



Safety Information Sheet for Medical Devices

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A safety data sheet is not required for this Product. This Safety Information Sheet has been created on a voluntary basis.

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

3M™ Scotchbond™ Universal (41258)

Product Identification Numbers

LE-F100-1014-6 LE-F100-1014-7 LE-F100-1014-9 70-2011-3903-0

7000055178

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

Identified uses

Medical device; refer to Instructions for Use

Restrictions on Use

For use only by dental professionals.

1.3 Details of the supplier of the safety information sheet for medical devices

Address: 3M Ireland Limited, The Iveagh Building, The Park, Carrickmines, Dublin 18.
Telephone: +353 1 280 3555
E Mail: tox.uk@mmm.com
Website: www.3M.com

1.4. Emergency telephone number

+44 (0)1344 858 000

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

CLP REGULATION (EC) No 1272/2008

The health and environmental classifications of this material have been derived using the calculation method, except in cases where test data are available or the physical form impacts classification. Classification(s) based on test data or physical form are noted below, if applicable.

This material has been tested for eye damage/irritation and the test results are reflected in the assigned classification.

This material has been tested for skin corrosion/irritation and the test results do not meet the criteria for classification.

This product is a medical device as defined in Directive 93/42/EEC (MDD) respectively Regulation (EU) 2017/745 (MDR), which is invasive or used in direct physical contact with the human body, and therefore is exempt from the requirements of classification and labelling according to Regulation (EC) No. 1272/2008 (CLP; Article 1, paragraph 5). Although not required, the classification and label information, as applicable, is provided below.

CLASSIFICATION:

Flammable Liquid, Category 3 - Flam. Liq. 3; H226
 Serious Eye Damage/Eye Irritation, Category 1 - Eye Dam. 1; H318
 Skin Sensitization, Category 1 - Skin Sens. 1; H317
 Reproductive Toxicity, Category 1B - Repr. 1B; H360F
 Hazardous to the Aquatic Environment (Chronic), Category 3 - Aquatic Chronic 3; H412

For full text of H phrases, see Section 16.

2.2. Label elements

CLP REGULATION (EC) No 1272/2008

SIGNAL WORD

DANGER.

Symbols

GHS02 (Flame) | GHS05 (Corrosion) | GHS07 (Exclamation mark) | GHS08 (Health Hazard) |

Pictograms



Ingredients:

Ingredient	CAS Nbr	EC No.	% by Wt
Methacrylate (HEMA)	868-77-9	212-782-2	15 - 25
Phosphorylated methacrylate	1207736-18-2	944-391-4	10 - 20
Aromatic amine	10287-53-3	233-634-3	< 2
Methacrylated amine	2867-47-2	220-688-8	< 1

HAZARD STATEMENTS:

H226	Flammable liquid and vapour.
H318	Causes serious eye damage.
H317	May cause an allergic skin reaction.
H360F	May damage fertility.
H412	Harmful to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS

Prevention:

P201	Obtain special instructions before use.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280B	Wear protective gloves and eye/face protection.

Response:

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P310 Immediately call a POISON CENTRE or doctor/physician.
 P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.

SUPPLEMENTAL INFORMATION:

Supplemental Precautionary Statements:

Restricted to professional users.

2.3. Other hazards

For information on hazards and safe use, please consider the corresponding sections of this document.
 This material does not contain any substances that are assessed to be a PBT or vPvB

