

Safety Data Sheet

Material Name: Super-Bond Quick Monomer

SDS ID: ESB02/3D

Section 1 - IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

1.1 Product Identifier:

Product Name: Super-Bond Quick Monomer

1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Identified Uses

Dentistry material

Uses Advised Against

None known.

1.3 Details of the supplier of the safety data sheet

Sun Medical Co., Ltd.
571-2 Furutaka-cho, Moriyama,
Shiga, 524-0044, Japan

Telephone number: +81-77-582-9981
Email: export@sunmedical.co.jp

1.4 Emergency Telephone Number

+81-77-582-9981 (available only on working days from 9:00-17:30, unavailable on weekends and national holidays)

Section 2 - HAZARDS IDENTIFICATION

2.1 Classification of the Substance or Mixture

Classification according to Regulation (EC) No 1272/2008

Flammable liquid, Category 2

Skin corrosion/irritation, Category 2

Serious Eye Damage/Eye Irritation, Category 2A

Skin sensitizer, Category 1

Specific Target Organ Toxicity - Single Exposure, Category 3 (respiratory tract)

Classification according to Directives 67/548/EEC and/or 1999/45/EC

F, Xi

R11 Highly flammable.

R36/37/38 Irritating to eyes, respiratory system and skin.

R43 May cause sensitization by skin contact.

2.2 Label Elements

Labelling according to Regulation (EC) No 1272/2008:

Symbol(s)



Signal Word

Danger

Hazard Statement(s)

H225 Highly flammable liquid and vapour.

H315 Causes skin irritation.

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H319 Causes serious eye irritation.

H317 May cause allergic skin reaction.

H335 May cause respiratory irritation.

Precautionary Statement(s)

Prevention

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking. **P280** Wear protective gloves/protective clothing/eye protection/face protection.

Response

P370+P378 In case of fire: Use appropriate media for extinction. **P333+P313** If skin irritation or rash occurs: Get medical advice/attention. **P337+P313** If eye irritation persists: Get medical advice/attention.

Storage

P403+P235 Store in a well-ventilated place. Keep cool. **P405** Store locked up.

Disposal

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Labelling according to Directive 67/548/EEC and/or 1999/45/EC

F, Xi

R11 Highly flammable.

R36/37/38 Irritating to eyes, respiratory system and skin.

R43 May cause sensitization by skin contact.

S9 Keep container in a well-ventilated place.

S16 Keep away from sources of ignition - No smoking.

S36/37 Wear suitable protective clothing and gloves.

S60 This material and its container must be disposed of as hazardous waste.

2.3 Other Hazards

No additional information is available.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

CAS EC No Registration No	Component Synonyms	67/548 EEC (DSD)	1272/2008 (CLP)	Percent
80-62-6 201-297-1 --	Methyl methacrylate	F Xi; R:11- 36/37/38-43	Flam. Liq. 2 H225 Skin Irrit. 2 H315 Eye Irrit. 2 H319 Skin Sens. 1 H317 STOT SE 3 H335 Note(s): D	70-99
70293-55-9 274-547-0 --	4-Methacryloxyethyl trimellitate anhydride	--	--	3-20

CAS 80-62-6 - Serious Eye Damage/Eye Irritation, Category 2A : Self classification required

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Section 4 - FIRST AID MEASURES

4.1 Description of First Aid Measures

Inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. If breathing is difficult, oxygen should be administered by qualified personnel. Get medical attention.

Skin

Wash with plenty of soap and water. If skin irritation or rash occurs: Get immediate medical attention. Take off contaminated clothing and wash before reuse.

Eyes

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.

Ingestion

If swallowed, get medical attention.

4.2 Most Important Symptoms and Effects, both Acute and Delayed

Acute

Respiratory tract irritation, skin irritation, eye irritation, allergic skin reaction

Delayed

Allergic skin reaction

4.3 Indication of any Immediate Medical Attention and Special Treatment Needed

Treat symptomatically and supportively.

