

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 06.06.2012 Version : 12.1

Revision: 06.06.2012

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

- Trade name** Dentatec
- Application of the substance / the preparation** Milling additive
- 1.3 Details of the supplier of the safety data sheet**
- Manufacturer/Supplier:** Supplier: SIRONA Dental Systems GmbH
Fabrikstraße 31
D-64625 Bensheim

<http://www.sirona.de>

Telefon: +49(0)6251/16-3440
Telefax: +49(0)6251/16-2935

Manufacturer: Graichen Produktions-und Vertriebs-GmbH
Darmstädterstraße 127-129
D-64625 Bensheim
- Informing department:** Environment protection department
- 1.4 Emergency telephone number:** Advice centre for poisoning university Mainz phone +49(0)6131/19240
or poison information: +49(0)700/GIFTINFO

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2 Hazards identification

- 2.1 Classification according to Directive 67/548/EEC or Directive 1999/45/EC**
-  **Xi; Irritant**
R36/38: Irritating to eyes and skin.
-  **Xi; Sensitising**
R43: May cause sensitisation by skin contact.
- Information concerning particular hazards for human and environment:** The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
- Classification system:** The classification is in line with current EC lists. It is expanded, however, by information from technical literature and by information furnished by supplier companies.
- 2.2 Label elements**
- Labelling according to EU guidelines:** The product has been classified and labelled in accordance with EC Directives / Ordinance on Hazardous Materials (GefStoffV)
- Code letter and hazard designation of product:**  **Xi Irritant**
- Hazard-determining components of labelling:** mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)
- Risk phrases:** 36/38 Irritating to eyes and skin.
43 May cause sensitisation by skin contact.
- Safety phrases:** 24/25 Avoid contact with skin and eyes.
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
36/37 Wear suitable protective clothing and gloves.
46 If swallowed, seek medical advice immediately and show this container or label.
64 If swallowed, rinse mouth with water (only if the person is conscious).
- 2.3 Other hazards**
- Results of PBT and vPvB assessment**
- PBT:** Not applicable.

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. vPvB: Not applicable.

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3 Composition/information on ingredients

. 3.2 Chemical characterization: Mixtures

. Description: Milling additive

. Dangerous components:

CAS: 52-51-7 bronopol (INN) < 2.5%

EINECS: 200-143-0  Xn R21/22;  Xi R37/38-41;  N R50

CAS: 55965-84-9 mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2-isothiazol-3-one [EC no. 220-239-6] (3:1) < 2.5%

 T R23/24/25;  C R34;  Xi R43;  N R50/53

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4 First aid measures

. 4.1 Description of first aid measures

. General information: Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

Position and transport in a stable posture on side.

. After inhalation: Supply fresh air; consult doctor in case of symptoms.

. After skin contact: If skin irritation continues, consult a doctor.

Instantly wash with water and soap and rinse thoroughly.

. After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult doctor.

. After swallowing: Rinse out mouth and then drink plenty of water.

Instantly call for doctor.

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

No further relevant information available.

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

No further relevant information available.

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5 Firefighting measures

. 5.1 Extinguishing media

. Suitable extinguishing agents: CO₂, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.

. For safety reasons unsuitable extinguishing agents

Water with a full water jet.

. 5.2 Special hazards arising from the substance or mixture

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

Sulphur dioxide (SO₂)

Hydrogen chloride (HCl)

Nitrogen oxides (NO_x)

Carbon monoxide (CO)

Carbondioxid (CO₂)

Hydrogenbromide (HBr)

. 5.3 Advice for firefighters

. Protective equipment: Wear self-contained breathing apparatus.

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6 Accidental release measures

. 6.1 Personal precautions, protective equipment and emergency procedures

Use breathing protection against the effects of fumes/dust/aerosol.

. 6.2 Environmental precautions:

Do not allow to enter drainage system, surface or ground water.

. 6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Ensure adequate ventilation.

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- . **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.

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7 Handling and storage

- . **7.1 Precautions for safe handling** No special precautions necessary if used correctly.
- . **Information about protection against explosions and fires:** No special measures required.
- . **7.2 Conditions for safe storage, including any incompatibilities**
- . **Storage**
- . **Requirements to be met by storerooms and containers:** Store only in the original container.
- . **Information about storage in one single storage facility:** Store away from food.
- . **Further information about storage conditions:** Store container in a well ventilated position.
- . **7.3 Specific end use(s)** Milling additive

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8 Exposure controls/personal protection

- . **Additional information about design of technical systems:** No further data; see item 7.

. 8.1 Control parameters

- . **Components with critical values that require monitoring at the workplace:**

56-81-5 glycerol

WEL Long-term value: 10 mg/m³

- | CAS No. | Designation of material | % | Type | Value | Unit |
|---------|---|---|---------|---------------------------------------|-----------------------------|
| | Additional Occupational Exposure Limit Values for possible hazards during processing: | | Country | Components | Categorie mg/m ³ |
| | | | Germany | 2-methyl-4-isothiazolin-3-on | MAK 0,05 |
| | | | | 5-chloro-2-methyl-4-isothiazolin-3-on | MAK 0,05 |

- . **Additional information:**

The lists that were valid during the compilation were used as basis.

. 8.2 Exposure controls

- . **Personal protective equipment**
- . **General protective and hygienic measures**

Keep away from foodstuffs, beverages and food.
Instantly remove any soiled and impregnated garments.
Wash hands during breaks and at the end of the work.
Do not inhale gases / fumes / aerosols.
Avoid contact with the eyes and skin.

- . **Breathing equipment:**

Not required.

