

# Safety Data Sheet

## acc. to OSHA HCS

Printing date 04/01/2021

Reviewed on 04/01/2021

### 1 Identification

**Product identifier**

Trade name: **CEREC SpeedFire**  
 Article number: 3010-0681, 5360-0565  
 Application of the substance / the mixture: Heat transfer fluid

**Details of the supplier of the safety data sheet**

Manufacturer/Supplier: Dentsply Sirona Deutschland GmbH  
 Fabrikstraße 31  
 64625 Bensheim  
 Deutschland  
<https://www.dentsplysirona.com>  
 Tel.: +49 (0) 6251/16-1670  
 Hersteller:  
 Graichen Produktions- und Vertriebs-GmbH  
 Darmstädter Str. 127  
 D-64625 Bensheim  
 Germany  
 T: +49 6251 7707880  
 Mail: [ehs@graichen-bensheim.de](mailto:ehs@graichen-bensheim.de)

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 the kidneys through prolonged or repeated exposure.

**Label elements**

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

Hazard pictograms



GHS08

Signal word

Warning

Hazard-determining components of labeling:

ethanediol

Hazard statements

May cause damage to the kidneys 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.

**Information pertaining to particular dangers for man and environment:**

NFPA ratings (scale 0 - 4)



Health = 0

Fire = 0

Reactivity = 0

HMIS-ratings (scale 0 - 4)



Health = 1

Fire = 0

Reactivity = 0

**Other hazards**

Results of PBT and vPvB assessment

PBT:

Not applicable.

vPvB:

Not applicable.

### 3 Composition/information on ingredients

**Chemical characterization:**

**Mixtures** watery solution of salts, stabilizers and preservatives

Dangerous components:

CAS: 107-21-1 | ethanediol

STOT RE 2, H373; 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.

(Contd. on page 2)

US

# Safety Data Sheet

## acc. to OSHA HCS

Printing date 04/01/2021

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**Trade name: CEREC SpeedFire**

(Contd. of page 1)

- . Information for doctor:
- . Most important symptoms and effects, both acute and delayed      No further relevant information available.
- . Indication of any immediate medical attention and special treatment needed      No further relevant information available.

### 5 Fire-fighting measures

- . **Extinguishing media**
- . Suitable extinguishing agents:      CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- . For safety reasons unsuitable extinguishing agents:      Full jet water
- . **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:

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

##### . PAC-2:

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

##### . PAC-3:

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

### 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**
- . 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.

(Contd. on page 3)

US

# Safety Data Sheet

## acc. to OSHA HCS

Printing date 04/01/2021

Reviewed on 04/01/2021

Trade name: CEREC SpeedFire

(Contd. of page 2)

**Control parameters**

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

**CAS: 107-21-1 ethanediol (50 – 100%)**

TLV	Short-term value: 10** mg/m <sup>3</sup> , 50* ppm Long-term value: 25* ppm *vapor fraction:**inh. fraction, aerosol only
WEEL	I (2)

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

**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.

. Breathing equipment:

Not required.

. 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): 7.8 – 8.7

. 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:	15.3 Vol %

. Vapor pressure at 25 °C (77 °F): 0.1 hPa

. Density at 20 °C (68 °F): 1.058 – 1.068 g/cm<sup>3</sup> (8.829 – 8.9125 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 %
VOC content:	0.03 %
VOC (EU) (%)	0.0 %

Solids content: 0.0 %

(Contd. on page 4)

# Safety Data Sheet

## acc. to OSHA HCS

Printing date 04/01/2021

Reviewed on 04/01/2021

Trade name: CEREC SpeedFire

(Contd. of page 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.

### 11 Toxicological information

#### . Information on toxicological effects

##### . Acute toxicity:

. LD/LC50 values that are relevant for classification:

#### ATE (Acute Toxicity Estimate)

Oral	LD50	3,804 mg/kg (rat)
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#### CAS: 107-21-1 ethanediol

Oral	LD50	2,001 mg/kg (rat) 10,600 mg/kg (rabbit)
Dermal	LD50	> 2,000 mg/kg (rabbit)
Inhalative	LC50/6h	> 2.5 mg/l (rat)

##### . Primary irritant effect:

- . on the skin: No irritant effect.
- . on the eye: No irritating effect.
- . Sensitization: No sensitizing effects known.

. 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)

CAS: 110-91-8 | morpholine

3

. NTP (National Toxicology Program)

None of the ingredients is listed.

