

**Safety Data Sheet**

in accordance with 29 CFR 1910.1200(g)

**RATIONAL CARE TABLETS**

Print date: 01/01/2017

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**1. Identification****Details of the supplier of the safety data sheet**

**Company Name:** Trust Hygiene Services Ltd, Principle House, Leamore Lane  
Bloxwich, Walsall, WS2 7PS

Telephone: **Tel No: 0370 3500 966 Fax No: 0370 3500 755**

Responsible Department: Responsible for the safety data sheet: [reinigung@rational-online.com](mailto:reinigung@rational-online.com)

**Emergency phone number:** Mon-Fri Office 9am-5pm - 0370 3500 988  
111 NHS - Out of Office Hours

**2. Hazard(s) identification****Classification of the chemical**

Hazard categories:  
Skin corrosion/irritation: Skin Irrit. 2  
Serious eye damage/eye irritation: Eye Irrit. 2  
Hazard Statements:  
Causes skin irritation.  
Causes serious eye irritation.

**Label elements**

Signal word: Warning  
Pictograms: exclamation mark

**Hazard statements**

Causes skin irritation.  
Causes serious eye irritation.

**Precautionary statements**

Keep out of reach of children.  
If medical advice is needed, have product container or label at hand.  
Wear protective gloves/protective clothing/eye protection/face protection.  
If on skin: Wash with plenty of water.  
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.  
Continue rinsing.  
If exposed or concerned: Get medical advice/attention.

**Hazards not otherwise classified**

Not known.

**3. Composition/information on ingredients****Mixtures**

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## Hazardous components

CAS No	Components	Quantity
77-92-9	Citric acid	> 20 %
617-48-1	Malic acid	> 20 %
124-04-9	Adipic acid	1 - 5 %

## 4. First-aid measures

### Description of first aid measures

#### General information

If you feel unwell, seek medical advice.

#### After inhalation

Move to fresh air in case of accidental inhalation of dust or fumes from overheating or combustion.

#### After contact with skin

In case of contact with skin wash off immediately with soap and water.

Consult a doctor if skin irritation persists.

#### After contact with eyes

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

Seek medical treatment by eye specialist.

#### After ingestion

Rinse out mouth thoroughly with water.

Do not induce vomiting.

Never give anything by mouth to an unconscious person.

Summon a doctor immediately.

### Most important symptoms and effects, both acute and delayed

WARNING !

Causes serious eye irritation.

Causes skin irritation.

OSHA Hazard Communication: This material is considered hazardous by the OSHA Hazard Communication Standard 29CFR 1910.1200.

### Indication of any immediate medical attention and special treatment needed

Treat symptoms.

## 5. Fire-fighting measures

### Extinguishing media

#### Suitable extinguishing media

Product does not burn, fire-extinguishing activities according to surrounding.

#### Unsuitable extinguishing media

Full water jet.

### Specific hazards arising from the chemical

Fire may produce:

Irritant/corrosive, flammable as well as toxic distillation gases (carbonization gases).

### Special protective equipment and precautions for fire-fighters

Use breathing apparatus with independent air supply.

Protective suit.

### Additional information

Cool containers at risk with water spray jet.

Fire residues and contaminated firefighting water must be disposed of in accordance with the local

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## 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

No special precautions required.

### Environmental precautions

Do not discharge into the drains/surface waters/groundwater.

### Methods and material for containment and cleaning up

Pick up mechanically, avoiding dust, and provide disposal in suitable recipients.  
Flush rests with sufficient amount of water.

### Reference to other sections

Observe protective instructions (see Sections 7 and 8).  
Information for disposal look up chapter 13.

## 7. Handling and storage

### Precautions for safe handling

#### **Advice on safe handling**

Avoid the formation of dust.  
Avoid contact with eyes, skin or mucous membrane.

#### **Advice on protection against fire and explosion**

No special protective measures against fire required.

### Conditions for safe storage, including any incompatibilities

#### **Requirements for storage rooms and vessels**

Keep in the original sealed container.  
Keep containers tightly closed in a dry, well-ventilated place.

#### **Further information on storage conditions**

Keep away from food, drink and animal feeding stuffs.

## 8. Exposure controls/personal protection

### Control parameters

### Exposure controls

#### **Appropriate engineering controls**

Provide appropriate exhaust ventilation at machinery and at places where dust can be generated.

#### **Protective and hygiene measures**

Avoid contact with eyes and skin.  
Wash hands before breaks and at the end of workday.  
When using, do not eat, drink or smoke.  
Remove and wash contaminated clothing before re-use.

#### **Eye/face protection**

Tightly fitting goggles  
Eye wash bottle with pure water.

#### **Hand protection**

Protective gloves resistant to chemicals made off natural-rubber latex, Minimum coat thickness 0.6 mm, Permeation resistance (wear duration) approx. 480 minutes, i.e. protective glove <Lapren 706> made by www.kcl.de.  
This recommendation refers exclusively to the chemical compatibility and the lab test conforming to EN 374 carried out under lab conditions.  
Requirements can vary as a function of the use. Therefore it is necessary to adhere additionally to the recommendations given by the manufacturer of protective gloves.

