

Revision Date: 20/05/2013

SAFETY DATA SHEET

TOKUYAMA SHIELD FORCE PLUS

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product Name TOKUYAMA SHIELD FORCE PLUS

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses Protective sealant. For dental professionals only.

1.3. Details of the supplier of the safety data sheet

Supplier: Tokuyama Dental Italy S.r.l.
36030 Montecchio Precalcino,
via dell' Artigianato, 7,
Zona Artigianale Astichelli, Vicenza, Italy
TEL: +39-0445-334545
FAX: +39-0445-339133

Contact Person <http://www.tokuyama-dental.com/contact.htm>

Manufacturer Tokuyama Dental Corporation
38-9, Taitou 1-chome, Taitou-ku, Tokyo, Japan
TEL: +81-3-3835-7201

1.4. Emergency telephone number

Guy's & St Thomas' Poisons Unit
Medical Toxicology Unit
Guy's & St Thomas' Hospital Trust
Mary Sheridan House
15 St Thomas Street
London SE1 9RY
TEL: +44 (0)20 7188 0600
FAX: +44 (0)20 7188 0800
<http://www.medtox.org.uk>
<http://www.who.int/ipcs/poisons/centre/en/>

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification (1999/45/EEC) Xi;R36/38. R43. F;R11. R67.

2.2. Label elements

Contains: 2-HYDROXYETHYL METHACRYLATE
bisphenol A di(2-hydroxy propoxy) dimethacrylate
camphorquinone
dibutyl hydroxy toluene
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide
MEQUINOL
methacryloxyalkyl acid phosphate (phosphoric acid monomer)
PROPAN-2-OL
triethylene glycol dimethacrylate
Water

Labelling



Irritant



Highly Flammable

Risk Phrases

R11
R36/38

Highly flammable.
Irritating to eyes and skin.

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Safety Phrases	R43	May cause sensitisation by skin contact.
	R67	Vapours may cause drowsiness and dizziness.
	S9	Keep container in a well-ventilated place.
	S16	Keep away from sources of ignition - No smoking.
	S24/25	Avoid contact with skin and eyes.
	S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
	S37	Wear suitable gloves.
	S51	Use only in well-ventilated areas.
	S60	This material and its container must be disposed of as hazardous waste.

2.3. Other hazards

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

2-HYDROXYETHYL METHACRYLATE	10-30%
CAS-No.: 868-77-9 EC No.: 212-782-2	
Classification (EC 1272/2008) Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317	Classification (67/548/EEC) R43 Xi;R36/38
bisphenol A di(2-hydroxy propoxy) dimethacrylate	10-30%
CAS-No.: 1565-94-2 EC No.: 216-367-7	
Classification (EC 1272/2008) Skin Sens. 1 - H317 Aquatic Chronic 3 - H412	Classification (67/548/EEC) R43,R53.
camphorquinone	< 1%
CAS-No.: 10373-78-1 EC No.: 233-814-1	
Classification (EC 1272/2008) Not classified.	Classification (67/548/EEC) Not classified.
dibutyl hydroxy toluene	< 1%
CAS-No.: 128-37-0 EC No.: 204-881-4	
Classification (EC 1272/2008) Aquatic Chronic 1 - H410	Classification (67/548/EEC) N;R51/53.
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	< 1%
CAS-No.: 75980-60-8 EC No.: 278-355-8	
Classification (EC 1272/2008) Repr. 2 - H361f	Classification (67/548/EEC) Repr. Cat. 3;R62.

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MEQUINOL	< 1%
CAS-No.: 150-76-5	EC No.: 205-769-8
Classification (EC 1272/2008) Acute Tox. 4 - H302 Eye Irrit. 2 - H319 Skin Sens. 1 - H317	Classification (67/548/EEC) Xn;R22 R43 Xi;R36
methacryloxyalkyl acid phosphate (phosphoric acid monomer)	10-30%
CAS-No.: 52628-03-2	EC No.: 258-053-2
Classification (EC 1272/2008) Skin Irrit. 2 - H315 Eye Irrit. 2 - H319	Classification (67/548/EEC) Xi;R36/38.
PROPAN-2-OL	30-60%
CAS-No.: 67-63-0	EC No.: 200-661-7
Classification (EC 1272/2008) Flam. Liq. 2 - H225 Eye Irrit. 2 - H319 STOT Single 3 - H336	Classification (67/548/EEC) F;R11 Xi;R36 R67
triethylene glycol dimethacrylate	5-10%
CAS-No.: 109-16-0	EC No.: 203-652-6
Classification (EC 1272/2008) Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317	Classification (67/548/EEC) Xi;R36/38. R43.
Water	5-10%
CAS-No.: 7732-18-5	EC No.: 231-791-2
Classification (EC 1272/2008) Not classified.	Classification (67/548/EEC) Not classified.