. OSHA-Ca (Occupational Safety &amp; Health Administration)

None of the ingredients is listed.

### 12 Ecological information

#### . Toxicity

##### . Aquatic toxicity:

#### CAS: 107-21-1 ethanediol

EC50 (48h)	> 100 mg/l (daphnia magna/gr. Wasserfloh) > 100 mg/l (Daphnie)
EC50 (96h)	6,500 mg/l (Desmodesmus subspicatus/Grünalge)
EC50 (16h)	10,000 mg/l (Pseudomonas putida)
LC50 (96h)	72,860 mg/l (Fish) 18,500 mg/l (Oncorhynchus mykiss)
Toxizität gegenüber Fischen ((chron. Toxizität)	15,380 mg/l (Fish)
Toxizität gegenüber Bakterien	> 1,995 mg/l (Bacteria) (Method)
NOEC	> 100 mg/l
NOEC (7d)	8,590 mg/l (daphnia magna/gr. Wasserfloh) 15,380 mg/l (Fish)
NOEC (10d)	15,380 mg/l (Fish)

##### . Persistence and degradability

#### CAS: 107-21-1 ethanediol

Biodegradability 28d | 56 % (Ready Biodegradability)

##### . Behavior in environmental systems:

##### . Bioaccumulative potential

#### CAS: 107-21-1 ethanediol

Log Kow | -1.3

(Contd. on page 5)

US

# Safety Data Sheet

## acc. to OSHA HCS

Printing date 04/01/2021

Reviewed on 04/01/2021

**Trade name: CEREC SpeedFire**

(Contd. of page 4)

- . 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

- |  |                 |
|--|-----------------|
| . <b>UN-Number</b>   | Void            |
| . DOT, ADR, ADN, IMDG, IATA  | Void            |
| . <b>UN proper shipping name</b>   | Void            |
| . DOT, ADR, ADN, IMDG, IATA  | Void            |
| . <b>Transport hazard class(es)</b>  | Void            |
| . DOT, ADR, ADN, IMDG, IATA  | Void            |
| . Class  | Void            |
| . <b>Packing group</b>   | Void            |
| . DOT, ADR, IMDG, IATA   | Void            |
| . <b>Environmental hazards:</b>  |                 |
| . Marine pollutant:  | No              |
| . <b>Special precautions for user</b>  | Not applicable. |
| . <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b> | Not applicable. |
| . <b>UN "Model Regulation":</b>  | Void            |

### 15 Regulatory information

- . **Safety, health and environmental regulations/legislation specific for the substance or mixture** No further relevant information available.
- . Sara

. Section 355 (extremely hazardous substances):

None of the ingredients is listed.

. Section 313 (Specific toxic chemical listings):

CAS: 107-21-1 ethanediol

CAS: 52-51-7 bronopol (INN)

. TSCA (Toxic Substances Control Act):

CAS: 107-21-1 ethanediol

ACTIVE

CAS: 7732-18-5 Wasser (water, Aqua)

ACTIVE

CAS: 110-91-8 morpholine

ACTIVE

CAS: 1934-21-0 tartrazine

ACTIVE

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

ACTIVE

CAS: 52-51-7 bronopol (INN)

ACTIVE

CAS: 1310-58-3 potassium hydroxide

ACTIVE

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

ACTIVE

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

ACTIVE

. Hazardous Air Pollutants

CAS: 107-21-1 ethanediol

. 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.

(Contd. on page 6)

US

# Safety Data Sheet


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**Trade name: CEREC SpeedFire**

(Contd. of page 5)

. Chemicals known to cause reproductive toxicity for males:		
None of the ingredients is listed.		
. Chemicals known to cause developmental toxicity:		
CAS: 107-21-1	ethanediol	
. Carcinogenic categories		
. EPA (Environmental Protection Agency)		
None of the ingredients is listed.		
. TLV (Threshold Limit Value)		
CAS: 107-21-1	ethanediol	A4
CAS: 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-determining components of labeling:	ethanediol	
. Hazard statements	May cause damage to the kidneys 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.	
. <b>Chemical safety assessment:</b>	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.

. <b>Department issuing SDS:</b>	Environment protection department.
. <b>Contact:</b>	
. Date of preparation / last revision	04/01/2021 / 2101
. Abbreviations and acronyms:	ADR: Accord relatif au transport international 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 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) VOC: Volatile Organic Compounds (USA, EU) 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.