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Ingredient	Identifier(s)	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Dimethacrylate (Bis-GMA)	(CAS-No.) 1565-94-2 (EC-No.) 216-367-7	15 - 25	Substance not classified as hazardous
Methacrylate (HEMA)	(CAS-No.) 868-77-9 (EC-No.) 212-782-2	15 - 25	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Nota D
Phosphorylated methacrylate	(CAS-No.) 1207736-18-2 (EC-No.) 944-391-4	10 - 20	Skin Corr. 1B, H314 Eye Dam. 1, H318 Aquatic Acute 1, H400,M=1 Aquatic Chronic 2, H411
Water	(CAS-No.) 7732-18-5 (EC-No.) 231-791-2	10 - 15	Substance not classified as hazardous
Ethyl alcohol	(CAS-No.) 64-17-5 (EC-No.) 200-578-6	10 - 15	Flam. Liq. 2, H225 Eye Irrit. 2, H319
Silane treated silica	(CAS-No.) 122334-95-6 (EC-No.) 310-178-4	7 - 13	Substance not classified as hazardous
Polymeric acid	(CAS-No.) 25948-33-8	1 - 5	Substance not classified as hazardous
BHT	(CAS-No.) 128-37-0 (EC-No.) 204-881-4	< 0.5	Aquatic Chronic 1, H410,M=1 Aquatic Acute 1, H400,M=1
Camphorquinone	(CAS-No.) 10373-78-1 (EC-No.) 233-814-1	< 2	Substance not classified as hazardous
Aromatic amine	(CAS-No.) 10287-53-3	< 2	Aquatic Chronic 2, H411 Repr. 1B, H360F

	(EC-No.) 233-634-3		
Methyacrylated amine	(CAS-No.) 2867-47-2 (EC-No.) 220-688-8	< 1	Acute Tox. 4, H312 Acute Tox. 4, H302 Skin Sens. 1B, H317 Nota D Skin Corr. 1B, H314 Eye Dam. 1, H318

Any entry in the Identifier(s) column that begins with the numbers 6, 7, 8, or 9 are a Provisional List Number provided by ECHA pending publication of the official EC Inventory Number for the substance.

Please see section 16 for the full text of any H statements referred to in this section

Specific Concentration Limits

Ingredient	Identifier(s)	Specific Concentration Limits
Ethyl alcohol	(CAS-No.) 64-17-5 (EC-No.) 200-578-6	(C >= 50%) Eye Irrit. 2, H319

For information on ingredient occupational exposure limits or PBT or vPvB status, see sections 8 and 12 of this SIS

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation

Remove person to fresh air. If you feel unwell, get medical attention.

Skin contact

Immediately wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms develop, get medical attention.

Eye contact

Immediately flush with large amounts of water for at least 15 minutes. Remove contact lenses if easy to do. Continue rinsing. Immediately get medical attention.

If swallowed

Rinse mouth. Do not induce vomiting. Get immediate medical attention.

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry chemical or carbon dioxide to extinguish.

5.2. Special hazards arising from the substance or mixture

Closed containers exposed to heat from fire may build pressure and explode.

Hazardous Decomposition or By-Products

Substance

formaldehyde
Carbon monoxide
Carbon dioxide.
Irritant vapours or gases.
Oxides of nitrogen.

Condition

During combustion.
During combustion.
During combustion.
During combustion.
During combustion.

5.3. Advice for fire-fighters

Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture. Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Evacuate area. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapours, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapours in the spill area to burn or explode. Refer to other sections of this SIS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Contain spill. Cover spill area with a fire extinguishing foam that is resistant to polar solvents. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible using non-sparking tools. Place in a metal container approved for transportation by appropriate authorities. Clean up residue with detergent and water. Seal the container. Dispose of collected material as soon as possible.

SECTION 7: Handling and storage

Refer to Instructions for Use (IFU) for more information.

SECTION 8: Exposure controls/personal protection**8.1 Control parameters****Occupational exposure limits**

If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

Ingredient	CAS Nbr	Agency	Limit type	Additional comments
BHT	128-37-0	Ireland OELs	TWA(8 hours):2 mg/m3	
Ethyl alcohol	64-17-5	Ireland OELs	STEL(15 minutes):1000 ppm	

Ireland OELs : Ireland. OELs
TWA: Time-Weighted-Average
STEL: Short Term Exposure Limit
CEIL: Ceiling

Biological limit values

No biological limit values exist for any of the components listed in Section 3 of this safety information sheet.

8.2. Exposure controls**8.2.1. Engineering controls**

Use in a well-ventilated area.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:

Safety glasses with side shields.

Applicable Norms/Standards

Use eye protection conforming to EN 166

Skin/hand protection

See Section 7.1 for additional information on skin protection.

