



# Tokuyama Dental Corporation

## MATERIAL SAFETY DATA SHEET

( According to 91/155/EEC and OSHA regulation 29 CFR 1910.120Q( g ))

<p><b>1. Identification of substance</b></p>	<p><b>TOKUYAMA M-Bond Primer A</b></p>
Product name	Primer for adhesive resin cement, For dental professionals only
Description of Product	<b>Tokuyama Dental Corporation</b> 38-9, Taitou 1-chome, Taitou-ku, Tokyo, Japan
Manufacturer	<b>Tokuyama Europe GmbH</b> Oststrasse 10, 40211 Dusseldorf, Germany Tel:+49 211 1754480, Fax:+49 211 357379
EC Representative (Emergency Contact in EU)	<b>Tokuyama America, Inc.</b> California Tel: (650) 571 8872 Tel: (877) 378 3548 (Dental Toll-Free)
North America	

<p><b>2. Composition / Data on components</b></p>	<p>Ingredients % CAS.NO Symbols R-phrases OSHA PEL</p>
Acetone	48 67-64-1 - F R11 2400mg/m <sup>3</sup>
Composition of Methacrylates	- - - - - N/E
Isopropanol	52 67-63-0 F R11 980mg/m <sup>3</sup>
Phosphoric acid monomer	- - - - - N/E

<p><b>3. Hazard identification</b></p>	<p>Highly flammable. Repeated prolonged contact may cause skin inflammation.</p>
<p><b>4. First aid measures</b></p>	<p>After skin contact Wash with soap and plenty of water. After eye contact Wash immediately with plenty of water. Get medical attention. After swallowing Induce drinking plenty of water and get medical attention.</p>

<p><b>5. Fire fighting measures</b></p>	<p>Suitable extinguishing media Chemical foam, carbon dioxide or dry chemical Media not to be used None Combustion products and resulting gases Irritant gas may be released during heating or in case of fire. Special precaution firefighters Use protective clothing and a self-contained breathing apparatus.</p>
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<p><b>6. Accidental release measures</b></p>	<p>Personal protection Not required Environmental protection Do not empty into drains. Methods for cleaning up Clean up with an inert absorbent and dispose of it at special waste collection point.</p>
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<p><b>7. Handling and storage</b></p>	<p>Handling Use only in well ventilated areas. Storage Store in a cool, dark place (0 - 10 ).</p>
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<p><b>8. Exposure controls / personal protection</b></p>	<p>In general Not required Respiration protection Not required Hand protection Wear suitable protective gloves. Eye protection Wear suitable protective glasses. Skin protection Wear suitable protective clothing.</p>
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<p><b>9. Physical and chemical properties</b></p>	<p>Appearance Slight blue liquid Odour Characteristic Odour pH Acidic Boiling point N/A Melting point N/A Flash point - 16.5 Flammability Highly flammable Autoflammability N/A</p>	<p>Explosive properties N/A Oxidizing properties None Vapor pressure N/A Relative density N/A Solubility(water) N/A Solubility(Solvent) N/A Partition coefficient N/A Others -</p>
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<p><b>10. Stability and reactivity</b></p>	<p>Conditions to avoid Heat, sparks and open flames Materials to avoid Strong oxidizing agents Hazardous reactions Incomplete thermal decomposition may cause toxic gases.</p>
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<p><b>11. Toxicological information</b></p>	<p>Inhalation Irritation of respiratory organs Ingestion Slight irritation of digesting organs Skin contact Slight irritation, defatting action, repeated prolonged contact may cause inflammation. Eye contact Irritation, redness, pain Carcinogenicity N/R Others</p>	<p>Biodegradability N/A Bioaccumulative N/A Aquatic toxicity N/A Others</p>
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<p><b>13. Disposal consideration</b></p>	<p>Disposal must be made according to federal, state and local regulations.</p>
<p><b>14. Transport information</b></p>	<p>UN number 1090 Classification 3 (IATA, CFR49) Packing group II (IATA, CFR49) Air transport Sea transport Highly flammable. Inland transport See section 2 and 9.</p>

