

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 02.11.2017

Version number 1801

Revision: 02.11.2017

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

1.1 Product identifier

- Trade name: **Kühlmittel CEREC SpeedFire**
- Article number: 3000-0137
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- Sector of Use SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites
- Product category PC16 Heat transfer fluids
PC25 Metal working fluids
PC37 Water treatment chemicals
- Environmental release category ERC2 Formulation into mixture
ERC4 Use of non-reactive processing aid at industrial site (no inclusion into or onto article)
ERC7 Use of functional fluid at industrial site
- Application of the substance / the mixture Heat transfer fluid
Kühlmittel

1.3 Details of the supplier of the safety data sheet

- Manufacturer/Supplier: SIRONA Dental Systems GmbH
Fabrikstraße 31
D-64625 Bensheim
Germany
<http://www.sirona.de>
Tel.: +49 (0) 6251/16-1670
Fax: +49 (0) 6251/16-1818

Manufacturer: Graichen Produktions-und Vertriebs-GmbH
Darmstädterstraße 127-129
D-64625 Bensheim
Germany
Tel.: +49 6251 73103
Fax: +49 6251 77901
E-Mail: ehs@graichen-bensheim.de
www.graichen.net

- Further information obtainable from: 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

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

- Classification according to Regulation (EC) No 1272/2008
STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.

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



GHS08

- Signal word Warning

- Hazard-determining components of labelling: ethanediol
- Hazard statements H373 May cause damage to organs through prolonged or repeated exposure.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P314 Get medical advice/attention if you feel unwell.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
- Precautionary statements EUH208 Contains mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2Hisothiazol-3-one [EC no. 220-239-6] (3:1). May produce an allergic reaction.
- Additional information:

2.3 Other hazards

- Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

- **3.2 Chemical characterisation: Mixtures** watery solution of salts, stabilizers and preservatives

Dangerous components:

CAS: 107-21-1 EINECS: 203-473-3	ethanediol STOT RE 2, H373; Acute Tox. 4, H302	50-100%
CAS: 55965-84-9	mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2Hisothiazol-3-one [EC no. 220-239-6] (3:1) Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331; Skin Corr. 1B, H314; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Skin Sens. 1, H317	<2.5%

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· Additional information: For the wording of the listed hazard phrases refer to section 16.

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SECTION 4: First aid measures

· 4.1 Description of first aid measures

- General information: Do not leave affected persons unattended.
- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact: Generally the product does not irritate the skin.
- After eye contact: Seek medical treatment.
- After swallowing: Rinse out mouth and then drink plenty of water.

· 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.

SECTION 5: Firefighting measures

· 5.1 Extinguishing media

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

- For safety reasons unsuitable extinguishing agents: Water with full jet

· 5.2 Special hazards arising from the substance or mixture

No further relevant information available.

· 5.3 Advice for firefighters

- Protective equipment: No special measures required.

SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Use respiratory protective device against the effects of fumes/dust/aerosol. Wear protective clothing. Avoid breathing dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Dilute with plenty of water.

· 6.2 Environmental precautions:

· 6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose contaminated material as waste according to item 13. Ensure adequate ventilation.

· 6.4 Reference to other sections

See Section 8 for information on personal protection equipment. See Section 13 for disposal information.

SECTION 7: Handling and storage

· 7.1 Precautions for safe handling

No special precautions are necessary if used correctly.

- Information about fire - and explosion protection:

No special measures required.

· 7.2 Conditions for safe storage, including any incompatibilities

- Storage:

- Requirements to be met by storerooms and receptacles:

No special requirements.

- Information about storage in one common storage facility:

Store away from foodstuffs.

- Further information about storage conditions:

Store receptacle in a well ventilated area.

· 7.3 Specific end use(s)

No further relevant information available.

SECTION 8: Exposure controls/personal protection

- Additional information about design of technical facilities:

No further data; see item 7.

· 8.1 Control parameters

- Ingredients with limit values that require monitoring at the workplace:

107-21-1 ethanediol

WEL	Short-term value: 104** mg/m ³ , 40** ppm
	Long-term value: 10* 52** mg/m ³ , 20** ppm
	Sk *particulate **vapour

- DNELs

107-21-1 ethanediol

Dermal	DNEL Long-term - systemic effects	106 mg/kg bw/day (---)
Inhalative	DNEL Long-term - systemic effects	35 mg/m ³ (---)
	DNEL Long-term - local effects	35 mg/m ³ (---)

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· PNECs

107-21-1 ethanediol

PNEC Soil (Boden)	1.53 mg/kg (---)
PNEC Fresh water sediment (Süßwassersediment)	20.9 mg/kg (---)
PNEC freshwater (Süßwasser)	10 mg/l (---)
PNEC marine water (Meerwasser)	1 mg/l (---)

· Additional information: The lists valid during the making were used as basis.

8.2 Exposure controls

· Personal protective equipment:
· General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.
Not required.

· Respiratory protection:
· Protection of hands:

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

· Material of gloves

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· 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.

· Eye protection:

Goggles recommended during refilling

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties**

· General Information

· Appearance:

Form:	Liquid
Colour:	Colourless
· Odour:	Characteristic
· Odour threshold:	Not determined.

· pH-value at 20 °C: 9

· Change in condition

Initial boiling point and boiling range: 100 °C

· Flash point: Not applicable.

· Flammability (solid, gas): Not applicable.

· Ignition temperature: 410 °C

· Decomposition temperature: Not determined.