Respiratory protection

None required.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid.
Specific Physical Form:	Viscous Liquid
Colour	Yellow
Odor	Characteristic Odour
Melting point/freezing point	<i>No data available.</i>
Boiling point/boiling range	≥ 78 °C
Flammability (solid, gas)	Not applicable.
Flammable Limits(LEL)	<i>No data available.</i>
Flammable Limits(UEL)	<i>No data available.</i>
Flash point	30.5 °C [<i>Test Method:</i> Closed Cup]
Autoignition temperature	<i>No data available.</i>
Relative density	1 - 1.2 [<i>Ref Std:</i> WATER=1]
pH	
Kinematic Viscosity	<i>Not applicable.</i>
Water solubility	Appreciable
Density	1 g/cm ³ - 1.2 g/cm ³

9.2. Other information**9.2.2 Other safety characteristics**

EU Volatile Organic Compounds	<i>No data available.</i>
Evaporation rate	<i>No data available.</i>
Molecular weight	<i>No data available.</i>

SECTION 10: Stability and reactivity

10.1 Reactivity

This material is considered to be non reactive under normal use conditions

10.2 Chemical stability

Stable.

10.3 Possibility of hazardous reactions

Hazardous polymerisation will not occur.

10.4 Conditions to avoid

Heat.

10.5 Incompatible materials

None known.

10.6 Hazardous decomposition products

<u>Substance</u>	<u>Condition</u>
None known.	

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

The information below may not agree with the EU material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 11 are based on UN GHS calculation rules and classifications derived from internal hazard assessments.

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

Inhalation

No health effects are expected.

Skin contact

Contact with the skin during product use is not expected to result in significant irritation. Allergic skin reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

Eye contact

Corrosive (eye burns): Signs/symptoms may include cloudy appearance of the cornea, chemical burns, severe pain, tearing, ulcerations, significantly impaired vision or complete loss of vision.

Ingestion

Gastrointestinal corrosion: Signs/symptoms may include severe mouth, throat and abdominal pain, nausea, vomiting, and diarrhea; blood in the faeces and/or vomitus may also be seen. May cause additional health effects (see below).

Additional Health Effects:

Reproductive/Developmental Toxicity:

Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

Additional information:

This product contains ethanol. Alcoholic beverages and ethanol in alcoholic beverages have been classified by the International Agency for Research on Cancer as carcinogenic to humans. There are also data associating human consumption of alcoholic beverages with developmental toxicity and liver toxicity. Exposure to ethanol during the foreseeable use of this product is not expected to cause cancer, developmental toxicity, or liver toxicity.

Toxicological Data

If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

Acute Toxicity

Name	Route	Species	Value
Overall product	Dermal		No data available; calculated ATE >5,000 mg/kg
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
Methacrylate (HEMA)	Dermal	Rabbit	LD50 > 5,000 mg/kg
Methacrylate (HEMA)	Ingestion	Rat	LD50 5,564 mg/kg
Dimethacrylate (Bis-GMA)	Dermal	Professional judgement	LD50 estimated to be > 5,000 mg/kg
Dimethacrylate (Bis-GMA)	Ingestion	Rat	LD50 > 11,700 mg/kg
Ethyl alcohol	Dermal	Rabbit	LD50 > 15,800 mg/kg
Ethyl alcohol	Inhalation-Vapour (4 hours)	Rat	LC50 124.7 mg/l
Ethyl alcohol	Ingestion	Rat	LD50 17,800 mg/kg
Phosphorylated methacrylate	Dermal	Professional judgement	LD50 estimated to be > 5,000 mg/kg
Phosphorylated methacrylate	Ingestion	Rat	LD50 > 2,000 mg/kg
Silane treated silica	Dermal	Rabbit	LD50 > 5,000 mg/kg
Silane treated silica	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 0.691 mg/l
Silane treated silica	Ingestion	Rat	LD50 > 5,110 mg/kg
Polymeric acid	Ingestion	Rat	LD50 > 5,000 mg/kg
Polymeric acid	Dermal	similar health hazards	LD50 estimated to be > 5,000 mg/kg
Camphorquinone	Dermal	Professional judgement	LD50 estimated to be 2,000 - 5,000 mg/kg
Camphorquinone	Ingestion	Rat	LD50 > 2,000 mg/kg
Aromatic amine	Dermal	Rat	LD50 > 2,000 mg/kg
Aromatic amine	Ingestion	Rat	LD50 > 2,000 mg/kg
Methacrylated amine	Dermal	Rat	LD50 > 2,000 mg/kg
Methacrylated amine	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 0.436 mg/l
Methacrylated amine	Ingestion	Rat	LD50 > 2,000 mg/kg
BHT	Dermal	Rat	LD50 > 2,000 mg/kg
BHT	Ingestion	Rat	LD50 > 2,930 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Overall product	Rabbit	No significant irritation
Methacrylate (HEMA)	Rabbit	Minimal irritation
Dimethacrylate (Bis-GMA)	Rabbit	No significant irritation
Ethyl alcohol	Rabbit	No significant irritation
Phosphorylated methacrylate	In vitro data	Corrosive
Silane treated silica	Rabbit	No significant irritation
Aromatic amine	Rabbit	No significant irritation
Methacrylated amine	Rabbit	Corrosive
BHT	Human and animal	Minimal irritation

