Hazardous ingredients CAS no. | EC number REACH reg. no. | Content | Classification |
|----------------------------------|-----------------------------------|----------|---|
| Ethanol 64-17-5 | 200-578-6 01-2119457610- 43 | 1- < 5 % | Flam. Liq. 2 H225 |
| Propan-2-ol 67-63-0 | 200-661-7 01-2119457558- 25 | 1- < 5 % | Flam. Liq. 2 H225 Eye Irrit. 2 H319 STOT SE 3 H336 |
| 2-Butoxyethanol 111-76-2 | 203-905-0 01-2119475108- 36 | 1- < 3 % | Acute Tox. 4; Inhalation H332 Acute Tox. 4; Dermal H312 Acute Tox. 4; Oral H302 Eye Irrit. 2 H319 Skin Irrit. 2 H315 |

For the full text of the hazard statements and other abbreviations, see chapter 16 'Other information'. For unclassified materials, there may be country-specific occupational limit values.

Declaration of ingredients acc. to Detergents Regulation 648/2004/EC

The product does not contain any substances subject to labeling acc. to this regulation.

SECTION 4: First-aid measures

4.1 Description of the first-aid measures

Inhalation:

Fresh air.

If symptoms persist, consult a doctor.

Skin contact:

Wash with soap and plenty of

water.

Eye contact:

Rinse immediately under flowing water (for 10 minutes), consult a specialist doctor.

Swallowing:

Rinse the oral cavity, drink 1-2 glasses of water, do not induce vomiting; consult a doctor.

4.2 Most important acute and delayed symptoms and effects

No data present.

4.3 Information on immediate medical attention or special treatment

See chapter: Description of the first-aid measures

SECTION 5: Measures for fire fighting

5.1 Extinguishing media

Suitable extinguishing media:

Carbon dioxide, foam, powder

Water spray/jet

Extinguishing media that must not be used for reasons of safety:

Full water jet

5.2 Special hazards arising from the substance or mixture

Formation of toxic gases is possible during heating or in case of fire.

5.3 Information for firefighters

Wear self-contained breathing apparatus. Wear personal protective equipment.

Additional information:

In case of fire, cool endangered containers with spray water.

SECTION 6: Measures in the event of unintentional release

6.1 Personal precautions, protective equipment and emergency measures

Avoid contact with the eyes and skin.

6.2 Environmental protection measures

Do not allow to enter the sewage system / surface water / groundwater.

6.3 Methods and material for containment and cleaning up

Neutralize with acid-binding material (e.g., limestone powder).

Pick up with absorbent material (sand).

Dispose of contaminated material as waste in accordance with section 13.

6.4 Reference to other sections

Observe notices provided in section 8.

SECTION 7: Handling and storage

7.1 Protective measures for safe handling

Avoid eye and skin contact.

Ventilate work rooms sufficiently.

Observe notices provided in section 8.

Hygiene measures:

Do not eat, drink, or smoke while working.

Wash hands before taking breaks and at the end of work.

7.2 Conditions for safe storage, including any incompatibilities

Store in closed original containers.

Store protected against heat.

Do not store together with food products and beverages.

7.3 Specific end uses

Cleaner for industrial uses.

SECTION 8: Limitation and monitoring of exposure / personal protective equipment

8.1 Parameters to be monitored

Occupational limit values

Valid for

Germany

| Ingredients [regulated group of substances] | ppm | mg/m ³ | Value type | Short-term value category / comments | Regulatory list |
|---|-----|-------------------|--------------------------------|---|-----------------|
| Ethanol 64-17-5 [ETHANOL] | | | Category for short-term values | Category II: Substances with a respiratory effect. | TRGS 900 |
| Ethanol 64-17-5 [ETHANOL] | 500 | 960 | Occupational limit values: | 2 If the occupational limit values (AGW) and biological limit values (BGW) are maintained, there should be no fetal damage (see number 2.7). | TRGS 900 |
| Propan-2-ol 67-63-0 [PROPAN-2-OL] | 200 | 500 | Occupational limit values: | 2 If the occupational limit values (AGW) and biological limit values (BGW) are maintained, there should be no fetal damage (see number 2.7). | TRGS 900 |
| Propan-2-ol 67-63-0 [PROPAN-2-OL] | | | Category for short-term values | Category II: Substances with a respiratory effect. | TRGS 900 |
| 2-Butoxyethanol 111-76-2 [2-BUTOXYETHANOL] | 20 | 98 | Daily average value | Indicative | ECTLV |
| 2-Butoxyethanol 111-76-2 [2-BUTOXYETHANOL] | | | Short-term value | Indicative | ECTLV |
| 2-Butoxyethanol 111-76-2 [2-BUTOXYETHANOL] | 50 | 246 | Occupational limit values: | 4 If the occupational limit values (AGW) and biological limit values (BGW) are maintained, there should be no fetal damage (see number 2.7). | TRGS 900 |
| 2-Butoxyethanol 111-76-2 [2-BUTOXYETHANOL] | | | Skin designation: | Absorbed through the skin | TRGS 900 |
| 2-Butoxyethanol 111-76-2 [2-BUTOXYETHANOL] | | | Category for short-term values | Category II: Substances with a respiratory effect. | TRGS 900 |

