



## BRILLANT TOPKLIKS 5 LTR.

WM 1114267

Order number: 0714267

Version 3.1

Revision Date 10.11.2018

Print Date 20.08.2019

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

#### 1.1 Product identifier

Trade name : BRILLANT TOPKLIKS 5 LTR.  
Identification number : 64658

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

Use of the Substance/Mixture : Rinse aid  
Restricted to professional users.

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

Company : tana Chemie GmbH  
Rheinallee 96  
55120 Mainz  
Telephone : +49613196403  
Telefax : +4961319642414  
E-mail address : Produktsicherheit@werner-mertz.com  
Responsible/issuing person  
Contact person : Product development / product safety

#### 1.4 Emergency telephone number

+49(0)6131-19240

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

##### Classification (REGULATION (EC) No 1272/2008)

Eye irritation, Category 2 H319: Causes serious eye irritation.

#### 2.2 Label elements

##### Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word : Warning

Hazard statements : H319 Causes serious eye irritation.

Precautionary statements : P102 Keep out of reach of children.

##### Prevention:

P264 Wash hands thoroughly after handling.

P280 Wear eye protection/ face protection.

##### Response:



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P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337 + P313 If eye irritation persists: Get medical advice/attention.

**Disposal:**

P501

Dispose of contents/ container to an approved waste disposal plant.

Safety data sheet available on request.

**2.3 Other hazards**

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.  
No information available.

**SECTION 3: Composition/information on ingredients**

**3.2 Mixtures**

**Hazardous components**

| Chemical name  | CAS-No.<br>EC-No.<br>Registration number | Classification  | Concentration<br>(% w/w) |
|--|--|---|--------------------------|
| ethanol  | 64-17-5<br>200-578-6<br>01-2119457610-43 | Flam. Liq. 2; H225<br>Eye Irrit. 2; H319<br><br>SCL<br>>= 50 % 2; H319                        | >= 5 - < 10              |
| citric acid  | 77-92-9<br>201-069-1<br>01-2119457026-42 | Eye Irrit. 2; H319  | >= 2 - < 5               |
| D-Glucopyranose, oligomers, decyl octyl glycosides   | 68515-73-1<br><br>01-2119488530-36       | Eye Dam. 1; H318<br><br>SCL<br>> 10 % 1; H318   | >= 3 - < 5               |
| D-Glucopyranose, oligomeric, C10-16-alkyl glycosides | 110615-47-9<br><br>01-2119489418-23      | Skin Irrit. 2; H315<br>Eye Dam. 1; H318<br><br>SCL<br>> 12 - 30 % 1; H318<br>1 - 12 % 2; H319 | >= 1 - < 2               |

For explanation of abbreviations see section 16.



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### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

- |                         |  |
|-------------------------|--|
| General advice          | : Move out of dangerous area.<br>Consult a physician.<br>Show this safety data sheet to the doctor in attendance.  |
| If inhaled              | : Move to fresh air.<br>If symptoms persist, call a physician.   |
| In case of skin contact | : Take off contaminated clothing and shoes immediately.<br>Wash off with soap and plenty of water.<br>If symptoms persist, call a physician.   |
| In case of eye contact  | : Protect unharmed eye.<br>If easy to do, remove contact lens, if worn.<br>Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.<br>If eye irritation persists, consult a specialist. |
| If swallowed            | : Clean mouth with water and drink afterwards plenty of water.<br>Do not give milk or alcoholic beverages.<br>Never give anything by mouth to an unconscious person.<br>Obtain medical attention.                        |

#### 4.2 Most important symptoms and effects, both acute and delayed

- |          |                             |
|----------|-----------------------------|
| Symptoms | : Irritation                |
| Risks    | : No information available. |

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

- |           |  |
|-----------|--|
| Treatment | : For specialist advice physicians should contact the Poisons Information Service. |
|-----------|--|

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

- |                              |   |
|------------------------------|---|
| Suitable extinguishing media | : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
|------------------------------|---|

#### 5.2 Special hazards arising from the substance or mixture

- |                                      |   |
|--------------------------------------|---|
| Specific hazards during firefighting | : Do not allow run-off from fire fighting to enter drains or water courses. |
| Hazardous combustion products        | : No hazardous combustion products are known                                |

#### 5.3 Advice for firefighters



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Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

### SECTION 6: Accidental release measures

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

Personal precautions : Use personal protective equipment.  
Ensure adequate ventilation.