Serious Eye Damage/Irritation

Name	Species	Value
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Overall product	In vitro data	Corrosive
Methacrylate (HEMA)	Rabbit	Moderate irritant
Dimethacrylate (Bis-GMA)	In vitro data	No significant irritation
Ethyl alcohol	Rabbit	Severe irritant
Phosphorylated methacrylate	In vitro data	Corrosive
Silane treated silica	Rabbit	No significant irritation
Aromatic amine	Rabbit	No significant irritation
Methacrylated amine	Rabbit	Corrosive
BHT	Rabbit	Mild irritant

Skin Sensitisation

Name	Species	Value
Methacrylate (HEMA)	Human and animal	Sensitising
Dimethacrylate (Bis-GMA)	Mouse	Not classified
Ethyl alcohol	Human	Not classified
Phosphorylated methacrylate	Mouse	Sensitising
Silane treated silica	Human and animal	Not classified
Aromatic amine		Not classified
Methacrylated amine	Guinea pig	Sensitising
BHT	Human	Not classified

Respiratory Sensitisation

For the component/components, either no data is currently available or the data is not sufficient for classification.

Germ Cell Mutagenicity

Name	Route	Value
Methacrylate (HEMA)	In vivo	Not mutagenic
Methacrylate (HEMA)	In Vitro	Some positive data exist, but the data are not sufficient for classification
Dimethacrylate (Bis-GMA)	In Vitro	Not mutagenic
Ethyl alcohol	In Vitro	Some positive data exist, but the data are not sufficient for classification
Ethyl alcohol	In vivo	Some positive data exist, but the data are not sufficient for classification
Phosphorylated methacrylate	In Vitro	Not mutagenic
Silane treated silica	In Vitro	Not mutagenic
Aromatic amine	In vivo	Not mutagenic
Aromatic amine	In Vitro	Some positive data exist, but the data are not sufficient for classification
Methacrylated amine	In vivo	Not mutagenic
Methacrylated amine	In Vitro	Some positive data exist, but the data are not sufficient for classification
BHT	In Vitro	Not mutagenic
BHT	In vivo	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
Ethyl alcohol	Ingestion	Multiple animal species	Some positive data exist, but the data are not sufficient for classification
Silane treated silica	Not	Mouse	Some positive data exist, but the data are not

	specified.		sufficient for classification
BHT	Ingestion	Multiple animal species	Some positive data exist, but the data are not sufficient for classification

