



Safety Data Sheet

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This Safety Data Sheet has been prepared in accordance with the REACH Regulation (1907/2006), as amended for GB.

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

1.1. Product identifier

3M™ Scotch-Weld™ Acrylic Adhesive DP8407NS and 8407NS, Gray, Part B

Product Identification Numbers

62-2853-8530-8 62-2853-9530-7

7100105384 7100104987

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

Identified uses

Professional

1.3. Details of the supplier of the safety data sheet

Address: 3M United Kingdom PLC, 3M Centre, Cain Road, Bracknell, Berkshire, RG12 8HT.
Telephone: +44 (0)1344 858 000
E Mail: tox.uk@mmm.com
Website: www.3M.com/uk

1.4. Emergency telephone number

+44 (0)1344 858 000

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

The retained CLP Regulation (EU) No 1272/2008 as amended for Great Britain

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.

CLASSIFICATION:

Flammable Liquid, Category 2 - Flam. Liq. 2; H225
Skin Corrosion/Irritation, Category 2 - Skin Irrit. 2; H315
Serious Eye Damage/Eye Irritation, Category 2 - Eye Irrit. 2; H319
Skin Sensitization, Category 1 - Skin Sens. 1; H317
Reproductive Toxicity, Category 1B - Repr. 1B; H360FD
Specific Target Organ Toxicity-Single Exposure, Category 3 - STOT SE 3; H335
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

The retained CLP Regulation (EU) No 1272/2008 as amended for Great Britain

SIGNAL WORD

DANGER.

Symbols

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

Pictograms



Ingredient	CAS Nbr	EC No.	% by Wt
methyl methacrylate	80-62-6	201-297-1	45 - 65
2-hydroxyethyl methacrylate	868-77-9	212-782-2	< 10
hydroxypropyl methacrylate	27813-02-1	248-666-3	0.1 - 5
Barium diboron tetraoxide	13701-59-2	237-222-4	< 2.5

HAZARD STATEMENTS:

H225	Highly flammable liquid and vapour.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H317	May cause an allergic skin reaction.
H360FD	May damage fertility. May damage the unborn child.
H335	May cause respiratory irritation.
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.
P261A	Avoid breathing vapours.
P280K	Wear protective gloves and respiratory protection.

Response:

P308 + P313	IF exposed or concerned: Get medical advice/attention.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.

For containers not exceeding 125 ml the following Hazard and Precautionary statements may be used:

<=125 ml Hazard statements

H317	May cause an allergic skin reaction.
H360FD	May damage fertility. May damage the unborn child.
H412	Harmful to aquatic life with long lasting effects.

<=125 ml Precautionary statements

Prevention:

P201	Obtain special instructions before use.
P261A	Avoid breathing vapours.
P280K	Wear protective gloves and respiratory protection.

Response:

P308 + P313	IF exposed or concerned: Get medical advice/attention.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.

SUPPLEMENTAL INFORMATION:

Supplemental Precautionary Statements:

Restricted to professional users.

9% of the mixture consists of components of unknown acute oral toxicity.

Contains 10% of components with unknown hazards to the aquatic environment.

Nota L applied.

2.3. Other hazards

None known.

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], as amended for GB
methyl methacrylate	(CAS-No.) 80-62-6 (EC-No.) 201-297-1	45 - 65	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Skin Sens. 1, H317 STOT SE 3, H335 Nota D
Acrylonitrile-Butadiene Polymers	Trade Secret	10 - 30	Substance not classified as hazardous
2-hydroxyethyl methacrylate	(CAS-No.) 868-77-9 (EC-No.) 212-782-2	< 10	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Nota D

