

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

Printing date 06.10.2014

Version number 4

Revision: 06.10.2014

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

1.1 Product identifier

Product name: **Calcio-H No.1**

Catalog number: 00511039BT, (4)511030BT, (4)511031BT, 00511030BT, 00511031BT, (4)517761-1BT, (4)517762-1BT

1.2 Relevant identified uses of the substance or mixture and uses advised against

No further relevant information available.

Application of the substance / the preparation: Reagent for water analysis

1.3 Details of the supplier of the safety data sheet

Supplier:

Tintometer GmbH
Schleefstr. 8-12
DE-44287 Dortmund
Made in Germany
www.lovibond.com

phone: +49 (0) 231 945100
E-Mail: sales@tintometer.de

Informing department:

e-mail: produktsicherheit@tintometer.de
Product Safety Department

Contact for technical details:

Technical Department
e-mail: technik@tintometer.de

1.4 Emergency telephone number:

Poison Center Berlin, Germany
phone: 0049-30 30686 790

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

The product is not classified as hazardous according to the CLP regulation.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC Void

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 Void

Hazard pictograms Void

Signal word Void

Hazard statements Void

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Description: Preparation contains organic compounds.

Dangerous components: Void

REACH - Pre-registered substances All components are REACH pre-registered.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information Instantly remove any clothing soiled by the product.

After inhalation Supply fresh air.

After skin contact Instantly rinse with water.

After eye contact Rinse opened eye for several minutes (at least 10 min) under running water.

After swallowing

Rinse out mouth and then drink 1-2 glasses of water.

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In case of persistent symptoms consult doctor.

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

After swallowing of large amounts:

general feeling of sickness

gastric or intestinal trouble

· **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** CO₂, extinguishing powder or water jet. Fight larger fires with water jet.

· **5.2 Special hazards arising from the substance or mixture**

combustible

Formation of toxic gases is possible during heating or in case of fire.

Sulphur oxides (SO_x)

nitrogen oxides (NO_x)

carbon monoxide (CO) and carbon dioxide (CO₂)

· **5.3 Advice for firefighters**

· **Protective equipment:**

Wear self-contained breathing apparatus.

Wear full protective suit.

· **Additional information**

Collect contaminated fire fighting water separately. It must not enter drains.

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

Ambient fire may liberate hazardous vapours.

* SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.

· **6.2 Environmental precautions:** Do not allow product to reach sewage system or water bodies.

· **6.3 Methods and material for containment and cleaning up:**

Dispose of contaminated material as waste according to item 13.

Collect mechanically.

Ensure adequate ventilation.

· **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 information on disposal.

* SECTION 7: Handling and storage

· **7.1 Precautions for safe handling** Provide suction extractors if dust is formed.

· **Information about protection against explosions and fires:**

Protect from heat.

Keep ignition sources away - Do not smoke.

· **7.2 Conditions for safe storage, including any incompatibilities**

· **Storage**

· **Requirements to be met by storerooms and containers:** Store in cool location.

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

· **Further information about storage conditions:**

Protect from heat and direct sunlight.

Protect from the effects of light.

Protect from humidity and keep away from water.

Store under dry conditions.

· **Recommended storage temperature:** 20 °C +/- 5 °C

· **Storage class** 11

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

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SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **8.1 Control parameters**
- **Components with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **8.2 Exposure controls**
- **Personal protective equipment**
- **General protective and hygienic measures**
Wash hands during breaks and at the end of the work.
Do not eat, drink or smoke while working.
- **Breathing equipment:** Use breathing protection against the effects of fumes/dust/aerosol.
- **Recommended filter device for short term use:** Filter P1
- **Protection of hands:**
Preventive skin protection by use of skin-protecting agents is recommended.
After use of gloves apply skin-cleaning agents and skin cosmetics.
- **Material of gloves**
nitrile rubber, NBR
Recommended thickness of the material: ≥ 0.11 mm
- **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.
Value for the permeation: Level = 1 (< 10 min)
- **Eye protection:**
use against the effects of fumes / dust
Safety glasses
- **Body protection:** Protective work clothing.

* SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties	
· Appearance:	
· Form:	Solid.
· Colour:	Pink
· Odour:	Odourless
· pH-value (8.7 g/l) at 20 °C: 4.3	
· Melting point/Melting range: Not determined	
· Boiling point/Boiling range: Not applicable	
· Flash point: Not determined	
· Danger of explosion: The following applies in general to flammable organic substances / preparations: Dust explosion possible if in powder or granular form (fine distribution), mixed with air.	
· Density Not determined	
· Vapour density Not applicable.	
· Evaporation rate Not applicable.	
· Solubility in / Miscibility with	
· Water:	Soluble
· Solvent content:	
· Organic solvents:	0.0 %
· Solids content:	100.0 %
· 9.2 Other information No further relevant information available.	