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## Respiratory protection

No personal respiratory protective equipment normally required.  
Breathing apparatus (particle filter) only if dust is formed.

## 9. Physical and chemical properties

### Information on basic physical and chemical properties

Physical state: Tablet  
Color: White  
Odor: Characteristic

### Test method

pH-Value: 2,5 (1%)

### Changes in the physical state

Flash point: n.a.  
Lower explosion limits: n.a.  
Upper explosion limits:  
Ignition temperature: n.a.

### Oxidizing properties

n.a.

Vapor pressure: n.a.  
(at 20 °C)  
Water solubility: Soluble  
(at 20 °C)  
Partition coefficient: n.d.

### Other information

Bulk density: approx. 800 g/L

## 10. Stability and reactivity

### Reactivity

No decomposition if stored and applied as directed.

### Chemical stability

Stability: Stable  
Stable under normal conditions.

### Possibility of hazardous reactions

Hazardous reactions: Will not occur  
No hazardous reactions known.

### Conditions to avoid

Protect from moisture.

### Incompatible materials

No materials to be especially mentioned.

### Hazardous decomposition products

No hazardous decomposition products known.

## 11. Toxicological information

### Information on toxicological effects

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### Route(s) of Entry

Skin and eye contact, inhalation and ingestion.

### Acute toxicity

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

Citric acid

LD50/oral/rat: 6730 mg/kg

Adipic acid

LD50/oral/rat: 11000 mg/kg

Malic acid

LD50/oral/rat: >3200 mg/kg

### Irritation and corrosivity

Causes skin irritation.

Causes serious eye irritation.

Skin irritation: Irritant

Eye irritation: Irritant

### Sensitizing effects

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

Irritant

### Specific target organ toxicity (STOT) - single exposure

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

### Severe effects after repeated or prolonged exposure

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

STOT - Single exposure: Not classified.

STOT - Repeated exposure: Not classified.

Aspiration hazard: Not classified.

### Carcinogenic/mutagenic/toxic effects for reproduction

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

Carcinogenicity: Not classified.

Mutagenicity: Not classified.

Teratogenicity: Not classified.

Carcinogenicity (NTP): Not listed

Carcinogenicity (IARC): Not listed

Carcinogenicity (OSHA): Not listed

### Aspiration hazard

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

### Practical experience

#### Other observations

Ingestion causes irritation of upper respiratory system and gastrointestinal disturbance.

Inhalation of dust may cause shortness of breath, tightness of the chest, a sore throat and cough.

## 12. Ecological information

### Ecotoxicity

Citric acid :

LC50/Leuciscus idus/96 h: 440 - 706 mg/l

EC50/Daphnia magna: 85 mg/l

Adipic acid:

LC50/Pimephales promelas/96 h: 97 mg/l

### Persistence and degradability

Product is biodegradable.

### Bioaccumulative potential

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### Mobility in soil

The product is soluble in water.

### Other adverse effects

No data available.

## 13. Disposal considerations

### Waste treatment methods

#### Advice on disposal

Remove in accordance with local official regulations.

#### Contaminated packaging

Empty containers should be taken for local recycling, recovery or waste disposal.

Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse.

Packaging that cannot be cleaned should be disposed of like the product.

## 14. Transport information

### US DOT 49 CFR 172.101

Proper shipping name: Not regulated.

### Other applicable information

Non hazardous material as defined by the transport regulations.

## 15. Regulatory information

### U.S. Regulations

#### National Inventory TSCA

All of the components are listed on the TSCA inventory.

#### SARA

To the best of our knowledge this product contains no toxic chemicals subject to the supplier notification requirements of Section 313 of the Superfund Amendments and Reauthorization Act (SARA/EPCRA) and the requirements of 40 CFR Part 372.

## 16. Other information

### Hazardous Materials Information Label (HMIS)

Health:	2
Flammability:	0
Physical Hazard:	0

### NFPA Hazard Ratings

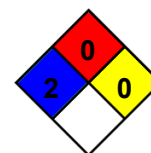
Health:	2
Flammability:	0
Reactivity:	0
Unique Hazard:	

Revision date: 02.07.2014

Revision No: 1,0

### Other data

Data of sections 4 to 8, as well as 10 to 12, do not necessarily refer to the use and the regular handling of the product (in this sense consult Prescribing Information and expert information), but to release of major amounts in case of accidents and irregularities.



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The information describes exclusively the safety requirements for the product (s) and is based on the present level of our knowledge.

The delivery specifications are contained in the corresponding product sheet.

This data does not constitute a guarantee for the characteristics of the product(s) as defined by the legal warranty regulations.

(n.a. = not applicable; n.d. = not determined)

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*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*

Legal disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.