

# Material Safety Data Sheet

According to (EC) No 1907/2006 (REACH) and 1272/2008 (CLP)

## CALCII CITRAS

EN

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### SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### 1.1 Product identifier

Product name: Calcium citrate  
Calcii citras  
Calciumcitraat  
Calcium (citrate de)  
Calciumcitrat  
N° CAS: 5785-44-4  
N° EC: 212-391-7

#### 1.2 Relevant identified uses of the substance/mixture and uses advised against

Identified uses: Active Pharmaceutical Ingredient or Excipient.

#### 1.3 Details of the supplier of the safety data sheet

Company: FAC SECUNDUM ARTEM NV  
Oostmalsebaan 1c (unit 5)  
2960 Sint-Lenaarts  
Belgium  
Telephone: (+32) (0)3 457 11 76  
Email: info@magis-pharma.be  
Web page: www.magis-pharma.be

#### 1.4 Emergency telephone number

Public utility foundation:	Belgisch Antigifcentrum	Centre Antipoisons Belge
Telephone:	(+32) (0)70 245 245	(Service 24/7)
Web page:	www.antigifcentrum.be	www.centreantipoisons.be

### SECTION 2: HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance/mixture

##### Classification according to (EC) n° 1272/2008

The substance is not classified according to Regulation (EC) 1272/2008 (CLP).

#### 2.2 Label elements

##### Labelling according to (EC) n° 1272/2008

Hazard pictogram(s): Not applicable.  
Signal word(s): Not applicable.  
Hazard statements: Not applicable.  
Precautionary statements: Not applicable.  
Additional applicable label elements: Not applicable.

#### 2.3 Other hazards

None.

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.1 Substances

Product name: Calcium citrate

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IUPAC name:	Tricalcium;2-hydroxypropane-1,2,3-tricarboxylate;tetrahydrate
Synonyms:	Calcium citrate tetrahydrate Citracal
N° CAS:	5785-44-4
N° EC:	212-391-7
Molecular Formula:	$C_{12}H_{10}Ca_3O_{14} \cdot 4 H_2O$
Content:	Calcium Citrate contains four molecules of water of hydration. When dried at 150° to constant weight, it contains NLT 97.5% and NMT 100.5% of $Ca_3(C_6H_5O_7)_2$

### 3.2 Mixtures

Not applicable.

## SECTION 4: FIRST AID MEASURES

### 4.1 Description of first aid measures

Not specifically required. In any case, it is recommended to respect the rules of good industrial hygiene.

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

There are no known relevant acute or delayed effects from exposure to the product.

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

Not available.

## SECTION 5: FIREFIGHTING MEASURES

### 5.1 Extinguishing media

Suitable extinguishing media:	Foam, dry powder, carbon dioxide, sand, water mist. Neighbouring fires (containers exposed to fire): Water spray or fog.
Unsuitable extinguishing media:	Direct water jet.

### 5.2 Special hazards arising from the substance/mixture

Avoid breathing combustion products.

### 5.3 Advice for firefighters

Surrounding fires:	Cool containers with water to prevent decomposition of product and development of potential health hazards. Always use full fire protection. Collect water from which must not enter sewage system. Dispose of contaminated water used for extinguishing and residues in accordance with current regulations.
Protection against fire:	Helmet with visor, flame retardant clothing (jacket and trousers with straps around the arms, legs and waist, EN 469), gloves (fireproof and dielectric, EN 659), a mask with face mask covering the whole face of the operator or the car (self protective) in case of large amounts of smoke, a self-contained breathing apparatus (EN 137).
Hazardous combustion products:	Not available.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions, protective equipment and emergency procedures

#### For non-emergency personnel

If vapours or dust are released when breathing, wear respiratory protection.

#### For emergency responders

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If vapours or dust are released when breathing, wear respiratory protection.

### 6.2 Environmental precautions

Do not allow product to enter sewers, surface and/or ground water.

### 6.3 Methods and material for containment and cleaning up

Contain spillage with soil or inert material.

Collect most of the material and remove the residue with water jets.

Disposal of contaminated material must be carried out in accordance with section 13.

### 6.4 Reference to other sections

For exposure control and personal protective measures, see section 8.

For waste disposal, follow the recommendations in section 13.

