Monomer

Safety Data Sheet (SDS)
SDS 020

SECTION 1: IDENTIFICATION

1.1 Product Identifier:

Product name: Monomer
Other name(s): AVAtex® and AVAmax® Monomer
BCPM003, BCT00CT, BCTXLCT, VMX00CT, VMXXLCT

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

Identified uses: Bone cement for cement injection.

1.3 Details of the Supplier of the Safety Data Sheet (SDS):

Supplier (Australia):

Stryker Australia
8 Herbert Street,
St Leonards, NSW 2065
Australia
Phone: +61 02 9467 1000

Supplier (New Zealand):

Stryker New Zealand
511 Mt Wellington Highway,
Auckland 1060
New Zealand
Phone: +64 09 573 1890

Manufacturer:

CareFusion
75 N. Fairway Drive
Vernon Hills, IL 60061
United States
Phone: 800-523-0502
Fax: 855-329-6985

1.4 Emergency Telephone Number:

For Hazardous Materials [or Dangerous Goods] Incident Spill, Leak, Fire, Exposure, or Accident
Call CHEMTREC Day or Night

Australia (Sydney): +(61)-290372994
New Zealand (Auckland): +(64)-98010034

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the Substance or Mixture:

2.1.1 Classification in accordance with GHS-AU:

Flam. Liq. 2	H225
Acute Tox. 3 (Oral)	H301
Acute Tox. 3 (Dermal)	H311
Acute Tox. 3 (Inhalation: vapour)	H331
Skin Irrit. 2	H315
Skin Sens. 1	H317
STOT SE 3	H335
STOT RE 2	H373
Aquatic Chronic 3	H412

2.2 Label Elements:

Hazard Pictograms (GHS-AU):

GHS02 GHS06 GHS08

Signal word (GHS-AU): **Danger**

Hazard statements (GHS-AU):

H225	Highly flammable liquid and vapour
H301	Toxic if swallowed
H311	Toxic if in contact with skin
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H331	Toxic if inhaled
H335	May cause respiratory irritation
H373	May cause damage to organs through prolonged or repeated exposure
H412	Harmful to aquatic life with long lasting effects

Precautionary statements (GHS-AU):

P210	Keep away from heat/sparks/open flames/hot surfaces. – No smoking
P233	Keep container tightly closed
P240	Ground/bond container and receiving equipment
P241	Use explosion-proof electrical/ventilating/lighting equipment
P242	Use only non-sparking tools
P243	Take precautionary measures against static discharge
P260	Do not breathe dust/fume/gas/mist/vapours/spray
P264	Wash thoroughly after handling
P270	Do not eat, drink or smoke when using this product
P271	Use only outdoors or in a well-ventilated area
P272	Contaminated work clothing should not be allowed out of the workplace
P273	Avoid release to the environment
P280	Wear protective gloves/protective clothing/eye protection/face protection
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician

P302+P352	IF ON SKIN: Wash with plenty of soap and water
P303+P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P312	Call a POISON CENTER or doctor/physician if you feel unwell
P330	Rinse mouth
P333+P313	If skin irritation or rash occurs: Get medical advice/attention
P362	Take off contaminated clothing and wash it before reuse
P370+P378	In case of fire: Use chemical foam, carbon dioxide, dry chemical to extinguish
P403+P233	Store in a well-ventilated place. Keep container tightly closed
P403+P235	Store in a well ventilated place. Keep cool
P405	Store locked up
P501	Dispose of contents/container in accordance with local/regional/national/international regulations

2.3 Other Hazards:

No additional information available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:

This product is a preparation.

3.2 Mixtures:

Product Name:	CAS-No:	Composition (%):
Methyl methacrylate	80-62-6	60-100
2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester	97-90-5	1-10
Benzenamine, N,N,4-trimethyl-	99-97-8	1-5

SECTION 4: FIRST AID MEASURES

4.1 Description of First Aid Measures:

Inhalation: Remove to fresh air. Seek immediate medical attention.