Fillers	Trade Secret	1 - 10	Substance with a national occupational exposure limit
Urethane Acrylate Oligomer	Trade Secret	0.1 - 5	Substance not classified as hazardous
hydroxypropyl methacrylate	(CAS-No.) 27813-02-1 (EC-No.) 248-666-3	0.1 - 5	Eye Irrit. 2, H319 Skin Sens. 1, H317
Distillates (petroleum), hydrotreated light paraffinic	(CAS-No.) 64742-55-8 (EC-No.) 265-158-7	0.1 - 5	Nota L Asp. Tox. 1, H304
Poly[oxy(methyl-1,2-ethanediyl)], .a.-(2-methyl-1-oxo-2-propenyl)-.w.-(phosphonooxy)-	(CAS-No.) 95175-93-2	< 3	Skin Irrit. 2, H315 Eye Dam. 1, H318
Barium diboron tetraoxide	(CAS-No.) 13701-59-2 (EC-No.) 237-222-4	< 2.5	Aquatic Chronic 3, H412 Acute Tox. 3, H301 Acute Tox. 4, H332 Repr. 1B, H360FD
naphthenic acids, copper salts	(CAS-No.) 1338-02-9 (EC-No.) 215-657-0	< 0.2	Flam. Liq. 3, H226 Acute Tox. 4, H302 Aquatic Acute 1, H400,M=10 Aquatic Chronic 1, H410,M=1
Zinc	(CAS-No.) 7440-66-6 (EC-No.) 231-175-3	< 0.02	Aquatic Acute 1, H400,M=10 Aquatic Chronic 1, H410,M=10

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

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

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. Remove contact lenses if easy to do. Continue rinsing. Get medical attention.

If swallowed

Rinse mouth. If you feel unwell, get medical attention.

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

The most important symptoms and effects based on the GB CLP classification include:

Irritating to the respiratory tract (coughing, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain).

Irritation to the skin (localized redness, swelling, itching, and dryness). Allergic skin reaction (redness, swelling, blistering, and itching). Serious irritation to the eyes (significant redness, swelling, pain, tearing, and impaired vision).

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

Not applicable

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

<u>Substance</u>	<u>Condition</u>
Carbon monoxide	During combustion.
Carbon dioxide.	During combustion.
Hydrogen Chloride	During combustion.
Hydrogen cyanide.	During combustion.
Oxides of nitrogen.	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 SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions

Avoid release to the environment. For larger spills, cover drains and build dykes to prevent entry into sewer systems or bodies of water.

6.3. Methods and material for containment and cleaning up

Contain spill. Cover spill area with a fire-extinguishing foam. 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 an appropriate solvent selected by a qualified and authorised person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and Safety Data Sheet. Seal the container. Dispose of collected material as soon as possible.

6.4. Reference to other sections

Refer to Section 8 and Section 13 for more information

SECTION 7: Handling and storage

7.1. Precautions for safe handling

For industrial/occupational use only. Not for consumer sale or use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling.

Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.) Wear low static or properly grounded shoes. Use personal protective equipment (eg. gloves, respirators...) as required. To minimize the risk of ignition, determine applicable electrical classifications for the process using this product and select specific local exhaust ventilation equipment to avoid flammable vapour accumulation. Ground/bond container and receiving equipment if there is potential for static electricity accumulation during transfer.

7.2. Conditions for safe storage including any incompatibilities

Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store away from heat. Store away from acids. Store away from strong bases. Store away from oxidising agents. Store away from amines.

7.3. Specific end use(s)

See information in Section 7.1 and 7.2 for handling and storage recommendations. See Section 8 for exposure controls and personal protection recommendations.

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
Barium, soluble compounds	13701-59-2	UK HSC	TWA(as Ba):0.5 mg/m ³	
methyl methacrylate	80-62-6	UK HSC	TWA:208 mg/m ³ (50 ppm);STEL:416 mg/m ³ (100 ppm)	
Fillers	Trade Secret	UK HSC	TWA(as respirable dust):2.4 mg/m ³ ;TWA(as inhalable dust):6 mg/m ³	

UK HSC : UK Health and Safety Commission

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 data sheet.

8.2. Exposure controls

8.2.1. Engineering controls

Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapours/spray. If ventilation is not adequate, use respiratory protection equipment. Use explosion-proof ventilation equipment.

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.

Indirect vented goggles.

Applicable Norms/Standards

Use eye protection conforming to EN 166

Skin/hand protection

Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing. Note: Nitrile gloves may be worn over polymer laminate gloves to improve dexterity.

Gloves made from the following material(s) are recommended:

Material	Thickness (mm)	Breakthrough Time
Polymer laminate	No data available	No data available

Applicable Norms/Standards

Use gloves tested to EN 374

If this product is used in a manner that presents a higher potential for exposure (eg. spraying, high splash potential etc.), then use of protective coveralls may be necessary. Select and use body protection to prevent contact based on the results of an exposure assessment. The following protective clothing material(s) are recommended: Apron - polymer laminate

Respiratory protection

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:

Half mask or full facepiece air-purifying respirator with P3 particulate filters.