Predicted No-Effect Concentration (PNEC):

| Name from list | Environmental compartment | Exposure time | Value | | | Comments |
|-----------------|------------------------------|---------------|-----------|-----|-----------|----------|
| | | | mg/l | ppm | mg/kg | |
| Ethanol 64-17-5 | Freshwater | | 0.96 mg/l | | | |
| Ethanol 64-17-5 | Saltwater | | 0.79 mg/l | | | |
| Ethanol 64-17-5 | Water (intermittent release) | | 2.75 mg/l | | | |
| Ethanol 64-17-5 | Sediment (freshwater) | | | | 3.6 mg/kg | |

| Name from list | Environmental compartment | Exposure time | Value | | | Comments |
|--------------------------|------------------------------|---------------|------------|-----|------------|----------|
| | | | mg/l | ppm | mg/kg | |
| Ethanol 64-17-5 | Floor | | | | 0.63 mg/kg | |
| Ethanol 64-17-5 | Sewage treatment plant | | 560 mg/l | | | |
| Ethanol 64-17-5 | Oral | | | | 720 mg/kg | |
| Ethanol 64-17-5 | Sediment (saltwater) | | | | 2.9 mg/kg | |
| Propan-2-ol 67-63-0 | Freshwater | | 140.9 mg/l | | | |
| Propan-2-ol 67-63-0 | Saltwater | | 140.9 mg/l | | | |
| Propan-2-ol 67-63-0 | Sediment (freshwater) | | | | 552 mg/kg | |
| Propan-2-ol 67-63-0 | Sediment (saltwater) | | | | 552 mg/kg | |
| Propan-2-ol 67-63-0 | Floor | | | | 28 mg/kg | |
| Propan-2-ol 67-63-0 | Water (intermittent release) | | 140.9 mg/l | | | |
| Propan-2-ol 67-63-0 | Sewage treatment plant | | 225.1 mg/l | | | |
| Propan-2-ol 67-63-0 | Oral | | | | 160 mg/kg | |
| 2-Butoxyethanol 111-76-2 | Freshwater | | 8.8 mg/l | | | |
| 2-Butoxyethanol 111-76-2 | Saltwater | | 0.88 mg/l | | | |
| 2-Butoxyethanol 111-76-2 | Sewage treatment plant | | 463 mg/l | | | |
| 2-Butoxyethanol 111-76-2 | Sediment (freshwater) | | | | 34.6 mg/kg | |
| 2-Butoxyethanol 111-76-2 | Sediment (saltwater) | | | | 3.46 mg/kg | |
| 2-Butoxyethanol 111-76-2 | Water (intermittent release) | | 9.1 mg/l | | | |
| 2-Butoxyethanol 111-76-2 | Floor | | | | 2.33 mg/kg | |
| 2-Butoxyethanol 111-76-2 | Oral | | | | 20 mg/kg | |

