

Safety Data Sheet

acc. to OSHA HCS

Printing date 11/02/2017

Reviewed on 11/02/2017

1 Identification

- **Product identifier**

- Trade name: **Kühlmittel CEREC SpeedFire**
- Article number: 3000-0137
- Application of the substance / the mixture: Heat transfer fluid

- **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)6251/16-1670
Telefax:+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

- Information department: Environment protection department
- Emergency telephone number: Advice centre for poisoning university Mainz phone +49(0)6131/19240
or poison information:+49(0)700/GIFTINFO

2 Hazard(s) identification

- **Classification of the substance or mixture**

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.

- **Label elements**

- GHS label elements
- Hazard pictograms

The product is classified and labeled according to the Globally Harmonized System (GHS).



GHS08

- Signal word
- Hazard statements
- Precautionary statements

Warning
May cause damage to organs through prolonged or repeated exposure.
Do not breathe dust/fume/gas/mist/vapors/spray.
Get medical advice/attention if you feel unwell.
Dispose of contents/container in accordance with local/regional/national/
international regulations.

- NFPA ratings (scale 0 - 4)



Health = 0
Fire = 0
Reactivity = 0

- HMIS-ratings (scale 0 - 4)



HEALTH 0 Health = 0
FIRE 0 Fire = 0
REACTIVITY 0 Reactivity = 0

- **Other hazards**

- Results of PBT and vPvB assessment
- PBT:
- vPvB:

Not applicable.
Not applicable.

3 Composition/information on ingredients

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

- **Dangerous components:**

107-21-1	ethanediol	Acute Tox. 4, H302	50-100%
----------	------------	--------------------	---------

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

4 First-aid measures

- **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.
- Information for doctor:
- Most important symptoms and effects, both acute and delayed: No further relevant information available.

Safety Data Sheet

acc. to OSHA HCS

Printing date 11/02/2017

Reviewed on 11/02/2017

Trade name: Kühlmittel CEREC SpeedFire

(Contd. of page 1)

- Indication of any immediate medical attention and special treatment needed No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- Suitable extinguishing agents: CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- For safety reasons unsuitable extinguishing agents: Water with full jet
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- Protective equipment: No special measures required.

6 Accidental release measures

- **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.
- **Environmental precautions:** Dilute with plenty of water.
- **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.
- **Reference to other sections** See Section 8 for information on personal protection equipment. See Section 13 for disposal information.
- **Protective Action Criteria for Chemicals**

- PAC-1:

107-21-1	ethanediol	30 ppm
110-91-8	morpholine	30 ppm
1310-58-3	potassium hydroxide	0.18 mg/m ³

- PAC-2:

107-21-1	ethanediol	150 ppm
110-91-8	morpholine	1,300 ppm
1310-58-3	potassium hydroxide	2 mg/m ³

- PAC-3:

107-21-1	ethanediol	900 ppm
110-91-8	morpholine	8000** ppm
1310-58-3	potassium hydroxide	54 mg/m ³

7 Handling and storage

- **Handling:**
- Precautions for safe handling No special precautions are necessary if used correctly.
- Information about protection against explosions and fires: No special measures required.
- **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.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

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

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

107-21-1 ethanediol

TLV	Short-term value: 10** mg/m ³ , 50* ppm Long-term value: 25* ppm *vapor fraction:**inh. fraction, aerosol only
-----	---

- Additional information: The lists that were valid during the creation were used as basis.

(Contd. on page 3)

US

Safety Data Sheet

acc. to OSHA HCS

Printing date 11/02/2017

Reviewed on 11/02/2017

Trade name: Kühlmittel CEREC SpeedFire

(Contd. of page 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.

- Breathing equipment:
- 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.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- Material of gloves

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.

9 Physical and chemical properties

· Information on basic physical and chemical properties

- General Information

- Appearance:

Form:	Liquid
Color:	Colorless
Odor:	Characteristic
Odor threshold:	Not determined.

- pH-value at 20 °C (68 °F):

9

- Change in condition

Boiling point/Boiling range:	100 °C (212 °F)
------------------------------	-----------------

- Flash point:

Not applicable.

- Flammability (solid, gaseous):

Not applicable.

- Ignition temperature:

410 °C (770 °F)

- Decomposition temperature:

Not determined.

- Auto igniting:

Product is not selfigniting.

- Danger of explosion:

Not determined.

- Explosion limits:

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

- Vapor pressure at 20 °C (68 °F):

23 hPa (17.3 mm Hg)

- Density at 20 °C (68 °F):

1,067 g/cm³ (8.9041 lbs/gal)

- Relative density

Not determined.

