SAFETY DATA SHEET
TOKUSO REBASE MR. BOND

1. IDENTIFICATION

Product Name: TOKUSO REBASE MR. BOND
Identified uses: Dental Adhesive. For dental professionals only.
Supplier: Tokuyama Dental America Inc.
Tel: (877) 378 3548 (Toll-Free)
Contact Person: http://www.tokuyama-dental.com/contact.htm
Manufacturer: Tokuyama Dental Corporation
38-9, Taitou 1-chome, Taitou-ku, Tokyo
110-0016, Japan
TEL: +81-3-3835-2261
Emergency Telephone:
Washington National Capital Poison Center
3201 New Mexico Avenue, Suite 310
Washington, DC 20016
Telephone: +1 202 362 3867
Emergency telephone: +1 800 222 1222
Fax: +1 202 362 8377
E-mail: pc@poison.org
Web site: http://www.poison.org
San Francisco California Poison Control System
at San Francisco General Hospital
University of California San Francisco, Box 1369
1001 Potrero Avenue, Bldg 5 Rm 2A21
San Francisco, California 94143-1369
Telephone: +1 415 643 3200
Emergency telephone: +1 800 222 1222
Fax: +1 415 502 6010
E-mail: coadmin@calpoison.org
Web site: http://www.calpoison.org
http://www.who.int/ipcs/poisons/centre/en/

2. HAZARD(S) IDENTIFICATION

Appearance: Clear liquid.
Color: Yellowish
Odor: Characteristic.
GHS Pictogram:

Signal Word: Danger
Hazard Statements:
H225 Highly flammable liquid and vapour.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H335 May cause respiratory irritation.
Precautionary Statements:
P210 Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P302+352 IF ON SKIN: Wash with plenty of soap and water.
TOKUSO REBASE MR. BOND

Contains
11-methacryloxy-1,1-undecanedicarboxylic acid (MAC-10)

METHYL METHACRYLATE

GHS Classification

Physical and Chemical Hazards Flam. Liq. 2 - H225
Human health Skin Irrit. 2 - H315; Skin Sens. 1 - H317; STOT SE 3 - H335
Environment Not classified.

Hazard Not Otherwise Classified (HNOC)
Not applicable.

OSHA Regulatory Status
This Product is Hazardous under the OSHA Hazard Communication Standard.

General Information
May cause irritation to the respiratory system. IF SWALLOWED: Slightly irritating. (DIGESTIVE SYSTEM.) This chemical may cause skin/eye irritation. Product has a defatting effect on skin. May cause sensitization by skin contact.

3. COMPOSITION/INFORMATION ON INGREDIENTS

11-methacryloxy-1,1-undecanedicarboxylic acid (MAC-10) 1-5%

CAS No.: 108362-85-2 EC No.: 

GHS Classification
Skin Irrit. 2 - H315; Eye Irrit. 2 - H319; STOT SE 3 - H335

DIBUTYL HYDROXY TOluene < 1%

CAS No.: 128-37-0 EC No.: 204-881-4

GHS Classification
Aquatic Chronic 1 - H410

MEQUINOL < 1%

CAS No.: 150-76-5 EC No.: 205-769-8

GHS Classification
Acute Tox. 4 - H302; Eye Irrit. 2 - H319; Skin Sens. 1 - H317

METHYL METHACRYLATE 80-100%

CAS No.: 80-62-6 EC No.: 201-297-1

GHS Classification
Flam. Liq. 2 - H225; Skin Irrit. 2 - H315; Skin Sens. 1 - H317; STOT SE 3 - H335

4. FIRST-AID MEASURES

Description of first aid measures

General Information
Move the exposed person to fresh air at once. Get medical attention if any discomfort continues.
TOKUSO REBASE MR. BOND

Inhalation
Move the exposed person to fresh air at once.

Ingestion
Immediately rinse mouth and drink plenty of water (200-300 ml). Get medical attention if any discomfort continues.

Skin Contact
Wash the skin immediately with soap and water.

Eye Contact
Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes. Contact physician if irritation persists.

Most important symptoms and effects, both acute and delayed

Inhalation
Irritating to respiratory system.

Ingestion
Slightly irritating. (DIGESTIVE SYSTEM.)

Skin Contact
Slightly irritating. Product has a defatting effect on skin. May cause sensitization by skin contact.

Eye Contact
Irritating and may cause redness and pain.

Indication of any immediate medical attention and special treatment needed

Notes To The Physician
CAUTION! First aid personnel must be aware of own risk during rescue! Wear suitable protective clothing.

5. FIRE-FIGHTING MEASURES

Auto Ignition Temperature (°C)
Not available.

Flammability Limit - Lower(%)
Not available.

Flammability Limit - Upper(%)
Not available.

