

Revision Date 08/05/2017

Revision 2

## SAFETY DATA SHEET

### ONE-UP BOND F Plus Bonding Agent A

#### 1. IDENTIFICATION

<b>Product Name</b>	ONE-UP BOND F Plus Bonding Agent A
<b>Identified uses</b>	Dental Adhesive. For dental professionals only.
<b>Supplier</b>	Tokuyama Dental America Inc. Tel: (877) 378 3548 (Toll-Free)
<b>Contact Person</b>	<a href="http://www.tokuyama-dental.com/tdc/contact.html">http://www.tokuyama-dental.com/tdc/contact.html</a>
<b>Manufacturer</b>	Tokuyama Dental Corporation 38-9, Taitou 1-chome, Taitou-ku, Tokyo 110-0016, Japan TEL: +81-3-3835-2261
<b>Emergency Telephone</b>	<p>California Poison Control System - San Francisco Division San Francisco General Hospital Bldg 5 Rm 2A21, 1001 Potrero Ave, San Francisco Emergency telephone number: 1 800 222 1222 E-mail address: <a href="mailto:coadmin@calpoison.org">coadmin@calpoison.org</a> <a href="http://www.calpoison.org">http://www.calpoison.org</a></p> <p>National Capital Poison Center 3201 New Mexico Ave, Ste 310, Washington DC Emergency telephone number: 1 800 222 1222 Telephone number: +1 202 362 3867 Facsimile numer: +1 202 362 8377 E-mail address: <a href="mailto:pc@poison.org">pc@poison.org</a> <a href="http://www.poison.org">http://www.poison.org</a></p>

#### 2. HAZARD(S) IDENTIFICATION

<b>Appearance</b>	Liquid
<b>Color</b>	Light (or pale) yellow
<b>Odor</b>	Characteristic
<b>GHS Pictogram</b>	



**Signal Word** Warning

**Hazard Statements**

H226	Flammable liquid and vapour.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.

**Precautionary Statements**

P210	Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P271	Use only outdoors or in a well-ventilated area.

## ONE-UP BOND F Plus Bonding Agent A

P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P403+233 Store in a well-ventilated place. Keep container tightly closed.  
 P501 Dispose of contents/container in accordance with local regulations.

### Contains

11-methacryloxy-1,1-undecanedicarboxylic acid (MAC-10)  
 bisphenol A polyethoxy dimethacrylate  
 METHYL METHACRYLATE

### GHS Classification

Physical and Chemical Hazards Flam. Liq. 3 - H226  
 Human health Skin Irrit. 2 - H315; Eye Irrit. 2 - H319; 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

<b>11-methacryloxy-1,1-undecanedicarboxylic acid (MAC-10)</b>	<b>10-30%</b>
CAS No.: 108362-85-2                      EC No.:	
GHS Classification Skin Irrit. 2 - H315; Eye Irrit. 2 - H319; STOT SE 3 - H335	
<b>bisphenol A polyethoxy dimethacrylate</b>	<b>10-30%</b>
CAS No.: 41637-38-1                      EC No.: 609-946-4	
GHS Classification Skin Irrit. 2 - H315; Eye Irrit. 2 - H319; Skin Sens. 1 - H317; STOT SE 3 - H335	
<b>dibutyl hydroxy toluene</b>	<b>&lt; 1%</b>
CAS No.: 128-37-0                      EC No.: 204-881-4	
GHS Classification Aquatic Chronic 1 - H410	
<b>methacryloxyalkyl acid phosphate (phosphoric acid monomer)</b>	<b>30-60%</b>
CAS No.: 52628-03-2                      EC No.: 258-053-2	
GHS Classification Skin Irrit. 2 - H315; Eye Irrit. 2 - H319	

## ONE-UP BOND F Plus Bonding Agent A

<b>METHYL METHACRYLATE</b>	<b>5-10%</b>
<b>CAS No.: 80-62-6</b>	<b>EC No.: 201-297-1</b>
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.

##### **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**

Irritating to skin. 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)**

33.0°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

## ONE-UP BOND F Plus Bonding Agent A

### Personal Precautions

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

### Environmental Precautions

Do not discharge into drains, water courses or onto the ground.