Skin: If irritation occurs and product is on the skin, rinse thoroughly with lukewarm water, followed by a thorough washing of the affected area with soap and water. If irritation, redness or swelling persists, contact a physician immediately.

Eyes: If product gets in the eyes, flush with copious amounts of lukewarm water for at least 15 minutes. If irritation occurs, contact a physician.

Ingestion: If ingested, do not induce vomiting. If product has been swallowed, drink plenty of water or milk IMMEDIATELY. If the patient is vomiting, continue to offer water or milk. Never give water or milk to an unconscious person. Provide an estimate of the time at which the material was ingested and the amount of the substance that was swallowed. Get medical attention immediately.

4.2 Most Important Symptoms and Effects, Both Acute and Delayed:

Inhalation: High concentration is irritating to the respiratory tract and may cause dizziness, headache and anaesthetic effects.

Ingestion: Causes irritation, a burning sensation of the mouth, throat and gastrointestinal tract and abdominal pain.

Skin: May cause skin irritation and can cause skin sensitization.

Eyes: Liquid can cause slight, temporary irritation with slight temporary corneal injury. Vapours can irritate eyes.

4.3 Indication of Any Immediate Medical Attention and Special Treatment Needed:

No additional information available

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing Media:

Suitable extinguishing agent:

Chemical foam, carbon dioxide, dry chemical.

Unsuitable extinguishing media:

None

5.2 Special Hazards Arising from the Substance or Mixture:

Fire hazard: This product is a flammable liquid. When involved in a fire, this product may ignite readily and decompose to produce carbon oxides. Vapours of this product are heavier than air and may travel to a source of ignition and flash back to a leaking or open container.

Explosion hazard: Heat can cause polymerization with rapid release of energy which may rupture container explosively. (Spontaneous polymerization may occur on prolonged storage.) Fight fire from a protected location. Use a water spray or fog to reduce or direct vapours. Water may not be effective in actually extinguishing a fire involving this product.

5.3 Advice for fire-fighters:

Protective equipment for firefighters: First responders should wear eye protection. Structural firefighters must wear SCBAs and full protective equipment.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment, and Emergency Procedures:

6.1.1 For non-emergency personnel

No additional information available

6.1.2 For emergency responders

No additional information available

6.2 Environmental Precautions:

Avoid release to the environment.

6.3 Methods and Material for Containment and Cleaning Up:

For containment:	Stop the flow of material, if this is without risk.
Methods for cleaning up:	For spills <1 gallon: Wear appropriate personal protective equipment (e.g., goggles, gloves). Maximize ventilation (open doors and windows) and secure all sources of ignition. Remove spilled material with absorbent material and place into appropriate closed container(s) for disposal. Dispose of properly in accordance with local, state and federal regulations. Wash all affected areas with plenty of warm water and soap. Remove any contaminated clothing and wash thoroughly before reuse. For spills > 1 gallon: Deny entry to all unprotected individuals. Dike and contain spill with inert material (e.g., sand or earth). Use ONLY non-sparking tools for recovery and clean up. Transfer liquid to containers for recovery or disposal and solid diking material to separate containers for proper disposal. Remove contaminated clothing promptly and wash affected skin areas with soap and water. Keep spills and cleaning runoffs out of municipal sewers and open bodies of water.

6.4 Reference to Other Sections:

No additional information available.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for Safe Handling:

Avoid contact with skin, eyes and clothing. Use good personal hygiene and housekeeping. Observe precautions found on label. Avoid prolonged contact with the product. Use in a well-ventilated location (e.g., local exhaust ventilation, fans). After use, wash hands and exposed skin with soap and water. Do not eat, drink or smoke while handling product.

7.2 Conditions for Safe Storage, Including any Incompatibilities:

Store in a cool, dry location, away from direct sunlight, heat, sparks, flame, other light sources, or sources of intense heat. Vapours are uninhibited and may form polymers in vents or flame arresters, resulting in blockage of vents. Check inhibitor levels every three months.