Section 5 - FIRE FIGHTING MEASURES

5.1 Extinguishing Media

Water spray, regular dry chemical, carbon dioxide, foam, dry sand

Unsuitable Extinguishing Media

Do not use high-pressure water streams.

5.2 Special Hazards Arising from the Substance or Mixture

Highly flammable liquid and vapor. May release toxic gases.

Thermal Decomposition Products

Combustion: Oxides of carbon

5.3 Advice for Firefighters

Fire Fighting Measures

Do not scatter spilled material with extinguishing agent. If safe to do so, move undamaged containers from the fire area. Cool containers with water spray until well after the fire is out. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas. Stay away from the ends of tanks. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible withdraw from area and let fire burn. Keep unnecessary people away, isolate hazard area and deny entry. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire.

Protective Equipment and Precautions for Firefighters

Wear full protective fire fighting gear including self contained breathing apparatus (SCBA) for protection against possible exposure.

Section 6 - ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment and Emergency Procedures

Wear personal protective clothing and equipment, see Section 8.

6.2 Environmental Precautions

Prevent entry into sewers, drains, ditches, underground or confined spaces and waterways.

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6.3 Methods and Material for Containment and Cleaning up

Avoid heat, flames, sparks and other sources of ignition. Remove sources of ignition. Use non-sparking tools and equipment. Stop leak if possible without personal risk. Ventilate closed spaces before entering. Absorb with sand or other non-combustible material. Collect spilled material in appropriate container for disposal.

6.4 Reference to Other Sections

See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations. See Section 13 for Disposal Considerations.

Section 7 - HANDLING AND STORAGE

7.1 Precautions for Safe Handling

Keep away from heat, sparks, open flame, and hot surfaces - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use non-sparking tools and equipment. Take precautionary measures against static discharge. Observe good hygiene and safety practices when handling this product. Avoid breathing dust, mist, fumes or vapors. Use only outdoors or in a well-ventilated area. Avoid contact with eyes, skin and clothing. Do not eat, drink, or smoke when using this product. Wear appropriate protective gloves and eye/face protection. Contaminated work clothing should not be allowed out of the workplace. Wash thoroughly after handling.

7.2 Conditions for Safe Storage, Including any Incompatibilities

Store and handle in accordance with all current regulations and standards. Keep container tightly closed and properly labeled. Store in a well-ventilated place. Keep cool. Store locked up.

7.3 Specific End Use(s)

Dentistry material

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control Parameters

Component Exposure Limits

Methyl methacrylate (80-62-6)

EU (IOELV):	50 ppm TWA
	100 ppm STEL
Austria:	50 ppm TWA; 210 mg/m ³ TWA
	100 ppm STEL; 420 mg/m ³ STEL
	Skin sensitizer
Belgium:	50 ppm TWA; 208 mg/m ³ TWA
	100 ppm STEL; 416 mg/m ³ STEL
Bulgaria:	50 ppm TWA
	100 ppm STEL
Czech Republic:	50 mg/m ³ TWA
	150 mg/m ³ Ceiling
	Potential for cutaneous absorption
Denmark:	25 ppm TWA; 102 mg/m ³ TWA
	Potential for cutaneous absorption
Estonia:	50 ppm TWA; 200 mg/m ³ TWA
	150 ppm STEL; 600 mg/m ³ STEL
	Skin notation
Finland:	10 ppm TWA; 42 mg/m ³ TWA
	50 ppm STEL; 210 mg/m ³ STEL
France:	50 ppm TWA (restrictive limit); 205 mg/m ³ TWA (restrictive limit)
	100 ppm STEL [VLCT] (restrictive limit); 410 mg/m ³ STEL [VLCT] (restrictive limit)
Germany (TRGS):	50 ppm TWA AGW (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed, exposure factor 2); 210 mg/m ³ TWA AGW (The

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risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed, exposure factor 2)