### 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.

### 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

COMPONENT	STD	TWA (8-hrs)		STEL (15 min)		Notes
dibutyl hydroxy toluene	ACGIH		2 mg/m <sup>3</sup>			A4
METHYL METHACRYLATE	PEL	100 ppm	410 mg/m <sup>3</sup>			
METHYL METHACRYLATE	ACGIH	50 ppm		100 ppm		A4, Sen
COMPONENT	IDLH					
METHYL METHACRYLATE	1000 ppm					

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

## ONE-UP BOND F Plus Bonding Agent A

<b>Appearance</b>	Liquid
<b>Color</b>	Light (or pale) yellow
<b>Odor</b>	Characteristic
<b>Solubility</b>	No information available.

**Initial boiling point and boiling range**

Not available.

**Melting point (°C)**

Not available.

**Relative density** 1.17

**Vapor density (air=1)**

Not available.

**Vapor pressure**

Not available.

**Evaporation rate**

Not available.

**pH-Value, Conc. Solution** < 7

**pH-Value, Diluted Solution**

Not available.

**Viscosity**

Not available.

**Decomposition temperature (°C)**

Not available.

**Odour Threshold, Lower**

Not available.

**Odour Threshold, Upper**

Not available.

**Flash point** 33.0°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**

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

## ONE-UP BOND F Plus Bonding Agent A

### Acute toxicity:

Not available.

### Skin Corrosion/Irritation:

Irritating to skin. 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**

:

May cause sensitization by skin contact.

### Germ cell mutagenicity:

Not available.

### Carcinogenicity:

METHYL METHACRYLATE

EPA: Not likely to be carcinogenic to humans

#### **IARC Carcinogenicity**

Butylated hydroxytoluene (BHT) , METHYL METHACRYLATE : 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.

## ONE-UP BOND F Plus Bonding Agent A

### 13. DISPOSAL CONSIDERATIONS

#### Disposal Methods

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

### 14. TRANSPORT INFORMATION

UN No. (DOT/TDG)	1133
UN No. (IMDG)	1133
UN No. (ICAO)	1133
DOT Proper Shipping Name	ADHESIVES, CONTAINING A FLAMMABLE LIQUID
TDG Proper Shipping Name	ADHESIVES, CONTAINING A FLAMMABLE LIQUID
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	III
IMDG Pack Group	III
Air Pack Group	III
Environmentally Hazardous Substance/Marine Pollutant	
No.	

EMS	F-E, S-D
Special precautions for user	Not available.

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

29 CFR 1910.1200(g) Federal Regulations (OSHA Standard).

#### 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.

## ONE-UP BOND F Plus Bonding Agent A

### **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

METHYL METHACRYLATE

#### **Rhode Island "Right To Know" List**

The following ingredients are listed.

dibutyl hydroxy toluene

METHYL METHACRYLATE

#### **Minnesota "Right To Know" List**

The following ingredients are listed.

dibutyl hydroxy toluene

METHYL METHACRYLATE

#### **New Jersey "Right To Know" List**

The following ingredients are listed.

dibutyl hydroxy toluene

METHYL METHACRYLATE

#### **Pennsylvania "Right To Know" List**

The following ingredients are listed.

dibutyl hydroxy toluene

METHYL METHACRYLATE

### **International Inventories**

#### **EU - EINECS/ELINCS**

The following ingredients are listed.

dibutyl hydroxy toluene

methacryloxyalkyl acid phosphate (phosphoric acid monomer)

METHYL METHACRYLATE

#### **Canada – DSL/NDSL**

The following ingredients are listed.

bisphenol A polyethoxy dimethacrylate

dibutyl hydroxy toluene

methacryloxyalkyl acid phosphate (phosphoric acid monomer)

METHYL METHACRYLATE

#### **US - TSCA**

The following ingredients are listed.

bisphenol A polyethoxy dimethacrylate

dibutyl hydroxy toluene

methacryloxyalkyl acid phosphate (phosphoric acid monomer)

METHYL METHACRYLATE

#### **US – TSCA 12(b) Export Notification**

None of the ingredients are listed.



## ONE-UP BOND F Plus Bonding Agent A

### 16. OTHER INFORMATION

#### Revision Comments

<b>Revision Date</b>	08/05/2017
Revision	2

#### Disclaimer

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