Derived No-Effect Level (DNEL):

| Name from list | Application area | Exposure route | Effect on health | Exposure duration | Value | Comments |
|-----------------|------------------|----------------|---------------------------------------|-------------------|-----------------------|----------|
| | | | | | | |
| Ethanol 64-17-5 | Employee | Inhalation | Long-term exposure – systemic effects | | 950 mg/m ³ | |
| Ethanol 64-17-5 | General public | Dermal | Long-term exposure – systemic effects | | 206 mg/kg | |
| Ethanol 64-17-5 | General public | Inhalation | Long-term exposure – systemic effects | | 114 mg/m ³ | |

| Name from list | Application area | Exposure route | Effect on health | Exposure duration | Value | Comments |
|--------------------------|------------------|----------------|--|-------------------|------------------------|----------|
| Ethanol 64-17-5 | General public | Oral | Long-term exposure – systemic effects | | 87 mg/kg | |
| Propan-2-ol 67-63-0 | Employee | Dermal | Long-term exposure – systemic effects | | 888 mg/kg | |
| Propan-2-ol 67-63-0 | Employee | Inhalation | Long-term exposure – systemic effects | | 500 mg/m ³ | |
| Propan-2-ol 67-63-0 | General public | Dermal | Long-term exposure – systemic effects | | 319 mg/kg | |
| Propan-2-ol 67-63-0 | General public | Inhalation | Long-term exposure – systemic effects | | 89 mg/m ³ | |
| Propan-2-ol 67-63-0 | General public | Oral | Long-term exposure – systemic effects | | 26 mg/kg | |
| 2-Butoxyethanol 111-76-2 | Employee | Inhalation | Acute/short-term exposure – systemic effects | | 1091 mg/m ³ | |
| 2-Butoxyethanol 111-76-2 | Employee | Dermal | Long-term exposure – systemic effects | | 125 mg/kg | |
| 2-Butoxyethanol 111-76-2 | Employee | Inhalation | Long-term exposure – systemic effects | | 98 mg/m ³ | |
| 2-Butoxyethanol 111-76-2 | General public | Inhalation | Acute/short-term exposure – systemic effects | | 426 mg/m ³ | |
| 2-Butoxyethanol 111-76-2 | General public | Inhalation | Acute/short-term exposure – local effects | | 147 mg/m ³ | |
| 2-Butoxyethanol 111-76-2 | General public | Dermal | Long-term exposure – systemic effects | | 75 mg/kg | |
| 2-Butoxyethanol 111-76-2 | General public | Inhalation | Long-term exposure – systemic effects | | 59 mg/m ³ | |
| 2-Butoxyethanol 111-76-2 | General public | Oral | Long-term exposure – systemic effects | | 6.3 mg/kg | |
| 2-Butoxyethanol 111-76-2 | Employee | Inhalation | Acute/short-term exposure – local effects | | 246 mg/m ³ | |
| 2-Butoxyethanol 111-76-2 | Employee | Dermal | Acute/short-term exposure – systemic effects | | 89 mg/kg | |
| 2-Butoxyethanol 111-76-2 | General public | Dermal | Acute/short-term exposure – systemic effects | | 89 mg/kg | |
| 2-Butoxyethanol 111-76-2 | General public | Oral | Acute/short-term exposure – systemic effects | | 26.7 mg/kg | |

Biological limit value (BGW):

| Ingredients [reg-ulated group of substances] | Parameter | Test material | Sampling time | Conc. | Basis of the limit value | Comment | Addi-tional Informa-tion |
|---|---|---------------------|--|----------|--------------------------|---------|--------------------------|
| Propan-2-ol 67-63-0 [2-PROPANOL] | Acetone | Blood | Sampling time: end of exposure or end of shift. | 25 mg/l | DE BGW | | |
| Propan-2-ol 67-63-0 [2-PROPANOL [BEL-2]] | Acetone | Urine | Sampling time: end of exposure or end of shift. | 25 mg/l | DE BGW | | |
| 2-Butoxyethanol 111-76-2 [2-BUTOXYETH-ANOL] | Butoxy acetic acid | Urine | Sampling time: for long-term expo-sure after multiple previous shifts. | 100 mg/l | DE BGW | | |
| 2-Butoxyethanol 111-76-2 [2-BUTOXYETH-ANOL [BEL-2]] | Butoxy acetic acid (BAA), with hydrolysis | Creatinine in urine | Random sampling time: end of shift/ end of work week. | 150 mg/g | DE BGW | | |

8.2 Limitation and monitoring of exposure:

Information about the design of technical systems:

Ensure good ventilation/extraction at the workplace.

Breathing protection:

In the case of aerosol formation, we recommend that appropriate breathing protection with ABEK-P2-filter (EN 14387) be worn. This recommendation is to be adapted to the conditions on site.