<p><b>15. Regulatory information</b></p>	<p>Marking according to EU regulatons 67/548/EEC, 92/32/EEC</p>
Contains	Acetone
Symbols	F: Flammable
R-phrases	R11: Highly flammable
S-phrases	S9: Keep container in a well-ventilated place. S16: Keep away from sources of ignition - No smoking. S23: Do not breath vapor. S33: Take precautionary measures against static discharges.
Others	R and S-phrases are not marked according to contents not more than 125ml and the case not related to the general public (Article 23 "Labeling "- 3).

<p><b>16. Other information</b></p>	<p>The information which is contained in this document is based on available data. However, as such has been obtained from various sources, including independent laboratories, it is given without warranty or representation that is complete, accurate and can be relied upon. Tokuyama Dental Corp. has not attempted to conceal in any way the deleterious aspects of the product listed herein, but makes no warranty as to such.</p>
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<p><b>1. Identification of substance</b></p>	<p><b>TOKUYAMA M-Bond Primer B</b></p>
Description of Product	Primer for adhesive resin cement, For dental professionals only
Manufacturer	<b>Tokuyama Dental Corporation</b> 38-9, Taitou 1-chome, Taitou-ku, Tokyo, Japan
EC Representative (Emergency Contact in EU)	<b>Tokuyama Europe GmbH</b> Oststrasse 10, 40211 Dusseldorf, Germany Tel:+49 211 1754480, Fax:+49 211 357379
North America	<b>Tokuyama America, Inc.</b> California Tel: (650) 571 8872 Tel: (877) 378 3548 (Dental Toll-Free)

<p><b>2. Composition / Data on components</b></p>	<p>Ingredients % CAS.NO Symbols R-phrases OSHA PEL</p>
Water	58 - - - - - N/E
Acetone	35 67-64-1 F R11 2400mg/m <sup>3</sup>
Initiator	- - - - - N/E
Borate	7 - - - - - N/E

<p><b>3. Hazard identification</b></p>	<p>Highly flammable. Repeated prolonged contact may cause skin inflammation.</p>
<p><b>4. First aid measures</b></p>	<p>After skin contact Wash with soap and plenty of water. After eye contact Wash immediately with plenty of water. Get medical attention. After swallowing Induce drinking plenty of water and get medical attention.</p>

<p><b>5. Fire fighting measures</b></p>	<p>Suitable extinguishing media Chemical foam, carbon dioxide or dry chemical Media not to be used None Combustion products and resulting gases Irritant gas may be released during heating or in case of fire. Special precaution firefighters Use protective clothing and a self-contained breathing apparatus.</p>
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<p><b>6. Accidental release measures</b></p>	<p>Personal protection Not required Environmental protection Do not empty into drains. Methods for cleaning up Clean up with an inert absorbent and dispose of it at special waste collection point.</p>
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<p><b>7. Handling and storage</b></p>	<p>Handling Use only in well ventilated areas. Storage Store in a cool, dark place(0 - 10 )</p>
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<p><b>8. Exposure controls / personal protection</b></p>	<p>In general Not required Respiration protection Not required Hand protection Wear suitable protective gloves. Eye protection Wear suitable protective glasses. Skin protection Wear suitable protective clothing.</p>
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<p><b>9. Physical and chemical properties</b></p>	<p>Appearance Transparent liquid Odour Characteristic Odour pH Neutral Boiling point N/A Melting point N/A Flash point - 9.5 Flammability Highly flammable Autoflammability N/A</p>	<p>Explosive properties N/A Oxidizing properties None Vapor pressure N/A Relative density N/A Solubility(water) N/A Solubility(Solvent) N/A Partition coefficient N/A Others -</p>
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<p><b>10. Stability and reactivity</b></p>	<p>Conditions to avoid Heat, sparks and open flames Materials to avoid Strong oxidizing agents Hazardous reactions Incomplete thermal decomposition may cause toxic gases.</p>
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<p><b>11. Toxicological information</b></p>	<p>Inhalation Irritation of respiratory organs Ingestion Slight irritation of digesting organs Skin contact Slight irritation, defatting action, repeated prolonged contact may cause inflammation. Eye contact Irritation, redness, pain Carcinogenicity N/R Others</p>	<p>Biodegradability N/A Bioaccumulative N/A Aquatic toxicity N/A Others</p>
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<p><b>13. Disposal consideration</b></p>	<p>Disposal must be made according to federal, state and local regulations.</p>
<p><b>14. Transport information</b></p>	<p>UN number 1090 Classification 3 (IATA, CFR49) Packing group II (IATA, CFR49) Air transport Sea transport Highly flammable. Inland transport See section 2 and 9.</p>