Half facepiece or full facepiece air-purifying respirator suitable for organic vapours and particulates

Half facepiece or full facepiece supplied-air respirator

For questions about suitability for a specific application, consult with your respirator manufacturer.

Applicable Norms/Standards

Use a respirator conforming to EN 140 or EN 136

Use a respirator conforming to EN 140 or EN 136: filter types A & P

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid.
Specific Physical Form:	Paste
Colour	Brown
Odor	Strong Methacrylate
Odour threshold	No data available.
Melting point/freezing point	Not applicable.
Boiling point/boiling range	>=37.8 °C
Flammability	Flammable Liquid: Category 2.
Flammable Limits(LEL)	No data available.
Flammable Limits(UEL)	No data available.
Flash point	>=10 °C [Test Method:Closed Cup]
Autoignition temperature	No data available.
Decomposition temperature	No data available.
pH	substance/mixture is non-soluble (in water)
Kinematic Viscosity	14,851 mm ² /sec
Water solubility	Nil

Solubility- non-water	<i>No data available.</i>
Partition coefficient: n-octanol/water	<i>No data available.</i>
Vapour pressure	<i>No data available.</i>
Density	1.01 g/ml
Relative density	1.01 [Ref Std: WATER=1]
Relative Vapour Density	<i>No data available.</i>
Particle Characteristics	<i>Not applicable.</i>

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>Not applicable.</i>

SECTION 10: Stability and reactivity

10.1 Reactivity

This material may be reactive with certain agents under certain conditions - see the remaining headings in this section

10.2 Chemical stability

Stable.

10.3 Possibility of hazardous reactions

Hazardous polymerisation will not occur.

10.4 Conditions to avoid

Heat.

Sparks and/or flames.

10.5 Incompatible materials

Amines.

Strong acids.

Strong bases.

Strong oxidising agents.

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 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 3M assessments.

11.1. Information on hazard classes as defined in the retained CLP Regulation (EU) No 1272/2008, as amended for Great Britain.

Signs and Symptoms of Exposure

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

Inhalation

May be harmful if inhaled. Respiratory tract irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. May cause additional health effects (see below).

Skin contact

Skin Irritation: Signs/symptoms may include localised redness, swelling, itching, dryness, cracking, blistering, and pain. Allergic skin reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

Eye contact

Severe eye irritation: Signs/symptoms may include significant redness, swelling, pain, tearing, cloudy appearance of the cornea, and impaired vision.

Ingestion

Gastrointestinal irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhoea. May cause additional health effects (see below).

Additional Health Effects:

Prolonged or repeated exposure may cause target organ effects:

Olfactory effects: Signs/symptoms may include decreased ability to detect odours and complete loss of smell.

Reproductive/Developmental Toxicity:

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

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	Inhalation-Vapour(4 hr)		No data available; calculated ATE >20 - =50 mg/l
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
methyl methacrylate	Dermal	Rabbit	LD50 > 5,000 mg/kg
methyl methacrylate	Inhalation-Vapour (4 hours)	Rat	LC50 29.8 mg/l
methyl methacrylate	Ingestion	Rat	LD50 7,900 mg/kg
Acrylonitrile-Butadiene Polymers	Dermal	Rabbit	LD50 > 15,000 mg/kg
Acrylonitrile-Butadiene Polymers	Ingestion	Rat	LD50 > 30,000 mg/kg
2-hydroxyethyl methacrylate	Dermal	Rabbit	LD50 > 5,000 mg/kg
2-hydroxyethyl methacrylate	Ingestion	Rat	LD50 5,564 mg/kg
Poly[oxy(methyl-1,2-ethanediyl)], .a.-(2-methyl-1-oxo-2-propenyl)-.w.-(phosphonooxy)-	Ingestion	Rat	LD50 > 5,000 mg/kg
Poly[oxy(methyl-1,2-ethanediyl)], .a.-(2-methyl-1-oxo-2-propenyl)-.w.-(phosphonooxy)-	Dermal	similar health hazards	LD50 estimated to be > 5,000 mg/kg
Fillers	Dermal	Rabbit	LD50 > 5,000 mg/kg
Fillers	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 0.691 mg/l
Fillers	Ingestion	Rat	LD50 > 5,110 mg/kg
hydroxypropyl methacrylate	Dermal	Rabbit	LD50 > 5,000 mg/kg
hydroxypropyl methacrylate	Ingestion	Rat	LD50 > 11,200 mg/kg

