

DIA-ROOT BIO Sealer

Safety Data Sheet

1. PRODUCT AND MANUFACTURER INFORMATION

A. Product name	DIA-ROOT BIO Sealer
B. Recommended use of the product and restrictions on its use	
Recommend use of the product	Root canal filler, endodontic, sealer
Restrictions on use of the product	Use by specialists
C. Supplier information (For imported goods, enter the information of the domestic supplier that can be contacted urgently)	
Name of company	DiaDent Group International
Address	16, Osongsaengmyeong 4-ro, Osong-eup, Heungdeok-gu, Cheongju-si, Chungcheongbuk-do, Republic of Korea
Emergency contact number	82-43-266-2315

2. Hazards identification

- A. Type of hazard • danger Serious eye damage / eye irritation : Class2
- B. Warning sign items including preventive action statements

Pictorial symbol



GHS07

Signal words

Danger

Hazard statements

H302 Harmful if swallowed

H317 May cause an allergic skin reaction

H319 Causes serious eye irritation

Precautionary Statements

Prevention

P270 Do not eat, drink or smoke when using this product.

P280 Wear protective gloves / protective clothing / eye protection / face protection.

Response

P301+P312 If swallowed, get medical attention.

P305+P351+P338 If in eyes : Rinse cautiously with water for several minutes. If possible, remove the contact lenses. Keep washing.

P330 Rinse mouth.

P337+P313 If eye irritation persists, get medical advice / attention.

Storage

Store in a dry, cool place (15-25 °C/ 59-77 °F, relative humidity below 60%).

Disposal

P501 Dispose of contents container (according to the description in the related regulation).

Calcium silicate	
Health	1
Fire	0
Responsive	0
Calcium aluminate	
Health	1
Fire	N/A
Responsive	0
Ytterbium trifluoride	
Health	N/A
Fire	N/A
Responsive	N/A
Zirconium dioxide	
Health	0
Fire	1
Responsive	0
Hydrophobic amorphous fumed silica	
Health	1
Fire	0
Responsive	0
Hydroxypropyl methylcellulose	
Health	1
Fire	1
Responsive	0
Polyethylene glycol 400	
Health	0
Fire	1
Responsive	0
Polyethylene glycol 200	
Health	0
Fire	1
Responsive	0
Polyoxyethylene (20) sorbitan monooleic acid	
Health	0
Fire	1
Responsive	0
Light mineral oil	
Health	0
Fire	1
Responsive	0

3. Composition/information of ingredient

Names of ingredients	Synonym	CAS No.	Content(%)
Calcium silicate	Silicic acid (H ₂ SiO ₃), Calcium salt (1:1)	-	0~5
Calcium aluminate	Calcium aluminate	65997-16-2	20~50
Ytterbium trifluoride	Ytterbium trifluoride	13760-80-0	10~40
Zirconium dioxide	Zirconium dioxide	1314-23-4	0~10
Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica	Hydrophobic amorphous fumed silica	68909-20-6	0.01~5
Hydroxypropyl methylcellulose	Cellulose, 2-hydroxypropyl methyl ether	9004-65-3	0.1~10
Polyethylene glycol 400	Polyethylene glycol 400	25322-68-3	5~20
Polyethylene glycol 200	Polyethylene glycol 200	25322-68-3	0~10
Polyoxyethylene (20) sorbitan monooleic acid	Sorbitan, mono-9-octadecenate, poly (oxy-1,2-ethanedil) DERIVS.,	9005-65-6	0~10
Light mineral oil	White mineral oil (PETROLEUM)	8042-47-5	0~5

4. First aid measures

- | | |
|------------------------------|--|
| A. When entered into eyes | If in eyes : Rinse cautiously with water for several minutes. If possible, remove the contact lenses.
If eye irritation persists, get medical advice / attention.
Get urgent medical attention |
| B. When contacted with skin | In case of contact with material, rinse skin and eyes immediately with running water for at least 20 minutes.
Prevent spread of contaminated areas in case of minor skin contact |
| C. When inhaled | Move to fresh air. If you do not feel well, consult a doctor.
Keep warm and stable
If swallowed, get medical attention. |
| D. When eaten | Rinse mouth.
In case of inhalation or inhalation of substances, do not use artificial respiration by oral cavity method and use appropriate respiratory medical equipment. |
| E. Other medical precautions | Ensure medical personnel are aware of the material and take protective measures. |