The Full Text for all R-Phrases and Hazard Statements is Displayed in Section 16

SECTION 4: FIRST AID MEASURES

4.1. 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.

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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.

4.2. Most important symptoms and effects, both acute and delayed

4.3. Indication of any immediate medical attention and special treatment needed

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Extinguishing Media

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

5.2. Special hazards arising from the substance or mixture

Specific Hazards

When heated and in case of fire, irritating vapours/gases may be formed.

5.3. Advice for firefighters

Special Fire Fighting Procedures

Avoid breathing fire vapours.

Protective Measures In Fire

Wear full protective clothing.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

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

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

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.

6.4. Reference to other sections

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

All handling to take place in well-ventilated area.

7.2. Conditions for safe storage, including any incompatibilities

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.

7.3. Specific end use(s)

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Name	STD	TWA - 8 Hrs		STEL - 15 Min		Notes
PROPAN-2-OL	WEL	400 ppm	999 mg/m3	500 ppm	1250 mg/m3	

WEL = Workplace Exposure Limit.

8.2. Exposure controls

Protective Equipment

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Engineering Measures

Provide adequate general and local exhaust ventilation.

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 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.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	Liquid
Colour	Light (or pale) Yellowish
Odour	Characteristic
Relative Density	1.00
pH-Value, Diluted Solution	2.0
Flash Point (°C)	20.0 °C

9.2. Other information

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

10.2. Chemical stability

HIGHLY FLAMMABLE!

10.3. Possibility of hazardous reactions

10.4. Conditions to avoid

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

10.5. Incompatible materials

Materials To Avoid

Strong oxidising agents.

10.6. Hazardous decomposition products

Toxic gases are generated when heated.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Inhalation

Irritating to respiratory system. Vapours may cause drowsiness and dizziness.

Ingestion.

Slightly irritating. : DIGESTIVE SYSTEM.

Skin Contact

Irritating to skin. Product has a defatting effect on skin. May cause sensitisation by skin contact.

Eye Contact

Irritating and may cause redness and pain.

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SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity:

No data on possible environmental effects have been found.

12.1. Toxicity

12.2. Persistence and degradability

12.3. Bioaccumulative potential

12.4. Mobility in soil

12.5. Results of PBT and vPvB assessment

12.6. Other adverse effects

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

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

SECTION 14: TRANSPORT INFORMATION

14.1. UN number

UN No. (ADR/RID/ADN)	1133
UN No. (IMDG)	1133
UN No. (ICAO)	1133

14.2 UN Proper shipping name

Proper Shipping Name ADHESIVES

14.3 Transport hazard class(es)

ADR/RID/ADN Class	3
ADR/RID/ADN Class	Class 3: Flammable liquids.
ADR Label No.	3
IMDG Class	3
ICAO Class/Division	3
Transport Labels	



14.4. Packing group

ADR/RID/ADN Packing group	II
IMDG Packing group	II
ICAO Packing group	II

14.5. Environmental hazards

14.6. Special precautions for user

EMS	F-E, S-D
Emergency Action Code	•3YE
Hazard No. (ADR)	33
Tunnel Restriction Code	(D/E)

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

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SECTION 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Legislation

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments. COUNCIL DIRECTIVE 93/42/EEC concerning medical device (2007/47/EC).

15.2. Chemical Safety Assessment

SECTION 16: OTHER INFORMATION

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Risk Phrases In Full

NC Not classified. , R11 Highly flammable. , R22 Harmful if swallowed. , R36 Irritating to eyes. , R36/38 Irritating to eyes and skin. , R43 May cause sensitisation by skin contact. , R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. , R53 May cause long-term adverse effects in the aquatic environment. , R62 Possible risk of impaired fertility. , R67 Vapours may cause drowsiness and dizziness.

Hazard Statements In Full

H225 Highly flammable liquid and vapour. , H302 Harmful if swallowed. , H315 Causes skin irritation. , H317 May cause an allergic skin reaction. , H319 Causes serious eye irritation. , H336 May cause drowsiness or dizziness. , H361f Suspected of damaging fertility. , H410 Very toxic to aquatic life with long lasting effects. , H412 Harmful to aquatic life with long lasting effects.

Disclaimer

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