Distillates (petroleum), hydrotreated light paraffinic	Dermal	similar compounds	LD50 > 2,000 mg/kg
Distillates (petroleum), hydrotreated light paraffinic	Inhalation-Dust/Mist (4 hours)	similar compounds	LC50 > 5.53 mg/l
Distillates (petroleum), hydrotreated light paraffinic	Ingestion	similar compounds	LD50 > 5,000 mg/kg
Barium diboron tetraoxide	Dermal	Rabbit	LD50 > 2,000 mg/kg
Barium diboron tetraoxide	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 3.54 mg/l
Barium diboron tetraoxide	Ingestion	Rat	LD50 530 mg/kg
naphthenic acids, copper salts	Dermal	similar compounds	LD50 > 2,000 mg/kg
naphthenic acids, copper salts	Ingestion	similar compounds	LD50 > 300, < 2,000 mg/kg
Zinc	Dermal	Professional judgement	LD50 estimated to be > 5,000 mg/kg
Zinc	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 5.41 mg/l
Zinc	Ingestion	Rat	LD50 > 2,000 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
methyl methacrylate	Rabbit	Irritant
Acrylonitrile-Butadiene Polymers	Professional judgement	No significant irritation
2-hydroxyethyl methacrylate	Rabbit	Minimal irritation
Poly[oxy(methyl-1,2-ethanediyl)], .a.-(2-methyl-1-oxo-2-propenyl)-.w.-(phosphonooxy)-	Not available	Irritant
Fillers	Rabbit	No significant irritation
hydroxypropyl methacrylate	Rabbit	Minimal irritation
Distillates (petroleum), hydrotreated light paraffinic	similar compounds	No significant irritation
Barium diboron tetraoxide	Rabbit	No significant irritation
naphthenic acids, copper salts	Rabbit	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
methyl methacrylate	Rabbit	Mild irritant
Acrylonitrile-Butadiene Polymers	Professional judgement	No significant irritation
2-hydroxyethyl methacrylate	Rabbit	Moderate irritant
Poly[oxy(methyl-1,2-ethanediyl)], .a.-(2-methyl-1-oxo-2-propenyl)-.w.-(phosphonooxy)-	Not available	Corrosive
Fillers	Rabbit	No significant irritation
hydroxypropyl methacrylate	Rabbit	Moderate irritant
Distillates (petroleum), hydrotreated light paraffinic	similar compounds	No significant irritation

Barium diboron tetraoxide	Rabbit	No significant irritation
naphthenic acids, copper salts	In vitro data	No significant irritation
Zinc	Rabbit	No significant irritation

Skin Sensitisation

Name	Species	Value
methyl methacrylate	Human and animal	Sensitising
2-hydroxyethyl methacrylate	Human and animal	Sensitising
Fillers	Human and animal	Not classified
hydroxypropyl methacrylate	Human and animal	Sensitising
Distillates (petroleum), hydrotreated light paraffinic	similar compounds	Not classified
Barium diboron tetraoxide	Guinea pig	Not classified
naphthenic acids, copper salts	Guinea pig	Not classified