#### 6.2 Environmental precautions

Environmental precautions : Do not flush into surface water or sanitary sewer system.

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

Methods for cleaning up : Neutralize with chalk, alkali solution or ammonia.  
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).  
Keep in suitable, closed containers for disposal.

#### 6.4 Reference to other sections

For personal protection see section 8., Treat recovered material as described in the section "Disposal considerations"., Refer to section 15 for specific national regulation.

### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

Advice on safe handling : Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Dispose of rinse water in accordance with local and national regulations.

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

#### 7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Store in original container. Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container.

Other data : No decomposition if stored and applied as directed.



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### 7.3 Specific end use(s)

Specific use(s) : Rinse aid

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

Contains no substances with occupational exposure limit values.

#### DNEL

ethanol  
64-17-5:

- : End Use: Workers  
Exposure routes: Inhalation  
Potential health effects: Acute local effects  
Value: 1900 mg/m<sup>3</sup>
- End Use: Workers  
Exposure routes: Inhalation  
Potential health effects: Long-term systemic effects  
Value: 950 mg/m<sup>3</sup>
- End Use: Workers  
Exposure routes: Skin contact  
Potential health effects: Long-term systemic effects  
Value: 343 mg/kg
- End Use: Consumers  
Exposure routes: Inhalation  
Potential health effects: Acute local effects  
Value: 950 mg/m<sup>3</sup>
- End Use: Consumers  
Exposure routes: Skin contact  
Potential health effects: Long-term systemic effects  
Value: 206 mg/kg
- End Use: Consumers  
Exposure routes: Inhalation  
Potential health effects: Long-term systemic effects  
Value: 114 mg/m<sup>3</sup>
- End Use: Consumers  
Exposure routes: Ingestion  
Potential health effects: Long-term systemic effects  
Value: 87 mg/kg
- End Use: Consumers  
Exposure routes: Skin contact  
Potential health effects: Acute local effects



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Value: 950 mg/m<sup>3</sup>

**D-Glucopyranose, oligomers,  
decyl octyl glycosides  
68515-73-1:**

: End Use: Workers  
Exposure routes: Skin contact  
Potential health effects: Long-term systemic effects  
Value: 595000 mg/kg

End Use: Workers  
Exposure routes: Inhalation  
Potential health effects: Long-term systemic effects  
Value: 420 mg/m<sup>3</sup>

End Use: Consumers  
Exposure routes: Skin contact  
Potential health effects: Long-term systemic effects  
Value: 357000 mg/kg

End Use: Consumers  
Exposure routes: Inhalation  
Potential health effects: Long-term systemic effects  
Value: 124 mg/m<sup>3</sup>

End Use: Consumers  
Exposure routes: Ingestion  
Potential health effects: Long-term systemic effects  
Value: 35,7 mg/kg

**D-Glucopyranose, oligomeric,  
C10-16-alkyl glycosides  
110615-47-9:**

: End Use: Workers  
Exposure routes: Skin contact  
Potential health effects: Long-term systemic effects  
Value: 595000 mg/kg

End Use: Workers  
Exposure routes: Inhalation  
Potential health effects: Long-term systemic effects  
Value: 420 mg/m<sup>3</sup>

End Use: Consumers  
Exposure routes: Skin contact  
Potential health effects: Long-term systemic effects  
Value: 357000 mg/kg

End Use: Consumers  
Exposure routes: Inhalation  
Potential health effects: Long-term systemic effects  
Value: 124 mg/m<sup>3</sup>

End Use: Consumers  
Exposure routes: Ingestion  
Potential health effects: Long-term systemic effects  
Value: 35,7 mg/kg