Hand protection:

Chemical-resistant protective gloves (EN 374). Suitable material for short-term contact or splashes (recommended: at least protective index 2, corresponding to > 30 minutes permeation time according to EN 374); butyl rubber (IIR; >= 0.7 mm layer thickness) Suitable materials also for longer, direct contact (recommended: protective index 6, corresponding to > 480 minutes permeation time according to 374); butyl rubber (IIR; >= 0.7 mm layer thickness). The values are based on literature references and information from glove manufacturers or derived by analogy with similar substances. Note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 due to the many influencing factors (e.g., temperature). If signs of wear and tear are noticed, the gloves should be replaced.

Eye protection:

Safety glasses

Eye protection should comply with EN 166.

Body protection:

Suitable protective clothing

The protective clothing should comply with EN 14605 for fluid splashes or for EN 13982 for dusts.

Notes on personal protective equipment:

The information for suggested personal protective equipment serves only an advisory function. A complete risk estimation should be performed before using the product to determine whether the indicated personal protective equipment is suitable for the local conditions. The personal protective equipment should comply with the relevant EU standards.

SECTION 9: Physical and chemical properties**9.1 Information on the basic physical and chemical properties**

| | |
|--|--|
| Appearance | Liquid |
| | Clear |
| | Colorless |
| | Weak |
| Odor | No data present / not applicable |
| Odor threshold | No data present / not applicable |
| pH value | 8.5 - 10.5 |
| (20 °C (68 °F); conc.: 100%) | |
| Melting point | No data present / not applicable |
| Solidification temperature | No data present / not applicable |
| Initial boiling point | No data present / not applicable |
| Flash point | 39 - 45 °C (102.2 - 113 °F); flash point, Pensky-Martens |
| | The product does not support combustion in any way. |
| Evaporation rate | No data present / not applicable |
| Flammability | No data present / not applicable |
| Explosion limits | No data present / not applicable |
| Vapor pressure | No data present / not applicable |
| Relative vapor density: | No data present / not applicable |
| Density | 0.980 - 0.990 g/cm ³ |
| (20 °C (68 °F)) | |
| Bulk density | No data present / not applicable |
| Solubility | No data present / not applicable |
| Solubility, qualitative | Fully miscible |
| (20 °C (68 °F); solvent: water) | |
| Partition coefficient: n-octanol/water | No data present / not applicable |
| Auto-ignition temperature | No data present / not applicable |
| Decomposition temperature | No data present / not applicable |
| Viscosity | No data present / not applicable |
| Viscosity (kinematic) | No data present / not applicable |
| Explosive properties | No data present / not applicable |
| Oxidizing properties | No data present / not applicable |

9.2 Other information

No data present / not applicable

SECTION 10: Stability and reactivity**10.1 Reactivity**

None known if used as intended.

10.2 Chemical stability

Stable under the specified storage conditions.

10.3 Possibility of hazardous reactions

See section Reactivity

10.4 Conditions to be avoided

No decomposition if used as intended.

10.5 Incompatible materials

None if used as intended.

10.6 Hazardous decomposition products

None known if used as intended. Toxic gases may form in case of fire.

SECTION 11: Toxicological information**11.1.1 Information on toxicological effects****Acute oral toxicity:**

The mixture is classified according to the calculation method based on the classified ingredients contained in the mixture.

| Hazardous ingredients CAS no. | Value type | Value | Species | Method |
|-------------------------------|------------|--------------|---------|--|
| Ethanol 64-17-5 | LD50 | 10,470 mg/kg | Rat | OECD Guideline 401 (Acute Oral Toxicity) |
| Propan-2-ol 67-63-0 | LD50 | 5,840 mg/kg | Rat | OECD Guideline 401 (Acute Oral Toxicity) |
| 2-Butoxyethanol 111-76-2 | LD50 | 1,746 mg/kg | Rat | OECD Guideline 401 (Acute Oral Toxicity) |

Acute dermal toxicity:

The mixture is classified according to the calculation method based on the classified ingredients contained in the mixture.

| Hazardous ingredients CAS no. | Value type | Value | Species | Method |
|-------------------------------|------------|---------------|---------|--|
| Ethanol 64-17-5 | LD50 | > 2,000 mg/kg | Rabbit | OECD Guideline 402 (Acute Dermal Toxicity) |
| Propan-2-ol 67-63-0 | LD50 | 12,870 mg/kg | Rabbit | Not specified |