7.3 Specific End Use(s):

No additional information available

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters – exposure standards:

Methyl methacrylate (80-62-6)		
Australia	STEL (mg/m^3)	416 mg/m^3
Australia	STEL (ppm)	100 ppm
Australia	TWA (mg/m^3)	208 mg/m^3
Australia	TWA (ppm)	50 ppm

8.2 Biological Monitoring:

No additional information available.

8.3 Appropriate Engineering Controls:

When working with large quantities of product, provide adequate ventilation (e.g., local exhaust ventilation, fans). Ensure that an eyewash station, sink or washbasin is available in case of exposure to eyes. Use good, local exhaust at processing equipment, including buffers, sanders, grinders and polishers.

8.4 Personal Protective Equipment:

Thermal hazards: No data available.

Respiratory protection: A respirator should be worn whenever workplace conditions warrant a respirator's use. None required if airborne concentrations are maintained below the exposure limit listed in Exposure Limit Information. If necessary, use only respiratory protection authorized per U.S. OSHA's requirement in 29 CFR §1910.134, or applicable U.S. state regulations, or the appropriate standards of Canada, its provinces, E.C. member states, or Australia.

Hand protection: If anticipated that prolonged & repeated skin contact will occur during use of this product, wear chemical resistant gloves for routine industrial use.

Skin and body protection: Wear suitable working clothes.

Eye protection: Depending on the use of this product, splash or safety glasses may be worn. Ensure that an eyewash station, sink or washbasin is available in case of exposure to eyes.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on Basic Physical and Chemical Properties:

Appearance:	Physical State: Liquid Colour: Clear	**Vapour Pressure:**	29 mm Hg @ 20°C (68°F)
Odour:	Acrid	**Vapour Density (air=1):**	3.5 @ 15.5°C (60°F
Odour Threshold:	No data available	**Relative Density:**	No data available
pH:	No date available	**Bulk Density:**	0.949 g/l @ 15.5°C (60°F)
Melting Point/Freezing Point:	No data available/-48° C	**Solubility(ies):**	Water: 1.6 %@ 20°C (68°F)
Initial Boiling Point and boiling range:	101° C (214°F)	**Partition Coefficient: n-octanol/water:**	No data available
Flash Point:	11.5° C (52.7°F)	**Auto Ignition Temperature:**	421° C (790°F)
Evaporation Rate:	3.1	**Decomposition Temperature:**	No data available
Flammability:	No data available	**Viscosity:**	No data available
Flammability Limit – Lower	No data available	**Explosive Properties:**	No data available
Flammability Limit – Upper	No data available	**Oxidizing Properties:**	No data available
Log Pow	No data available	**Log Kow**	No data available

9.2 Other Information:

No information available.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No additional information available.

10.2 Chemical Stability:
Unstable

10.3 Possibility of Hazardous Reactions:
May occur

10.4 Conditions to Avoid:
Temperatures above 21°C (70°F), localized heat sources, oxidizing conditions, freezing conditions, direct sunlight, ultraviolet radiation, inert gas blanketing.

10.5 Incompatible Materials:
Strong oxidizers, strong reducers, free radical initiators, inert gases, oxygen scavengers. Material has strong solvent properties and can soften paint and rubber.

10.6 Hazardous Decomposition Products:
Oxides of carbon

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on Toxicological Effects:

11.1.1 Acute toxicity:
Oral: Toxic if swallowed
Dermal: Toxic in contact with skin
Inhalation: Vapour: Toxic if inhaled

ATE AU (oral)	100.000 mg/kg body weight
ATE AU (dermal)	300.000 mg/kg body weight
ATE AU (vapours)	3.000 mg/l/4h

Methyl methacrylate (80-62-6)	
LD50 oral rat	7900 mg/kg
LC50 inhalation rat (ppm)	4632 ppm/4h
2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester (97-90-5)	
LD50 oral rat	3300 mg/kg
Benzenamine, N,N,4-trimethyl- (99-97-8)	
LD50 oral rat	1650 mg/kg
LD50 dermal rat	> 2000 mg/kg
LC50 inhalation rat (mg/l)	1400 mg/m^3 (Exposure time: 4 h)