Flash point (°C)
10°C

Extinguishing Media
Fire can be extinguished using: Foam. Carbon dioxide or dry powder.

Specific Hazards
When heated and in case of fire, irritating vapors/gases may be formed.

Special Fire Fighting Procedures
Avoid breathing fire vapors.

Protective Equipment For Fire-Fighters
Wear full protective clothing.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions
Wear protective clothing as described in Section 8 of this material safety data sheet.

Environmental Precautions
Do not allow to enter drains, sewers or watercourses.

Spill Clean Up Methods
Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. Absorb in vermiculite, dry sand or earth and place into containers. Do not contaminate water sources or sewer.

Reference to other sections
For personal protection, see section 8.

7. HANDLING AND STORAGE

Handling
All handling to take place in well-ventilated area.

Storage
Store under refrigerated conditions at temperatures between 0 to 10°C (32 to 50°F). Keep away from heat, direct sunlight, sparks and open flames.
TOKUSO REBASE MR. BOND

Storage Class
Flammable liquid storage.

Specific end use(s)
The identified uses for this product are detailed in Section 1.2.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>STD</th>
<th>TWA (8-hrs)</th>
<th>STEL (15 min)</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>dibutyl hydroxy toluene</td>
<td>ACGIH</td>
<td>2 mg/m³</td>
<td></td>
<td>A4</td>
</tr>
<tr>
<td>METHYL METHACRYLATE</td>
<td>PEL</td>
<td>100 ppm</td>
<td>410 mg/m³</td>
<td></td>
</tr>
<tr>
<td>METHYL METHACRYLATE</td>
<td>ACGIH</td>
<td>50 ppm</td>
<td>100 ppm</td>
<td>A4, Sen</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL METHACRYLATE</td>
<td>1000 ppm</td>
</tr>
</tbody>
</table>

ACGIH=American Conference of Governmental Industrial Hygienists.
A4: Not Classifiable as a Human Carcinogen.
SEN: Sensitizer.

Protective Equipment

Engineering Measures
Provide adequate general and local exhaust ventilation.

Respiratory Equipment
In case of inadequate ventilation use suitable respirator.

Hand Protection
Wear protective gloves.

Eye Protection
Wear approved safety goggles.

Other Protection
Wear appropriate clothing to prevent any possibility of skin contact.

Hygiene Measures
DO NOT SMOKE IN WORK AREA! Wash hands at the end of each work shift and before eating, smoking and using the toilet. Wash promptly with soap & water if skin becomes contaminated. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink or smoke.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Clear liquid.</td>
</tr>
<tr>
<td>Color</td>
<td>Yellowish</td>
</tr>
<tr>
<td>Odor</td>
<td>Characteristic.</td>
</tr>
<tr>
<td>Solubility</td>
<td>No information available.</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>101°C</td>
</tr>
<tr>
<td>Melting point (°C)</td>
<td>Not available.</td>
</tr>
<tr>
<td>Relative density</td>
<td>0.945</td>
</tr>
<tr>
<td>Vapor density (air=1)</td>
<td>3.45</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>47 20°C</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not available.</td>
</tr>
<tr>
<td>pH-Value, Conc. Solution</td>
<td>Not available.</td>
</tr>
</tbody>
</table>
TOKUSO REBASE MR. BOND

pH-Value, Diluted Solution
Not available.

Viscosity
Not available.

Solubility Value (G/100G H2O@20°C)
0.1 - 1

Decomposition temperature (°C)
Not available.

Odour Threshold, Lower
Not available.

Odour Threshold, Upper
Not available.

Flash point
10°C

Auto Ignition Temperature (°C)
Not available.

Flammability Limit - Lower(%)
Not available.

Flammability Limit - Upper(%)
Not available.

Partition Coefficient (N-Octanol/Water)
Not available.

Explosive properties
Not available.

Other Flammability
Not available.

Oxidising properties
Not available.

10. STABILITY AND REACTIVITY

Reactivity
May polymerise.

Stability
HIGHLY FLAMMABLE!
Hazardous reactions:
Not available.

Conditions To Avoid
Keep away from heat, sparks and open flame. Protect against direct sunlight.

Materials To Avoid
Strong oxidizing agents.

Hazardous Decomposition Products
Toxic gases are generated when heated.

11. TOXICOLOGICAL INFORMATION

Acute toxicity:
Not available.

Skin Corrosion/Irritation:
Slightly irritating. Product has a defatting effect on skin.

Serious eye damage/irritation:
Irritating and may cause redness and pain.

Respiratory or skin sensitisation:
Respiratory sensitisation
Not available.

Skin sensitisation
TOKUSO REBASE MR. BOND

May cause sensitization by skin contact.