PNEC



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**ethanol**  
**64-17-5:**

: Fresh water  
Value: 0,96 mg/l

Marine water  
Value: 0,79 mg/l

Fresh water sediment  
Value: 3,6 mg/kg

Soil  
Value: 0,63 mg/kg

STP  
Value: 580 mg/l

intermittent release  
Value: 2,75 mg/l

**citric acid**  
**77-92-9:**

: Fresh water  
Value: 0,44 mg/l

Marine water  
Value: 0,044 mg/l

STP  
Value: > 1000 mg/l

Fresh water sediment  
Value: 34,6 mg/kg

Marine sediment  
Value: 3,46 mg/kg

Soil  
Value: 33,1 mg/kg

**D-Glucopyranose, oligomers,  
decyl octyl glycosides**  
**68515-73-1:**

: Fresh water  
Value: 0,176 mg/l

Marine water  
Value: 0,0176 mg/l

intermittent release  
Value: 0,27 mg/l

STP  
Value: 560 mg/l

Fresh water sediment  
Value: 1,516 mg/kg

Marine sediment  
Value: 0,152 mg/kg

Soil



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|  |  |
|--|--|
|  | Value: 0,654 mg/kg                         |
| <b>D-Glucopyranose, oligomeric,<br/>C10-16-alkyl glycosides<br/>110615-47-9:</b> | : Fresh water<br>Value: 0,176 mg/l         |
|  | Marine water<br>Value: 0,018 mg/l          |
|  | Fresh water sediment<br>Value: 1,516 mg/kg |
|  | Marine sediment<br>Value: 0,065 mg/kg      |
|  | Soil<br>Value: 0,654 mg/kg                 |
|  | STP<br>Value: 5000 mg/l                    |
|  | intermittent release<br>Value: 0,0295 mg/l |

### 8.2 Exposure controls

#### Personal protective equipment

Eye protection : If splashes are likely to occur, wear:  
Tightly fitting safety goggles

#### Hand protection

Material : For prolonged or repeated contact use protective gloves.  
It is suggested the usage of chemical resistant gloves made of butyl rubber or nitrile rubber category III according to EN 374-1: 2003 (0,4 mm).  
As alternative, a different type of gloves might be used if, accordingly to the recommendations of the producer, guarantee the same level of protection.

Remarks : Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact).

Skin and body protection : not required under normal use

Respiratory protection : Not required; except in case of aerosol formation.  
Recommended Filter type:  
ABEK-P3-filter

#### Environmental exposure controls





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General advice : Do not flush into surface water or sanitary sewer system.

### SECTION 9: Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties

|  |   |
|--|---|
| Appearance                             | : liquid  |
| Colour                                 | : colourless  |
| Odour                                  | : characteristic  |
| Odour Threshold                        | : No data available   |
| pH                                     | : ca. 2,7, at20 °C  |
| Melting point/range                    | : No data available   |
| Boiling point/boiling range            | : No data available   |
| Flash point                            | : 47 °C   |
| Evaporation rate                       | : No data available   |
| Flammability (solid, gas)              | : No data available   |
| Flammability (liquids)                 | : Not classified as supporting combustion according to the transport regulations. |
| Burning rate                           | : No data available   |
| Lower explosion limit                  | : No data available   |
| Upper explosion limit                  | : No data available   |
| Vapour pressure                        | : No data available   |
| Relative vapour density                | : No data available   |
| Relative density                       | : No data available   |
| Density                                | : ca. 1,016 g/cm <sup>3</sup> at 20 °C  |
| Water solubility                       | : soluble   |
| Solubility in other solvents           | : No data available   |
| Partition coefficient: n-octanol/water | : No data available   |
| Ignition temperature                   | : No data available   |
| Thermal decomposition                  | : No data available   |
| Viscosity, dynamic                     | : No data available   |
| Viscosity, kinematic                   | : No data available   |



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Explosive properties : No data available  
Oxidizing properties : No data available

### 9.2 Other information

none

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Stable under recommended storage conditions., No dangerous reaction known under conditions of normal use.

### 10.2 Chemical stability

No decomposition if stored and applied as directed.

### 10.3 Possibility of hazardous reactions

Hazardous reactions : Stable under recommended storage conditions., No decomposition if used as directed.

### 10.4 Conditions to avoid

Conditions to avoid : No data available

### 10.5 Incompatible materials

Materials to avoid : No data available

### 10.6 Hazardous decomposition products

Hazardous decomposition products : No hazardous decomposition products are known.  
Other information : No hazardous decomposition products are known.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Product

Skin corrosion/irritation : According to the classification criteria of the European Union, the product is not considered as being a skin irritant.

Serious eye damage/eye irritation : According to the classification criteria of the European Union, the product is not considered as being an eye irritant.