Acute inhalational toxicity:

The mixture is classified according to the calculation method based on the classified ingredients contained in the mixture.

| Hazardous ingredients CAS no. | Value type | Value | Test atmosphere | Exposure duration | Species | Method |
|-------------------------------|------------|------------|-----------------|-------------------|---------|--|
| Ethanol 64-17-5 | LC50 | 124.7 mg/l | Vapor | 4 h | Rat | OECD Guideline 403 (Acute Inhalation Toxicity) |
| Propan-2-ol 67-63-0 | LC50 | 72.6 mg/l | | 4 h | Rat | Not specified |

Corrosive/irritant to skin:

The mixture is classified according to the calculation method based on the classified ingredients contained in the mixture.

| Hazardous ingredients CAS no. | Result | Exposure duration | Species | Method |
|-------------------------------|---------------------|-------------------|---------|---|
| Ethanol 64-17-5 | Non-irritating | | Rabbit | OECD Guideline 404 (Acute Dermal Irritation / Corrosion) |
| Propan-2-ol 67-63-0 | Slightly irritating | 4 h | Rabbit | OECD Guideline 404 (Acute Dermal Irritation / Corrosion) |
| 2-Butoxyethanol 111-76-2 | Irritating | 4 h | Rabbit | EU Method B.4 (Acute Toxicity: Dermal Irritation / Corrosion) |

Serious damage to eyes/eye irritation:

The mixture is classified according to the calculation method based on the classified ingredients contained in the mixture.

| Hazardous ingredients CAS no. | Result | Exposure duration | Species | Method |
|-------------------------------|-----------------------|-------------------|---------|---|
| Ethanol 64-17-5 | Non-irritating | | Rabbit | OECD Guideline 405 (Acute Eye Irritation / Corrosion) |
| Propan-2-ol 67-63-0 | Moderately irritating | | Rabbit | OECD Guideline 405 (Acute Eye Irritation / Corrosion) |
| 2-Butoxyethanol 111-76-2 | Irritating | 24 h | Rabbit | OECD Guideline 405 (Acute Eye Irritation / Corrosion) |

Sensitization of the airways/skin:

The mixture is classified using limit values based on the classified ingredients contained in the mixture.

| Hazardous ingredients CAS no. | Result | Test type | Species | Method |
|-------------------------------|-----------------|------------------------------|------------|---|
| Ethanol 64-17-5 | Non-sensitizing | Local mouse lymph node assay | Guinea pig | OECD Guideline 406 (Skin Sensitisation) |
| Ethanol 64-17-5 | Non-sensitizing | Local mouse lymph node assay | Mouse | OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay) |
| Propan-2-ol 67-63-0 | Non-sensitizing | Buehler test | Guinea pig | OECD Guideline 406 (Skin Sensitisation) |
| 2-Butoxyethanol 111-76-2 | Non-sensitizing | Guinea pig maximization test | Guinea pig | OECD Guideline 406 (Skin Sensitisation) |

Germ cell mutagenicity:

The mixture is classified using limit values based on the classified ingredients contained in the mixture.

| Hazardous ingredients CAS no. | Result | Study type/administration route | Metabolic activation/exposure time | Species | Method |
|-------------------------------|------------------------------------|--|------------------------------------|---------|--|
| Ethanol 64-17-5 | Negative | Bacterial reverse mutation assay (e.g., Ames test) | | | OECD Guideline 471 (Bacterial Reverse Mutation Assay) |
| Ethanol 64-17-5 | Negative | In vitro mammalian-chromosome aberration test | Without | | OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test) |
| Ethanol 64-17-5 | Negative | Mammalian gene mutation assay | With and without | | OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test) |
| Propan-2-ol 67-63-0 | Negative with metabolic activation | Mammalian gene mutation assay | With and without | | OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test) |
| 2-Butoxyethanol 111-76-2 | Negative | Bacterial reverse mutation assay (e.g., Ames test) | With and without | | OECD Guideline 471 (Bacterial Reverse Mutation Assay) |
| 2-Butoxyethanol 111-76-2 | Negative | In vitro mammalian chromosome aberration test | With and without | | OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test) |
| 2-Butoxyethanol 111-76-2 | Negative | Mammalian gene mutation assay | With and without | | OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test) |
| Ethanol 64-17-5 | Negative | | | | ECD Guideline 475 (Mammalian Bone Marrow Chromosome Aberration Test) |
| Propan-2-ol 67-63-0 | Negative | Intraperitoneal | | Mouse | OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test) |
| 2-Butoxyethanol 111-76-2 | Negative | Intraperitoneal | | Mouse | OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test) |