**Germ cell mutagenicity:**
Not available.

**Carcinogenicity:**
METHYL METHACRYLATE
EPA: Not likely to be carcinogenic to humans
IARC Carcinogenicity
METHYL METHACRYLATE, Butylated hydroxytoluene (BHT): IARC Group 3 Not classifiable as to its carcinogenicity to humans.
NTP - Carcinogenicity
Not listed.
OSHA - Carcinogenicity
Not listed.

**Reproductive Toxicity:**
Not available.

**Specific target organ toxicity - single exposure:**
Irritating to respiratory system.

**Specific target organ toxicity - repeated exposure:**
STOT - Repeated exposure
Not available.

**Aspiration hazard:**
Viscosity
Not available.

### 12. ECOLOGICAL INFORMATION

**Toxicity**
No data available.

**Degradability**
No data available.

**Bioaccumulative potential**
No data available on bioaccumulation.

**Partition coefficient**
Not available.

**Mobility:**
No information available.

**Results of PBT and vPvB assessment**
This product does not contain any PBT or vPvB Substances.

**Other adverse effects**
Not known.

### 13. DISPOSAL CONSIDERATIONS

**Disposal Methods**
Dispose of waste and residues in accordance with local authority requirements.

### 14. TRANSPORT INFORMATION

<table>
<thead>
<tr>
<th>UN No. (DOT/TDG)</th>
<th>1133</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN No. (IMDG)</td>
<td>1133</td>
</tr>
<tr>
<td>UN No. (ICAO)</td>
<td>1133</td>
</tr>
<tr>
<td>DOT Proper Shipping Name</td>
<td>ADHESIVES, CONTAINING A FLAMMABLE LIQUID</td>
</tr>
<tr>
<td>TDG Proper Shipping Name</td>
<td>ADHESIVES, CONTAINING A FLAMMABLE LIQUID</td>
</tr>
</tbody>
</table>
TOKUSO REBASE MR. BOND

DOT Hazard Class
3

DOT Hazard Label
Flammable Liquid

TDG Class
3

TDG Label(s)
3

IMDG Class
3

ICAO Class
3

Transport Labels

DOT Pack Group
II

IMDG Pack Group
II

Air Pack Group
II

Environmentally Hazardous Substance/Marine Pollutant
No.

EMS
F-E, S-D

Special precautions for user
Not applicable.

Transport in Bulk according to Annex II of MARPOL 73/78 and the IBC Code Notes
Not applicable.

15. REGULATORY INFORMATION

Regulatory Status (US)
This Product is Hazardous under the OSHA Hazard Communication Standard.

Regulatory References

US Federal Regulations

SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities
None of the ingredients are listed.

CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)
The following ingredients are listed.
METHYL METHACRYLATE; 1,000 lbs (454 Kg)

SARA Extremely Hazardous Substances EPCRA Reportable Quantities
None of the ingredients are listed.

SARA 313 Emission Reporting
The following ingredients are listed.
METHYL METHACRYLATE

CAA Accidental Release Prevention
None of the ingredients are listed.

SARA (311/312) Hazard Categories
Fire Acute

OSHA Highly Hazardous Chemicals
None of the ingredients are listed.

US State Regulations
California Proposition 65 Carcinogens and Reproductive Toxins
None of the ingredients are listed.
California Air Toxics “Hot Spots” (A-I)
The following ingredients are listed.
METHYL METHACRYLATE

California Air Toxics “Hot Spots” (A-II)
None of the ingredients are listed.

Massachusetts “Right To Know” List
The following ingredients are listed.
dibutyl hydroxy toluene
MEQUINOL

Rhode Island “Right To Know” List
The following ingredients are listed.
dibutyl hydroxy toluene
MEQUINOL

METHYL METHACRYLATE

Minnesota “Right To Know” List
The following ingredients are listed.
dibutyl hydroxy toluene
MEQUINOL

METHYL METHACRYLATE

New Jersey “Right To Know” List
The following ingredients are listed.
dibutyl hydroxy toluene
MEQUINOL

METHYL METHACRYLATE

Pennsylvania “Right To Know” List
The following ingredients are listed.
dibutyl hydroxy toluene
MEQUINOL

METHYL METHACRYLATE

International Inventories

EU - EINECS/ELINCS
The following ingredients are listed.
dibutyl hydroxy toluene
MEQUINOL
METHYL METHACRYLATE

Canada – DSL/NDSL
The following ingredients are listed.
dibutyl hydroxy toluene
MEQUINOL
METHYL METHACRYLATE

US - TSCA
The following ingredients are listed.
dibutyl hydroxy toluene
MEQUINOL
METHYL METHACRYLATE

US – TSCA 12(b) Export Notification
None of the ingredients are listed.

16. OTHER INFORMATION

Revision Comments
This is first issue.

Revision Date 08/05/2014

Disclaimer
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.