11.1.2 Skin corrosion/irritation:
Causes skin irritation

11.1.3 Serious eye damage/irritation:
Not classified

11.1.4 Respiratory or skin sensitisation:
May cause an allergic skin reaction

11.1.6 Germ cell mutagenicity:
Not classified

11.1.7 Carcinogenicity:
Not classified

11.1.8 Reproductive toxicity:
Not classified

11.1.9 Specific target organ toxicity

STOT – Single exposure: May cause respiratory irritation
STOT – Repeated exposure: May cause damage to organs through prolonged or repeated exposure

11.1.10 Aspiration hazard:
Not classified

SECTION 12: ECOLOGICAL INFORMATION

12.1 Ecotoxicity:

Not regarded as dangerous to the environment.

12.2 Toxicity:

Methyl methacrylate (80-62-6)	
LC50 fish 1	243 - 275 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 Daphnia 1	69 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 fish 2	125.5 - 190.7 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])

Benzenamine, N,N,4-trimethyl- (99-97-8)	
LC50 fish 1	42 - 50.5 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])

12.3 Persistence and Degradability:

No additional information available

12.4 Bioaccumulative Potential:

Methyl methacrylate (80-62-6)	
Log Pow	0.7

Benzenamine, N,N,4-trimethyl- (99-97-8)	
Log Pow	2.81

12.5 Mobility in Soil:

No additional information available

12.6 Other adverse effects:

Effect on ozone layer No additional information available

Effect on the global warming No known ecological damage caused by this product.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste Disposal Recommendations

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

SECTION 14: TRANSPORT INFORMATION

14.1 UN Number:

UN-No. (ADG): 1247
UN-No. (IMDG): 1247
UN-No. (IATA): 1247

14.2 UN Proper Shipping Name:

Proper Shipping Name (ADG): METHYL METHACRYLATE MONOMER, STABILIZED
Proper Shipping Name (IMDG): METHYL METHACRYLATE MONOMER, STABILIZED
Proper Shipping Name (IATA): Methyl methacrylate monomer, stabilized

14.3 Transport Hazard Class(es):

ADG
Transport hazard class(es) (ADG): 3
Danger labels (ADG): 3

IMDG
Transport hazard class(es) (IMDG): 3
Hazard labels (IMDG): 3

IATA
Transport hazard class(es) (IATA): 3
Hazard labels (IATA): 3

14.4 Packaging Group:

Packing group (ADG): II

Packing group (IMDG):	II
Packing group (IATA):	II

14.5 Environmental Hazards:

Marine pollutant (ADG):	No
Marine pollutant:	No

14.6 Transport by Sea:

UN-No. (IMDG):	1247
Limited quantities (IMDG):	1 L
Excepted quantities (IMDG):	E2
Packing instructions (IMDG):	P001
IBC packing instructions (IMDG):	IBC02
Tank instructions (IMDG):	T4
Tank special provisions (IMDG):	TP1
EmS-No. (Fire):	F-E - FIRE SCHEDULE Echo - NON-WATER-REACTIVE FLAMMABLE LIQUIDS
EmS-No. (Spillage):	S-D - SPILLAGE SCHEDULE Delta - FLAMMABLE LIQUIDS
Stowage category (IMDG):	B
Flash point (IMDG):	8°C c.c.

14.7 Transport by Air:

UN-No. (IATA):	1247
PCA Excepted quantities (IATA):	E2
PCA Limited quantities (IATA):	Y341
PCA limited quantity max net quantity (IATA):	1L
PCA packing instructions (IATA):	353
PCA max net quantity (IATA):	5L
CAO packing instructions (IATA):	364
CAO max net quantity (IATA):	60L
ERG code (IATA):	3L

14.8 Special Precautions for the User:

Specific storage requirement:	No data available
Shock sensitivity:	No data available

14.9 Hazchem or Emergency Action Code:

Hazchemcode:	Not applicable
EAC:	3YE - 3YE

14.10 Additional Information:

No supplementary information available

SECTION 15: REGULATORY INFORMATION

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

No additional information available

15.2 International Legislation:

15.2.1 New Zealand Regulations

HSNO Approval Code: HSR002495
Group Name: Additives, Intermediates, Process Chemicals and Raw Materials (Flammable) Group Standard 2006