## SECTION 7: HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Precautions for safe handling:

Avoid dispersing product into the environment. Do not eat, drink or smoke during use. Avoid dust formation. Do not breathe dust. Avoid contact with eyes and skin. Dust Explosion Class: St1.

Personal protection:

Not available.

Technical protective measures:

Avoid dust formation.

Handling:

Handle the product after consulting all other sections of this safety data sheet.

### 7.2 Conditions for safe storage, including any incompatibilities

Storage:

Preserve in well-closed containers.

Conditions for safe storage, including any incompatibilities:

Store in a cool place. Keep container tightly closed in a dry, well-ventilated place.

Do not store at temperatures above 30 °C.

Storage – away from:

Avoid contact with water during storage.

### 7.3 Specific end use(s)

Active Pharmaceutical Ingredient or Excipient

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

Contains no substances with occupational exposure limit values.

### 8.2 Exposure controls

#### Appropriate engineering control

Since the use of appropriate technical measures should always take precedence over personal protective equipment, ensure good ventilation at the workplace by effective local suction.

When choosing personal protective equipment, ask your chemical suppliers if this is necessary.

Personal protective equipment must be CE-marked for compliance with applicable regulations.

Provide an emergency shower with a viscoelastic tray.

#### Individual protection measures

Eye/face protection: Not required.

Skin protection: Not required.

Hand protection: Not required.

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Respiratory protection: We recommend the use of a P-type filter mask (EN 149) or equivalent device, whose class (1, 2 or 3) and actual need are determined on the basis of the outcome of the risk assessment.

Thermal hazards: Not determined.

### Environmental exposure control

Prevent further leakage or spillage if it can be done safely. Do not allow product to enter sewage system. Discharge into the environment should be avoided.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

Appearance:	White, crystalline solid.
Odour:	Odourless.
Odour threshold:	Not available.
pH:	5.0 – 6.5 (2.5 %, 20 °C)
Melting/freezing point:	Not available.
Initial boiling point:	Not available.
Boiling range:	Not available.
Flash point:	Not available.
Evaporation rate:	Not available.
Flammability (solid/gas):	Not available.
Upper/lower flammability or explosive limits:	Not available.
Vapour pressure:	Not available.
Vapour density:	Not available.
Relative density:	Not available.
Solubility:	Insoluble in alcohol.
Solubility in water:	Slightly soluble in water. 1 g/L (20 °C)
Partition coefficient (n-octanol/water):	LogPow -1.8 / -0.2
Auto-ignition temperature:	Not available.
Decomposition temperature:	Not available.
Viscosity:	Not available.
Explosive properties:	Not available.
Oxidising properties:	Not available.

### 9.2 Other information

Molecular weight:	570.51 g/mol
Density (20 °C):	0.467 g/mL
Dry residue:	100.00 %
VOC (Directive 1999/13/EC):	0.00 %
VOC (volatile carbon):	0.00 %

## SECTION 10: STABILITY AND REACTIVITY

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### 10.1 Reactivity

The product is stable if used properly. No special conditions.

### 10.2 Chemical stability

Stable under recommended handling and storage conditions (see section 7).

### 10.3 Possibility of hazardous reactions

Not available.

### 10.4 Conditions to avoid

Not available.

### 10.5 Incompatible materials

Not available.

### 10.6 Hazardous decomposition products

Not available.

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

Acute toxicity:	Acute oral toxicity (LD <sub>50</sub> , rat): 5400 mg/kg Acute oral toxicity (LD <sub>50</sub> , mouse): 11.7 mg/kg Acute dermal toxicity (LD <sub>50</sub> , rat): 2000 mg/kg
Skin corrosion/irritation:	Non-irritant.
Serious eye damage/irritation:	Non-irritant.
Respiratory/skin sensitisation:	Does not cause sensitisation.
Germ cell mutagenicity:	Ames test negative.
Carcinogenicity:	Not classified as a human carcinogen.
Reproductive toxicity:	Not toxic for reproduction.
Summary of evaluation of the CMR properties:	Not available.
STOT-single exposure:	Not available.
STOT-repeated exposure:	NOAEL: 8,000 mg/kg
Aspiration Hazard:	Not available.
Other:	Not available.

### 11.2 Additional information on potential adverse human health effects and symptoms

Eye contact:	Not available.
Skin contact:	Not available.
Inhalation:	Not available.
Ingestion:	Not available.
Aspiration:	Not available.