Carcinogenicity

The mixture is classified using limit values based on the classified ingredients contained in the mixture.

| Hazardous ingredients CAS no. | Result | Route of exposure | Exposure duration / frequency of treatment | Species | Gender | Method |
|-------------------------------|--------|---------------------|--|---------|--------|---------------|
| Ethanol 64-17-5 | | Oral: not specified | | Rat | | Not specified |
| Ethanol 64-17-5 | | Dermal | | Mouse | Female | Not specified |

SECTION 12: Environmental information

General ecological information:

Do not allow to enter the sewage system / surface water / groundwater.

The product does not contain surfactants as defined in the EU Detergent Regulation (EC/648/2004).

12.1 Toxicity

Toxicity (fish):

The mixture is classified according to the calculation method based on the classified ingredients contained in the mixture.

| Hazardous ingredients CAS no. | Value type | Value | Exposure duration | Species | Method |
|-------------------------------|------------|-----------------------|-------------------|---|--|
| Ethanol 64-17-5 | LC50 | 14,200 mg/l | 96 h | Pimephales promelas | OECD Guideline 203 (Fish, Acute Toxicity Test) |
| Propan-2-ol 67-63-0 | LC50 | > 9,640 - 10,000 mg/l | 96 h | Pimephales promelas | OECD Guideline 203 (Fish, Acute Toxicity Test) |
| 2-Butoxyethanol 111-76-2 | LC50 | 1,474 mg/l | 96 h | Oncorhynchus mykiss | OECD Guideline 203 (Fish, Acute Toxicity Test) |
| 2-Butoxyethanol 111-76-2 | NOEC | > 100 mg/l | 21 d | Brachydanio rerio (new name: Danio rerio) | OECD Guideline 204 (Fish, Prolonged Toxicity Test: 14-day Study) |

Toxicity (daphnia):

The mixture is classified according to the calculation method based on the classified ingredients contained in the mixture.

| Hazardous ingredients CAS no. | Value type | Value | Exposure duration | Species | Method |
|-------------------------------|------------|---------------------|-------------------|---------------|--|
| Ethanol 64-17-5 | EC50 | 9,268 - 14,221 mg/l | 48 h | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |
| 2-Butoxyethanol 111-76-2 | EC50 | 1,550 mg/l | 48 h | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |

Chronic toxicity to aquatic invertebrates

The mixture is classified according to the calculation method based on the classified ingredients contained in the mixture.

| Hazardous ingredients CAS no. | Value type | Value | Exposure duration | Species | Method |
|-------------------------------|------------|----------|-------------------|---------------|---|
| Ethanol 64-17-5 | NOEC | 9.6 mg/l | 9 d | Daphnia magna | Not specified |
| Propan-2-ol 67-63-0 | NOEC | 30 mg/l | 21 d | Daphnia magna | OECD 211 (Daphnia Magna, Reproduction Test) |
| 2-Butoxyethanol 111-76-2 | NOEC | 100 mg/l | 21 d | Daphnia magna | OECD 211 (Daphnia Magna, Reproduction Test) |

| Hazardous ingredients CAS no. | Result | Route of exposure | Exposure duration / frequency of treatment | Species | Gender | Method |
|-------------------------------|--------|-------------------|--|---------|-------------|--|
| Ethanol 64-17-5 | | Inhalation | | Mouse | Male | Not specified |
| Propan-2-ol 67-63-0 | | Inhalation: vapor | 104 w 6 h/d, 5 d/w | Rat | Male/female | OECD Guideline 451 (Carcinogenicity Studies) |

Reproductive toxicity:

The mixture is classified using limit values based on the classified ingredients contained in the mixture.