SECTION 16: OTHER INFORMATION

Classification:

Flam. Liq. 2	H225
Acute Tox. 3 (Oral)	H301
Acute Tox. 3 (Dermal)	H311
Acute Tox. 3 (Inhalation:vapour)	H331
Skin Irrit. 2	H315
Skin Sens. 1	H317
STOT SE 3	H335
STOT RE 2	H373
Aquatic Chronic 3	H412
Full text of H-phrases:	
Acute Tox. 3 (Dermal)	Acute toxicity (dermal) Category 3
Acute Tox. 3 (Inhalation:vapour)	Acute toxicity (inhalation:vapour) Category 3
Acute Tox. 3 (Oral)	Acute toxicity (oral) Category 3
Aquatic Chronic 3	Hazardous to the aquatic environment - Chronic Hazard Category 3
Flam. Liq. 2	Flammable liquids Category 2
Skin Irrit. 2	Skin corrosion/irritation Category 2
Skin Sens. 1	Skin sensitization Category 1
STOT RE 2	Specific target organ toxicity (repeated exposure) Category 2
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H225	Highly flammable liquid and vapor
H301	Toxic if swallowed
H311	Toxic in contact with skin
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H331	Toxic if inhaled
H335	May cause respiratory irritation
H373	May cause damage to organs through prolonged or repeated exposure
H412	Harmful to aquatic life with long lasting effects

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product

stryker

Radiopaque Bone Cement

Safety Data Sheet (SDS)
SDS 020

SECTION 1: IDENTIFICATION

1.1 Product Identifier:

Product name: Radiopaque Bone Cement
Other name(s): AVAtex® and AVAmax® Radiopaque Bone Cement
BCPM003, BCT00CT, BCTXLCT, VMX00CT, VMXXLCT

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

Identified uses: Bone cement with radiopacifier for cement injection.

1.3 Details of the Supplier of the Safety Data Sheet (SDS):

Supplier (Australia):

Stryker Australia
8 Herbert Street,
St Leonards, NSW 2065
Australia
Phone: +61 02 9467 1000

Supplier (New Zealand):

Stryker New Zealand
515 Mt Wellington Highway,
Auckland 1060
New Zealand
Phone: +64 09 573 1890

Manufacturer:

CareFusion
75 N. Fairway Drive
Vernon Hills, IL 60061
United States
Phone: 800-523-0502
Fax: 855-329-6985

1.5 Emergency Telephone Number:

For Hazardous Materials [or Dangerous Goods] Incident Spill, Leak, Fire, Exposure, or Accident
Call CHEMTREC Day or Night

Australia (Sydney): +(61)-290372994
New Zealand (Auckland): +(64)-98010034

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the Substance or Mixture:

2.1.1 Classification in accordance with GHS-AU:

Eye Irrit. 2 H319

2.2. Label Elements:

Hazard Pictograms (GHS-AU):

GHS07

Signal word (GHS-AU): **Warning**

Hazard statements (GHS-AU):	H319	Causes serious eye irritation
Precautionary statements (GHS-AU):	P264	Wash thoroughly after handling
	P280	Wear protective gloves/protective clothing/eye protection/face protection
	P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	P337+P313	If eye irritation persists: Get medical advice/attention

2.3. Other Hazards:

No additional information available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:

This product is a preparation.

3.2 Mixtures:

Product Name:	CAS-No:	Composition (%):
2-Propenoic acid, 2-methyl-, methyl ester, polymer with ethenylbenzene	25034-86-0	65-75
Barium sulfate	7727-43-7	25-35

SECTION 4: FIRST AID MEASURES

4.1. Description of First Aid Measures:

Inhalation: Remove to fresh air. Seek immediate medical attention.

Skin: If irritation occurs and product is on the skin, rinse thoroughly with lukewarm water, followed by a thorough washing of the affected area with soap and water. If irritation, redness or swelling persists, contact a physician immediately.

