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

- · 1.1 Product identifier
- · Trade name: beko Citrusreiniger
- · 1.2 Relevant identified uses of the substance or mixture and uses advised against

No further relevant information available.

- · Application of the substance / the mixture Solvent Cleaner
- · 1.3 Details of the supplier of the safety data sheet
- · Manufacturer/Supplier:

beko GmbH

Rappenfeldstr. 5

DE-86653 Monheim

Tel. +49 (0) 9091 90898-0

· Further information obtainable from:

Produktsicherheit

Tel. +49 (0) 9091 90898-0

e-mail: info@beko-group.com

• 1.4 Emergency telephone number: Poison Control Center Mainz - 24 hour – phone: +49 (0) 6131/19240

SECTION 2: Hazards identification

- · 2.1 Classification of the substance or mixture
- · Classification according to Regulation (EC) No 1272/2008

| Aerosol 1 | H222-H229 | Extremely flammable aerosol. Pressurised container: May burst if heated. |
|-------------------|-----------|--|
| Skin Irrit. 2 | H315 | Causes skin irritation. |
| Eye Irrit. 2 | H319 | Causes serious eye irritation. |
| Skin Sens. 1 | H317 | May cause an allergic skin reaction. |
| STOT SE 3 | H336 | May cause drowsiness or dizziness. |
| Asp. Tox. 1 | H304 | May be fatal if swallowed and enters airways. |
| Aquatic Chronic 2 | H411 | Toxic to aquatic life with long lasting effects. |

· 2.2 Label elements

· Labelling according to Regulation (EC) No 1272/2008

The labelling of an aspiration hazard (Asp. Tox. 1 H304) is not required for aerosols and containers with a sealed spray attachmend (Regulation (EC) 1272/2008, Annex I, 1.3.3).

The product is classified and labelled according to the CLP regulation.

· Hazard pictograms







GHS02

GHS07

GHS09

· Signal word Danger

Hazard-determining components of labelling:

(R)-p-mentha-1,8-diene / d-Limonene

Propan-2-ol

alpha-Pinene

· Hazard statements

H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

H336 May cause drowsiness or dizziness.

H411 Toxic to aquatic life with long lasting effects.

· Precautionary statements

P101 If medical advice is needed, have product container or label at hand.

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| | (Contd. of page 1) |
|--------------------|---|
| P102 | Keep out of reach of children. |
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| P211 | Do not spray on an open flame or other ignition source. |
| P251 | Do not pierce or burn, even after use. |
| P260 | Do not breathe vapours/spray. |
| P271 | Use only outdoors or in a well-ventilated area. |
| P280 | Wear protective gloves / eye protection. |
| P302+P352 | IF ON SKIN: Wash with plenty of soap and water. |
| P305+P351+P3 | 38 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P312 | Call a POISON CENTER/doctor if you feel unwell. |
| P410+P412 | Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. |
| P501 | Dispose of contents / container as special waste. |
| · 2.3 Other hazard | ds |

- · Results of PBT and vPvB assessment
- · **PBT**: Not applicable. · vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

- · 3.2 Chemical characterisation: Mixtures
- · Description: Active substance with propellant

| · Dangerous components: | | |
|--|---|-----------------------------|
| CAS: 67-63-0 EINECS: 200-661-7 Reg.nr.: 01-2119457558-25 | Propan-2-ol Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336 | 50-100% |
| CAS: 5989-27-5 EINECS: 227-813-5 Reg.nr.: 01-2119529223-47 | (R)-p-mentha-1,8-diene / d-Limonene Flam. Liq. 3, H226; Asp. Tox. 1, H304; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Skin Irrit. 2, H315; Skin Sens. 1, H317 | 10-25% |
| CAS: 124-38-9 EINECS: 204-696-9 | carbon dioxide Press. Gas L, H280 | <i>≥</i> 0.1- <i>≤</i> 2.5% |
| CAS: 80-56-8 EINECS: 201-291-9 | alpha-Pinene Flam. Liq. 3, H226; Asp. Tox. 1, H304; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Skin Irrit. 2, H315; Skin Sens. 1, H317 | ≥0.1-≤0.25% |

| Regulation (EC) No 648/2004 on detergents / Labelling for contents | |
|--|------------|
| aliphatic hydrocarbons | ≥15 - <30% |
| perfumes (LIMONENE) | |
| | |

[·] Additional information: For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

- · 4.1 Description of first aid measures
- · General information:

Take affected persons out into the fresh air.

Do not leave affected persons unattended.

