Safety Data Sheet

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This Safety Data Sheet has been prepared in accordance with the REACH Regulation (EC) 1907/2006 and its modifications.

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

1.1. Product identifier

3M™ Scotch-Weld™ Low Odour Acrylic Adhesive DP810 Black and Low Odour Acrylic Adhesive 810 Black, Part B.

Product Identification Numbers

62-2788-7530-7

7000046385

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

Identified uses

Adhesive

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

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.

CLASSIFICATION:

Skin Corrosion/Irritation, Category 2 - Skin Irrit. 2; H315
Serious Eye Damage/Eye Irritation, Category 1 - Eye Dam. 1; H318
Skin Sensitization, Category 1 - Skin Sens. 1; H317
Hazardous to the Aquatic Environment (Chronic), Category 2 - Aquatic Chronic 2; H411

For full text of H phrases, see Section 16.

2.2. Label elements
CLP REGULATION (EC) No 1272/2008

SIGNAL WORD
DANGER.

Symbols
GHS05 (Corrosion) |GHS07 (Exclamation mark) |GHS09 (Environment) |

Pictograms

Ingredients:

Ingredient	CAS Nbr	EC No.	% by Wt
2-hydroxyethyl methacrylate	868-77-9	212-782-2	10 - 30
HYDROXYPROPYL METHACRYLATE	27813-02-1	248-666-3	10 - 30
2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, phosphate	52628-03-2	258-053-2	1 - 4
mequinol	150-76-5	205-769-8	< 1
Phenothiazine	92-84-2	202-196-5	< 1

HAZARD STATEMENTS:

H315	Causes skin irritation.
H318	Causes serious eye damage.
H317	May cause an allergic skin reaction.
H411	Toxic to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS

Prevention:

P280E	Wear protective gloves.

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.

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

<=125 ml Hazard statements

H318	Causes serious eye damage.
H317	May cause an allergic skin reaction.

<=125 ml Precautionary statements

Prevention:

P280E	Wear protective gloves.

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.

2.3. Other hazards

None known.

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]
2-Phenoxyethyl methacrylate	(CAS-No.) 10595-06-9 (EC-No.) 234-201-1	10 - 40	Aquatic Chronic 2, H411 Skin Irrit. 2, H315 Eye Irrit. 2, H319
HYDROXYPROPYL METHACRYLATE	(CAS-No.) 27813-02-1 (EC-No.) 248-666-3	10 - 30	Eye Irrit. 2, H319 Skin Sens. 1, H317
2-hydroxyethyl methacrylate	(CAS-No.) 868-77-9 (EC-No.) 212-782-2	10 - 30	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Nota D
Acrylonitrile - 1,3-butadiene - methacrylic acid copolymer	(CAS-No.) 9010-81-5	5 - 20	Substance not classified as hazardous
Bisphenol A dimethacrylate, ethoxylated	(CAS-No.) 41637-38-1 (EC-No.) 609-946-4	5 - 20	Aquatic Chronic 4, H413
2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, phosphate	(CAS-No.) 52628-03-2 (EC-No.) 258-053-2	1 - 4	Skin Corr. 1C, H314 Skin Sens. 1B, H317
Carbon black	(CAS-No.) 1333-86-4 (EC-No.) 215-609-9	< 1	Substance with a national occupational exposure limit
Phenothiazine	(CAS-No.) 92-84-2 (EC-No.) 202-196-5	< 1	Aquatic Acute 1, H400,M=1 Aquatic Chronic 1, H410,M=1 Acute Tox. 4, H302 Skin Sens. 1B, H317 STOT RE 2, H373
mequinol	(CAS-No.) 150-76-5 (EC-No.) 205-769-8	< 1	Acute Tox. 4, H302 Eye Irrit. 2, H319 Skin Sens. 1, H317

			Aquatic Chronic 3, H412

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

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 for at least 15 minutes. Remove contact lenses if easy to do. Continue rinsing. Immediately 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
No critical symptoms or effects. See Section 11.1, information on toxicological effects.

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 ordinary combustible material such as water or foam 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	Condition
Carbon monoxide	During combustion.
Carbon dioxide.	During combustion.
Oxides of nitrogen.	During combustion.
Toxic vapour, gas, particulate.	During combustion.

5.3. Advice for fire-fighters
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. 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. 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. 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. Place in a closed 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. Avoid breathing 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.) Keep away from reactive metals (eg. Aluminium, zinc etc.) to avoid the formation of hydrogen gas that could create an explosion hazard.

7.2. Conditions for safe storage including any incompatibilities
Store away from heat. 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
Carbon black	1333-86-4	UK HSC	TWA: 3.5 mg/m³; STEL: 7 mg/m³	

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.

Recommended monitoring procedures: Information on recommended monitoring procedures can be obtained from UK HSC

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.