Gibraltar:	100 ppm STEL 50 ppm TWA
Germany (DFG):	50 ppm TWA MAK; 210 mg/m ³ TWA MAK 100 ppm Peak; 420 mg/m ³ Peak skin sensitizer
Greece:	50 ppm TWA 100 ppm STEL
Hungary:	208 mg/m ³ TWA [AK] 415 mg/m ³ STEL [CK] potential for cutaneous absorption
Ireland:	50 ppm TWA 100 ppm STEL
Italy:	50 ppm TWA 100 ppm STEL Breve termine
Latvia:	10 mg/m ³ TWA
Lithuania:	50 ppm TWA; 200 mg/m ³ TWA 100 ppm STEL; 400 mg/m ³ STEL
Luxembourg:	50 ppm TWA 100 ppm STEL
Malta:	50 ppm TWA 100 ppm STEL
Netherlands:	205 mg/m ³ TWA 410 mg/m ³ STEL
Poland:	100 mg/m ³ TWA (Inhalable aerosol fraction) 300 mg/m ³ STEL [NDSch]
Portugal:	50 ppm TWA [VLE-MP] (indicative limit value) 100 ppm STEL [VLE-CD] (indicative limit value) Sensitizer
Romania:	50 ppm TWA; 205 mg/m ³ TWA 100 ppm STEL; 410 mg/m ³ STEL
Slovak Republic:	50 ppm TWA; 210 mg/m ³ TWA 420 mg/m ³ Ceiling
Slovenia:	50 ppm TWA; 210 mg/m ³ TWA 100 ppm STEL; 420 mg/m ³ STEL
Spain:	50 ppm TWA [VLA-ED] (indicative limit value) 100 ppm STEL [VLA-EC] sensitizer
Sweden:	50 ppm LLV; 200 mg/m ³ LLV 150 ppm STV; 600 mg/m ³ STV Skin notation Sensitizer
United Kingdom:	50 ppm TWA; 208 mg/m ³ TWA 100 ppm STEL; 416 mg/m ³ STEL

Component Biological Limit Values

No Biological Limit Values available.

Derived No Effect Levels (DNELs)

No DNELs available.

Predicted No Effect Concentrations (PNECs)

No PNECs available.

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8.2 Exposure Controls

Appropriate Engineering Controls

Provide local exhaust or process enclosure ventilation system. Ventilation equipment should be explosion-resistant if explosive concentrations of material are present. Ensure compliance with applicable exposure limits.

Personal Protective Equipment

Eye / Face Protection

Use safety glasses.

Skin Protection

Wear protective clothing to prevent contact.

Glove Recommendations

Wear appropriate chemical resistant gloves.

Respiratory Protection

Consult with a health and safety professional for specific respirators appropriate for your use.

Environmental Exposure Controls

Prevent entry into waterways, sewers, basements, or confined areas.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on Basic Physical and Chemical Properties

Physical State:	Liquid	Appearance:	clear, colorless liquid
Color:	clear, colorless	Physical Form:	liquid
Odor:	sweet odor, sharp odor	Odor Threshold:	Not available
pH:	Not available	Melting Point:	Not available
Boiling Point:	101 °C (Methyl methacrylate)	Flash Point:	10 °C (Methyl methacrylate)
Decomposition Temperature:	Not available	Evaporation Rate:	Not available
LEL:	2 vol% (Methyl methacrylate)	UEL:	12 vol% (Methyl methacrylate)
Vapor Pressure:	Not available	Vapor Density (air = 1):	3.5 (Methyl methacrylate)
Density:	Not available	Specific Gravity (water = 1):	0.94/20°C (Methyl methacrylate)
Water Solubility:	<1.7 wt%	Log KOW:	Not available
Coeff. Water/Oil Dist:	Not available	Auto Ignition Temperature:	420 °C (Methyl methacrylate)
Oxidizing Properties:	Not available	Explosive Properties:	Not available
Flammability (solid, gas):	Not applicable		

9.2 Other Information

No additional information is available.