SECTION 10: Stability and reactivity

- **Reactivity**
- **Thermal decomposition / conditions to be avoided:** To avoid thermal decomposition do not overheat.
- **Possibility of hazardous reactions**
The product is not capable of dust explosion in the form supplied; enrichment with fine dust causes risk of dust explosion

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- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** oxidizing agents
- **Hazardous decomposition products:**
carbon monoxide (CO) and carbon dioxide (CO₂)
see chapter 5

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity:** Quantitative data on the toxicity of the preparation are not available.
- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** irritating effect possible
- **Sensitisation:** No sensitizing effect known.
- **Additional toxicological information:**
When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.
The usual precautionary measures should be adhered to general rules for handling chemicals.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)** no data available

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **Other information:** Quantitative data on the ecological effect of this product are not available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **Behaviour in environmental systems:**
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (German Regulation) (Self-assessment acc. VwVwS Annex 4): slightly hazardous for water.
Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.
Must not reach sewage water or drainage ditch undiluted or unneutralised.
- **12.5 Results of PBT and vPvB assessment** no data available
- **vPvB assessments:** no data available
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation** Disposal must be made according to official regulations.

European waste catalogue	
16 05 09	discarded chemicals other than those mentioned in 16 05 06, 16 05 07 or 16 05 08

- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleaning agent:** Water, if necessary with cleaning agent.

SECTION 14: Transport information

- | | |
|-------------------------------------|------|
| 14.1 UN-Number | |
| ADR, ADN, IMDG, IATA | Void |
| 14.2 UN proper shipping name | |
| ADR, ADN, IMDG, IATA | Void |

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· 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 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	
	Not applicable.
· Transport/Additional information:	
	Not dangerous according to the above specifications.

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Information about limitation of use:** Not required.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

* SECTION 16: Other information

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.

- **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)
 IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
 ICAO: International Civil Aviation Organisation
 ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)
 EC50: effective concentration, 50 percent (in vivo)
 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
 GHS: Globally Harmonised System of Classification and Labelling of Chemicals
 EINECS: European Inventory of Existing Commercial Chemical Substances
 ELINCS: European List of Notified Chemical Substances
 CAS: Chemical Abstracts Service (division of the American Chemical Society)

- **Sources**

Data arise from reference works and literature.
 GESTIS-Stoffdatenbank

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

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

1.1 Product identifier

Product name: **Calcio-H No.2**

Catalog number: 00511049BT, (4)511040BT, (4)511041BT, 00511040BT, 00511041BT, (4)517761-2BT, (4)517762-2BT

1.2 Relevant identified uses of the substance or mixture and uses advised against

No further relevant information available.

Application of the substance / the preparation: Reagent for water analysis

1.3 Details of the supplier of the safety data sheet

Supplier:

Tintometer GmbH
Schleefstr. 8-12
DE-44287 Dortmund
Made in Germany
www.lovibond.com

phone: +49 (0) 231 945100
E-Mail: sales@tintometer.de

Informing department:

e-mail: produktsicherheit@tintometer.de
Product Safety Department

Contact for technical details:

Technical Department
e-mail: technik@tintometer.de

1.4 Emergency telephone number:

Poison Center Berlin, Germany
phone: 0049-30 30686 790

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC



Xi; Irritant

R36/38: Irritating to eyes and skin.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 The product is classified and labelled according to the CLP regulation.

Hazard pictograms GHS07

Signal word Warning

Hazard statements

H315 Causes skin irritation.

H319 Causes serious eye irritation.

Precautionary statements

P280 Wear protective gloves / eye protection.

P302+P352 IF ON SKIN: Wash with plenty of water.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P332+P313 If skin irritation occurs: Get medical advice/attention.

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P337+P313 If eye irritation persists: Get medical advice/attention.

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SECTION 3: Composition/information on ingredients

3.2 Mixtures
Description: Preparation contains organic compounds.

Dangerous components:

CAS: 77-86-1	trometamol	 Xi R36/38	20-30%
EINECS: 201-064-4		 Skin Irrit. 2, H315; Eye Irrit. 2, H319	

REACH - Pre-registered substances All components are REACH pre-registered.

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

SECTION 4: First aid measures

4.1 Description of first aid measures
General information Instantly remove any clothing soiled by the product.

After inhalation

Supply fresh air.

Seek medical treatment in case of complaints.

After skin contact

Instantly rinse with water.

Seek medical treatment.

After eye contact Rinse opened eye for several minutes (min 10 min.) under running water. Then consult doctor.

After swallowing

Rinse out mouth and then drink 1-2 glasses of water.

Seek medical treatment.

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

irritations

after inhalation:

coughing

mucous membrane irritation

breathing difficulty

after swallowing:

sickness

vomiting

thirst

cyanosis

cramps

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

Foam

Fire-extinguishing powder

Carbon dioxide (CO₂)
5.2 Special hazards arising from the substance or mixture

Formation of toxic gases is possible during heating or in case of fire.

Can be released in case of fire:

Nitrogen oxides (NO_x)

Carbon monoxide (CO)

Sulphur dioxide (SO₂)nitrogen oxides (NO_x)
5.3 Advice for firefighters
Protective equipment:

Wear self-contained breathing apparatus.