5. Fire fighting measures

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|--|---|
| A. A suitable (improper) extinguishing agent | Use alcohol foam, carbon dioxide or water spray.
Use dry sand or earth for asphyxiation. |
| B. Specific hazards arising from chemicals | Pyrolysis or combustion may produce irritating and very toxic gases while burning.
Container may explode when heated
Some can burn but do not ignite easily.
Inflammable, the material itself does not burn, but may decompose on heating to produce corrosive / toxic fumes |
| C. Special protective equipment and precautions for firefighters | Rescuers should wear appropriate protective equipment.
Extinguish area to keep safe |

6. Accidental release measures

Avoid inhalation and wipe up spills.

7. Handling and storage

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|---------------------------|--|
| Safe handling and storage | Store in a dry, cool place (relative humidity below 60%).
Store at 15~25°C/59~77°F.
Use sanitary gloves and tools at the treatment site.
Do not eat or inhale this product.
Only use by professionals. |
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8. Exposure controls/personal protection

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|---------------------------------------|--|
| A. Appropriate engineering management | In case of generating dust, fume or mist, ventilate to keep air pollution below exposure standard. |
| B. Personal protective equipments | Wear respiratory protection and gloves. |

9. Physical/chemical properties

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|-------------------|----------|
| A. Appearance | |
| Appearance | Paste |
| Color | White |
| B. Odor | Odorless |
| C. Odor threshold | No data |

D. pH (in water)	> 10
E. Melting point / Freezing point	No data
F. Initial boiling point and boiling point range	No data
G. Flash point	No data
H. Evaporation rate	No data
I. Flammability (Solid, gas)	No data
J. Upper / lower limit of ignition or explosion	No data
K. Vapor pressure	No data
L. Solubility	0.95%
M. Vapor density	No data
N. Specific gravity	2.5
O. n-octanol / water partition coefficient	No data
P. Natural ignition temperature	No data
Q. Decomposition temperature	No data
R. Viscosity	57cP(at 25°C)
S. Molecular Weight	No data

10. Stability and reactivity

A. Chemical stability and possibility of hazardous reaction	No data
B. Conditions to avoid	Avoid direct moisture exposure.

11. Toxicological Information

Oral mucosa irritation	No significant clinical signs was observed(hamster).
Maximization Sensitization	No significant clinical signs was observed.
Acute systemic toxicity	No significant clinical signs was observed(Mouse).
Bacterial reverse mutation	No significant clinical signs was observed.
Mammalian erythrocyte micronucleus	No significant clinical signs was observed.
In vitro mammalian chromosomal aberration	No significant clinical signs was observed.
Pyrogen	No significant clinical signs was observed.

12. Environmental impact

No ecological problems to be anticipated if properly handled and used.

13. Disposal considerations

A. Disposal method	Dispose of contents container (according to the description in the related regulation).
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14. Information necessary for transportation

A. UN No. DOT, ADR, IMDG, IATA	Not a regulated substance.
B. Proper shipping name DOT, ADR, IMDG, IATA	Not a regulated substance.
C. Hazard class in transportation DOT, ADR, IMDG, IATA	Not a regulated substance.

D. Container grade Not a regulated substance.

DOT, ADR, IMDG, IATA

E. Marine Pollutant No data

F. Special safeguards you need or need to know about transportation or transportation

Protect from water.

Product is not classified as a dangerous good for transport.

15. Legal Regulation

This product is classified as a medical device by the National Food and Drug Administration (KFDA).

This product does not need to be classified as dangerous.

16. Other notes

The above mentioned data correspond to our present state of knowledge and experience. The safety data sheet serves as description of the products in regard to necessary safety measures. The indications do not have the meaning of guarantees on properties.

A. Original Date Dec. 02, 2019

B. Number of revisions and date of last revision

Revision count 0 times

Last revision date Dec. 02, 2019

C. Other

○ The information and recommendations are taken from sources (raw material SDS(s) and manufacturer's knowledge) believed to be accurate and reliable. It is intended to describe the product according to various safety requirements; however, the manufacturer makes no warranty with respect to the accuracy and completeness of the information or the suitability of the recommendation and assumes no liability to any user thereof.