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1 Toxicity

LC <sub>50</sub> (fish): 10 mg/L/24 hours - <i>Oncorhynchus tshawytscha</i>
EC <sub>50</sub> (crustaceans): 50 mg/L/48 hours - <i>Daphnia magna</i>
NOEC (algae/marine plants): 425 mg/L/8 days - <i>Scenedesmus quadricauda</i>
TT (bacteria): 10.000 mg/L/16 hours - <i>Pseudomonas putida</i>

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### 12.2 Persistence and degradability

Biodegradation: 97.0 % in 28 days

### 12.3 Bioaccumulative potential

The product is water soluble, and biodegradable in both water and soil. Bioaccumulation is unlikely.

### 12.4 Mobility in soil

Not available.

### 12.5 Results of PBT and vPvB assessment

This substance is not considered to be persistent, bioaccumulative or toxic (PBT).

### 12.6 Other adverse effects

This product has no known ecotoxicological effects.

Use in accordance with good working practices, avoiding dispersal of the product into the environment. Notify the competent authorities if the product reaches watercourses, sewers, soil or vegetation.

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

Product: Consider all federal, state and local environmental regulations. Contact a licensed professional waste disposal service for disposal of this material. Dissolve or mix material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated container: Dispose of as unused product.

## SECTION 14: TRANSPORT INFORMATION

### Transport information according to ADR/RID/IMDG/ICAO/IATA

#### 14.1 UN Number

ADR/ RID(Land),IMDG(Sea), IATA/ICAO (Air) : It is not dangerous in transport.

#### 14.2 UN proper shipping name

ADR/ RID(Land),IMDG(Sea), IATA/ICAO (Air) : It is not dangerous in transport.

#### 14.3 Transport hazard class(es)

ADR/ RID(Land),IMDG(Sea), IATA/ICAO (Air) : It is not dangerous in transport.

#### 14.4 Packing group

ADR/ RID(Land),IMDG(Sea), IATA/ICAO (Air) : It is not dangerous in transport.

#### 14.5 Environmental hazards

ADR/ RID(Land),IMDG(Sea), IATA/ICAO (Air) : It is not dangerous in transport.

#### 14.6 Special precautions for user

It is not dangerous in transport.

#### 14.7 Transport in bulk according to annex II of Marpol and the IBC Code

Not available.

#### 14.8 Additional transport information

The product is not to be considered dangerous according to the applicable regulations on the transport of dangerous goods by road (ADR), rail (RID), sea (IMDG Code) and air (IATA).

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## SECTION 15: REGULATORY INFORMATION

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

Hazard symbol:	Not applicable.
Risk phrases:	Not applicable.
Safety phrases:	Not applicable.

### 15.2 Chemical safety assessment

A chemical safety assessment of the product has not been carried out.

## SECTION 16: OTHER INFORMATION

### 16.1 Changes since the previous version

Not applicable.

### 16.2 Abbreviations and acronyms used

ADR:	European Agreement concerning the International Carriage of Dangerous Goods by Road
CAS:	Chemical Abstracts Service (division of the American Chemical Society)
EC (number):	European Community (number)
IATA:	International Air Transport Association
ICAO:	International Civil Aviation Organization
IMDG:	International Maritime Code for Dangerous Goods
IUPAC:	International Union of Pure and Applied Chemistry
PBT:	Persistent, Bioaccumulative and Toxic substance
RID:	Regulations Concerning the International Transport of Dangerous Goods by Rail
STOT:	Specific Target Organ Toxicity
UN (number):	United Nations (number)
vPvB:	very Persistent and very Bioaccumulative

### 16.3 Key literature references/sources for data

European Chemicals Agency.  
<https://www.echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database/>

### 16.4 Method of classification in case of mixture

Not applicable.

### 16.5 Relevant Hazard statements and/or precautionary statements

For information on hazard and/or precautionary statements refer to section 2 up to and including section 15.

### 16.6 Training advisement

Not available.

### 16.7 Notice for user(s)

The information provided in this MSDS has been established in accordance with Commission Regulation (EU) 2015/830 of 28 May 2015, amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council, on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), establishing the European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94, as well as Council Directive 76/769/EEC and Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC of the Commission.

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### 16.8 Department issuing MSDS

Quality Department

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