Respiratory Sensitisation

Name	Species	Value
methyl methacrylate	Human	Not classified

Germ Cell Mutagenicity

Name	Route	Value
methyl methacrylate	In vivo	Not mutagenic
methyl methacrylate	In Vitro	Some positive data exist, but the data are not sufficient for classification
2-hydroxyethyl methacrylate	In vivo	Not mutagenic
2-hydroxyethyl methacrylate	In Vitro	Some positive data exist, but the data are not sufficient for classification
Fillers	In Vitro	Not mutagenic
hydroxypropyl methacrylate	In vivo	Not mutagenic
hydroxypropyl methacrylate	In Vitro	Some positive data exist, but the data are not sufficient for classification
Distillates (petroleum), hydrotreated light paraffinic	In Vitro	Not mutagenic
Barium diboron tetraoxide	In Vitro	Not mutagenic
Barium diboron tetraoxide	In vivo	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
methyl methacrylate	Ingestion	Rat	Not carcinogenic
methyl methacrylate	Inhalation	Human and animal	Not carcinogenic
Fillers	Not specified.	Mouse	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
methyl methacrylate	Ingestion	Not classified for female reproduction	Rat	NOAEL 400 mg/kg/day	2 generation
methyl methacrylate	Ingestion	Not classified for male reproduction	Rat	NOAEL 400 mg/kg/day	2 generation
methyl methacrylate	Ingestion	Not classified for development	Rabbit	NOAEL 450 mg/kg/day	during gestation
methyl methacrylate	Inhalation	Not classified for development	Rat	NOAEL 8.3 mg/l	during organogenesis
2-hydroxyethyl methacrylate	Ingestion	Not classified for female reproduction	Rat	NOAEL 1,000 mg/kg/day	premating & during gestation
2-hydroxyethyl methacrylate	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,000 mg/kg/day	49 days
2-hydroxyethyl methacrylate	Ingestion	Not classified for development	Rat	NOAEL 1,000 mg/kg/day	premating & during gestation
Fillers	Ingestion	Not classified for female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation
Fillers	Ingestion	Not classified for male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
Fillers	Ingestion	Not classified for development	Rat	NOAEL 1,350 mg/kg/day	during organogenesis
hydroxypropyl methacrylate	Ingestion	Not classified for female reproduction	Rat	NOAEL 1,000 mg/kg/day	premating into lactation
hydroxypropyl methacrylate	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,000 mg/kg/day	49 days
hydroxypropyl methacrylate	Ingestion	Not classified for development	Rat	NOAEL 1,000 mg/kg/day	during gestation
Barium diboron tetraoxide	Ingestion	Toxic to female reproduction	Rat	NOAEL 800 mg/kg/day	90 days
Barium diboron tetraoxide	Ingestion	Toxic to development	Rabbit	NOAEL 20 mg/kg/day	during organogenesis
Barium diboron tetraoxide	Ingestion	Toxic to male reproduction	Rat	NOAEL 350 mg/kg/day	90 days

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
methyl methacrylate	Inhalation	respiratory irritation	May cause respiratory irritation	Human	NOAEL Not available	occupational exposure
Poly[oxy(methyl-1,2-ethanediyl)], .a.-(2-methyl-1-oxo-2-propenyl)-.w.-(phosphonooxy)-	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	
hydroxypropyl methacrylate	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	
Barium diboron tetraoxide	Ingestion	nervous system	Not classified	Rat	NOAEL 200 mg/kg	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
methyl methacrylate	Dermal	peripheral nervous system	Not classified	Human	NOAEL Not available	occupational exposure
methyl methacrylate	Inhalation	olfactory system	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	occupational exposure

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methyl methacrylate	Inhalation	kidney and/or bladder	Not classified	Multiple animal species	NOAEL Not available	14 weeks
methyl methacrylate	Inhalation	liver	Not classified	Mouse	NOAEL 12.3 mg/l	14 weeks
methyl methacrylate	Inhalation	respiratory system	Not classified	Human	NOAEL Not available	occupational exposure
methyl methacrylate	Ingestion	kidney and/or bladder heart skin endocrine system gastrointestinal tract hematopoietic system liver muscles nervous system respiratory system	Not classified	Rat	NOAEL 90.3 mg/kg/day	2 years
Fillers	Inhalation	respiratory system silicosis	Not classified	Human	NOAEL Not available	occupational exposure
hydroxypropyl methacrylate	Inhalation	blood	Not classified	Rat	NOAEL 0.5 mg/l	21 days
hydroxypropyl methacrylate	Ingestion	hematopoietic system heart endocrine system liver immune system nervous system kidney and/or bladder	Not classified	Rat	NOAEL 1,000 mg/kg/day	41 days
Barium diboron tetraoxide	Ingestion	hematopoietic system liver heart skin endocrine system bone, teeth, nails, and/or hair immune system muscles nervous system eyes kidney and/or bladder respiratory system vascular system	Not classified	Rat	NOAEL 700 mg/kg/day	90 days

Aspiration Hazard

Name	Value
Distillates (petroleum), hydrotreated light paraffinic	Aspiration hazard

