

## SAFETY DATA SHEETS

**This SDS packet was issued with item:**

071394782

N/A

# Dia-X Bond Universal

## Material Safety Data Sheet

### 1. PRODUCT AND MANUFACTURER INFORMATION

|                                                                                                                             |                                                               |
|-----------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|
| A. Product Name                                                                                                             | Dia-X Bond Universal                                          |
| B. Recommended use of the product and restrictions on its use                                                               |                                                               |
| Recommend use of the product                                                                                                | Universal dental bonding agent                                |
| 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-gil Osong saengmyung 4-ro, Heungdeok-gu, Chungbuk Cheongju |
| Emergency contact number                                                                                                    | 043-266-2315                                                  |

### 2. HAZARDS IDENTIFICATION

A. Type of Hazard-Danger The material is contraindicated if a person is known to be allergic to any of the ingredients of the product.

B. Warning sign items including preventive action statements

Pictorial symbol



Signal words

Danger(GHS08, GHS07, GHS02)

### 3. COMPOSITION/INFORMATION ON INGREDIENT

| Names of ingredients                   | Synonym                                      | CAS No.      | Content (%) |
|----------------------------------------|----------------------------------------------|--------------|-------------|
| 10-MDP                                 | 10-Metacryloyloxydethyl dihydrogen phosphate | 1207736-18-2 | 10~20       |
| HEMA                                   | 2-Hydroxy ethyl methacrylate                 | 86877-9      | 15~20       |
| Bis[2-(methacryloyloxy)ethyl]phosphate | Bis(methacryloxyethyl)hydrogen phosphate     | 32435-46-4   | 1~2         |
| 3-(trimethoxysilyl)propyl methacrylate | 3-(Methacryloyloxy)propyltrimethoxysilane    | 2530-85-0    | 10~15       |
| TMPTMA                                 |                                              | 3290-92-4    | 5~10        |
| BisGMA/TEGDMA Monomer blend            |                                              | 1565-94-2    | 30~35       |
| Polyethylene glycol dimethacrylate     | PEGDMA                                       | 25852-47-5   | 3~5         |
| Diphenyliodonium hexafluorophosphate   |                                              | 58109-40-3   | 0~0.5       |
| CQ                                     | (±)-camphorquinone                           | 10373-78-1   | 1~2         |
| ethyl alcohol                          | Ethanol                                      | 64-17-5      | 5~10        |
| tert-butylhydroquinone                 |                                              | 1948-33-0    | 0~0.2       |

### 4. FIRST AID MEASURES

|                           |                                                                                                                                           |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| A. When entered into eyes | Seek medical attention.<br>In case of contact with substance, immediately wash skin and eyes with running water for more than 20 minutes. |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|

|                              |                                                                                |
|------------------------------|--------------------------------------------------------------------------------|
| B. When contacted with skin  | Wash the skin with soap and water.                                             |
| C. When inhaled              | Move to a place with fresh air. If you are not feeling well, consult a doctor. |
| D. When consumed             | It does not occur in proper use.                                               |
| E. Other medical precautions | Have medical personnel perceive the material and take protective measures.     |

## 5. FIRE FIGHTING MEASURES

|                                              |                             |
|----------------------------------------------|-----------------------------|
| A. a suitable (improper) extinguishing agent | Water fog, Dry powder, foam |
| B. specific hazards arising from chemicals   | Does not occur              |

## 6. ACIDENTAL RELEASE MEASURES

Absorb liquid and wash contaminated area with detergent and water.

## 7. HANDLING AND STORAGE

|                           |                                                                                                                                                                                              |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Safe handling and storage | Use for only professional personnel.<br>Use sanitary gloves and tools at the place of treatment.<br>Do not consume or inhale the product.<br>Store at 2~27°C/35~80<br>Avoid direct sunlight. |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

|                                       |                                                                                                            |
|---------------------------------------|------------------------------------------------------------------------------------------------------------|
| A. Appropriate engineering management | Use local exhaust or do other engineering management to control the air level below the exposure standard. |
| B. Personal protective equipments     | safety goggles and gloves                                                                                  |

## 9. PHYSICAL/CHEMICAL PROPERTIES

|                                                  |              |
|--------------------------------------------------|--------------|
| A. External                                      |              |
| Composition                                      | Liquid       |
| Color                                            | Clear Yellow |
| B. Odor                                          | No data      |
| C. Odor Threshold                                | No data      |
| D. pH                                            | 2.2±0.2      |
| 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. Vaport density                                | No data      |
| N. density                                       | 1.26g/ml     |
| 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 | Not applicable                                                                  |
| B. Conditions to avoid                                      | Avoid direct light or water exposure. If exposed to light, yellowing may occur. |

## 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. ECOLOGICAL INFORMATION

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

## 13. DISPOSAL CONSIDERATION

|                     |                                                                      |
|---------------------|----------------------------------------------------------------------|
| A. Disposal methods | Dispose of contents container (according to applicable regulations). |
|---------------------|----------------------------------------------------------------------|

## 14. TRANSPORT INFORMATION

|                                                                                                               |                                                                                                    |
|---------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| A. UN No.<br>DOT, ADR, IMDG, IATA                                                                             | Not a regulated substance.                                                                         |
| B. Proper shipment name<br>DOT, ADR, IMDG, IATA                                                               | Not a regulated substance.                                                                         |
| C. Risk level in transportation<br>DOT, ADR, IMDG, IATA                                                       | Not a regulated substance.                                                                         |
| D. Container level<br>DOT, ADR, IMDG, IATA                                                                    | Not a regulated substance.                                                                         |
| E. Marine pollutants                                                                                          | Not applicable.                                                                                    |
| F. Special safety measures required or required by the user to know regarding transport or means of transport | Protect from water, heat or light.<br>Product is not classified as a dangerous good for transport. |

## 15. REGULATORY INFORMATION

The product is a medical device according to the EC-directive 93/42/EEC.  
This product is classified as a medical device under KFDA, FDA.  
This product does not require classification as Dangerous Goods.

## 16. OTHER INFORMATION

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. Date of initial preparation                    | 2021-07-26 |
| B. Number of revisions and date of final revision |            |
| Number of revisions                               | 0          |
| Date of final revision                            | 2021-07-26 |
| C. Others                                         |            |

○ The Material Safety and Health Data (MSDS) is edited and partially modified based on the MSDS provided by the Korea Occupational Safety and Health Agency.