· After inhalation:

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

- · After skin contact: Immediately wash with water and soap and rinse thoroughly.
- · After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

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- · After swallowing: Rinse out mouth and then drink plenty of water.
- · 4.2 Most important symptoms and effects, both acute and delayed

Intensive inhalation may cause:

Dizziness

Headache

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

No further relevant information available.

SECTION 5: Firefighting measures

- · 5.1 Extinguishing media
- · Suitable extinguishing agents:

CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

- 5.2 Special hazards arising from the substance or mixture Risk of bursting in case of fire heat
- 5.3 Advice for firefighters
- · Protective equipment: Wear fully protective suit.
- · Additional information Cool endangered receptacles with water spray.

SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Avoid contact with skin / eyes and inhalation.

Keep away from ignition sources.

Ensure adequate ventilation

Wear protective equipment. Keep unprotected persons away.

· 6.2 Environmental precautions:

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/surface or ground water.

6.3 Methods and material for containment and cleaning up:

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

· 6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

· 7.1 Precautions for safe handling

Keep away from heat and direct sunlight.

Use only in well ventilated areas.

Avoid inhalation and contact with the skin and the eyes.

· Information about fire - and explosion protection:

Do not spray onto a naked flame or any incandescent material.

Keep ignition sources away - Do not smoke.

Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.

- · 7.2 Conditions for safe storage, including any incompatibilities
- · Storage:
- · Requirements to be met by storerooms and receptacles:

Observe official regulations on storing packagings with pressurised containers.

- · Information about storage in one common storage facility: Store away from oxidising agents.
- Further information about storage conditions: Keep container tightly sealed.
- · Recommended storage temperature: 15 35°C, max. 50°C

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· 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

- · Additional information about design of technical facilities: No further data; see item 7.
- · 8.1 Control parameters

| · Ingredient | · Ingredients with limit values that require monitoring at the workplace: | | |
|---------------------------------------|---|---------------------------------------|-----------------------|
| 67-63-0 Pi | ropan-2-ol | | |
| WEL (Gree | at Britain) | Short-term value: 1250 mg/m³, 500 ppm | |
| | | Long-term value: 999 mg/m³, 400 ppm | |
| 124-38-9 c | carbon dio. | xide | |
| WEL (Gree | WEL (Great Britain) Short-term value: 27400 mg/m³, 15000 ppm | | |
| Long-term value: 9150 mg/m³, 5000 ppm | | | |
| IOELV (E) | IOELV (EU) Long-term value: 9000 mg/m³, 5000 ppm | | |
| · DNELs | · DNELs | | |
| 67-63-0 Pi | ropan-2-ol | | |
| Oral | DNEL Endverbraucher/ Consumers /Consommateur 26 mg/kg BW/ day (.) | | |
| Dermal | DNEL - Endverbraucher/ Consumers /Consommateur 319 mg/kg BW /day (.) | | |
| | DNEL Arbeiter / Workers/ Travailleur 888 mg/kg BW /day (.) | | 888 mg/kg BW /day (.) |

89 mg/m3 (.)

500 mg/m3 (.)

- · Additional information: The lists valid during the making were used as basis.
- · 8.2 Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

· Respiratory protection: Not necessary if room is well-ventilated.

Inhalative DNEL Endverbraucher/ Consumers / Consommateur

DNEL Arbeiter / Workers/ Travailleur

Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

If contamination is possible, use gloves made of nitrile according EN 374

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material

> 480 min / 0,4 mm thickness

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

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Safety data sheet according to 1907/2006/EC, Article 31

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· Eye protection:



Tightly sealed goggles

SECTION 9: Physical and chemical properties

| SECTION 9: Physical and chemic | cat properties |
|--|--|
| 9.1 Information on basic physical and cl | hemical properties |
| General Information | |
| Appearance: | |
| Form: | Aerosol |
| Colour: Odour: | Colourless Sweetish |
| Odour threshold: | Not determined. |
| pH-value: | Not determined. |
| Change in condition | |
| Melting point/freezing point: | Undetermined. |
| Initial boiling point and boiling range: | |
| | Initial boiling point of the solvent |
| Flash point: | 13°C |
| Flammability (solid, gas): | Not applicable. |
| Ignition temperature: | 425°C |
| Decomposition temperature: | Not determined. |
| Auto-ignition temperature: | Product is not selfigniting. |
| Explosive properties: | Risk of bursting at temperatures > 50°C. Damage of the contain may lead to the formation of explosive mixtures of gas/vapors wa air. |
| Explosion limits: | |
| Lower: | 2.0 Vol % |
| Upper: | 12.0 Vol % |
| Pressure (20°C) | 4 - 6 bar |
| Density at 20°C: | 0.826 g/cm^3 |
| Relative density | Not determined. |
| Vapour density | Not determined. |
| Evaporation rate | Not applicable. |
| Solubility in / Miscibility with | |
| water: | Partly miscible. |
| Partition coefficient: n-octanol/water: | Not determined. |
| Viscosity: | |
| Dynamic: | Not determined. |
| Kinematic: | Not determined. |
| Solvent content: | 0-00 |
| Organic solvents: | 97.2 % |
| VOC (EC) | 97.18 % |
| 9.2 Other information | No further relevant information available. |