Section 10 - STABILITY AND REACTIVITY

10.1 Reactivity

Not reactive under normal conditions of use.

10.2 Chemical Stability

Stable under normal conditions of use.

10.3 Possibility of Hazardous Reactions

May polymerize when heated.

10.4 Conditions to Avoid

Avoid heat, flames, sparks and other sources of ignition. Avoid direct sunlight. Avoid heating above 30 °C.

10.5 Incompatible Materials

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Oxidizing materials, peroxides, amines, acids, bases

10.6 Hazardous Decomposition Products

Thermal Decomposition Products

Combustion: Oxides of carbon

Section 11 - TOXICOLOGICAL INFORMATION

11.1 Information on Toxicological Effects

Acute and Chronic Toxicity

Component Analysis - LD50/LC50

The component(s) of this material have been reviewed in various sources and the following selected endpoints are published:

Methyl methacrylate (80-62-6)

Inhalation LC50 Rat 4632 ppm 4 h; Oral LD50 Rat 7900 mg/kg

Irritation / Corrosivity

Respiratory tract irritation, skin irritation, eye irritation

Respiratory Sensitisation

No relevant information found.

Skin Sensitisation

Component data indicate the substance is sensitizing.

Germ Cell Mutagenicity

No relevant information found.

Carcinogenicity

Component Carcinogenicity

Methyl methacrylate (80-62-6)

IARC: Monograph 60 [1994]; Supplement 7 [1987] (Group 3 (not classifiable))

Reproductive Toxicity

No relevant information found.

Specific Target Organ Toxicity - Single Exposure

Respiratory tract

Specific Target Organ Toxicity - Repeated Exposure

No target organs identified.

Aspiration Hazard

No relevant information found.

Additional Data

No additional information available.

Section 12 - ECOLOGICAL INFORMATION

12.1 Toxicity

Component Analysis - Aquatic Toxicity

Methyl methacrylate (80-62-6)

Fish: 96 Hr LC50 Pimephales promelas: 243 - 275 mg/L [flow-through]; 96 Hr LC50 Pimephales promelas: 125.5 - 190.7 mg/L [static]; 96 Hr LC50 Lepomis macrochirus: 170 - 206 mg/L [flow-through]; 96 Hr LC50 Lepomis macrochirus: 153.9 - 341.8 mg/L [static]; 96 Hr LC50 Oncorhynchus mykiss: >79 mg/L [flow-through]; 96 Hr LC50 Oncorhynchus mykiss: >79 mg/L [static]; 96 Hr LC50 Poecilia reticulata: 326.4 - 426.9 mg/L [static]

Algae: 96 Hr EC50 Pseudokirchneriella subcapitata: 170 mg/L

Invertebrate: 48 Hr EC50 Daphnia magna: 69 mg/L

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12.2 Persistence and Degradability

This material may be partially biodegradeable.

12.3 Bioaccumulative Potential

Estimated BCF of <100.

12.4 Mobility in Soil

When released, this product is expected to evaporate.

12.5 Results of PBT and vPvB Assessment

No relevant information found.

EU - Interim Strategy for Management of PBT and vPvB Substances (PBT Assessments)

No components of this material are listed.

12.6 Other Adverse Effects

No additional information available.

Section 13 - DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods

Dispose in accordance with all applicable regulations. Empty containers may contain product residue.

Section 14 - TRANSPORT INFORMATION

14.1	UN Number	ADR 1247	RID 1247	ICAO 1247	ADN 1247	IMDG 1247
14.2	UN Proper Shipping Name	Methyl methacrylate monomer, stabilized	Methyl methacrylate monomer, stabilized	Methyl methacrylate monomer, stabilized	Methyl methacrylate monomer, stabilized	Methyl methacrylate monomer, stabilized
14.3	Transport Hazard Class(es)	Hazard Class: 3	Hazard Class: 3	Hazard Class: 3	Hazard Class: 3	Hazard Class: 3
						
14.4	Packing Group	Packing Group: II	Packing Group: II	Packing Group: II	Packing Group: II	Packing Group: II
14.5	Environmental Hazards	---	---	---	---	---
14.6	Special Precautions For User	---	---	---	---	---
14.7	Transport in Bulk According to Annex II or MARPOL 73/78 and the IBC Code	---	---	---	---	---

International Bulk Chemical Code

This material contains one or more of the following chemicals required by the IBC Code to be identified as dangerous chemicals in bulk.

