Revision 3

SAFETY DATA SHEET ONE-UP BOND F Plus Bonding Agent A

1. IDENTIFICATION

ONE-UP BOND F Plus Bonding Agent A **Product Name** 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/tdc/contact.html

Manufacturer **Tokuyama Dental Corporation**

38-9, Taitou 1-chome, Taitou-ku, Tokyo

110-0016, Japan TEL: +81-3-3835-2261

Emergency Telephone

California Poison Control System - San Francisco Division

San Francisco General Hospital

Bldg 5 Rm 2A21, 1001 Potrero Ave, San Francisco Emergency telephone number: 1800 222 1222 E-mail address: coadmin@calpoison.org

http://www.calpoison.org

National Capital Poison Center

3201 New Mexico Ave, Ste 310, Washington DC Emergency telephone number: 1800 222 1222

Telephone number: +1 202 362 3867 Facsimile numer: +1 202 362 8377 E-mail address: pc@poison.org

http://www.poison.org

2. HAZARD(S) IDENTIFICATION

Appearance Liquid Color Light yellow Odor Characteristic

GHS Pictogram





Signal Word Warning

Hazard Statements

H226 Flammable liquid and vapour. Causes skin irritation. H315

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.

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

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

11-methacryloxy-1,1-undecanedicarboxylic acid

10-30%

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

GHS Classification

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

bisphenol A polyethoxy dimethacrylate

10-30%

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

dibutyl hydroxy toluene <1%

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

GHS Classification Aquatic Chronic 1 - H410

methacryloxyalkyl acid phosphate

30-60%

CAS No.: 52628-03-2 EC No.: 258-053-2

GHS Classification

Skin Irrit. 2 - H315; Eye Irrit. 2 - H319

METHYL METHACRYLATE 5-10%

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.

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

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/m3			A4
METHYL METHACRYLATE	PEL	100 ppm	410 mg/m3			
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

AppearanceLiquidColorLight yellowOdorCharacteristic

Solubility 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

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.

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.

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

METHYL METHACRYLATE

Canada - DSL/NDSL

The following ingredients are listed.

bisphenol A polyethoxy dimethacrylate

dibutyl hydroxy toluene

methacryloxyalkyl acid phosphate

METHYL METHACRYLATE

US - TSCA

The following ingredients are listed.

bisphenol A polyethoxy dimethacrylate

dibutyl hydroxy toluene

methacryloxyalkyl acid phosphate

METHYL METHACRYLATE

US - TSCA 12(b) Export Notification

None of the ingredients are listed.

16. OTHER INFORMATION

Revision Comments

Revision Date 01/05/2018

Revision 3

Disclaimer

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