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:
Full face shield.
Indirect vented goggles.

Applicable Norms/Standards
Use eye/face 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

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

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: 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	Black
Odor	Slight Methacrylate
Odour threshold	*No data available.*
Melting point/freezing point	*Not applicable.*
Boiling point/boiling range	>=99.4 ºC
Flammability (solid, gas)	Not applicable.

Flammable Limits(LEL)	*No data available.*
Flammable Limits(UEL)	*No data available.*
Flash point	>=98.9 ºC [*Test Method:*Closed Cup]
Autoignition temperature	*No data available.*
Decomposition temperature	*No data available.*
pH	
Kinematic Viscosity	18,691.5887850467 mm²/sec
Water solubility	Slight (less than 10%)
Solubility- non-water	*No data available.*
Partition coefficient: n-octanol/water	*No data available.*
Vapour pressure	*No data available.*
Density	1.07 g/ml
Relative density	1.07 [*Ref Std:*WATER=1]
Relative Vapor Density	*No data available.*

9.2. Other information

9.2.2 Other safety characteristics

EU Volatile Organic Compounds	*No data available.*
Evaporation rate	*No data available.*
Molecular weight	*No data available.*

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 may occur.

10.4 Conditions to avoid
Heat.
Sparks and/or flames.
Heat is generated during cure. Do not cure a mass larger than 50 grams in a confined space to prevent a premature exothermic reaction with production of intense heat and smoke.

10.5 Incompatible materials
Amines.
Strong oxidising agents.
Reducing agents.
Reactive metals

10.6 Hazardous decomposition products

Substance	Condition
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
Respiratory tract irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

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.
Photosensitisation: Signs/symptoms may include a sunburn-like reaction such as blistering, redness, swelling, and itching from minor exposure to sunlight.

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
May be harmful if swallowed.
Gastrointestinal irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhoea.

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 ATE2,000 - 5,000 mg/kg
2-Phenoxyethyl methacrylate	Dermal		LD50 estimated to be 2,000 - 5,000 mg/kg
2-Phenoxyethyl methacrylate	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
2-hydroxyethyl methacrylate	Dermal	Rabbit	LD50 > 5,000 mg/kg
2-hydroxyethyl methacrylate	Ingestion	Rat	LD50 5,564 mg/kg
Acrylonitrile - 1,3-butadiene - methacrylic acid copolymer	Dermal		LD50 estimated to be > 5,000 mg/kg
Acrylonitrile - 1,3-butadiene - methacrylic acid copolymer	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
HYDROXYPROPYL METHACRYLATE	Dermal	Rabbit	LD50 > 5,000 mg/kg
HYDROXYPROPYL METHACRYLATE	Ingestion	Rat	LD50 > 11,200 mg/kg
Bisphenol A dimethacrylate, ethoxylated	Dermal	Professional judgement	LD50 estimated to be > 5,000 mg/kg
Bisphenol A dimethacrylate, ethoxylated	Ingestion	Rat	LD50 > 2,000 mg/kg
2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, phosphate	Ingestion	Rat	LD50 > 2,000 mg/kg
Carbon black	Dermal	Rabbit	LD50 > 3,000 mg/kg
mequinol	Dermal	Rat	LD50 > 2,000 mg/kg
mequinol	Ingestion	Rat	LD50 1,630 mg/kg
Carbon black	Ingestion	Rat	LD50 > 8,000 mg/kg
Phenothiazine	Dermal	Rat	LD50 > 2,000 mg/kg

Phenothiazine	Ingestion	Rat	LD50 1,370 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
2-Phenoxyethyl methacrylate	similar compounds	Irritant
2-hydroxyethyl methacrylate	Rabbit	Minimal irritation
Acrylonitrile - 1,3-butadiene - methacrylic acid copolymer	Professional judgement	No significant irritation
HYDROXYPROPYL METHACRYLATE	Rabbit	Minimal irritation
2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, phosphate	Rabbit	Corrosive
mequinol	Rabbit	Mild irritant
Carbon black	Rabbit	No significant irritation
Phenothiazine	Rabbit	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
2-Phenoxyethyl methacrylate	similar compounds	Severe irritant
2-hydroxyethyl methacrylate	Rabbit	Moderate irritant
Acrylonitrile - 1,3-butadiene - methacrylic acid copolymer	Professional judgement	No significant irritation
HYDROXYPROPYL METHACRYLATE	Rabbit	Moderate irritant
2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, phosphate	similar health hazards	Corrosive
mequinol	Rabbit	Severe irritant
Carbon black	Rabbit	No significant irritation
Phenothiazine	Rabbit	Mild irritant

Skin Sensitisation

Name	Species	Value
2-hydroxyethyl methacrylate	Human and animal	Sensitising
HYDROXYPROPYL METHACRYLATE	Human and animal	Sensitising
Bisphenol A dimethacrylate, ethoxylated	Guinea pig	Not classified
2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, phosphate	Mouse	Sensitising
mequinol	Guinea pig	Sensitising
Phenothiazine	Guinea pig	Sensitising