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
Methacrylate (HEMA)	Ingestion	Not classified for female reproduction	Rat	NOAEL 1,000 mg/kg/day	prematuring & during gestation
Methacrylate (HEMA)	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,000 mg/kg/day	49 days
Methacrylate (HEMA)	Ingestion	Not classified for development	Rat	NOAEL 1,000 mg/kg/day	prematuring & during gestation
Dimethacrylate (Bis-GMA)	Ingestion	Not classified for development	Rat	NOAEL 1,000 mg/kg/day	during gestation
Ethyl alcohol	Inhalation	Not classified for development	Rat	NOAEL 38 mg/l	during gestation
Ethyl alcohol	Ingestion	Not classified for development	Rat	NOAEL 5,200 mg/kg/day	prematuring & during gestation
Silane treated silica	Ingestion	Not classified for female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation
Silane treated silica	Ingestion	Not classified for male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
Silane treated silica	Ingestion	Not classified for development	Rat	NOAEL 1,350 mg/kg/day	during organogenesis
Aromatic amine	Ingestion	Not classified for female reproduction	Rat	NOAEL 600 mg/kg/day	prematuring into lactation
Aromatic amine	Ingestion	Not classified for development	Rat	NOAEL 50 mg/kg/day	prematuring into lactation
Aromatic amine	Ingestion	Toxic to male reproduction	Rat	NOAEL 50 mg/kg/day	53 days
Methacrylated amine	Ingestion	Not classified for female reproduction	Rat	NOAEL 1,000 mg/kg/day	prematuring into lactation
Methacrylated amine	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,000 mg/kg/day	43 days
Methacrylated amine	Ingestion	Not classified for development	Rat	NOAEL 200 mg/kg/day	prematuring into lactation
BHT	Ingestion	Not classified for female reproduction	Rat	NOAEL 500 mg/kg/day	2 generation
BHT	Ingestion	Not classified for male reproduction	Rat	NOAEL 500 mg/kg/day	2 generation
BHT	Ingestion	Not classified for development	Rat	NOAEL 100 mg/kg/day	2 generation

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Ethyl alcohol	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	LOAEL 9.4 mg/l	not available
Ethyl alcohol	Inhalation	central nervous system depression	Not classified	Human and animal	NOAEL not available	

Ethyl alcohol	Ingestion	central nervous system depression	Not classified	Multiple animal species	NOAEL not available	
Ethyl alcohol	Ingestion	kidney and/or bladder	Not classified	Dog	NOAEL 3,000 mg/kg	
Phosphorylated methacrylate	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	
Polymeric acid	Ingestion	nervous system	Not classified	Rat	NOAEL 5,000 mg/kg	
Methacrylated amine	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Dimethacrylate (Bis-GMA)	Ingestion	endocrine system hematopoietic system liver heart skin gastrointestinal tract bone, teeth, nails, and/or hair immune system muscles nervous system eyes kidney and/or bladder respiratory system vascular system	Not classified	Rat	NOAEL 1,000 mg/kg/day	90 days
Ethyl alcohol	Inhalation	liver	Some positive data exist, but the data are not sufficient for classification	Rabbit	LOAEL 124 mg/l	365 days
Ethyl alcohol	Inhalation	hematopoietic system immune system	Not classified	Rat	NOAEL 25 mg/l	14 days
Ethyl alcohol	Ingestion	liver	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 8,000 mg/kg/day	4 months
Ethyl alcohol	Ingestion	kidney and/or bladder	Not classified	Dog	NOAEL 3,000 mg/kg/day	7 days
Silane treated silica	Inhalation	respiratory system silicosis	Not classified	Human	NOAEL Not available	occupational exposure
Polymeric acid	Ingestion	endocrine system hematopoietic system liver	Not classified	Rat	NOAEL 200 mg/kg/day	28 days
Polymeric acid	Ingestion	heart bone, teeth, nails, and/or hair immune system muscles nervous system eyes kidney and/or bladder respiratory system vascular system	Not classified	Rat	NOAEL 2,000 mg/kg/day	28 days
Aromatic amine	Ingestion	hematopoietic system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 74 mg/kg/day	28 days
Aromatic amine	Ingestion	liver heart endocrine system gastrointestinal tract bone, teeth, nails, and/or hair immune system muscles nervous system eyes	Not classified	Rat	NOAEL 900 mg/kg/day	28 days

		kidney and/or bladder respiratory system vascular system				
Methacrylated amine	Inhalation	heart endocrine system gastrointestinal tract hematopoietic system liver immune system kidney and/or bladder respiratory system	Not classified	Rat	NOAEL 1.6 mg/l	21 days
Methacrylated amine	Ingestion	gastrointestinal tract immune system nervous system heart skin endocrine system bone, teeth, nails, and/or hair hematopoietic system liver muscles eyes kidney and/or bladder respiratory system vascular system	Not classified	Rat	NOAEL 500 mg/kg/day	13 weeks
BHT	Ingestion	liver	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 250 mg/kg/day	28 days
BHT	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 500 mg/kg/day	2 generation
BHT	Ingestion	blood	Not classified	Rat	LOAEL 420 mg/kg/day	40 days
BHT	Ingestion	endocrine system	Not classified	Rat	NOAEL 25 mg/kg/day	2 generation
BHT	Ingestion	heart	Not classified	Mouse	NOAEL 3,480 mg/kg/day	10 weeks

Aspiration Hazard

For the component/components, either no data is currently available or the data is not sufficient for classification.

