

Safety data sheet

according to 1907/2006/EC, Article 31

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Version number 1.0

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

1.1 Product identifier

Identification of the substance/preparation: Organic descaler basing on citric acid for fully automatic machines, espresso/coffee machines, kettles and tea maker

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

Application of the substance / the mixture Descaler

Uses advised against None

1.3 Details of the supplier of the safety data sheet

Company/undertaking identification:

Menz & Könecke
An der Beek 255, D-41372 Niederkrüchten
Tel. +49 (0)2163 594-0, Fax +49 (0)2163 5210
www.menz.de

Further information obtainable from:

Sales Department
E-Mail: info@menz.de

1.4 Emergency telephone number: Poison Information Center North + 49 551 19240

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008



GHS07

Eye Irrit. 2 H319 Causes serious eye irritation.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

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

Hazard pictograms GHS07

Signal word Warning

Hazard statements

H319 Causes serious eye irritation.

Precautionary statements

- P101 If medical advice is needed, have product container or label at hand.
- P102 Keep out of reach of children.
- P264 Wash hands thoroughly after handling.
- P280 Wear eye protection.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P337+P313 If eye irritation persists: Get medical advice/attention.
- P501 Dispose of contents and container to problem waste disposal.

2.3 Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

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Identification of the substance/preparation: Organic descaler basing on citric acid for fully automatic machines, espresso/coffee machines, kettles and tea maker

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SECTION 3: Composition/information on ingredients

3.2 Mixtures

Description: Descaler

Dangerous components:

| | | | |
|---|-------------|--------------------|--------|
| CAS: 5949-29-1 EC number: 691-328-9 Reg.nr.: 01-2119457026-42 | Citric acid | Eye Irrit. 2, H319 | 25-50% |
|---|-------------|--------------------|--------|

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: No special measures required.

After inhalation: Supply fresh air; consult doctor in case of complaints.

After skin contact:

Rinse with warm water.

After each cleaning use treatment creams, for very dry skin greasy ointments.

If skin irritation continues, consult a doctor.

After eye contact:

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

After swallowing:

Rinse out mouth and then drink plenty of water.

Get medical advice/attention if you feel unwell.

4.2 Most important symptoms and effects, both acute and delayed Causes serious eye irritation.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing agents:

Fire-extinguishing powder

Water spray

Alcohol resistant foam

For safety reasons unsuitable extinguishing agents: Water with full jet

5.2 Special hazards arising from the substance or mixture

Danger of forming toxic pyrolysis products.

Carbon oxides (COx)

5.3 Advice for firefighters

Protective equipment:

Wear fully protective suit.

Wear self-contained respiratory protective device.

Additional information

Do not inhale explosion gases or combustion gases.

Cool endangered receptacles with water spray.

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

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Identification of the substance/preparation: Organic descaler basing on citric acid for fully automatic machines, espresso/coffee machines, kettles and tea maker

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SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid contact with the eyes.
Particular danger of slipping on leaked/spilled product.

6.2 Environmental precautions:

Prevent from spreading (e.g. by damming-in or oil barriers).
Do not allow to reach ground water/water course. Do not allow undiluted product or large quantities of it to reach sewage system.

6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

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

Observe information on the label and follow instructions for use.
See Section 8 for information on personal protection equipment.
Avoid contact with the eyes.
Avoid close or long term contact with the skin.

Information about fire - and explosion protection:

No special precautions are necessary if used correctly.

7.2 Conditions for safe storage, including any incompatibilities

Requirements to be met by storerooms and receptacles: Store only in the original receptacle.

Information about storage in one common storage facility: Store away from foodstuffs.

Further information about storage conditions:

Protect from heat and direct sunlight.
Keep out of reach of children.

Storage class: 10-13

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

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Exposure limit values:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

PNECs

CAS: 5949-29-1 Citric acid

| | |
|------------------------------|---|
| Water | 0,44 mg/l (Fresh water) 0,044 mg/l (Marine water) |
| Sewage treatment plant (STP) | 1.000 mg/l (Microorganisms) |
| Sediment | 34,6 mg/kg dw (Fresh water) 3,46 mg/kg dw (Marine water) |
| Soil | 33,1 mg/kg soil dw (Soil) |

Additional information: The lists valid during the making were used as basis.