Eyes: If product gets in the eyes, flush with copious amounts of lukewarm water for at least 15 minutes. If irritation occurs, contact a physician.

Ingestion: If ingested, do not induce vomiting. If product has been swallowed, drink plenty of water or milk IMMEDIATELY. If the patient is vomiting, continue to offer water or milk. Never give water or milk to an unconscious person. Provide an estimate of the time at which the material was ingested and the amount of the substance that was swallowed. Get medical attention immediately.

4.2. Most Important Symptoms and Effects, Both Acute and Delayed:

Inhalation: May cause irritation by gross overexposure, no matter how generated. Long term inhalation of dust may lead to deposition in lungs in sufficient quantities to produce baritosis – a benign pneumoconiosis. This produces a radiological picture even though symptoms and abnormal signs may not be present.

Ingestion: Not expected to cause any harmful effects. May be irritating if product is swallowed, may cause nausea, headache, vomiting and/or diarrhoea.

Skin: May be irritating to skin in some sensitive individuals, especially after prolonged and/or repeated contact.

Eyes: May be irritating to the eyes by gross overexposure, no matter how generated. Symptoms of overexposure may include redness, itching, irritation and watering. Keep dust out of eyes.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed:

No additional information available

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing Media:

Suitable extinguishing agent:

Water, carbon dioxide, dry chemical.

Unsuitable extinguishing media:

Avoid extinguishing methods which may generate dust clouds.

5.2. Special Hazards Arising from the Substance or Mixture:

Fire hazard: Polymer dust is combustible. The explosive limits of the polymer particles suspended in air are approximately those of coal dust.

Explosion hazard: Water stream can disperse dust into air, producing a fire hazard and possible explosion hazard if exposed to ignition source.

5.3.1 Advice for fire-fighters:

Protective equipment for firefighters: Firefighters should wear full protective gear.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment, and Emergency Procedures:

6.1.1 For non-emergency personnel
No additional information available

6.1.2 For emergency responders
No additional information available

6.2. Environmental Precautions:
Avoid release to the environment.

6.3. Methods and Material for Containment and Cleaning Up:

For containment: Stop the flow of material, if this is without risk.

Methods for cleaning up: For spills <1 gallon: Sweep up to avoid slipping hazard. Keep airborne particulates at a minimum when cleaning up spills. Dispose of properly in accordance with local, state and federal regulations. Wash all affected areas with plenty of warm water and soap.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling:

Use in well ventilated areas. Avoid contact with skin, eyes and clothing. Avoid breathing dust. Use good personal hygiene and housekeeping

7.2. Conditions for Safe Storage, Including any Incompatibilities:

Store in a cool, dry location, away from direct sunlight, other light sources, or sources of intense heat. Material should be stored in secondary containers as appropriate. Keep container closed to prevent water absorption and contamination.

7.3. Specific End Use(s):

No additional information available

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters – exposure standards:

Barium Sulfate (7727-43-7)		
Australia	TWA (mg/m^3)	10 mg/m^3 (containing no asbestos and <1% crystalline silica-inhalable dust)

8.2 Biological Monitoring:
No additional information available.

8.3 Appropriate Engineering Controls
When working with large quantities of product, provide adequate ventilation (e.g., local exhaust ventilation, fans). Ensure that an eyewash station, sink or washbasin is available in case of exposure to eyes. Use good, local exhaust at processing equipment, including buffers, sanders, grinders and polishers.

8.4 Personal Protective Equipment

Thermal hazards: No data available

Respiratory protection: No special respiratory protection is required under typical circumstances of use or handling. If necessary, use only respiratory protection authorized per U.S. OSHA's requirement in 29 CFR §1910.134, or applicable U.S. state regulations, or the appropriate standards of Canada, its provinces, E.C. member states, or Australia.

Hand protection: If anticipated that prolonged & repeated skin contact will occur during use of this product, wear latex or rubber gloves for routine industrial use.

Skin and body protection: Wear suitable working clothes.