| Hazardous ingredients CAS no. | Result / value | Test type | Route of exposure | Species | Method |
|-------------------------------|----------------------|---------------------|----------------------|---------|---|
| Ethanol 64-17-5 | NOAEL P 13,800 mg/kg | 2-gene ration study | Oral: not specified | Mouse | OECD Guideline 416 (Two-Generation Reproduction Toxicity Study) |
| Propan-2-ol 67-63-0 | NOAEL P 853 mg/kg | 1-gene ration study | Oral: drinking water | Rat | OECD Guideline 415 (One-Generation Reproduction Toxicity Study) |
| Propan-2-ol 67-63-0 | NOAEL P 500 mg/kg | 2-gene ration study | Orally via a probe | Rat | OECD Guideline 416 (Two-Generation Reproduction Toxicity Study) |
| 2-Butoxyethanol 111-76-2 | NOAEL P 720 mg/kg | 2-gene ration study | Oral: drinking water | Mouse | Not specified |
| | NOAEL F 1 720 mg/kg | | | | |
| | NOAEL F2 720 mg/kg | | | | |

Specific target organ toxicity with single exposure:

No data present.

Specific target organ toxicity with repeated exposure:

The mixture is classified using limit values based on the classified ingredients contained in the mixture.

| Hazardous ingredients CAS no. | Result / value | Route of exposure | Exposure duration / frequency of application | Species | Method |
|-------------------------------|------------------|----------------------|--|---------|--|
| Propan-2-ol 67-63-0 | | Inhalation: vapor | at least 104 w 6 h/d, 5 d/w | Rat | Not specified |
| 2-Butoxyethanol 111-76-2 | NOAEL 0.121 mg/l | Inhalation | 42 or 90 days 6 hours/day, 5 days/week | Rat | Not specified |
| 2-Butoxyethanol 111-76-2 | NOAEL < 69 mg/kg | Oral: drinking water | 91 d continuous | Rat | OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents) |

Danger of aspiration:

No data present.

Toxicity (algae):

The mixture is classified according to the calculation method based on the classified ingredients contained in the mixture.

| Hazardous ingredients CAS no. | Value type | Value | Exposure duration | Species | Method |
|-------------------------------|------------|--------------|-------------------|---|---|
| Ethanol 64-17-5 | EC50 | 275 mg/l | 72 h | Chlorella vulgaris | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| Ethanol 64-17-5 | EC10 | 11.5 mg/l | 72 h | Chlorella vulgaris | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| Propan-2-ol 67-63-0 | EC50 | > 1,000 mg/l | 96 h | Scenedesmus subspicatus (new name: Desmodesmus subspicatus) | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| Propan-2-ol 67-63-0 | NOEC | 1,000 mg/l | 96 h | Scenedesmus subspicatus (new name: Desmodesmus subspicatus) | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| 2-Butoxyethanol 111-76-2 | EC50 | 1,840 mg/l | 72 h | Pseudokirchneriella subcapitata | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| 2-Butoxyethanol 111-76-2 | NOEC | 286 mg/l | 72 h | Pseudokirchneriella subcapitata | OECD Guideline 201 (Alga, Growth Inhibition Test) |

Toxicity with microorganisms

The mixture is classified according to the calculation method based on the classified ingredients contained in the mixture.

| Hazardous ingredients CAS no. | Value type | Value | Exposure duration | Species | Method |
|-------------------------------|------------|--------------|-------------------|------------------|--|
| Ethanol 64-17-5 | IC50 | > 1,000 mg/l | 3 h | Activated sludge | OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test) |
| Propan-2-ol 67-63-0 | EC50 | > 1,000 mg/l | 3 h | Activated sludge | OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test) |
| 2-Butoxyethanol 111-76-2 | ECO | 1,000 mg/l | 30 min | | Not specified |

12.2 Persistence and degradability

| Hazardous ingredients CAS no. | Result | Test type | Degradability | Exposure duration | Method |
|-------------------------------|-----------------------|-----------|---------------|-------------------|---|
| Ethanol 64-17-5 | Readily biodegradable | Aerobic | 80 - 85 % | 30 d | OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test) |
| Propan-2-ol 67-63-0 | Readily biodegradable | Aerobic | 70 - 84 % | 30 d | EU Method C.4-E (Determination of the "Ready" Biodegradability: Closed Bottle Test) |
| 2-Butoxyethanol 111-76-2 | Readily biodegradable | Aerobic | 73 % | 30 d | EU Method C.4-E (Determination of the "Ready" Biodegradability: Closed Bottle Test) |

12.3 Bioaccumulative potential

No data present.

