

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



**Protea  
Chemicals**

A member of the Omnia Group  
"more than just a chemical supplier"

Printing date 10.12.2014

Version number 2

Revision: 10.12.2014

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

- **Product identifier**
- **Trade name:** Citric Acid
- **Article number:** PP0017
- **CAS Number:** 77-92-9
- **EC number:**  
201-069-1
- **Relevant identified uses of the substance or mixture and uses advised against Industrial use**
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Protea Chemicals Wadeville  
1 Berrange Road  
Wadeville, Germiston  
Tel: 011-821 3300
  
- Protea Chemicals PE  
127 Grahamstown Road  
Deal Party, Port Elizabeth  
Tel: 041-403 1000
  
- Protea Chemicals CT  
54 Killarney Avenue  
Killarney Gardens, Milnerton, Cape Town  
Tel: 021-550 8100
  
- Protea Chemicals KZN  
150 Quality Street,  
Jacobs, Durban  
Tel: 031-468 5424
- **Further information obtainable from:** Protea Chemicals
- **Emergency telephone number:**  
Rapid Spill Response  
08610 OMNIA or  
08610 66642

## 2 Hazards identification

- **Classification of the substance or mixture**



Eye Irrit. 2A H319 Causes serious eye irritation.

- **Label elements**
- **GHS label elements**  
The substance is classified and labelled according to the Globally Harmonised System (GHS).
- **Hazard pictograms**



GHS07

- **Signal word** Warning
- **Hazard statements**  
Causes serious eye irritation.

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- **Precautionary statements**  
Wear protective gloves/protective clothing/eye protection/face protection.  
Wash thoroughly after handling.  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
If eye irritation persists: Get medical advice/attention.
- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

### 3 Composition/information on ingredients

- **Chemical characterisation: Substances**
- **CAS No. Description**  
Citric Acid
- **Identification number(s)**
- **EC number:** 201-069-1

### 4 First aid measures

- **Description of first aid measures**
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Wash off with soap and plenty of water. Wash contaminated clothing before re-use.
- **After eye contact:**  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** If symptoms persist consult doctor.
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### 5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** Use breathing apparatus with independent air supply (Isolated)

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Wear protective gear. Do not inhale the material or its combustion products. Go against the wind and keep out of low areas. Evacuate personnel to safe area.
- **Environmental precautions:**  
Do not allow to enter sewers/ surface or ground water. Should not be released into the environment.
- **Methods and material for containment and cleaning up:**  
Pick up mechanically. Sweep up and shovel. Keep in suitable, closed containers for disposal.
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.

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See Section 13 for disposal information.

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## 7 Handling and storage

- **Precautions for safe handling**

No special precautions are necessary if used correctly. Avoid contact with skin, eyes and clothing.

- **Information about fire - and explosion protection:**

Put on appropriate personal protective equipment. Keep away from open flames, shut of the production of sources of ignition. Eelectricity: static electricity, electricity sparks, heat. Do not breathe vapor or mist. No smoking.

- **Conditions for safe storage, including any incompatibilities**

- **Storage:**

- **Requirements to be met by storerooms and receptacles:**

Observe the rules usually applicable when handling chemicals.

- **Information about storage in one common storage facility:** Not required.

- **Further information about storage conditions:** Keep container tightly sealed in a dry well-ventilated place.

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

## 8 Exposure controls/personal protection

- **Additional information about design of technical facilities:**

Ensure eyewash stations and safety showers are close to the workstation location.

- **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.

- **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.

Avoid contact with the eyes and skin.

- **Respiratory protection:**

In case of dust formation, wear micro dust mask. Use respiratory equipment with suitable filter or wear a self contained respiratory apparatus.

- **Protection of hands:**

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



Protective gloves

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

- **Material of gloves**

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.

- **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.

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· **Eye protection:**



Tightly sealed goggles

## 9 Physical and chemical properties

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

· **General Information**

· **Appearance:**

· <b>Form:</b>	Crystalline
· <b>Colour:</b>	White
· <b>Odour:</b>	Odourless
· <b>Odour threshold:</b>	Not determined.

· **pH-value (100 g/l) at 20 °C:** 1,6

· **Change in condition**

· <b>Melting point/Melting range:</b>	153 °C
· <b>Boiling point/Boiling range:</b>	Decomposes °C

· **Flash point:** Not applicable.

· **Flammability (solid, gaseous):** Product is not flammable.

· **Ignition temperature:** 1010 °C

· **Decomposition temperature:** Not determined.

· **Self-igniting:** Not determined.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Explosion limits:**

· <b>Lower:</b>	Not determined.
· <b>Upper:</b>	Not determined.

· **Vapour pressure:** Not applicable.

· **Density at 20 °C:** 1,542 g/cm<sup>3</sup>

· <b>Bulk density at 20 °C:</b>	900 kg/m <sup>3</sup>
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not applicable.
· <b>Evaporation rate</b>	Not applicable.

· **Solubility in / Miscibility with water at 20 °C:** 600 g/l

· **Partition coefficient (n-octanol/water):** Not determined.

· **Viscosity:**

· <b>Dynamic:</b>	Not applicable.
· <b>Kinematic:</b>	Not applicable.

· **Other information** No further relevant information available.



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### 10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** Oxidising agents, bases, reducing agents and Nitrates.
- **Hazardous decomposition products:** No dangerous decomposition products known.

### 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

· **LD/LC50 values relevant for classification:**

Oral	LD50	5040 mg/kg (mouse)
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- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** Irritating effect.
- **Sensitisation:** No sensitising effects known.

### 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**  
Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water  
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.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

### 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**  
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

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### 14 Transport information

· UN-Number · ADR, ADN, IMDG, IATA	Void
· UN proper shipping name · ADR, ADN, IMDG, IATA	Void
· Transport hazard class(es) · ADR, ADN, IMDG, IATA · Class · Subsidiary risk	Void -
· Packing group · ADR, IMDG, IATA	Void
· Environmental hazards: · Marine pollutant:	No
· Special precautions for user · ERG No.	Not applicable. -
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· UN "Model Regulation":	-

### 15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- GHS label elements  
The substance is classified and labelled according to the Globally Harmonised System (GHS).
- Hazard pictograms



GHS07

- Signal word Warning
- Hazard statements  
Causes serious eye irritation.
- Precautionary statements  
Wear protective gloves/protective clothing/eye protection/face protection.  
Wash thoroughly after handling.  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
If eye irritation persists: Get medical advice/attention.
- Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

### 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.

- 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)

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*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*

*EINECS: European Inventory of Existing Commercial Chemical Substances*

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

*LC50: Lethal concentration, 50 percent*

*LD50: Lethal dose, 50 percent*

*Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A*

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