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Identification of the substance/preparation: Organic descaler basing on citric acid for fully automatic machines, espresso/coffee machines, kettles and tea maker

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8.2 Exposure controls

Appropriate engineering controls No further data; see item 7.

General protective and hygienic measures:

The usual precautionary measures are to be adhered to when handling chemicals.

Respiratory protection: Filter A

Hand protection

Material of gloves Nitrile rubber, NBR

Penetration time of glove material Value for the permeation: Level 6

For the permanent contact gloves made of the following materials are suitable:

Nitrile rubber, NBR

Recommended thickness of the material: $\geq 0,35$ mm

Value for the permeation: Level 6

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

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.

Eye/face protection

Where there is a danger of the eyes coming into contact with splashes of liquid (i.e. when refilling larger quantities), safety goggles according to EN 166 (i.e. goggles with side shields) are recommended.

Body protection: Not required.

Environmental exposure controls Follow instructions for use, dosage and waste disposal.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| | |
|---|---------------------------------|
| Colour: | Colourless |
| Odour: | slightly lemony |
| Odour threshold: | Not determined. |
| Melting point/freezing point: | Not relevant |
| Boiling point or initial boiling point and boiling range | >100 °C |
| Flammability | Not applicable. |
| Lower and upper explosion limit | |
| Lower: | Not determined. |
| Upper: | Not determined. |
| Flash point: | >100 °C (Seta Flash Closed Cup) |
| Auto-ignition temperature: | Product is not selfigniting. |
| Decomposition temperature: | Not determined. |
| pH at 20 °C | 0,7-1,7 |
| Viscosity: | |
| Kinematic viscosity | Not determined. |
| Dynamic: | Not determined. |
| Solubility | |
| water: | Fully miscible. |
| Partition coefficient n-octanol/water (log value) | Not determined. |
| Vapour pressure: | Not relevant |
| Density and/or relative density | |
| Density at 20 °C: | 1,12-1,13 g/cm ³ |
| Relative density | Not determined. |
| Vapour density | Not determined. |
| Relative gas density | Not relevant |

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Identification of the substance/preparation: Organic descaler basing on citric acid for fully automatic machines, espresso/coffee machines, kettles and tea maker

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9.2 Other information

Appearance:

Form: Fluid

Important information on protection of health and environment, and on safety.

Explosive properties: Product does not present an explosion hazard.

Solvent content:

VOC (EC) 0 % (1999/13/EG)

Change in condition

Evaporation rate Not determined.

Information with regard to physical hazard classes

| | |
|--|------|
| Explosives | Void |
| Flammable gases | Void |
| Aerosols | Void |
| Oxidising gases | Void |
| Gases under pressure | Void |
| Flammable liquids | Void |
| Flammable solids | Void |
| Self-reactive substances and mixtures | Void |
| Pyrophoric liquids | Void |
| Pyrophoric solids | Void |
| Self-heating substances and mixtures | Void |
| Substances and mixtures, which emit flammable gases in contact with water | Void |
| Oxidising liquids | Void |
| Oxidising solids | Void |
| Organic peroxides | Void |
| Corrosive to metals | Void |
| Desensitised explosives | Void |

SECTION 10: Stability and reactivity

10.1 Reactivity No further relevant information available.

10.2 Chemical stability

Conditions to avoid: Contact with incompatible materials.

10.3 Possibility of hazardous reactions

Reacts with alkali (Iyes).

Reacts with oxidising agents.

10.4 Conditions to avoid Contact with incompatible materials.

10.5 Incompatible materials:

Reacts with alkali (Iyes).

Reacts with oxidising agents.

Reacts with reducing agents.

Reacts with strong acids.

10.6 Hazardous decomposition products:

No decomposition if used according to specifications.

Thermal decomposition:

Carbon oxides (COx)

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Identification of the substance/preparation: Organic descaler basing on citric acid for fully automatic machines, espresso/coffee machines, kettles and tea maker

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SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity Based on available data, the classification criteria are not met.

LD/LC50 values relevant for classification:

CAS: 5949-29-1 Citric acid

| | | |
|------------|------------------|------------------------|
| Oral | LD ₅₀ | 5.400 mg/kg/bw (Mouse) |
| Dermal | LD ₅₀ | >2.000 mg/kg/bw (Rat) |
| Inhalative | ATE | >5 (unspecified) |

Skin corrosion/irritation

Expert judgement:

not corrosive

Serious eye damage/irritation

Expert judgement:

Causes serious eye irritation.