<p><b>15. Regulatory information</b></p>	<p>Marking according to EU regulations 67/548/EEC, 92/32/EEC</p>
Contains	Acetone
Symbols	F: Flammable
R-phrases	R11: Highly flammable
S-phrases	S9: Keep container in a well-ventilated place. S16:Keep away from sources of ignition - No smoking. S23: Do not breath vapor. S33: Take precautionary measures against static discharges. R and S-phrases are not marked according to contents not more than 125ml and the case not related to the general public (Article 23 "Labeling" - 3).

<p><b>16. Other information</b></p>	<p>The information which is contained in this document is based on available data. However, as such has been obtained from various sources, including independent laboratories, it is given without warranty or representation that is complete, accurate and can be relied upon. Tokuyama Dental Corp. has not attempted to conceal in any way the deleterious aspects of the product listed herein, but makes no warranty as to such.</p>
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<p><b>1. Identification of substance</b></p>	<p><b>TOKUYAMA M-Bond Powder</b></p>
Description of Product	Adhesive Resin Cement, For dental professionals only
Manufacturer	<b>Tokuyama Dental Corporation</b> 38-9, Taitou 1-chome, Taitou-ku, Tokyo, Japan
EC Representative (Emergency Contact in EU)	<b>Tokuyama Europe GmbH</b> Oststrasse 10, 40211 Dusseldorf, Germany Tel:+49 211 1754480, Fax:+49 211 357379
North America	<b>Tokuyama America, Inc.</b> California Tel: (650) 571 8872 Tel: (877) 378 3548 (Dental Toll-Free)

<p><b>2. Composition / Data on components</b></p>	<p>Clear, Ivory, Dentin</p>
Ingredients % CAS.NO Symbols R-phrases OSHA PEL	
Poly methyl methacrylate	92 9011-14-7 - - - N/E
Benzoyl peroxide	2 94-36-0 E, Xi R: 2-7-36-43 5 mg/m <sup>3</sup>

<p><b>3. Hazard identification</b></p>	<p>Opaque dentin (Radiopaque), Opaque ivory (Radiopaque)</p>
Ingredients	% CAS.NO Symbols R-phrases OSHA PEL
Poly methyl methacrylate	92 9011-14-7 - - - N/E
Zirconium oxide	1314-23-4 - - - N/E
Benzoyl peroxide	1 94-36-0 E, Xi R: 2-7-36-43 5 mg/m <sup>3</sup>

<p><b>3. Hazard identification</b></p>	<p>Repeated prolonged contact may cause skin inflammation.</p>
<p><b>4. First aid measures</b></p>	<p>After skin contact Wash with soap and plenty of water. After eye contact Wash immediately with plenty of water. Get medical attention. After swallowing Induce vomiting immediately. Get medical attention.</p>