Respiratory or skin sensitisation : No data available

Germ cell mutagenicity : Not Rated

Carcinogenicity : Not Rated



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- Reproductive toxicity : Not Rated
- STOT - single exposure : The substance or mixture is not classified as specific target organ toxicant, single exposure.
- STOT - repeated exposure : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.
- Aspiration toxicity : Not Rated
- Further information : No data available

### Components:

#### ethanol

#### 64-17-5:

- Acute oral toxicity : LD50 Oral Rat: 10.470 mg/kg  
Method: OECD Test Guideline 401
- LD50 Rat: 5.000 mg/kg  
Method: OECD Test Guideline 401
- Acute inhalation toxicity : LC50 Rat: 51 mg/l  
Exposure time: 4 h
- Acute dermal toxicity : LD50 Dermal Rabbit: > 2.000 mg/kg  
Method: OECD Test Guideline 402
- LD50 Dermal Rabbit: > 10.000 mg/kg  
Method: OECD Test Guideline 402
- Skin corrosion/irritation : Species: Rabbit  
Result: No skin irritation  
Method: OECD Test Guideline 404
- Serious eye damage/eye irritation : Species: Rabbit  
Result: Mild eye irritation  
Method: OECD Test Guideline 405
- Respiratory or skin sensitisation : Species: Mouse  
Result: Does not cause skin sensitisation.  
Method: see user defined free text
- Reproductive toxicity : Species: Rat  
Application Route: Oral  
NOAEL: 5.200 mg/kg  
Species: Rat



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|  |   |
|--|---|
|  | Application Route: Oral<br>NOAEL: 13.800 mg/kg  |
|  | Species: Rat<br>Application Route: Inhalation<br>NOAEL: 30400 mg/m <sup>3</sup>   |
| Repeated dose toxicity                                       | : Rat, male: NOAEL: > 20 mg/kg<br><br>Method: OECD Test Guideline 403<br><br>Rat, female: NOAEL: 1.730 mg/kg<br><br>Method: OECD Test Guideline 408   |
| <b>citric acid</b><br><b>77-92-9:</b><br>Acute oral toxicity | : LD50 Oral Mouse: 5.400 mg/kg<br>Method: OECD Test Guideline 401<br><br>LD50 Oral Rat: 11.700 mg/kg<br>Method: OECD Test Guideline 401<br><br>LD50 Oral Mouse: 5.000 mg/kg<br><br>LD50 Oral Rat: 3.000 mg/kg |
| Acute dermal toxicity  | : LD50 Dermal Rat: > 2.000 mg/kg  |
| Acute toxicity (other routes of administration)              | : see user defined free text Rat: 725 mg/kg<br>Application Route: see user defined free text<br><br>see user defined free text Mouse: 940 mg/kg<br>Application Route: see user defined free text              |
| Skin corrosion/irritation                                    | : Result: Mild skin irritation  |
| Serious eye damage/eye irritation                            | : Result: Eye irritation  |
| Respiratory or skin sensitisation                            | : Result: Does not cause skin sensitisation.  |
| Carcinogenicity - Assessment                                 | : Not classifiable as a human carcinogen.   |
| Repeated dose toxicity                                       | : Rat: NOAEL: 4.000 mg/kg<br>LOAEL: 8.000 mg/kg<br>Application Route: Oral<br>Exposure time: 10 d   |



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### D-Glucopyranose, oligomers, decyl octyl glycosides

#### 68515-73-1:

- Acute oral toxicity : LD50 Rat: > 5.000 mg/kg  
Method: OECD Test Guideline 401
- Acute dermal toxicity : Rabbit: > 2.000 mg/kg  
Method: OECD Test Guideline 402
- Skin corrosion/irritation : Species: Rabbit  
Result: Mild skin irritation  
Method: OECD Test Guideline 404
- Serious eye damage/eye irritation : Species: Rabbit  
Result: Irreversible effects on the eye  
Method: OECD Test Guideline 405
- Respiratory or skin sensitisation : Species: Guinea pig  
Result: Does not cause skin sensitisation.  
Method: OECD Test Guideline 406
- Germ cell mutagenicity
- Genotoxicity in vitro : Type: Ames test  
Result: negative  
Method: OECD Test Guideline 471