Respiratory or skin sensitisation Based on available data, the classification criteria are not met.

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 Based on available data, the classification criteria are not met.

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

Aspiration hazard Based on available data, the classification criteria are not met.

Information on likely routes of exposure

Ingestion:

Nausea

Inhalation:

No further relevant information available.

Skin Contact:

Prolonged or repeated skin contact may lead to degreasing effects on skin.

Eye Contact:

Causes serious eye irritation.

11.2 Information on other hazards

Endocrine disrupting properties

None of the ingredients is listed.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity:

Based on available data, the classification criteria are not met.

CAS: 5949-29-1 Citric acid

| | |
|-----------------------|--------------------------------|
| LC ₅₀ /96h | 440-760 mg/l (Fish) (OECD 203) |
| EC ₅₀ /72h | 120 mg/l (Daphnia magna) |
| NOEC | 425 mg/l (Algae) |

General information:

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

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Identification of the substance/preparation: Organic descaler basing on citric acid for fully automatic machines, espresso/coffee machines, kettles and tea maker

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12.2 Persistence and degradability

The surfactants contained in the product correspond to the legislation on the environmental compatibility of detergents and are biodegradable.

CAS: 5949-29-1 Citric acid

| | |
|------------------|-------------------------|
| Biodegradability | 97 % (28d) (OECD 301 B) |
|------------------|-------------------------|

12.3 Bioaccumulative potential No further relevant information available.

12.4 Mobility in soil No further relevant information available.

12.5 Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

12.6 Endocrine disrupting properties

The product does not contain substances with endocrine disrupting properties.

12.7 Other adverse effects

Behaviour in sewage processing plants:

Technically correct releases of minimal concentrations to adapted biological sewage plants, will not disturb the biodegradability of activated sludge. Before allowing large quantities to be fed into sewage plants, obtain the approval of the responsible authorities.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Recommendation

Small amounts may be diluted with plenty of water and washed away. Dispose of bigger amounts in accordance with Local Authority requirements.

European waste catalogue

| | |
|-----------|--|
| 20 01 29* | detergents containing hazardous substances |
| 15 01 06 | mixed packaging |

Uncleaned packaging:

Recommendation: Dispose of packaging according to regulations on the disposal of packagings.

SECTION 14: Transport information

14.1 UN number or ID number
ADR/RID, ADN, IMDG, IATA

Void

14.2 UN proper shipping name
ADR/RID, ADN, IMDG, IATA

Void

14.3 Transport hazard class(es)
ADR/RID, ADN, IMDG, IATA
Class

Void

14.4 Packing group
ADR/RID, IMDG, IATA

Void

14.5 Environmental hazards:
Marine pollutant:

No

14.6 Special precautions for user

Not applicable.

14.7 Maritime transport in bulk according to IMO instruments

Not applicable.

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UN "Model Regulation":

Void

SECTION 15: Regulatory information

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

Labelling according to EC guidelines: .

Regulation (EC) No 648/2004 on detergents / Labelling for contents

Contains no substances, which require labeling according to Regulation (EC) No 648/2004

Directive 2012/18/EU Not applicable

Named dangerous substances - ANNEX I None of the ingredients is listed.

REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3

Regulation (EU) No 649/2012

Regulation (EC) No 273/2004 on drug precursors

None of the ingredients is listed.

Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors

None of the ingredients is listed.

National regulations:

Other regulations, limitations and prohibitive regulations

Other regulations (EC): Regulation (EC) No 648/2004

Other regulations (EC): Directive 98/24/EEC

Other regulations (EC): Directive 94/33/EC

TRGS 400, 500, 555, 900

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

H319 Causes serious eye irritation.

Training hints Make sure that users are appropriately informed, instructed and trained.

Classification according to Regulation (EC) No 1272/2008

Expert judgement:

H319

Department issuing SDS: Sales Department

Abbreviations and acronyms:

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

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

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)

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Identification of the substance/preparation: Organic descaler basing on citric acid for fully automatic machines, espresso/coffee machines, kettles and tea maker

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PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

EC50: effective concentration, 50 percent

OECD: Organization for Economic Co-operation and Development

ADN: Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure

IBC: Intermediate bulk container

MARPOL: Marine Pollution

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

Sources Safety data sheet for raw materials, eur-lex.europa.eu, echa.europa.eu

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