Wear full protective suit.

Additional information

Collect contaminated fire fighting water separately. It must not enter drains.

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Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.
Ambient fire may liberate hazardous vapours.

* SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
 - **6.2 Environmental precautions:** Do not allow product to reach sewage system or water bodies.
 - **6.3 Methods and material for containment and cleaning up:**
Dispose of contaminated material as waste according to item 13.
Collect mechanically.
Ensure adequate ventilation.
 - **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 information on disposal.
-

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** Thorough dedusting.
 - **Information about protection against explosions and fires:**
Protect from heat.
Keep ignition sources away - Do not smoke.
 - **7.2 Conditions for safe storage, including any incompatibilities**
 - **Storage**
 - **Requirements to be met by storerooms and containers:** Store in cool location.
 - **Information about storage in one common storage facility:** Not required.
 - **Further information about storage conditions:**
Keep container tightly sealed.
Protect from heat and direct sunlight.
Store under dry conditions.
Protect from humidity and keep away from water.
Protect from the effects of light.
 - **Recommended storage temperature:** 20 °C +/- 5 °C
 - **Storage class** 11
 - **7.3 Specific end use(s)** No further relevant information available.
-

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **8.1 Control parameters**
- **Components with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **8.2 Exposure controls**
- **Personal protective equipment**
- **General protective and hygienic measures**
Avoid contact with the eyes and skin.
Do not eat, drink or smoke while working.
- **Breathing equipment:** Use breathing protection against the effects of fumes/dust/aerosol.
- **Recommended filter device for short term use:** Filter P2
- **Protection of hands:**
Preventive skin protection by use of skin-protecting agents is recommended.
After use of gloves apply skin-cleaning agents and skin cosmetics.
- **Material of gloves**
nitrile rubber, NBR
Recommended thickness of the material: ≥ 0.11 mm
- **Penetration time of glove material**
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
Value for the permeation: Level = 1 (< 10 min)

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- **Eye protection:** Tightly sealed safety glasses.
- **Body protection:** Protective work clothing.

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties	
· Appearance:	
Form:	Tablets
Colour:	White
· Odour:	Odourless
· pH-value (9.5 g/l) at 20 °C:	10.2
· Melting point/Melting range:	Not determined
· Boiling point/Boiling range:	Not determined
· Flash point:	Not determined
· Danger of explosion:	The following applies in general to flammable organic substances / preparations: Dust explosion possible if in powder or granular form (fine distribution), mixed with air.
· Density	Not determined
· Vapour density	Not applicable.
· Evaporation rate	Not applicable.
· Solubility in / Miscibility with Water:	Soluble
· Solvent content:	
Organic solvents:	0.0 %
Solids content:	100.0 %
· 9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

- **Reactivity**
- **Thermal decomposition / conditions to be avoided:** To avoid thermal decomposition do not overheat.
- **Possibility of hazardous reactions** Risk of dust explosion if enriched with fine dust in presence of air
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** oxidizing agents
- **Hazardous decomposition products:** see chapter 5

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity:**
Quantitative data on the toxicity of the preparation are not available.
The following statements refer to the individual components.
- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritant effect.
- **Sensitisation:** No sensitizing effect known.
- **Additional toxicological information:** chronic: dermatitis
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)** no data available

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.

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Other information:

Quantitative data on the ecological effect of this product are not available.

The following statements refer to the individual components.

CAS-No. 77-86-1: 89% / 28d (Merck - OECD 301 D)

· **12.3 Bioaccumulative potential** No further relevant information available.

Behaviour in environmental systems:

· **12.4 Mobility in soil** No further relevant information available.

Additional ecological information:
General notes:

Water danger class 3 (German Regulation) (Self-assessment acc. VwVwS Annex 4): extremely hazardous for water.

Do not allow product to reach ground water, water bodies or sewage system, even in small quantities.

Danger to drinking water if even extremely small quantities leak into soil.

· **12.5 Results of PBT and vPvB assessment** no data available

· **vPvB assessments:** no data available

· **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods
Recommendation

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Hand over to disposers of hazardous waste.

European waste catalogue

16 05 08*	discarded organic chemicals consisting of or containing dangerous substances
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Uncleaned packagings:

· **Recommendation:** Disposal must be made according to official regulations.

· **Recommended cleaning agent:** Water, if necessary with cleaning agent.

* SECTION 14: Transport information

14.1 UN-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 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

Transport/Additional information:

Not dangerous according to the above specifications.

SECTION 15: Regulatory information

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

· **Information about limitation of use:** Employment restrictions concerning young persons must be observed.

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· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

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.

· **Relevant phrases**

H315 Causes skin irritation.

H319 Causes serious eye irritation.

R36/38 Irritating to eyes and skin.

· **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)

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organisation

ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)

EC50: effective concentration, 50 percent (in vivo)

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

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

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

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

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

· **Sources** Data arise from reference works and literature.

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

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