Photosensitisation

Name	Species	Value
Phenothiazine	Human	Sensitising

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
2-Phenoxyethyl methacrylate	In Vitro	Not mutagenic
2-hydroxyethyl methacrylate	In vivo	Not mutagenic
2-hydroxyethyl methacrylate	In Vitro	Some positive data exist, but the data are not sufficient for classification
HYDROXYPROPYL METHACRYLATE	In vivo	Not mutagenic
HYDROXYPROPYL METHACRYLATE	In Vitro	Some positive data exist, but the data are not sufficient for classification
Bisphenol A dimethacrylate, ethoxylated	In Vitro	Not mutagenic
2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, phosphate	In Vitro	Not mutagenic
mequinol	In vivo	Not mutagenic
mequinol	In Vitro	Some positive data exist, but the data are not sufficient for classification
Carbon black	In Vitro	Not mutagenic
Carbon black	In vivo	Some positive data exist, but the data are not sufficient for classification
Phenothiazine	In Vitro	Not mutagenic
Phenothiazine	In vivo	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
mequinol	Dermal	Multiple animal species	Not carcinogenic
mequinol	Ingestion	Multiple animal species	Some positive data exist, but the data are not sufficient for classification
Carbon black	Dermal	Mouse	Not carcinogenic
Carbon black	Ingestion	Mouse	Not carcinogenic
Carbon black	Inhalation	Rat	Carcinogenic.

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
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
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
2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, phosphate	Ingestion	Not classified for development	Rat	NOAEL 1,000 mg/kg/day	during gestation
mequinol	Ingestion	Not classified for female reproduction	Rat	NOAEL 300 mg/kg/day	premating into lactation
mequinol	Ingestion	Not classified for male reproduction	Rat	NOAEL 300	28 days

				mg/kg/day	
mequinol	Ingestion	Not classified for development	Rat	NOAEL 200 mg/kg/day	during gestation
Phenothiazine	Ingestion	Not classified for development	Rat	NOAEL 150 mg/kg/day	during organogenesis

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
HYDROXYPROPYL METHACRYLATE	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	
2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, phosphate	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	
mequinol	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
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
2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, phosphate	Ingestion	hematopoietic system | kidney and/or bladder | heart | liver | immune system | eyes	Not classified	Rat	NOAEL 300 mg/kg/day	90 days
mequinol	Ingestion	gastrointestinal tract	Not classified	Rat	LOAEL 300 mg/kg/day	28 days
mequinol	Ingestion	liver | immune system	Not classified	Rat	NOAEL 300 mg/kg/day	28 days
mequinol	Ingestion	kidney and/or bladder	Not classified	Rat	LOAEL 300 mg/kg/day	28 days
mequinol	Ingestion	heart | endocrine system | hematopoietic system | nervous system | respiratory system	Not classified	Rat	NOAEL 300 mg/kg/day	28 days
Carbon black	Inhalation	pneumoconiosis	Not classified	Human	NOAEL Not available	occupational exposure
Phenothiazine	Ingestion	hematopoietic system	May cause damage to organs though prolonged or repeated exposure	Dog	NOAEL 18 mg/kg/day	13 weeks
Phenothiazine	Ingestion	heart | endocrine system | liver | kidney and/or bladder | respiratory system	Not classified	Dog	NOAEL 67 mg/kg/day	13 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 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 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
2-Phenoxyethyl methacrylate	10595-06-9	Activated sludge	Experimental	3 hours	EC50	177 mg/l
2-Phenoxyethyl methacrylate	10595-06-9	Golden Orfe	Experimental	96 hours	LC50	10 mg/l
2-Phenoxyethyl methacrylate	10595-06-9	Green algae	Experimental	96 hours	EC50	4.1 mg/l
2-Phenoxyethyl methacrylate	10595-06-9	Water flea	Experimental	48 hours	EC50	1.21 mg/l
2-Phenoxyethyl methacrylate	10595-06-9	Green algae	Experimental	96 hours	EC10	0.42 mg/l
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		Experimental	16 hours	EC0	>3,000 mg/l
2-hydroxyethyl methacrylate	868-77-9		Experimental	18 hours	LD50	<98 mg per kg of bodyweight
HYDROXYPROPYL METHACRYLATE	27813-02-1	Bacteria	Experimental		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	EC50	>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
Acrylonitrile - 1,3-butadiene - methacrylic acid copolymer	9010-81-5		Data not available or insufficient for classification			N/A
Bisphenol A dimethacrylate, ethoxylated	41637-38-1	Activated sludge	Estimated	3 hours	EC50	>1,000 mg/l