Methyl methacrylate (80-62-6)

IBC Code: Category Y

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Section 15 - REGULATORY INFORMATION

15.1 Safety, Health and Environmental Regulations / Legislation Specific for the Substance or Mixture

EU - REACH (1907/2006) - Annex XIV List of Substances Subject to Authorisation

No components of this material are listed.

EU - REACH (1907/2006) - Article 59(1) Candidate List of Substances for Eventual Inclusion in Annex XIV

No components of this material are listed.

EU - REACH (1907/2006) - Annex XVII Restrictions of Certain Dangerous Substances, Mixtures and Articles

No components of this material are listed.

Germany Regulations

Germany Water Classification

Methyl methacrylate (80-62-6)

ID Number 154, hazard class 1 - low hazard to waters

Denmark Regulations

Environmental Protection Agency List of Undesirable Substances

No components of this material are listed.

Threshold of Exposure Concentrations of VOCs

No components of this material are listed.

France Water Pollution

No components of this material are listed.

Inventory

Substance Analysis - Inventory

Component	CAS	EEC
Methyl methacrylate	80-62-6	EIN
4-Methacryloxyethyl trimellitate anhydride	70293-55-9	EIN

15.2 Chemical Safety Assessment

No chemical safety assessment has been carried out for the substance/mixture.

15.3 Substance Registration Number(s)

Product is a dentistry material. This material is imported in amounts < 1 tonne/annum. This product and its components are not subject to REACH.

Section 16 - OTHER INFORMATION

16.1 Indication of changes

New SDS: 17 July 2018

16.2 Key / Legend to abbreviations and acronyms used in the safety data sheet

ADR - European Road Transport; CAS - Chemical Abstracts Service; CLP - Classification, Labelling and Packaging; DFG - Deutsche Forschungsgemeinschaft; DNEL - Derived No Effect Level; DSD - Dangerous Substances Directive (67/548/EEC); EC50 - Effective Concentration, 50%; EEC - European Economic Community; EIN (EINECS) - European Inventory of Existing Commercial Chemical Substances; ELN (ELINCS) - European List of Notified Chemical Substances; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC Code - International Bulk Chemical Code; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IMDG - International Maritime Dangerous Goods; Kow - Octanol/water partition coefficient; LC50 - Lethal Concentration, 50%; LD50 - Lethal Dose, 50%; LEL - Lower Explosive Limit; NIOSH - National Institute for Occupational Safety and Health; NTP - National Toxicology Program; PNEC - Predicted No Effect Concentration; REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - European Rail Transport; STEL - Short-term Exposure Limit; TWA - Time Weighted Average; UEL - Upper Explosive Limit

16.3 Key literature references and sources for data

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Available upon request.

16.4 Methods used for classification of mixture according to Regulation (EC) No 1272/2008

Available upon request.

16.5 Full text of R- and H- phrases in Section 3

H225 Highly 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.

R11 Highly flammable.

R36/37/38 Irritating to eyes, respiratory system and skin.

R43 May cause sensitization by skin contact.

16.6 Training Advice

Read the Safety Data Sheet before handling product.

16.7 Other Information

The information set forth in this Safety Data Sheet does not purport to be all-inclusive and should be used only as a guide. While the information and recommendations set forth herein are believed to be accurate, the company makes no warranty regarding such information and recommendations and disclaims all liability from reliance thereon.

End of Sheet ESB02/3D