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

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 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
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3M™ Scotch-Weld™ Acrylic Adhesive DP8407NS and 8407NS, Gray, Part B

methyl methacrylate	80-62-6	Green algae	Experimental	72 hours	EC50	>110 mg/l
methyl methacrylate	80-62-6	Rainbow trout	Experimental	96 hours	LC50	>79 mg/l
methyl methacrylate	80-62-6	Water flea	Experimental	48 hours	EC50	69 mg/l
methyl methacrylate	80-62-6	Green algae	Experimental	72 hours	NOEC	110 mg/l
methyl methacrylate	80-62-6	Water flea	Experimental	21 days	NOEC	37 mg/l
methyl methacrylate	80-62-6	Activated sludge	Experimental	30 minutes	EC20	150 mg/l
methyl methacrylate	80-62-6	Soil microbes	Experimental	28 days	NOEC	>1,000 mg/kg (Dry Weight)
Acrylonitrile-Butadiene Polymers	Trade Secret	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
2-hydroxyethyl methacrylate	868-77-9	Turbot	Analogous Compound	96 hours	LC50	833 mg/l
2-hydroxyethyl methacrylate	868-77-9	Fathead minnow	Experimental	96 hours	LC50	227 mg/l
2-hydroxyethyl methacrylate	868-77-9	Green algae	Experimental	72 hours	EC50	710 mg/l
2-hydroxyethyl methacrylate	868-77-9	Water flea	Experimental	48 hours	EC50	380 mg/l
2-hydroxyethyl methacrylate	868-77-9	Green algae	Experimental	72 hours	NOEC	160 mg/l
2-hydroxyethyl methacrylate	868-77-9	Water flea	Experimental	21 days	NOEC	24.1 mg/l
2-hydroxyethyl methacrylate	868-77-9	N/A	Experimental	16 hours	EC0	>3,000 mg/l
2-hydroxyethyl methacrylate	868-77-9	N/A	Experimental	18 hours	LD50	<98 mg per kg of bodyweight
Fillers	Trade Secret	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
Distillates (petroleum), hydrotreated light paraffinic	64742-55-8	Fathead minnow	Estimated	96 hours	LL50	>100 mg/l
Distillates (petroleum), hydrotreated light paraffinic	64742-55-8	Water flea	Estimated	48 hours	EL50	>100 mg/l
Distillates (petroleum), hydrotreated light paraffinic	64742-55-8	Green algae	Estimated	72 hours	NOEL	100 mg/l
Distillates (petroleum), hydrotreated light paraffinic	64742-55-8	Water flea	Estimated	21 days	NOEC	10 mg/l
hydroxypropyl methacrylate	27813-02-1	Bacteria	Experimental	N/A	EC10	1,140 mg/l
hydroxypropyl methacrylate	27813-02-1	Golden Orfe	Experimental	48 hours	EC50	493 mg/l
hydroxypropyl methacrylate	27813-02-1	Green algae	Experimental	72 hours	ErC50	>97.2 mg/l
hydroxypropyl methacrylate	27813-02-1	Water flea	Experimental	48 hours	EC50	>143 mg/l
hydroxypropyl methacrylate	27813-02-1	Green algae	Experimental	72 hours	NOEC	97.2 mg/l
hydroxypropyl methacrylate	27813-02-1	Water flea	Experimental	21 days	NOEC	45.2 mg/l
Poly[oxy(methyl-1,2-ethanediyl)], .a.-(2-	95175-93-2	N/A	Data not available or insufficient for classification	N/A	N/A	N/A

methyl-1-oxo-2-propenyl)-.w.-(phosphonoxy)-						
Barium diboron tetraoxide	13701-59-2	Activated sludge	Experimental	3 hours	NOEC	100 mg/l
Barium diboron tetraoxide	13701-59-2	Green algae	Experimental	72 hours	EC50	7.8 mg/l
Barium diboron tetraoxide	13701-59-2	Rainbow trout	Experimental	96 hours	LC50	62 mg/l
Barium diboron tetraoxide	13701-59-2	Water flea	Experimental	48 hours	EC50	20.3 mg/l
Barium diboron tetraoxide	13701-59-2	Green algae	Experimental	72 hours	NOEC	1.1 mg/l
naphthenic acids, copper salts	1338-02-9	Green algae	Estimated	72 hours	ErC50	0.629 mg/l
naphthenic acids, copper salts	1338-02-9	Water flea	Estimated	48 hours	EC50	0.0756 mg/l
naphthenic acids, copper salts	1338-02-9	Zebra Fish	Estimated	96 hours	LC50	0.07 mg/l
naphthenic acids, copper salts	1338-02-9	Fathead minnow	Estimated	32 days	EC10	0.0354 mg/l
naphthenic acids, copper salts	1338-02-9	Green algae	Estimated	N/A	NOEC	0.132 mg/l
naphthenic acids, copper salts	1338-02-9	Sediment Worm	Estimated	28 days	NOEC	110 mg/kg (Dry Weight)
naphthenic acids, copper salts	1338-02-9	Water flea	Estimated	7 days	NOEC	0.02 mg/l
naphthenic acids, copper salts	1338-02-9	Activated sludge	Estimated	N/A	EC50	42 mg/l
naphthenic acids, copper salts	1338-02-9	Barley	Estimated	4 days	NOEC	96 mg/kg (Dry Weight)
naphthenic acids, copper salts	1338-02-9	Redworm	Estimated	56 days	NOEC	60 mg/kg (Dry Weight)
naphthenic acids, copper salts	1338-02-9	Soil microbes	Estimated	4 days	NOEC	72 mg/kg (Dry Weight)
naphthenic acids, copper salts	1338-02-9	Springtail	Estimated	28 days	NOEC	167 mg/kg (Dry Weight)
Zinc	7440-66-6	Bacteria	Estimated	30 minutes	EC10	0.3 mg/l
Zinc	7440-66-6	Green algae	Estimated	72 hours	EC50	0.042 mg/l
Zinc	7440-66-6	Rainbow trout	Estimated	96 hours	LC50	0.169 mg/l
Zinc	7440-66-6	Water flea	Estimated	48 hours	EC50	0.06 mg/l
Zinc	7440-66-6	Green algae	Estimated	72 hours	NOEC	0.005 mg/l
Zinc	7440-66-6	Water flea	Estimated	7 days	NOEC	0.013 mg/l