Please contact the address or phone number listed on the first page of the SIS for additional toxicological information on this material and/or its components.

The product was evaluated by a toxicologist to be safe for its intended use.

11.2. Information on other hazards

This material does not contain any substances that are assessed to be an endocrine disruptor for human health.

SECTION 12: Ecological information

The information below may not agree with the EU material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 12 are based on UN GHS calculation rules and classifications derived from 3M assessments.

12.1. Toxicity

No product test data available.

Material	CAS #	Organism	Type	Exposure	Test endpoint	Test result
Dimethacrylate (Bis-GMA)	1565-94-2	Common Carp	Analogous Compound	96 hours	No tox obs at lmt of water sol	>100 mg/l
Dimethacrylate (Bis-GMA)	1565-94-2	Green algae	Endpoint not reached	96 hours	EC50	>100 mg/l
Dimethacrylate (Bis-GMA)	1565-94-2	Green algae	Analogous Compound	96 hours	EC10	1.1 mg/l
Dimethacrylate (Bis-GMA)	1565-94-2	Activated sludge	Analogous Compound	3 hours	EC50	>100 mg/l
Methacrylate (HEMA)	868-77-9	Turbot	Analogous Compound	96 hours	LC50	833 mg/l
Methacrylate (HEMA)	868-77-9	Fathead minnow	Experimental	96 hours	LC50	227 mg/l
Methacrylate (HEMA)	868-77-9	Green algae	Experimental	72 hours	EC50	710 mg/l
Methacrylate (HEMA)	868-77-9	Water flea	Experimental	48 hours	EC50	380 mg/l
Methacrylate (HEMA)	868-77-9	Green algae	Experimental	72 hours	NOEC	160 mg/l
Methacrylate (HEMA)	868-77-9	Water flea	Experimental	21 days	NOEC	24.1 mg/l
Methacrylate (HEMA)	868-77-9		Experimental	16 hours	EC0	>3,000 mg/l
Methacrylate (HEMA)	868-77-9		Experimental	18 hours	LD50	<98 mg per kg of bodyweight
Phosphorylated methacrylate	1207736-18-2	Green algae	Experimental	72 hours	EC50	0.718 mg/l
Phosphorylated methacrylate	1207736-18-2	Water flea	Experimental	48 hours	EL50	>104 mg/l
Phosphorylated methacrylate	1207736-18-2	Green algae	Experimental	72 hours	NOEC	0.1 mg/l
Ethyl alcohol	64-17-5	Fathead minnow	Experimental	96 hours	LC50	14,200 mg/l
Ethyl alcohol	64-17-5	Fish	Experimental	96 hours	LC50	11,000 mg/l
Ethyl alcohol	64-17-5	Green algae	Experimental	72 hours	EC50	275 mg/l
Ethyl alcohol	64-17-5	Water flea	Experimental	48 hours	LC50	5,012 mg/l
Ethyl alcohol	64-17-5	Green algae	Experimental	72 hours	ErC10	11.5 mg/l
Ethyl alcohol	64-17-5	Water flea	Experimental	10 days	NOEC	9.6 mg/l
Silane treated silica	122334-95-6	Activated sludge	Estimated	3 hours	NOEC	>=1,000 mg/l
Silane treated silica	122334-95-6		Data not available or insufficient for classification			N/A
BHT	128-37-0	Activated sludge	Experimental	3 hours	EC50	>10,000 mg/l
BHT	128-37-0	Green algae	Experimental	72 hours	EC50	>0.4 mg/l
BHT	128-37-0	Water flea	Experimental	48 hours	EC50	0.48 mg/l
BHT	128-37-0	Zebra Fish	Experimental	96 hours	No tox obs at lmt of water sol	>100 mg/l
BHT	128-37-0	Green algae	Experimental	72 hours	EC10	0.4 mg/l
BHT	128-37-0	Medaka	Experimental	42 days	NOEC	0.053 mg/l
BHT	128-37-0	Water flea	Experimental	21 days	NOEC	0.023 mg/l
Polymeric acid	25948-33-8		Data not available or insufficient for classification			N/A
Aromatic amine	10287-53-3	Activated sludge	Experimental	3 hours	EC50	>1,000 mg/l