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· Additional information

Vapors are heavier than air.

SECTION 10: Stability and reactivity

- · 10.1 Reactivity No further relevant information available.
- · 10.2 Chemical stability May explode in contact with oxidizing agents.
- · Thermal decomposition / conditions to be avoided:

Avoid warming and the near of open flames / ignition sources (e.g. sparks).

Risk of bursting at temperatures >50°C.

· 10.3 Possibility of hazardous reactions

By use or incidental release the formation of explosive vapor/air mixtures is possible.

· 10.4 Conditions to avoid

Temperatures >50°C

Avoid the use in the near of ignition sources.

- · 10.5 Incompatible materials: No further relevant information available.
- 10.6 Hazardous decomposition products: In case of fire the formation of toxic gases is possible.
- · Additional information: Stable for a storage time of min. 24 months

SECTION 11: Toxicological information

- · 11.1 Information on toxicological effects
- · Acute toxicity Based on available data, the classification criteria are not met.

| | | , , | |
|---|----------|------------------------|--|
| · LD/LC50 values relevant for classification: | | | |
| 67-63-0 Propan-2-ol | | | |
| Oral | LD50 | 5,045 mg/kg (rat) | |
| Dermal | LD50 | 12,800 mg/kg (rabbit) | |
| Inhalative | LC50/4 h | 50/4 h 30 mg/l (rat) | |
| 5989-27-5 (R)-p-mentha-1,8-diene / d-Limonene | | | |
| Oral | LD50 | 4,400 mg/kg (rat) | |

- · Primary irritant effect:
- · Skin corrosion/irritation

irritant

Causes skin irritation.

· Serious eye damage/irritation

Causes serious eye irritation.

· Respiratory or skin sensitisation

May cause an allergic skin reaction.

- · CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
- · Germ cell mutagenicity Based on available data, the classification criteria are not met.
- Carcinogenicity Based on available data, the classification criteria are not met.
- · Reproductive toxicity Based on available data, the classification criteria are not met.
- · STOT-single exposure

May cause drowsiness or dizziness.

- · STOT-repeated exposure Based on available data, the classification criteria are not met.
- · Aspiration hazard

May be fatal if swallowed and enters airways.

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SECTION 12: Ecological information

· 12.1 Toxicity

· Aquatic toxicity:

5989-27-5 (R)-p-mentha-1,8-diene / d-Limonene

EC 50 / 48h 0.4 mg / l (daphnia)

- · 12.2 Persistence and degradability No further relevant information available.
- · 12.3 Bioaccumulative potential No further relevant information available.
- · 12.4 Mobility in soil No further relevant information available.
- · Ecotoxical effects:
- · Remark: Toxic for fish
- Additional ecological information:
- · General notes:

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

Also poisonous for fish and plankton in water bodies.

Toxic for aquatic organisms

- · 12.5 Results of PBT and vPvB assessment
- · **PBT**: Not applicable.
- · vPvB: Not applicable.
- · 12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

- · 13.1 Waste treatment methods
- · Recommendation

empty cans: material recycling

filled cans: remove in accordance with local regulations

Hand over to hazardous waste disposers.

| · European | · European waste catalogue | | |
|------------|---|--|--|
| 16 00 00 | WASTES NOT OTHERWISE SPECIFIED IN THE LIST | | |
| 16 05 00 | gases in pressure containers and discarded chemicals | | |
| 16 05 04* | 16 05 04* gases in pressure containers (including halons) containing hazardous substances | | |
| 07 00 00 | WASTES FROM ORGANIC CHEMICAL PROCESSES | | |
| 07 06 00 | 07 06 00 wastes from the MFSU of fats, grease, soaps, detergents, disinfectants and cosmetics | | |
| 07 06 04* | other organic solvents, washing liquids and mother liquors | | |

- · Uncleaned packaging:
- · Recommendation: Disposal must be made according to official regulations.