- . **Protection of hands:**

Protective gloves.

- . **Material of gloves**

Nitrile rubber, NBR

- . **Penetration time of glove material** Recommended thickness of the material: ≥ 0,7 mm

Value for the permeation: Level ≥ 0,7 mm 480 min (8h)EN 374

The determined penetration times according to EN 374 part III are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.

- . **Not suitable are gloves made of the following materials:**

Natural rubber, NR
PVA gloves

- . **Eye protection:**

Tightly sealed safety glasses.

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9 Physical and chemical properties

- . 9.1 Information on basic physical and chemical properties
- . General Information
- . Appearance:
 - Form: Fluid
 - Colour: Colourless
- . Smell: Characteristic
- . Odour threshold: Not determined.
- . pH-value at 20°C: > 4
- . Change in condition
 - Melting point/Melting range: Not determined
 - Boiling point/Boiling range: 100°C
- . Flash point: 101°C
- . Inflammability (solid, gaseous) Not applicable.
- . Ignition temperature: 400°C
- . Decomposition temperature: Not determined.
- . Self-inflammability: Product is not selfigniting.
- . Danger of explosion: Not determined.
- . Critical values for explosion:
 - Lower: Not determined.
 - Upper: Not determined.
- . Steam pressure at 20°C: 0.1 hPa
- . Density at 20°C 1.23238 g/cm³
- . Relative density Not determined.
- . Vapour density Not determined.
- . Evaporation rate Not determined.
- . Solubility in / Miscibility with Water: Fully miscible
- . Segregation coefficient (n-octanol/water): Not determined.
- . Viscosity:
 - dynamic: Not determined.
 - kinematic: Not determined.
- . 9.2 Other information No further relevant information available.

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10 Stability and reactivity

- . 10.1 Reactivity
- . 10.2 Chemical stability
- . Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- . 10.3 Possibility of hazardous reactions
 - Forms explosive gas mixture with air
 - Reacts with strong oxidizing agents
- . 10.4 Conditions to avoid No further relevant information available.
- . 10.5 Incompatible materials: oxidizing agents
- . 10.6 Hazardous decomposition products:
 - Hydrogen chloride (HCl)
 - Nitrous vitriol gases
 - Sulphur dioxide

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11 Toxicological information

11.1 Information on toxicological effects

Acute toxicity:

LD/LC50 values that are relevant for classification:

Toxicological information (External MSDS)

2-Brom-2-nitropropan-1,3-diol: Acute toxicity, oral :254 mg/kg rat.

Acute toxicity, dermal :>1600 mg/kg

mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H

-isothiazol-3-one [EC no. 220-239-6] (3:1):

Acute toxicity, oral :457 mg/kg rat.

Acute toxicity, dermal :>2000 mg/kg rat.

Acute toxicity, dermal :660 mg/kg rabbit.

Primary irritant effect:

on the skin:

Irritant for skin and mucous membranes.

on the eye:

irritant

Sensitization:

Sensitization possible by skin contact.

Additional toxicological information:

The product shows the following dangers according to the calculation method of the General EC Classification Guidelines for Preparations as issued in the latest version:

Irritant

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12 Ecological information

12.1 Toxicity

Aquatic toxicity:

2-Brom-2-nitropropan-1,3-diol

Aquatic toxicity LC50: 96h:41.2 mg/l *Oncorhynchus mykiss*LC50: 96h:35.7 mg/l *Lepomis macrochirus*EC50:48h:1.4 mg/l *Daphnia magna*EC50:72h:0.4 mg/l *Pseudokirchneriella subcapitata*EC50:16h:>50 mg/l *Pseudomonas putida*

mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H

-isothiazol-3-one [EC no. 220-239-6] (3:1)

Aquatic toxicity LC50: 96h:0.19 mg/l *Oncorhynchus mykiss*LC50: 96h:0.28 mg/l *Lepomis macrochirus*EC50:48h:0.16 mg/l *Daphnia magna*EC50:72h:0.018 mg/l *Pseudokirchneriella subcapitata*EC50:16h:5.7 mg/l *Pseudomonas putida*

12.2 Persistence and degradability

No further relevant information available.

12.3 Bioaccumulative potential

No further relevant information available.

12.4 Mobility in soil

No further relevant information available.

Additional ecological information:

General notes:

Water hazard class 2 (Self-assessment): hazardous for water.

Do not allow product to reach ground water, water bodies or sewage system.

12.5 Results of PBT and vPvB assessment

PBT:

Not applicable.

vPvB:

Not applicable.

12.6 Other adverse effects

No further relevant information available.

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13 Disposal considerations

13.1 Waste treatment methods

Recommendation:

Must be specially treated under adherence to official regulations.

Uncleaned packagings:

Recommendation:

Dispose of packaging according to regulations on the disposal of packagings.

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14 Transport information

- . 14.1 UN-Number
. ADR, ADN, IATA Void
- . 14.2 UN proper shipping name
. ADR, ADN, IATA Void
- . 14.3 Transport hazard class(es)
. ADR, ADN, IATA
. Class Void
- . 14.4 Packing group
. ADR, 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 MARPOL 73/78 and the IBC Code Not applicable.
- . Transport/Additional information: Not dangerous according to the above specifications.

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15 Regulatory information

- . 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- . National regulations:

Class	Share in %
Water	2,5-10
NK	50-100
- . Water hazard class: Water hazard class 2 (Self-assessment): hazardous for water.
- . 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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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.

- . Department issuing data specification sheet: Environment protection department.
- . * Data compared to the previous version altered.