12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
methyl methacrylate	80-62-6	Experimental Biodegradation	14 days	BOD	94 %BOD/ThOD	OECD 301C - MITI test (I)
Acrylonitrile-Butadiene Polymers	Trade Secret	Data not availbl-insufficient	N/A	N/A	N/A	N/A
2-hydroxyethyl methacrylate	868-77-9	Experimental Biodegradation	28 days	BOD	84 %BOD/COD	OECD 301D - Closed bottle test
2-hydroxyethyl methacrylate	868-77-9	Experimental Hydrolysis		Hydrolytic half-life basic pH	10.9 days (t 1/2)	OECD 111 Hydrolysis func of pH
Fillers	Trade Secret	Data not availbl-insufficient	N/A	N/A	N/A	N/A
Distillates (petroleum),	64742-55-8	Estimated Biodegradation	28 days	CO2 evolution	22 %CO2 evolution/THCO2	OECD 301B - Modified sturm or CO2

hydrotreated light paraffinic					evolution	
hydroxypropyl methacrylate	27813-02-1	Experimental Biodegradation	28 days	BOD	81 %BOD/ThOD	OECD 301C - MITI test (I)
Poly[oxy(methyl-1,2-ethanediyl)], .a.-(2-methyl-1-oxo-2-propenyl)-.w.-(phosphonoxy)-	95175-93-2	Data not availbl-insufficient	N/A	N/A	N/A	N/A
Barium diboron tetraoxide	13701-59-2	Data not availbl-insufficient	N/A	N/A	N/A	N/A
naphthenic acids, copper salts	1338-02-9	Data not availbl-insufficient	N/A	N/A	N/A	N/A
Zinc	7440-66-6	Data not availbl-insufficient	N/A	N/A	N/A	N/A

12.3 : Bioaccumulative potential

Material	Cas No.	Test type	Duration	Study Type	Test result	Protocol
methyl methacrylate	80-62-6	Experimental Bioconcentration		Log Kow	1.38	OECD 107 log Kow shke flask mtd
Acrylonitrile-Butadiene Polymers	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
2-hydroxyethyl methacrylate	868-77-9	Experimental Bioconcentration		Log Kow	0.42	OECD 107 log Kow shke flask mtd
Fillers	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Distillates (petroleum), hydrotreated light paraffinic	64742-55-8	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
hydroxypropyl methacrylate	27813-02-1	Experimental Bioconcentration		Log Kow	0.97	EC A.8 Partition Coefficient
Poly[oxy(methyl-1,2-ethanediyl)], .a.-(2-methyl-1-oxo-2-propenyl)-.w.-(phosphonoxy)-	95175-93-2	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Barium diboron tetraoxide	13701-59-2	Experimental Bioconcentration		Log Kow	-0.70	
naphthenic acids, copper salts	1338-02-9	Analogous Compound BCF - Fish	42 days	Bioaccumulation factor	≤27	OECD305-Bioconcentration
Zinc	7440-66-6	Estimated BCF - Fish	56 days	Bioaccumulation factor	242	