- Vapor 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 %

- Other information

1.3857

10 Stability and reactivity

- Reactivity

No further relevant information available.

- Chemical stability

- Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

- Possibility of hazardous reactions

No dangerous reactions known.

- Conditions to avoid

No further relevant information available.

- Incompatible materials:

No further relevant information available.

- Hazardous decomposition products:

No dangerous decomposition products known.

(Contd. on page 4)

US

Safety Data Sheet

acc. to OSHA HCS

Printing date 11/02/2017

Reviewed on 11/02/2017

Trade name: Kühlmittel CEREC SpeedFire

(Contd. of page 3)

11 Toxicological information

Information on toxicological effects

Acute toxicity:

LD/LC50 values that are relevant for classification:

107-21-1 ethanediol

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

Primary irritant effect:

on the skin:

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

on the eye:

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

Sensitization:

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

Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations:
Harmful

Carcinogenic categories

IARC (International Agency for Research on Cancer)

110-91-8 | morpholine

3

NTP (National Toxicology Program)

None of the ingredients is listed.

OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12 Ecological information

Toxicity

107-21-1 ethanediol

Bacteria ISO 8192 | 1,995 mg/l (Bacteria)

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)

Persistence and degradability

No further relevant information available.

Behavior in environmental systems:

Bioaccumulative potential

No further relevant information available.

Mobility in soil

No further relevant information available.

Additional ecological information:

General notes:

Water hazard class 1 (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.

Results of PBT and vPvB assessment

PBT:

Not applicable.

vPvB:

Not applicable.

Other adverse effects

No further relevant information available.

13 Disposal considerations

Waste treatment methods

Dispose of contents/container in accordance with local/regional/national/international regulations.

Uncleaned packagings:

Recommendation:

Non contaminated packagings can be treated like household garbage.

Recommended cleansing agent:

Water, if necessary with cleansing agents.

14 Transport information

UN-Number

DOT, ADR, ADN, IMDG, IATA

Void

UN proper shipping name

DOT, ADR, ADN, IMDG, IATA

Void

Transport hazard class(es)

DOT, ADR, ADN, IMDG, IATA

Class

Void

Packing group

DOT, ADR, IMDG, IATA

Void

Environmental hazards:

Marine pollutant:

No

(Contd. on page 5)

Safety Data Sheet

acc. to OSHA HCS

Printing date 11/02/2017

Reviewed on 11/02/2017

Trade name: Kühlmittel CEREC SpeedFire

(Contd. of page 4)

- **Special precautions for user** Not applicable.
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.
- **UN "Model Regulation":** Void

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- Sara

· Section 355 (extremely hazardous substances):
None of the ingredients is listed.

· Section 313 (Specific toxic chemical listings):

107-21-1 ethanediol

52-51-7 bronopol (INN)

· TSCA (Toxic Substances Control Act):

107-21-1 ethanediol

110-91-8 morpholine

135043-69-5 Hexanoic acid, 6,6',6''-(1,3,5-triazine-2,4,6-triyltriimino)tris-, tripotassium salt

52-51-7 bronopol (INN)

Ethanol,2,2'-[(2-heptadecyl-4(5H)-oxazolylidene)bis(methyleneoxy-2,1-ethanediolyoxy)]bis-

2492-26-4 sodium benzothiazol-2-yl sulphide

1310-58-3 potassium hydroxide

7732-18-5 Wasser (water, Aqua)

- TSCA new (21st Century Act) (Substances not listed)
- Proposition 65

· Chemicals known to cause cancer:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

107-21-1 ethanediol

· Carcinogenic categories

· EPA (Environmental Protection Agency)

None of the ingredients is listed.

· TLV (Threshold Limit Value established by ACGIH)

107-21-1 ethanediol

A4

110-91-8 morpholine

A4

· MAK (German Maximum Workplace Concentration)

None of the ingredients is listed.

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

· GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms



GHS08

· Signal word

Warning

· Hazard statements

May cause damage to organs through prolonged or repeated exposure.

· Precautionary statements

Do not breathe dust/fume/gas/mist/vapors/spray.

Get medical advice/attention if you feel unwell.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Chemical safety assessment:**

A Chemical Safety Assessment has not been carried out.

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.

· **Date of preparation / last revision**

11/02/2017 / 1800

· **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

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

(Contd. on page 6)

US

Safety Data Sheet
acc. to OSHA HCS

Printing date 11/02/2017

Reviewed on 11/02/2017

Trade name: Kühlmittel CEREC SpeedFire

(Contd. of page 5)

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)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
Acute Tox. 4: Acute toxicity – Category 4
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

. * Data compared to the previous version altered.

US