Aromatic amine	10287-53-3	Green algae	Experimental	72 hours	EC50	2.8 mg/l
Aromatic amine	10287-53-3	Rainbow trout	Experimental	96 hours	LC50	1.9 mg/l
Aromatic amine	10287-53-3	Water flea	Experimental	48 hours	EC50	4.5 mg/l
Aromatic amine	10287-53-3	Green algae	Experimental	72 hours	ErC10	0.71 mg/l
Camphorquinone	10373-78-1		Data not available or insufficient for classification			N/A
Methacrylated amine	2867-47-2	Bacteria	Experimental	18 hours	EC10	42.7 mg/l
Methacrylated amine	2867-47-2	Green algae	Experimental	72 hours	ErC50	69.7 mg/l
Methacrylated amine	2867-47-2	Medaka	Experimental	96 hours	LC50	19 mg/l
Methacrylated amine	2867-47-2	Water flea	Experimental	48 hours	EC50	33 mg/l
Methacrylated amine	2867-47-2	Green algae	Experimental	72 hours	NOEC	32 mg/l
Methacrylated amine	2867-47-2	Water flea	Experimental	21 days	NOEC	4.35 mg/l

12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Dimethacrylate (Bis-GMA)	1565-94-2	Analogous Compound Biodegradation	28 days	BOD	21 %BOD/ThOD	similar to OECD 301F
Methacrylate (HEMA)	868-77-9	Experimental Biodegradation	28 days	BOD	84 %BOD/CO ₂ D	OECD 301D - Closed bottle test
Methacrylate (HEMA)	868-77-9	Experimental Hydrolysis		Hydrolytic half-life basic pH	10.9 days (t _{1/2})	OECD 111 Hydrolysis func of pH
Phosphorylated methacrylate	1207736-18-2	Experimental Biodegradation	28 days	BOD	77-80 %BOD/ThOD	OECD 301F - Manometric respirometry
Ethyl alcohol	64-17-5	Experimental Biodegradation	14 days	BOD	89 %BOD/ThOD	OECD 301C - MITI test (I)
Silane treated silica	122334-95-6	Data not available - insufficient	N/A	N/A	N/A	N/A
BHT	128-37-0	Data not available - insufficient	N/A	N/A	N/A	N/A
Polymeric acid	25948-33-8	Data not available - insufficient	N/A	N/A	N/A	N/A
Aromatic amine	10287-53-3	Experimental Biodegradation	28 days	CO ₂ evolution	40 %CO ₂ evolution/THCO ₂ evolution	OECD 301B - Modified sturm or CO ₂
Camphorquinone	10373-78-1	Estimated Biodegradation	28 days	BOD	20.6 %BOD/ThOD	OECD 301C - MITI test (I)
Methacrylated amine	2867-47-2	Experimental Biodegradation	28 days	Dissolv. Organic Carbon Deplet	95.3 %removal of DOC	OECD 301E - Modif. OECD Screen
Methacrylated amine	2867-47-2	Modeled Photolysis		Photolytic half-life (in air)	3.9 hours (t _{1/2})	
Methacrylated amine	2867-47-2	Experimental Hydrolysis		Hydrolytic half-life	4.5 days (t _{1/2})	OECD 111 Hydrolysis func of pH

12.3 : Bioaccumulative potential

Material	Cas No.	Test type	Duration	Study Type	Test result	Protocol
Dimethacrylate (Bis-GMA)	1565-94-2	Modeled Bioconcentration		Bioaccumulation factor	5.8	Catalogic™
Dimethacrylate (Bis-GMA)	1565-94-2	Analogous Compound Bioconcentration		Log Kow	4.63	OECD 117 log Kow HPLC method