12.4. Mobility in soil

Material	Cas No.	Test type	Study Type	Test result	Protocol
methyl methacrylate	80-62-6	Experimental Mobility in Soil	Koc	8.7-72 l/kg	
2-hydroxyethyl methacrylate	868-77-9	Experimental Mobility in Soil	Koc	42.7 l/kg	
hydroxypropyl methacrylate	27813-02-1	Experimental Mobility in Soil	Koc	10 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. Other adverse effects

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

SECTION 13: Disposal considerations

13.1 Waste treatment methods

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

Dispose of waste product in a permitted industrial waste facility. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

The coding of a waste stream is based on the application of the product by the consumer. Since this is out of the control of 3M, no waste code(s) for products after use will be provided. Please refer to the European Waste Code (EWC - 2000/532/EC and amendments) to assign the correct waste code to your waste stream. Ensure national and/or regional regulations are complied with and always use a licensed waste contractor.

EU waste code (product as sold)

08 04 09* Waste adhesives and sealants containing organic solvents or other dangerous substances
20 01 27* Paint, inks, adhesives and resins containing dangerous substances

SECTION 14: Transportation information

	Ground Transport (ADR)	Air Transport (IATA)	Marine Transport (IMDG)
14.1 UN 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	II	II	II
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 Transport in bulk according to Annex II of Marpol 73/78 and IBC Code	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	F1	Not applicable.	Not applicable.

Code			
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

<u>Ingredient</u>	<u>CAS Nbr</u>	<u>Classification</u>	<u>Regulation</u>
methyl methacrylate	80-62-6	Gr. 3: Not classifiable	International Agency for Research on Cancer

Global inventory status

Contact 3M for more information. The components of this product are in compliance with the chemical notification requirements of TSCA. All required components of this product are listed on the active portion of the TSCA Inventory.

COMAH Regulation, SI 2015/483

Seveso hazard categories, Annex 1, Part 1

Hazard Categories	Qualifying quantity (tonnes) for the application of	
	Lower-tier requirements	Upper-tier requirements
P5c FLAMMABLE LIQUIDS*	5000	50000

*If maintained at a temperature above its boiling point or if particular processing conditions, such as high pressure or high temperature, may create major-accident hazards, P5a or P5b FLAMMABLE LIQUIDS may apply
Seveso named dangerous substances, Annex 1, Part 2

Dangerous Substances	Identifier(s)	Qualifying quantity (tonnes) for the application of	
		Lower-tier requirements	Upper-tier requirements
naphthenic acids, copper salts	1338-02-9	10	50
methyl methacrylate	80-62-6	50	200
Zinc	7440-66-6	50	200
Zinc	7440-66-6	100	200

Regulation (EU) No 649/2012, as amended for GB

No chemicals listed

15.2. Chemical Safety Assessment

A chemical safety assessment has not been carried out for this substance/mixture in accordance with Regulation (EC) No 1907/2006, as amended for GB.

SECTION 16: Other information

List of relevant H statements

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H360FD	May damage fertility. May damage the unborn child.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Revision information:

GB Section 02: CLP Ingredient table information was modified.

Section 2: <125ml Precautionary - Prevention information was modified.

Label: CLP Precautionary - Prevention information was modified.

Section 3: Composition/ Information of ingredients table information was modified.

Section 8: Respiratory protection - recommended respirators information information was modified.

Section 9: Flammability (solid, gas) information information was deleted.

Section 09: Flammability information information was added.

Section 09: Odor information was modified.

Section 09: Particle Characteristics N/A information was added.

Section 11: Acute Toxicity table information was modified.

Section 11: Germ Cell Mutagenicity Table information was modified.

Section 11: Health Effects - Skin information information was modified.

Section 11: Reproductive Toxicity Table information was modified.

Section 11: Serious Eye Damage/Irritation Table information was modified.

Section 11: Skin Corrosion/Irritation Table information was modified.

Section 11: Skin Sensitization Table information was modified.

Section 11: Target Organs - Repeated Table information was modified.

Section 11: Target Organs - Single Table information was modified.

Section 12: Component ecotoxicity information information was modified.

Section 12: Mobility in soil information information was modified.

Section 12: Persistence and Degradability information information was modified.

Section 12: Bioaccumulative potential information information was modified.

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3M SDSs for Great Britain are available at www.3M.com/uk

For Northern Ireland documents, please contact your 3M representative to obtain a copy.