### D-Glucopyranose, oligomeric, C10-16-alkyl glycosides

#### 110615-47-9:

- Acute oral toxicity : LD50 Oral : > 5.000 mg/kg
- Acute dermal toxicity : LD50 Dermal : > 5.000 mg/kg  
Method: OECD Test Guideline 402

## SECTION 12: Ecological information

### 12.1 Toxicity

#### Components:

##### ethanol

#### 64-17-5:

- Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 13 g/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203
- LC50 (Leuciscus idus (Golden orfe)): 8.150 mg/l



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- Exposure time: 48 h
- LC50 (Pimephales promelas (fathead minnow)): > 0,1 g/l  
Exposure time: 96 h
- LC50 (Fish): 11.200 mg/l
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 12.340 mg/l  
Exposure time: 48 h
- EC50 : 5.012 mg/l
- Toxicity to algae : EC50 (Chlorella vulgaris (Fresh water algae)): 275 mg/l  
Exposure time: 72 h  
Test Type: Growth inhibition  
Method: OECD Test Guideline 201
- EC50 (Scenedesmus capricornutum (fresh water algae)): 12.900 mg/l  
Exposure time: 48 h  
Test Type: Growth inhibition  
Method: No information available.
- EC0 (Scenedesmus quadricauda (Green algae)): 5.000 mg/l  
Exposure time: 168 h
- EC50 : 4.432 mg/l
- EC10 : 11,5 mg/l
- EC10 : 280 mg/l
- Toxicity to bacteria : EC50 (Pseudomonas putida): 11.800 mg/l  
Exposure time: 16 h  
Test Type: Cell multiplication inhibition test
- citric acid**  
**77-92-9:**
- Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): 440 - 760 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 1.535 mg/l  
Exposure time: 24 h
- EC50 (Daphnia magna (Water flea)): ca. 120 mg/l  
Exposure time: 72 h
- Toxicity to algae : NOEC (Scenedesmus quadricauda (Green algae)): 425 mg/l  
Exposure time: 8 Days  
Test Type: static test
- Toxicity to bacteria : (Pseudomonas putida): > 10.000 mg/l  
Exposure time: 16 h



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### D-Glucopyranose, oligomeric, C10-16-alkyl glycosides

#### 110615-47-9:

- Toxicity to fish : LC50 (Fish): > 1 - 10 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203
- LC50 (Brachydanio rerio (zebrafish)): 2,95 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia (water flea)): > 10 - 100 mg/l  
Exposure time: 48 h  
Method: OECD Test Guideline 202
- EC50 (Daphnia magna (Water flea)): 7 mg/l  
Exposure time: 48 h
- Toxicity to algae : EC50 : > 10 - 100 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201
- EC50 (Desmodesmus subspicatus (green algae)): 12,5 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201
- Toxicity to bacteria : EC0 (Pseudomonas putida): > 100 mg/l  
Exposure time: 16 h  
Method: DIN 38412
- Toxicity to fish (Chronic toxicity) : NOEC: > 1 mg/l  
Exposure time: 28 d  
Species: Brachydanio rerio  
Method: OECD Test Guideline 204
- NOEC: 1,8 mg/l  
Exposure time: 28 d  
Species: Brachydanio rerio  
Method: OECD Test Guideline 204
- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: > 1 mg/l  
Exposure time: 21 d  
Species: Daphnia magna (Water flea)  
Method: see user defined free text
- EC10: 1,76 mg/l  
Exposure time: 21 d  
Species: Daphnia magna (Water flea)  
Method: OECD Test Guideline 202

## 12.2 Persistence and degradability

### Components:

ethanol  
64-17-5:



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Biodegradability : Result: Readily biodegradable.  
Biodegradation: 97 %  
Method: OECD Test Guideline 301

### citric acid

#### 77-92-9:

Biodegradability : Result: Readily biodegradable.  
Biodegradation: 97 %  
Exposure time: 28 d  
Method: OECD 301 B

Result: Readily biodegradable.  
Biodegradation: 100 %  
Exposure time: 19 d  
Method: OECD 301 E

Biochemical Oxygen Demand (BOD) : 526 mg/g

Chemical Oxygen Demand (COD) : 728 mg/g

ThOD : 0,75 g/g

### D-Glucopyranose, oligomeric, C10-16-alkyl glycosides

#### 110615-47-9:

Biodegradability : Result: rapidly biodegradable  
Method: OECD Test Guideline 301

## 12.3 Bioaccumulative potential

### Components:

#### ethanol

##### 64-17-5:

Bioaccumulation : Concentration: 3,2 mg/l

Partition coefficient: n-octanol/water : log Pow: -0,32

#### citric acid

##### 77-92-9:

Bioaccumulation : Remarks: Bioaccumulation is unlikely.