| SEC. | TION | l4: Tran | sport in | format | ion |
|------|------|----------|----------|--------|-----|
| | | | | | |

| · 14.1 UN-Number · ADR, IMDG, IATA | UN1950 |
|---|---|
| · 14.2 UN proper shipping name · ADR · IMDG · IATA | 1950 AEROSOLS, ENVIRONMENTALLY HAZARDOUS AEROSOLS, MARINE POLLUTANT AEROSOLS, flammable |

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| | (Contd. of page |
|--|--|
| 14.3 Transport hazard class(es) | |
| ADR | |
| <u>^</u> ^ | |
| * | |
| 1 | |
| | |
| Class | 2 5F Gases. |
| Label | 2.1 |
| IMDG | |
| ^ | |
| ¥, | |
| *** | |
| | |
| Class Label | 2.1 2.1 |
| Label | 2.1 |
| IATA | |
| | |
| | |
| 2 | |
| Class | 2.1 |
| Label | 2.1 |
| 14.4 Packing group | |
| ADR, IMDG, IATA | Void |
| 14.5 Environmental hazards: | |
| Marine pollutant: | ja |
| Political | Symbol (fish and tree) |
| Special marking (ADR): | Symbol (fish and tree) |
| 14.6 Special precautions for user | Warning: Gases. |
| Danger code (Kemler): | <u>-</u> |
| EMS Number: | F-D,S-U |
| Stowage Code | SW1 Protected from sources of heat. |
| | SW22 For AEROSOLS with a maximum capacity of 1 litr Category A. For AEROSOLS with a capacity above 1 litr |
| | Category B. For WASTE AEROSOLS: Category C, Cle |
| | of living quarters. |
| Segregation Code | SG69 For AEROSOLS with a maximum capacity of 1 litr |
| | Segregation as for class 9. Stow "separated from" class |
| | except for division 1.4. For AEROSOLS with a capaci |
| | above 1 litre: Segregation as for the appropria subdivision of class 2. For WASTE AEROSOL. |
| | Segregation as for the appropriate subdivision of class 2. |
| 14.7 Tuansport in bull-according to 4 | |
| 14.7 Transport in bulk according to Anno Marpol and the IBC Code | ex II of Not applicable. |
| - | . Tot approvate. |
| Transport/Additional information: | |
| ADR | 17 |
| Limited quantities (LQ) | 1L Code: E0 |
| Excepted quantities (EQ) | |
| | Not permitted as Excepted Quantity |

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|---|---|
| · Tunnel restriction code · Remarks: | D Transportation as "LIMITED QUANTITIES" accordin 3.4 ADR is possible. Sole marking: Sign for "Limited Quantities" (rhombu with two black edges) Entry in the transportation document: Transportatio according chapter 3.4 ADR Tunnel category "E" in case of a load of 8000 kg (rgros weight) or more. Hazardous goods under the transport regulations liste above may be subject to special regulations. For detail |
| · IMDG · Limited quantities (LQ) · Excepted quantities (EQ) | 1L Code: E0 Not permitted as Excepted Quantity |
| · UN "Model Regulation": | UN 1950 AEROSOLS, 2.1, ENVIRONMENTALL HAZARDOUS |

SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Directive 2012/18/EU
- · Named dangerous substances ANNEX I None of the ingredients is listed.
- · Seveso category

E2 Hazardous to the Aquatic Environment

P3b FLAMMABLE AEROSOLS

- Qualifying quantity (tonnes) for the application of lower-tier requirements 200 t
- \cdot Qualifying quantity (tonnes) for the application of upper-tier requirements 500 t
- · National regulations:
- · Information about limitation of use:

Employment restrictions concerning juveniles must be observed.

Employment restrictions concerning pregnant and lactating women must be observed.

| Class | Share in % |
|-------|------------|
| NK | 97.2 |

· 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Relevant phrases

H225 Highly flammable liquid and vapour.

H226 Flammable liquid and vapour.

H280 Contains gas under pressure; may explode if heated.

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

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· Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU) DNEL: Derived No-Effect Level (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Aerosol 1: Aerosols - Category 1

Press. Gas L: Gases under pressure - Liquefied gas

Flam. Liq. 2: Flammable liquids – Category 2

Flam. Liq. 3: Flammable liquids – Category 3

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2: Serious eye damage/eye irritation - Category 2

Skin Sens. 1: Skin sensitisation – Category 1

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

Asp. Tox. 1: Aspiration hazard – Category 1

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard - Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard - Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard - Category 2

* Data compared to the previous version altered.

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