

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

Printing date 03.06.2022

Version number 9 (replaces version 8)

Revision: 03.06.2022

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

- **1.1 Product identifier**
- **Trade name:** *Heitmann pure Reine Citronensäure (Pulver)*
- **Article number:** 1008223
- **CAS Number:**
77-92-9
- **EC number:**
201-069-1
- **Registration number** 01-2119457026-42
- **UFI:** M57A-9J7S-PC92-D4FQ
- **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** *Descaler*
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Brauns-Heitmann GmbH & Co. KG
Postfach 11 63
D-34401 Warburg
+49 5641 95-0
-
- *E-Mail of competent person: MSDS@brauns-heitmann.de*
- **Further information obtainable from:** *Product safety department*
- **1.4 Emergency telephone number:**
GIZ Nord Poisons Centre
tel. +49 (0)5 51 - 1 92 40

SECTION 2: Hazards identification

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



Eye Irrit. 2 H319 Causes serious eye irritation.
STOT SE 3 H335 May cause respiratory irritation.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The substance is classified and labelled according to the CLP regulation.
- **Hazard pictograms**



- **Signal word** *Warning*
- **Hazard-determining components of labelling:**
citric acid
- **Hazard statements**
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
- **Precautionary statements**

<i>P101</i>	<i>If medical advice is needed, have product container or label at hand.</i>
<i>P102</i>	<i>Keep out of reach of children.</i>
<i>P260</i>	<i>Do not breathe dust.</i>
<i>P264</i>	<i>Wash hands thoroughly after handling.</i>
<i>P271</i>	<i>Use only outdoors or in a well-ventilated area.</i>

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- P280 Wear eye protection / face 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.
 P312 Call a POISON CENTER/doctor/producer if you feel unwell.
 P337+P313 If eye irritation persists: Get medical advice/attention.
 P405 Store locked up.
 P501 Dispose of contents/container to an authorised waste disposal contractor or licensed local authority disposal / landfill site.

· **2.3 Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:**

The mixture does not contain any PBT (PBT: persistent, bioaccumulative, toxic) substance or does not fulfil criteria for PBT according to annex XIII of regulation (EC) 1907/2006 (< 0,1 %).

· **vPvB:**

The mixture does not contain any vPvB (vPvB: very persistent, very bioaccumulative) substance or does not fulfil criteria for vPvB according to annex XIII of regulation (EC) 1907/2006 (< 0,1 %).

· **Determination of endocrine-disrupting properties**

The mixture does not contain any substance with endocrine disrupting properties (< 0,1 %).

SECTION 3: Composition/information on ingredients

· **3.1 Substances**

· **CAS No. Description**

77-92-9 citric acid

· **Identification number(s)**

· **EC number:** 201-069-1

SECTION 4: First aid measures

· **4.1 Description of first aid measures**

· **General information:** If symptoms persist consult doctor.

· **After inhalation:**

Fresh air. If pain persists, get medical attention.

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:**

Immediately flush eyes with plenty of water with lids lifted. If symptoms persist, seek medical advice.

Protect unharmed eye.

· **After swallowing:**

Rinse out mouth and drink plenty of water.

Do not induce vomiting; call for medical help immediately.

· **4.2 Most important symptoms and effects, both acute and delayed** Coughing

· **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:**

Water spray

Water haze

Foam

Carbon dioxide

Fire-extinguishing powder

· **For safety reasons unsuitable extinguishing agents:** Full water jet

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- **5.2 Special hazards arising from the substance or mixture**
In case of fire, the following can be released:
Carbon monoxide (CO)
- **5.3 Advice for firefighters**
- **Protective equipment:**
Do not inhale explosion gases or combustion gases.
Mouth respiratory protective device.
- **Additional information**
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective clothing.
Ensure adequate ventilation
Avoid formation of dust.
- **6.2 Environmental precautions:**
Do not allow to enter sewers/ surface or ground water.
Inform respective authorities in case of seepage into water course or sewage system.
- **6.3 Methods and material for containment and cleaning up:**
Pick up mechanically.
Dispose of the material collected according to regulations.
- **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**
Use only in well ventilated areas.
Observe the usual precautionary measures for handling chemicals.
Avoid contact with eyes.
Avoid close or long term contact with the skin.
Observe use instructions.
- **Information about fire - and explosion protection:** *No special measures required.*
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Store only in the original receptacle.
Store only in dry rooms.
- **Information about storage in one common storage facility:**
Store away from oxidising agents.
Store away from reducing agents.
- **Further information about storage conditions:**
Store in dry conditions at 10 - 25 °C.
Keep container tightly sealed.
- **Storage class:** 10 - 13 (Germany)
- **7.3 Specific end use(s)** *No further relevant information available.*

SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:** *Not required.*
- **Additional information:** *The lists valid during the making were used as basis.*

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· **8.2 Exposure controls**

· **Appropriate engineering controls** No further data; see item 7.

· **Individual protection measures, such as personal protective equipment**

· **General protective and hygienic measures:**

Observe the usual precautionary measures for handling chemicals.

Avoid contact with the eyes and skin.

Do not inhale dust / smoke / mist.

Avoid close or long term contact with the skin.

Wash hands before breaks and at the end of work.

· **Respiratory protection:** Particle filter P2 (DIN EN 143)

· **Hand protection**

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

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

Protective gloves according EN 374.

Check the permeability prior to each renewed use of the glove.

· **Material of gloves**

Butyl rubber, BR

Recommended thickness of the material: ≥ 0.5 mm

Penetration time: ≥ 480 minutes (Permeation according to EN 374 Prt 3: Level 6)

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**

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

The determined penetration times according to EN 16523-1:2015 are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.