12.4 Mobility in soil

| Hazardous ingredients CAS no. | LogPow | Temperature | Method |
|-------------------------------|--------|-------------|--|
| Ethanol 64-17-5 | -0.35 | 24 °C | Not specified |
| Propan-2-ol 67-63-0 | 0.05 | | OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method) |
| 2-Butoxyethanol 111-76-2 | 0.81 | 25 °C | OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method) |

12.5 Results of the PBT and vPvB assessment

| Hazardous ingredients CAS no. | PBT / vPvB |
|-------------------------------|---|
| Ethanol 64-17-5 | Does not satisfy the criteria for persistent, bioaccumulative and toxic (PBT), very persistent and very bioaccumulative (vPvB). |
| Propan-2-ol 67-63-0 | Does not satisfy the criteria for persistent, bioaccumulative and toxic (PBT), very persistent and very bioaccumulative (vPvB). |
| 2-Butoxyethanol 111-76-2 | Does not satisfy the criteria for persistent, bioaccumulative and toxic (PBT), very persistent and very bioaccumulative (vPvB). |

12.6 Other adverse effects

If acidic or alkaline products are introduced into wastewater treatment plants, ensure that the discharged wastewater remains within a pH range of 6-10 as shifts of the pH value can result in defects in sewers and biological sewage treatment plants. The local discharge guidelines take priority.

SECTION 13: Notes on disposal

13.1 Waste treatment methods

Disposal of the product:

Must be subjected to special treatment in consultation with the responsible local authority.

Waste code

The EWC waste codes are not product-related but rather source-related. The manufacturer is therefore unable to specify waste codes for products used in various industries. The listed codes are to be viewed as a recommendation for the user.

070701

SECTION 14: Transport information

14.1 UN number

ADR Non-hazardous good
RID Non-hazardous good
ADN Non-hazardous good

IMDG Non-hazardous good
ATA Non-hazardous good

14.2 Proper UN shipping designation

ADR Non-hazardous good
RID Non-hazardous good
ADN Non-hazardous good
IMDG Non-hazardous good
ATA Non-hazardous good

14.3 Transport hazard classes

ADR Non-hazardous good
RID Non-hazardous good
ADN Non-hazardous good
IMDG Non-hazardous good
ATA Non-hazardous good

14.4 Packing group

ADR Non-hazardous good
RID Non-hazardous good
ADN Non-hazardous good
IMDG Non-hazardous good
ATA Non-hazardous good

14.5 Environmental hazards

ADR Not applicable
RID Not applicable
ADN Not applicable
IMDG Not applicable
ATA Not applicable

14.6 Special precautions for the user

ADR Not applicable
RID Not applicable
ADN Not applicable
IMDG Not applicable
ATA Not applicable

Non-hazardous good at a transport temperature under 45 degree Celsius.

14.7 Transportation in bulk according to Annex II of the MARPOL convention and IBC Code

Not applicable

SECTION 15: Legal regulations

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

VOC content 11.3%
(2010/75/EU)

15.2 Chemical safety assessment

A chemical safety assessment was not performed.

National regulations/information (Germany):

WGK (German Water Hazard Classification): WGK = 1, slightly water endangering product. Classification according to the rule of mixtures per appendix 4 of the VwVwS (German Administrative Regulation Regarding Water Pollutants) from July 27, 2005.

WGK (German Water Hazard Classification): WGK = 1, slightly water endangering mixture. Classification according to the rule of mixtures per appendix 1, number 5.2 of the AwSV (German Ordinance on Facilities for Handling Substances That Are Hazardous to Water) from April 18, 2017.

Storage class acc. to TRGS 510: 10

SECTION 16: Other information

Designation of the product is listed in chapter 2. Full text of all abbreviations in the following safety data sheet is as follows:

H225 Liquid and vapor easily flammable.
H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H315 Causes skin irritation.
H319 Causes severe eye irritation.
H332 Harmful if inhaled.
H336 May cause drowsiness and dizziness.

Further information:

This information is based on our current state of knowledge and refers to the product as delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.

Relevant changes in this data sheet are indicated with vertical lines on the left edge. Corresponding text appears in a different color and in shaded fields.