Partition coefficient: n-octanol/water : log Pow: -1,72

### D-Glucopyranose, oligomeric, C10-16-alkyl glycosides

#### 110615-47-9:

Partition coefficient: n-octanol/water : log Pow: < -0,07 (20 °C)

## 12.4 Mobility in soil

### Components:





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### ethanol

#### 64-17-5:

Distribution among environmental compartments : Koc: 1Remarks: Highly mobile in soils

## 12.5 Results of PBT and vPvB assessment

### Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher..

### Components:

#### citric acid

#### 77-92-9:

Assessment : This substance is not considered to be persistent, bioaccumulating and toxic (PBT).. This substance is not considered to be very persistent and very bioaccumulating (vPvB)..

## 12.6 Other adverse effects

### Product:

Additional ecological information : There is no data available for this product.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

- Product : Do not dispose of waste into sewer.  
Do not contaminate ponds, waterways or ditches with chemical or used container.  
Offer surplus and non-recyclable solutions to a licensed disposal company.
- Contaminated packaging : Empty remaining contents.  
Dispose of as unused product.  
Do not re-use empty containers.
- Waste Code : European Waste Catalogue  
200129  
According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.

## SECTION 14: Transport information

### 14.1 UN number

#### ADR

Not dangerous goods

#### IMDG

Not dangerous goods



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**IATA**

Not dangerous goods

**14.2 Proper shipping name**

Not regulated as a dangerous good

**14.3 Transport hazard class**

**ADR**

Not dangerous goods

**IMDG**

Not dangerous goods

**IATA**

Not dangerous goods

**14.4 Packing group**

**ADR**

Not dangerous goods

**IMDG**

Not dangerous goods

**IATA**

Not dangerous goods

**14.5 Environmental hazards**

**ADR**

Not dangerous goods

**IMDG**

Not regulated as a dangerous good

**IATA**

Not dangerous goods

**14.6 Special precautions for user**

Remarks : Not classified as dangerous in the meaning of transport regulations.

For personal protection see section 8.

**14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable for product as supplied.

### SECTION 15: Regulatory information

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

Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals : Not applicable

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

|     |                   | Quantity 1   | Quantity 2    |
|-----|-------------------|--------------|---------------|
| P5c | FLAMMABLE LIQUIDS | 5.000 000067 | 50.000 000067 |

TA Luft List (Germany) : Total dust: Not applicable  
: Inorganic substances in powdered form: Not applicable  
: Inorganic substances in vapour or gaseous form: : portionClass 3: <



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|  |  |
|--|--|
|  | 0,01 %   |
|  | : Organic Substances: Not applicable   |
|  | : Carcinogenic substances: Not applicable  |
|  | : Mutagenic: Not applicable  |
|  | : Toxic to reproduction: Not applicable  |
| Volatile organic compounds (VOC) content       | : Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control)<br>Update: Percent volatile: 9,7 %<br>290,82 g/l<br>VOC content excluding water                                       |
| Volatile organic compounds (VOC) content       | : Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control)<br>Update: Percent volatile: 9,7 %<br>98,55 g/l<br>VOC content valid only for coating materials used on wood surfaces |
| according to Detergents Regulation EC 648/2004 | : 15 - <30% Non-ionic surfactants, <5% Anionic surfactants   |
| GISBAU (D)                                     | : no assignment possible   |

### 15.2 Chemical safety assessment

## SECTION 16: Other information

### Full text of H-Statements

|      |                                     |
|------|-------------------------------------|
| H225 | Highly flammable liquid and vapour. |
| H315 | Causes skin irritation.             |
| H318 | Causes serious eye damage.          |
| H319 | Causes serious eye irritation.      |

### Further information

Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

Classification procedure: H319 Calculation method

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good



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Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.