

DIA-ROOT BIO MTA

Safety Data Sheet

1. PRODUCT AND MANUFACTURER INFORMATION

A. Product name	DIA-ROOT BIO MTA
B. Recommended use of the product and restrictions on its use	
Recommend use of the product	Pulp capping
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, Osongsaeangmyeong 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	Skin corrosion / Skin irritation : Class2 Serious eye damage / eye irritation : Class2 Respiratory sensitization : Class1 Skin sensitization : Class1
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B. Warning sign items including preventive action statements

Pictorial symbol



GHS07

GHS08

Signal words

Danger

Hazard statements

H315 Causes skin irritation
H317 May cause an allergic skin reaction
H319 Causes serious eye irritation
H334 Inhalation may cause allergic reactions, asthma or shortness of breath

Precautionary Statements

prevention

P261 Avoid inhalation of (dust, fume, gas, mist, vapor, spray).
P264 Wash thoroughly after handling.
P272 Do not take contaminated clothing out of the workplace.
P280 Wear protective gloves / protective clothing / eye protection / face protection.
P284 In case of inadequate ventilation wear respiratory protection.

Response

P302+P352 If on skin : Wash with plenty of water.
P304+P340 If inhaled, remove to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338 If in eyes : Rinse cautiously with water for several minutes. If possible, remove the contact lenses. Keep washing.
P332+P313 If skin irritation occurs : Get medical advice / attention.
P333+P313 If skin irritation or erythema develops, get medical advice / attention.
P337+P313 If eye irritation persists, get medical advice / attention.
P342+P311 If respiratory symptoms occur, get medical attention.
P362+P364 Take off contaminated clothing and wash before reuse.

storage	N/A
Disposal	P501 Dispose of contents container (according to the description in the related regulation).
Calcium silicate	
Health	1
Fire	0
Responsive	0
Zirconium dioxide	
Health	0
Fire	1
Responsive	0
Hydrophobic amorphous fumed silica	
Health	1
Fire	0
Responsive	0
Citric acid	
Health	3
Fire	1
Responsive	0
Hydroxypropyl methylcellulose	
Health	1
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)	-	50~80
Zirconium dioxide	Zirconium dioxide	1314-23-4	20~50
Citric acid	2-Hydroxy-1,2,3-propanetricarboxylic acid	77-92-9	0.01~5
Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica	Hydrophobic amorphous fumed silica	68909-20-6	0.1~10
Hydroxypropyl methylcellulose	Cellulose, 2-hydroxypropyl methyl ether	9004-65-3	0.01~5

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.
B. When contacted with skin	If skin irritation or erythema develops, get medical advice / attention. In case of contact with material, rinse skin and eyes immediately with running water for at least 20 minutes.
C. When inhaled	Move to fresh air. If you do not feel well, consult a doctor. If breathing is difficult, give oxygen and give artificial respiration.
D. When eaten	Rinse mouth and consult a doctor if you are not feeling well.
E. Other medical precautions	Ensure medical personnel are aware of the material and take protective measures

5. Fire fighting measures

- | | |
|--|---|
| 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.
Some can burn but do not ignite easily. |
| 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 2 ~ 27 °C / 35 ~ 80 °F.
Use sanitary gloves and tools at the treatment site.
Do not eat or inhale this product.
Only use by professionals. |
|---------------------------|---|

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 | Powder |
| 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 | No data |
| M. Vapor density | No data |
| N. Specific gravity | about 0.65 |
| O. n-octanol / water partition coefficient | No data |
| P. Natural ignition temperature | No data |
| Q. Decomposition temperature | No data |
| R. Viscosity | No data |
| 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).

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).

14. Information necessary for transportation

- A. UN No. Not a regulated substance.
DOT, ADR, IMDG, IATA
- B. Proper shipping name Not a regulated substance.
DOT, ADR, IMDG, IATA
- C. Hazard class in transportation Not a regulated substance.
DOT, ADR, IMDG, IATA
- 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 Aug. 30, 2019
- B. Number of revisions and date of last revision
Revision count 0 times
Last revision date Aug. 30, 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.