<p><b>5. Fire fighting measures</b></p>	<p>Suitable extinguishing media Chemical foam, carbon dioxide or dry chemical Media not to be used None Combustion products and resulting gases Irritant gas may be released during heating or in case of fire. Special precaufon firefighters Use protective clothing and a self-contained breathing apparatus.</p>
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<p><b>6. Accidental release measures</b></p>	<p>Personal protection Not required Environmental protection Not required Methods for cleaning up Clean up with an inert absorbent.</p>
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<p><b>7. Handling and storage</b></p>	<p>Handling Use only in well ventilated areas. Storage Store in a cool, dark place(0 - 10 )</p>
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<p><b>8. Exposure controls / personal protection</b></p>	<p>In general Not required Respiration protection Not required Hand protection Wear suitable protective gloves. Eye protection Wear suitable protective glasses. Skin protection Wear suitable protective clothing.</p>
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<p><b>9. Physical and chemical properties</b></p>	<p>Clear Ivory Dentin</p>	<p>White powder White powder Pale orange powder</p>	<p>Flammability Autoflammability Explosive properties</p>	<p>None None N/A</p>
Appearance	Opaque dentin (Radiopaque)	Pale orange powder	Oxidizing properties	N/A
Odour	N/A	None	Vapor pressure	N/A
pH	N/A	None	Relative density	N/A
Boiling point	None	None	Solubility(water)	None
Melting point	N/A	None	Solubility(Solvent)	N/A
Flash point	N/A	None	Partition coefficient	N/A
Others			Others	

<p><b>10. Stability and reactivity</b></p>	<p>Conditions to avoid Heat and open flames Materials to avoid Strong oxidizing agents Hazardous reactions Incomplete thermal decomposition may cause toxic gases.</p>
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<p><b>11. Toxicological information</b></p>	<p>Inhalation No irritating effect Ingestion Skin contact Repeated prolonged contact may cause inflammation. Eye contact Slight irritation Carcinogenicity N/R Others</p>	<p>Biodegradability N/A Bioaccumulative N/A Aquatic toxicity N/A Others</p>
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<p><b>13. Disposal consideration</b></p>	<p>Disposal must be made according to federal, state and local regulations.</p>		
<p><b>14. Transport information</b></p>	<p>UN number Classification Packing group Air transport Sea transport Inland transport</p>	<p>1247 3 (IATA, CFR49) II (IATA, CFR49) Highly flammable. See section 2 and 9.</p>	<p>Not subject to this section.</p>

<p><b>15. Regulatory information</b></p>	<p>Marking according to EU regulations 67/548/EEC, 92/32/EEC</p>
Contains	
Symbols	
R-phrases	
S-phrases	
Others	

<p><b>16. Other information</b></p>	<p>The information which is contained in this document is based on available data. However, as such has been obtained from various sources, including independent laboratories, it is given without warranty or representation that is complete, accurate and can be relied upon. Tokuyama Dental Corp. has not attempted to conceal in any way the deleterious aspects of the product listed herein, but makes no warranty as to such.</p>
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<p><b>1. Identification of substance</b></p>	<p><b>TOKUYAMA M-Bond Liquid</b></p>
Description of Product	Adhesive Resin Cement, For dental professionals only
Manufacturer	<b>Tokuyama Dental Corporation</b> 38-9, Taitou 1-chome, Taitou-ku, Tokyo, Japan
EC Representative (Emergency Contact in EU)	<b>Tokuyama Europe GmbH</b> Oststrasse 10, 40211 Dusseldorf, Germany Tel:+49 211 1754480, Fax:+49 211 357379
North America	<b>Tokuyama America, Inc.</b> California Tel: (650) 571 8872 Tel: (877) 378 3548 (Dental Toll-Free)

<p><b>2. Composition / Data on components</b></p>	<p>Ingredients % CAS.NO Symbols R-phrases OSHA PEL</p>
Methyl Methacrylate	65 80-62-6 F, Xi R 11-363738-43 100 ppm
Composition of Methacrylates	31 - - - - - N/E

<p><b>3. Hazard identification</b></p>	<p>Highly flammable. Irritant. Repeated prolonged contact may cause skin inflammation.</p>
<p><b>4. First aid measures</b></p>	<p>After skin contact Wash with soap and plenty of water. After eye contact Wash immediately with plenty of water. Get medical attention. After swallowing Induce drinking plenty of water and get medical attention.</p>