Eye protection: Depending on the use of this product, splash or safety glasses may be worn. Ensure that an eyewash station, sink or washbasin is available in case of exposure to eyes.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties:

Appearance:	Physical State: Solid Colour: Fine clear to pigmented powder	**Vapour Pressure:**	No data available
Odour:	Faint odour in bulk	**Vapour Density (air=1):**	No data available
Odour Threshold:	No data available	**Relative Density:**	No data available
pH:	No date available	**Bulk Density:**	No data available
Melting Point/Freezing Point:	No data available	**Solubility(ies):**	Insoluble
Initial Boiling Point and boiling range:	No data available	**Partition Coefficient: n-octanol/water:**	No data available
Flash Point:	304° C (580°F)	**Auto Ignition Temperature:**	No data available
Evaporation Rate:	No data available	**Decomposition Temperature:**	No data available
Flammability:	No data available	**Viscosity:**	No data available
Flammability Limit – Lower	No data available	**Explosive Properties:**	No data available
Flammability Limit – Upper	No data available	**Oxidizing Properties:**	No data available
Log Pow	No data available	**Log Kow**	No data available
Specific gravity	1.25 for Methyl Methacrylate copolymer and 4.5 for Barium Sulfate		

9.2. Other Information:

No information available.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity:

No additional information available.

10.2. Chemical Stability:

Stable under ordinary conditions of use and storage

10.3. Possibility of Hazardous Reactions:
Will not occur

10.4. Conditions to Avoid:
Heating above 240°C (464°F)

10.5 Incompatible Materials:
Not determined.

10.6 Hazardous Decomposition Products:
Methyl Methacrylate Monomer and Oxides of Carbon and Sulfur when burned.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on Toxicological Effects:

11.1.1 Acute toxicity:
Not classified

11.1.2 Skin corrosion/irritation:
Not classified

11.1.3 Serious eye damage/irritation:
Causes serious eye irritation

11.1.4 Respiratory or skin sensitisation:
Not classified

11.1.5 Germ cell mutagenicity:
Not classified

11.1.6 Carcinogenicity:
Not classified

11.1.7 Reproductive toxicity:
Not classified

11.1.8 Specific target organ toxicity:

STOT – Single exposure: Not classified
STOT – Repeated exposure: Not classified

11.1.9 Aspiration hazard:
Not classified

SECTION 12: ECOLOGICAL INFORMATION

12.1. Ecotoxicity:
No additional information available

12.2. Toxicity:
No additional information available

12.3. Persistence and Degradability:

No additional information available

12.4. Bioccumulative potential:
No additional information available

12.5. Mobility in Soil:
No additional information available

12.6. Other adverse effects:

Effect on ozone layer	No additional information available
Effect on the global warming	No known ecological damage caused by this product.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste Disposal Recommendations
Dispose of contents/container in accordance with local/regional/national/international regulations.

SECTION 14: TRANSPORT INFORMATION

14.1 UN Number:
Not regulated for transport

14.2 UN Proper Shipping Name:

No data available

14.3 Transport Hazard Class(es):

ADG
Transport hazard class(es) (ADG): Not applicable

IMDG
Transport hazard class(es) (IMDG): Not applicable

IATA
Transport hazard class(es) (IATA): Not applicable

14.4 Packaging Group:

No data available

14.5 Environmental Hazards:

Marine pollutant (ADG): No
Marine pollutant: No

14.6 Special precautions for user:

Specific storage requirement: No data available
Shock sensitivity: No data available

14.7 Additional information:

Transport by Sea:
Not applicable

Transport by Air:
Not applicable

14.8 Hazchem or Emergency Action Code:

Hazchemcode: Not applicable

SECTION 15: REGULATORY INFORMATION

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

No additional information available

15.2 International Legislation:

15.2.1 New Zealand Regulations

HSNO Approval Code: HSR002495
Group Name: Additives, Intermediates, Process Chemicals and Raw Materials (Flammable) Group Standard 2006

SECTION 16: OTHER INFORMATION

Classification:

Eye Irrit. 2	H319

Full text of H-phrases:

Eye Irrit. 2	Serious Eye damage/eye irritation Category 2
H319	Causes serious eye irritation

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product