· Auto-ignition temperature: Product is not selfigniting.

· Explosive properties: Not determined.

· Explosion limits:

Lower:	3,2 Vol %
Upper:	53,0 Vol %

· Vapour pressure at 20 °C: 23 hPa

· Density at 20 °C: 1,067 g/cm³

· Relative density: Not determined.

· Vapour density: Not determined.

· Evaporation rate: Not determined.

· Solubility in / Miscibility with water:

Fully miscible.

· Partition coefficient: n-octanol/water: Not determined.

· Viscosity:

Dynamic: Not determined.

· Solvent content:

Organic solvents:	0,0 %
Water:	47,3 %

· **9.2 Other information** 1.3857**SECTION 10: Stability and reactivity**· **10.1 Reactivity** No further relevant information available.

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- **10.2 Chemical stability**
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** Hazardous thermal decomposition products may include: Formaldehyde, Carbon dioxide, Carbon monoxide, Methanol

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- Acute toxicity Based on available data, the classification criteria are not met.

- LD/LC50 values relevant for classification:

107-21-1 ethanediol

Oral	LD50	5,840 mg/kg (rat)
Dermal	LD50	9,530 mg/kg (rabbit)

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

Oral	LD50	550 mg/kg (rat)
Dermal	LD50	200-1,000 mg/kg (rat)
		660 mg/kg (rabbit)
Inhalative	LC50/4h	0.31 mg/l (rat)

- Primary irritant effect:
- Skin corrosion/irritation Based on available data, the classification criteria are not met.
- Serious eye damage/irritation Based on available data, the classification criteria are not met.
- Respiratory or skin sensitisation Based on available data, the classification criteria are not met.

- Subacute to chronic toxicity:

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

Oral	NOAEL (subchronisch, 90d)	<5 mg/kg (rat)
Dermal	NOAEL (subchronisch, 28d)	<3 mg/kg (rat)

- CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
- Germ cell mutagenicity Based on available data, the classification criteria are not met.
- Carcinogenicity Based on available data, the classification criteria are not met.
- Reproductive toxicity Based on available data, the classification criteria are not met.
- STOT-single exposure Based on available data, the classification criteria are not met.
- STOT-repeated exposure May cause damage to organs through prolonged or repeated exposure.
- Aspiration hazard Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- **12.1 Toxicity**

107-21-1 ethanediol

Bacteria ISO 8192	1,995 mg/l (Bacteria)
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- Aquatic toxicity:

107-21-1 ethanediol

EC50 (48h)	>100 mg/l (daphnia magna/gr. Wasserfloh)
EC50 (96h)	6,500 mg/l (Desmodesmus subspicatus/Grünalge)
LC50 (96h)	72,860 mg/l (Fish)
NOEC	8,590 mg/l / 7d (daphnia magna/gr. Wasserfloh)
NOEC (Fish)	15,380 mg/l / 7d (Fish)

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

LC50 acute (96h)	0.58 mg/l (danio rerio/ Zebraabärbling)
EC50 (48h)	0.16 mg/l (daphnia magna/gr. Wasserfloh)
EC50 (72h)	0.018 mg/l (Desmodesmus subspicatus/Grünalge)
	0.379 mg/l (Pseudokirchnerella subcapitata - Algen)
EC50 (96h)	0.166 mg/l (Pseudokirchnerella subcapitata - Algen)
EC50 (16h)	5.7 mg/l (Pseudomonas putida)
LC50 (96h)	0.19 mg/l (Oncorhynchus mykiss)
EC50 acute (21d)	>1 mg/l (daphnia magna/gr. Wasserfloh)
EC50 acute (48h)	1.02 mg/l (daphnia magna/gr. Wasserfloh)
EC50 chron. (3h)	31.7 mg/l (Mikroorganismus)
LOEL chron. (34d)	1.6 mg/l (danio rerio/ Zebraabärbling)
NOEC chron. (34d)	0.5 mg/l (danio rerio/ Zebraabärbling)

- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.

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- **12.4 Mobility in soil** No further relevant information available.
- Additional ecological information:
- General notes: Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course 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.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods** Dispose of contents/container in accordance with local/regional/national/international regulations.
- Uncleaned packaging:
- Recommendation: Non contaminated packagings may be treated like household garbage.
- Recommended cleansing agents: Water, if necessary together with cleansing agents.

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 Marpol and the IBC Code** Not applicable.
- UN "Model Regulation": Void

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- Directive 2012/18/EU
- Named dangerous substances - ANNEX I None of the ingredients is listed.
- REGULATION (EC) No 1907/2006
- ANNEX XVII Conditions of restriction: 3
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Department issuing SDS: Environment protection department.
- Abbreviations and acronyms:
 - 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)
 - DNEL: Derived No-Effect Level (REACH)
 - PNEC: Predicted No-Effect Concentration (REACH)
 - LC50: Lethal concentration, 50 percent
 - LD50: Lethal dose, 50 percent
 - PBT: Persistent, Bioaccumulative and Toxic
 - vPvB: very Persistent and very Bioaccumulative
 - Acute Tox. 3: Acute toxicity – Category 3
 - Acute Tox. 4: Acute toxicity – Category 4
 - Skin Corr. 1B: Skin corrosion/irritation – Category 1B
 - Skin Sens. 1: Skin sensitisation – Category 1
 - STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2
 - Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
 - Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1
- * Data compared to the previous version altered.