<p><b>5. Fire fighting measures</b></p>	<p>Suitable extinguishing media Chemical foam, carbon dioxide or dry chemical Media not to be used None Combustion products and resulting gases Irritant gas may be released during heating or in case of fire. Special precaution firefighters Use protective clothing and a self-contained breathing apparatus.</p>
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<p><b>6. Accidental release measures</b></p>	<p>Personal protection Not required Environmental protection Do not empty into drains. Methods for cleaning up Clean up with an inert absorbent and dispose of it at special waste collection point.</p>
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<p><b>7. Handling and storage</b></p>	<p>Handling Use only in well ventilated areas. Storage Store in a cool, dark place(0 - 10 )</p>
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<p><b>8. Exposure controls / personal protection</b></p>	<p>In general Not required Respiration protection Not required Hand protection Wear suitable protective gloves. Eye protection Wear suitable protective glasses. Skin protection Wear suitable protective clothing.</p>
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<p><b>9. Physical and chemical properties</b></p>	<p>Appearance Slight yellowish liquid Odour Characteristic Odour pH N/A Boiling point N/A Melting point N/A Flash point 14.5 Flammability Highly flammable Autoflammability N/A</p>	<p>Explosive properties N/A Oxidizing properties None Vapor pressure N/A Relative density N/A Solubility(water) N/A Solubility(Solvent) N/A Partition coefficient N/A Others</p>
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<p><b>10. Stability and reactivity</b></p>	<p>Conditions to avoid Heat, sparks and open flames Materials to avoid Strong oxidizing agents Hazardous reactions Incomplete thermal decomposition may cause toxic gases.</p>
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<p><b>11. Toxicological information</b></p>	<p>Inhalation Irritation of respiratory organs Ingestion Slight irritation of digesting organs Skin contact Slight irritation, defatting action, repeated prolonged contact may cause inflammation. Eye contact Irritation, redness, pain Carcinogenicity N/R Others</p>	<p>Biodegradability N/A Bioaccumulative N/A Aquatic toxicity N/A Others</p>
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<p><b>13. Disposal consideration</b></p>	<p>Disposal must be made according to federal, state and local regulations.</p>
<p><b>14. Transport information</b></p>	<p>UN number 1247 Classification 3 (IATA, CFR49) Packing group II (IATA, CFR49) Air transport Sea transport Highly flammable. Inland transport See section 2 and 9.</p>

<p><b>15. Regulatory information</b></p>	<p>Marking according to EU regulations 67/548/EEC, 92/32/EEC</p>
Contains	Methyl methacrylate
Symbols	F: Flammable Xi: Irritant
R-phrases	R11: Highly flammable R36/37/38: Irritating to eyes, respiratory system and skin. R43: May cause sensitization by skin contact. S2: Keep out of the reach of children. S9: Keep container in a well-ventilated place. S16: Keep away from sources of ignition -No smoking. S26: Do not empty into drains. S33: Take precautionary measures against static discharges.
S-phrases	
Others	R and S-phrases are not marked according to contents not more than 125ml and the case not related to the general public (Article 23 "Labeling" - 3).

<p><b>16. Other information</b></p>	<p>The information which is contained in this document is based on available data. However, as such has been obtained from various sources, including independent laboratories, it is given without warranty or representation that is complete, accurate and can be relied upon. Tokuyama Dental Corp. has not attempted to conceal in any way the deleterious aspects of the product listed herein, but makes no warranty as to such.</p>
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derebbe più difficile la pulizia. Se nel frattempo M-BOND indurisce, immergere il piattino miscelatore in acqua tiepida e pulire.

2) Immergere il puntalino del pennello monouso nel liquido del M-BOND e strofinarlo sopra il piattino miscelatore per rimuovere l'eventuale eccessivo assorbimento del prodotto.