Methacrylate (HEMA)	868-77-9	Experimental Bioconcentration		Log Kow	0.42	OECD 107 log Kow shke flask mtd
Phosphorylated methacrylate	1207736-18-2	Modeled Bioconcentration		Log Kow	-2.02	ACD/Labs ChemSketch™
Ethyl alcohol	64-17-5	Experimental Bioconcentration		Log Kow	-0.35	
Silane treated silica	122334-95-6	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
BHT	128-37-0	Experimental BCF - Fish	56 days	Bioaccumulation factor	1277	OECD305-Bioconcentration
Polymeric acid	25948-33-8	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Aromatic amine	10287-53-3	Experimental Bioconcentration		Log Kow	3.2	
Camphorquinone	10373-78-1	Estimated Bioconcentration		Bioaccumulation factor	7.1	
Methacrylated amine	2867-47-2	Experimental Bioconcentration		Log Kow	1.13	OECD 107 log Kow shke flask mtd

12.4. Mobility in soil

Material	Cas No.	Test type	Study Type	Test result	Protocol
Methacrylate (HEMA)	868-77-9	Experimental Mobility in Soil	Koc	42.7 l/kg	
Camphorquinone	10373-78-1	Estimated Mobility in Soil	Koc	20 l/kg	Episuite™
Methacrylated amine	2867-47-2	Modeled Mobility in Soil	Koc	26 l/kg	Episuite™

12.5. Results of the PBT and vPvB assessment

This material does not contain any substances that are assessed to be a PBT or vPvB

12.6. Endocrine disrupting properties

This material does not contain any substances that are assessed to be an endocrine disruptor for environmental effects

12.7. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

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

Refer to Instructions for Use (IFU) for more information.

EU waste code (product as sold)

180106* Chemicals consisting of or containing dangerous substances.

SECTION 14: Transportation information

	Ground Transport (ADR)	Air Transport (IATA)	Marine Transport (IMDG)

14.1 UN number or ID number	UN1133	UN1133	UN1133
14.2 UN proper shipping name	ADHESIVES	ADHESIVES	ADHESIVES
14.3 Transport hazard class(es)	3	3	3
14.4 Packing group	III	III	III
14.5 Environmental hazards	Not Environmentally Hazardous	Not applicable	Not a Marine Pollutant
14.6 Special precautions for user	Please refer to the other sections of the SDS for further information.	Please refer to the other sections of the SDS for further information.	Please refer to the other sections of the SDS for further information.
14.7 Marine Transport in bulk according to IMO instruments	No data available.	No data available.	No data available.
Control Temperature	No data available.	No data available.	No data available.
Emergency Temperature	No data available.	No data available.	No data available.
ADR Classification Code	F1	Not applicable.	Not applicable.
IMDG Segregation Code	Not applicable.	Not applicable.	NONE

Please contact the address or phone number listed on the first page of the SDS for additional information on the transport/shipment of the material by rail (RID) or inland waterways (ADN).

SECTION 15: Regulatory information

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

Carcinogenicity

Contact the manufacturer for more information

Global inventory status

Contact the manufacturer for more information

SECTION 16: Other information

List of relevant H statements

H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapour.

H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H360F	May damage fertility.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Revision information:

Revision information not available

The product to which this Safety Information Sheet applies is classified as a medical device according to the EU Medical Device Regulation EU 2017/745. _x000D_

Medical devices which are invasive or used in direct physical contact with the human body are exempt from the requirements of classification and labelling according to Regulation (EC) No. 1272/2008 (CLP; Article 1, paragraph 5). _x000D_

The EU Medical Device Regulation does not foresee the use of Safety Data sheets for medical devices which are invasive or used in direct physical contact with the human body, as the safe use of the product is described through the Instructions for Use and /or the labelling for the product. Nevertheless, the 3M Safety Information Sheet is provided as a further service to customers to provide additional toxicology and chemical information on the product. In case of further questions, please contact your 3M representative listed on the Safety Information Sheet.

3M Ireland Safety Information Sheets are available at www.3M.com