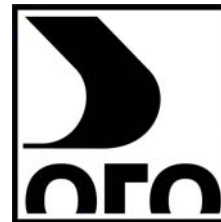


# Material Safety Data Sheet

according to Regulation (EC) 1907/2006



Product name : oro® Kitchen Decalcifier  
Revision : 01.08.2007      Version : 2.0.0  
Print date : 20.08.2007

## 01. Identification of the substance/preparation and of the company/undertaking

**Product name :** oro® Kitchen Decalcifier  
**Use of the substance / preparation :** For intensively cleaning kitchen equipment. Effective against dirt, limestone and hard water stains.  
**Manufacturer/Supplier :** orochemie GmbH + Co. KG  
**Street/P.O.Box :** Max-Planck-Strasse 27  
**Country code/Postal code/Town/City :** D - 70806 Kornwestheim, Germany  
**Telephone :** +49/7154/1308-0  
**Telefax :** +49/7154/1308-40  
**Emergency information :** +49/7154/13 08-0

## 02. Hazards identification

### Hazard designation

-

### Particular information pertaining specific risk for human and environment

None, if handled according to order.

## 03. Composition/information on ingredients

### Chemical characterization

oro® Kitchen Decalcifier contains organic acids, anionic surfactants and auxiliary agent in aqueous solution.

### Hazardous components

CITRIC ACID ; EC-No. : 201-069-1; CAS-No. : 77-92-9

Percentage : 15 - 20 %

Classification : Xi ; R 36

For the wording of the listed risk phrases refer to section 16.

## 04. First-aid measures

### General

Immediately remove all contaminated clothing.

### After inhalation

Let in fresh air. Call a doctor, should the air passages be affected.

### After skin contact

Flush with plenty of water.

### After eye contact

Flush with plenty of water (10 - 15 min.). Contact a doctor immediately.

### After ingestion

Drink plenty of water. Do not induce vomiting. Contact a doctor immediately.

## 05. Fire-fighting measures

### Suitable extinguishing media

Carbon dioxide. Extinguishing powder. Water haze. Not combustible under normal conditions. Adapt extinguishing measures to suit the environment.

### Unsuitable extinguishing media

Waterjet.

### Special risk posed by the substance or by the actual preparation, its combustion products or gases discharged

None known.

### Special protective equipment

When extinguishing fires, use breathing apparatus with an independent source of air.

## 06. Accidental release measures

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## Personal precautions

Wear suitable protective clothing, gloves and eye/face protection.

## Environmental precautions

Do not empty into drains.

## Methods for cleaning up/collecting

Take up with a liquid absorbing material and proceed according to the waste disposal regulations.

## Additional information

Remove according to regulations.

## 07. Handling and storage

### Information for safe handling

Containers to be opened and handled with care. Make sure that ventilation is adequate.

### Information about protection against explosions and fires

No anti-explosion measures necessary.

### Requirements to be met by storerooms and containers

Keep only in the original container. Keep in a cool place. Do not store in temperatures below 5 °C.

### Information about separation of incompatible products

Store the foodstuffs separately.

## 08. Exposure controls/personal protection

### Additional information about engineering measures

No particular measures required.

### Personal protective equipment

Do not eat or drink during work - no smoking. Keep away from food, drink and animal feeding stuff. Use appropriate skin protection cream before work. Avoid contact with skin and eyes.

### Respiratory protection

Provide for good ventilation.

### Hand protection

Short-term exposure (Level 2: < 30 min): disposable gloves to EN374 category III, e.g. nitrile rubber, material thickness 0.1 mm.

Long-term exposure (Level 6: < 480 min): protective gloves to EN374 category III, e.g. nitrile rubber, material thickness 0.7 mm.

### Eye protection

Use tightly fitting safety glasses.

### Body protection

No particular measures required.

## 09. Physical and chemical properties

### Image

Form : Liquid.  
Colour : Clear. Colourless.  
Odour : Characteristic.

### Relevant safety data

|                         |              |                |         |                   |
|-------------------------|--------------|----------------|---------|-------------------|
| Melting point / range : |              | not applicable | °C      |                   |
| Boiling point / range : | ( 1013 hPa ) | ca.            | 100     | °C                |
| Flash point :           |              | not applicable | °C      | DIN 51755         |
| Ignition temperature :  |              | not applicable | °C      |                   |
| Lower explosion limit : |              | not applicable | % b.v.  |                   |
| Upper explosion limit : |              | not applicable | % b.v.  |                   |
| Density :               | ( 20 °C )    |                | 1 - 1,1 | g/cm <sup>3</sup> |
| Solubility in water :   | ( 20 °C )    |                | 100     | % b.w.            |
| pH value :              |              |                | 1 - 2   |                   |

## 10. Stability and reactivity

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## Conditions to avoid

None, if handled according to order.

## Materials to avoid

None known.

## Hazardous decomposition products

None known.

## 11. Toxicological information

### Toxicological tests

#### LD50/LC50 values that are relevant for classification

No data available.

#### Primary irritant effect

No data available.

#### Sensitization

None known.

### Experience on practice

The product has a slightly irritating effect on the eyes.

### Additional toxicological information

The product was classified in toxicological terms on the basis of the results of the calculation procedure outlined within General Directive on Preparations (1999/45/EC).

## 12. Ecological information

### Details on elimination (persistence / degradability)

#### Abiotoxic elimination

No data available.

#### Biological degradation / elimination

All active agents are biodegradable at the dilution rates arising in the sewage system.

### Fate in environmental compartments

There are no data available on the preparation itself.

### Ecotoxicological effects

#### Performance in sewage-treatment plants

In case of appropriate conduction into adapted biological purification plants no disturbances have to be expected.

## 13. Disposal considerations

### Product

Concentrate/larger quantities: EWC 20 01 14 acids. Disposal in conformity with authority regulations.

### Contaminated packaging

Contaminated packaging must be emptied of all residues and, following appropriate cleaning, may be sent to a recycling plant. Uncleaned packaging must be disposed of in the same manner as the medium.

## 14. Transport information

### Land transport ADR/RID

#### Classification

Class : -

### Maritime transport IMDG/GGVSea

#### Classification

IMDG-Code : -

### Air transport ICAO-TI and IATA-DGR

#### Classification

Class : -

## 15. Regulatory information

### Classification according to EC directives

Although there is no labelling required for this product, we nevertheless advise observation of the safety recommendations.

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## S-phrases

|    |  |
|----|--|
| 2  | Keep out of the reach of children.   |
| 46 | If swallowed, seek medical advice immediately and show this container or label.                |
| 26 | In case of contact with eyes, rinse immediately with plenty of water and seek medical advice . |

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## 16. Other information

### Processing instructions / technical data sheets

Please observe the label/directions for use!

### Further information

#### R-Phrases of components

36                      Irritating to eyes.

### Contact

Dr. Klaus-Michael Wolf Tel. No.: +49/7154/1308-27 · Fax. No.: +49/7154/1308-40  
Dipl. Ing. Elisabeth Gehring Tel. No.: +49/7154/1308-37

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These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

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