23) Quando si segue la procedura di pennellatura, gettare la polvere ed il cemento rimasti dopo l'uso.

#### Conservazione

- Prima e dopo l'apertura: conservare M-BOND in frigorifero ad una temperatura compresa tra 0-10° C (32-50° F). Se il prodotto rimane per troppo tempo a temperatura ambiente, può deteriorarsi e non garantire una completa polimerizzazione.
- NON UTILIZZARE M-BOND dopo la data di scadenza.
- NON LASCIARE M-BOND alla portata dei pazienti o dei bambini.

#### Smaltimento

Lo smaltimento dei componenti di M-BOND dev'essere fatto seguendo le regole previste dalle leggi locali. È buona consuetudine comunque svuotare le bottette dal liquido rimasto facendolo assorbire da una carta assorbente e smaltire contenuti e contenitori separatamente.

\*Il produttore non è responsabile per danni o lesioni causate da un uso improprio di questo prodotto. È responsabilità personale dell'utilizzatore assicurarsi che il prodotto sia indicato all'uso che si intende fare.

\*Ogni modifica o indicazione può essere apporata dal produttore senza obbligo di notificazione.

## ESPAÑOL

Lea toda la información, advertencias y notas antes de usar M-BOND.

#### Contenido

Kit	Mini Kit		
Polvlo (transparente)	3 g	Polvlo (transparente)	1 g
Polvlo (marfil)	3 g	Polvlo (marfil)	1 g
Líquido	8 mL	Líquido	3 mL
Acondicionador A	3 mL	Acondicionador A	1 mL
Acondicionador B	3 mL	Acondicionador B	1 mL
Platillo de mezcla	1	Platillo de mezcla	1
Dosificador de polvo	1	Dosificador de polvo	1
Espátula	1	Espátula	1
Mango para pincel	2	Mango para pincel	2
Puntas de pincel desechables	50	Puntas de pincel desechables	50
Puntas de pincel desechables (para aplicación con pincel)	10	Puntas de pincel desechables (para aplicación con pincel)	10

Recambio			
Polvlo (transparente)	3 g	Líquido	8 mL
Polvlo (marfil)	3 g	Acondicionador A	3 mL
Polvlo (Dentina)	3 g	Acondicionador B	3 mL
Polvlo (Opaco ivory (radiopaco))	4 g	Puntas de pincel desechables	100
Polvlo (Opaco Dentina (radiopaco))	4 g		

Puntas de pincel desechables (para aplicación con pincel) 50 (+ Mango para pincel x 1)

#### Características

- Cemento de resina de tipo PMMA
- Elevada resistencia de la unión
- Excelente durabilidad de la adhesión
- Tiempo de manipulación amplio, 1 minuto 40 segundos a temperatura ambiente
- No es necesario lavar grancias al sistema de acondicionadores con autograbado

#### Composición

Descripción	Ingredientes pritarios		
Acondicionador A	ácido fosfórico monomérico / acetona		
Acondicionador B	agua / acetona / catalizador de borato		
Polvlo	PMMA / BPO		
Líquido	MMA / MAC-10 / monómeros de metacrilato / amina		

#### Uso clínico

Aplicaciones	Método de mezclado	Método de aplicación con pincel
Cementado de inlays, onlays y coronas de metal	A	A
Cementado de puentes colados / prefabricados	A	A
Cementado de resinas adhesivos / Maryland	A	A
Cementado de férulas adhesivas	A	A
Fijación de dientes con movilidad	N/A	A
Reconstrucción provisional de dientes con daños en el esmalte	N/A	A
Reconstrucción de dientes fracturados	N/A	A
Cementado de retenedores / brackets de ortodoncia	N/A	A

A: aplicable N/A: no aplicable

#### CONTRAINDICACIONES

M-BOND contiene monómeros metacrilicos. M-BOND está contraindicado en pacientes alérgicos o hipersensibles a los monómeros metacrilicos y similares y NO debe usarse en estos pacientes.

#### Aplicación clínica