· **Eye/face protection**



Tightly sealed goggles

· **Body protection:** Protective work clothing

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**

· **General Information**

· **Physical state**

Solid

· **Colour:**

Colourless

· **Odour:**

Odourless

· **Odour threshold:**

Not determined.

· **Melting point/freezing point:**

153 °C

Not determined.

· **Boiling point or initial boiling point and boiling range**

Undetermined.

· **Flammability**

Product is not flammable.

· **Lower and upper explosion limit**

· **Lower:**

Not determined.

· **Upper:**

Not determined.

· **Flash point:**

Not applicable.

· **Ignition temperature:**

1010 °C

· **Decomposition temperature:**

Not determined.

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· pH (10 g/l) at 20 °C	1.6
· Viscosity:	
· Kinematic viscosity	Not determined.
· Dynamic:	Not determined.
· Solubility	
· water at 20 °C:	600 g/l
· Partition coefficient n-octanol/water (log value)	Not determined.
· Vapour pressure:	Not applicable.
· Density and/or relative density	
· Density at 20 °C:	~ 1.542 g/cm ³
· Relative density	Not determined.
· Bulk density at 20 °C:	900 kg/m ³
· Vapour density	Not applicable.
· Relative gas density	Not determined.
· Particle characteristics	Not determined
· 9.2 Other information	
· Appearance:	
· Form:	Solid
· Important information on protection of health and environment, and on safety.	
· Auto-ignition temperature:	Not determined.
· Explosive properties:	Product does not present an explosion hazard.
· Organic solvents:	0.0 %
· Solids content:	100.0 %
· Change in condition	
· Softening point/range	
· Oxidising properties	Not applicable.
· Evaporation rate	Not applicable.
· 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**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** Reacts with strong alkali.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** strong oxidizing agents

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· **10.6 Hazardous decomposition products:** Carbon monoxide and carbon dioxide

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

Oral	LD50	5,040 mg/kg (mouse)
		11,700 mg/kg (rat) (Lit.)

- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation**
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**
May cause respiratory irritation.
- **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.
- **Additional toxicological information:**
- **Repeated dose toxicity** No further relevant information available.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
No further relevant information available.
- **11.2 Information on other hazards**

· **Endocrine disrupting properties**

Substance is not listed.

SECTION 12: Ecological information

· **12.1 Toxicity**· **Aquatic toxicity:****77-92-9 citric acid**

EC50	440-760 mg/l (fish) (<i>Leuciscus idus</i> (IUCLID))
	~120 mg/l (<i>daphnia magna</i>) (IUCLID)
LC50	mg/l (rat)

- **12.2 Persistence and degradability** Easily biodegradable
- **12.3 Bioaccumulative potential** Bioaccumulation improbable.
- **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**
- **Additional ecological information:**
- **General notes:**
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
Rinse off of bigger amounts into drains or the aquatic environment may lead to decreased pH-values. A low pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably increased, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

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SECTION 13: Disposal considerations

- 13.1 Waste treatment methods
- **Recommendation** Dispose of in accordance with all applicable local and national regulations.

- **European waste catalogue**

20 01 29*	detergents containing hazardous substances
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- **Uncleaned packaging:**
- **Recommendation:**
Dispose of in accordance with all applicable local and national regulations.
Non contaminated packagings may be recycled.

SECTION 14: Transport information

- | | |
|--|-----------------|
| · 14.1 UN number or ID number
· ADR, ADN, IMDG, IATA | Void |
| · 14.2 UN proper shipping name
· ADR, ADN, IMDG, IATA | Void |
| · 14.3 Transport hazard class(es)
· ADR, ADN, IMDG, IATA
· Class | Void |
| · 14.4 Packing group
· ADR, 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. |
| · UN "Model Regulation": | Void |

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 Substance is not listed.

- **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**

Substance is not listed.

- **REGULATION (EU) 2019/1148**

- **Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**

Substance is not listed.

- **Annex II - REPORTABLE EXPLOSIVES PRECURSORS**

Substance is not listed.

- **Regulation (EC) No 273/2004 on drug precursors**

Substance is not listed.

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

Substance is not listed.

· **National regulations:**

· **Information about limitation of use:**

Employment restrictions concerning juveniles must be observed.

Employment restrictions concerning pregnant and lactating women must be observed, if applicable.

· **15.2 Chemical safety assessment:**

A Chemical Safety Assessment has not been carried out, because it is not necessary for mixtures.

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. Liability excluded.

· **Training hints**

Instructions on hazards and protective measures based on operating instructions. The instructions must be given before start of employment and at least once a year.

· **Classification according to Regulation (EC) No 1272/2008**

The classification of the mixture is generally based on the calculation method using substance data according to Regulation (EC) No 1272/2008.

· **Department issuing SDS:** Product safety department

· **Contact:** MSDS@Brauns-Heitmann.de

· **Version number of previous version:** 8

· **Abbreviations and acronyms:**

CLP: Classification, Labelling and Packaging (Regulation (EC) No. 1272/2008)

REACH: Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals.

EC50: effective concentration, 50 percent

ADR: Accord relatif au transport international 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

VCI: Verband der chemischen Industrie, Deutschland (German chemical industry association)

EINECS: European Inventory of Existing Commercial Chemical Substances

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

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: persistent, bioaccumulative, toxic

vPvB: very persistent, very bioaccumulative

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

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

· **Sources**

The safety data sheet was prepared with the help of the relevant MSDS of the raw materials, data from the ECHA databases, current literature references and the guidelines of ECHA for the preparation of safety data sheets.

· *** Data compared to the previous version altered.**