Bisphenol A dimethacrylate, ethoxylated	41637-38-1	Green algae	Estimated	72 hours	No tox obs at lmt of water sol	>100 mg/l
Bisphenol A dimethacrylate, ethoxylated	41637-38-1	Rainbow trout	Estimated	96 hours	No tox obs at lmt of water sol	>100 mg/l
Bisphenol A dimethacrylate, ethoxylated	41637-38-1	Green algae	Estimated	72 hours	No tox obs at lmt of water sol	>100 mg/l
2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, phosphate	52628-03-2	Green Algae	Experimental	72 hours	EC50	>120 mg/l
2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, phosphate	52628-03-2	Rainbow trout	Experimental	96 hours	LC50	>112 mg/l
2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, phosphate	52628-03-2	Water flea	Experimental	48 hours	EC50	68 mg/l
2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, phosphate	52628-03-2	Green Algae	Experimental	72 hours	NOEC	30 mg/l
mequinol	150-76-5	Ciliated protozoa	Experimental	40 hours	IC50	171.4 mg/l
mequinol	150-76-5	Green Algae	Experimental	72 hours	EC50	54.7 mg/l
mequinol	150-76-5	Rainbow trout	Experimental	96 hours	LC50	28.5 mg/l
mequinol	150-76-5	Water flea	Experimental	48 hours	EC50	2.2 mg/l
mequinol	150-76-5	Green Algae	Experimental	72 hours	NOEC	2.96 mg/l
mequinol	150-76-5	Water flea	Experimental	21 days	NOEC	0.68 mg/l
Carbon black	1333-86-4	Activated sludge	Experimental	3 hours	EC50	>=100 mg/l
Carbon black	1333-86-4		Data not available or insufficient for classification			N/A
Phenothiazine	92-84-2	Activated sludge	Experimental	3 hours	IC10	72 mg/l
Phenothiazine	92-84-2	Anaerobic sludge	Experimental	24 hours	EC50	>=10 mg/l
Phenothiazine	92-84-2	Ciliated protozoa	Experimental	48 hours	IC50	8 mg/l
Phenothiazine	92-84-2	Green Algae	Experimental	72 hours	EC50	>100 mg/l
Phenothiazine	92-84-2	Rainbow trout	Experimental	96 hours	LC50	0.597 mg/l
Phenothiazine	92-84-2	Water flea	Experimental	48 hours	EC50	0.154 mg/l

12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
2-Phenoxyethyl methacrylate	10595-06-9	Experimental Biodegradation	28 days	BOD	22.3 % BOD/ThBOD	OECD 301D - Closed bottle test
2-hydroxyethyl methacrylate	868-77-9	Experimental Hydrolysis		Hydrolytic half-life (pH 10)	10.9 days (t 1/2)	OECD 111 Hydrolysis func of pH
2-hydroxyethyl methacrylate	868-77-9	Experimental Biodegradation	28 days	BOD	84 %BOD/COD	OECD 301D - Closed bottle test
HYDROXYPROPYL METHACRYLATE	27813-02-1	Experimental Biodegradation	28 days	BOD	81 % BOD/ThBOD	OECD 301C - MITI test (I)

Acrylonitrile - 1,3-butadiene - methacrylic acid copolymer	9010-81-5	Data not availbl-insufficient			N/A	
Bisphenol A dimethacrylate, ethoxylated	41637-38-1	Experimental Biodegradation	28 days	BOD	24 % BOD/ThBOD	OECD 301D - Closed bottle test
2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, phosphate	52628-03-2	Experimental Biodegradation	28 days	BOD	93.1 % BOD/ThBOD	OECD 301F - Manometric respirometry
mequinol	150-76-5	Experimental Biodegradation	28 days	BOD	86 % BOD/ThBOD	OECD 301C - MITI test (I)
Carbon black	1333-86-4	Data not availbl-insufficient			N/A	
Phenothiazine	92-84-2	Experimental Biodegradation	28 days	BOD	0 % BOD/ThBOD	OECD 301D - Closed bottle test

12.3 : Bioaccumulative potential

Material	Cas No.	Test type	Duration	Study Type	Test result	Protocol
2-Phenoxyethyl methacrylate	10595-06-9	Estimated Bioconcentration		Bioaccumulation factor	5.8	Estimated: Bioconcentration factor
2-hydroxyethyl methacrylate	868-77-9	Experimental Bioconcentration		Log Kow	0.42	OECD 107 log Kow shke flsk mtd
HYDROXYPROPYL METHACRYLATE	27813-02-1	Experimental Bioconcentration		Log Kow	0.97	Non-standard method
Acrylonitrile - 1,3-butadiene - methacrylic acid copolymer	9010-81-5	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Bisphenol A dimethacrylate, ethoxylated	41637-38-1	Estimated Bioconcentration		Bioaccumulation factor	6.6	Estimated: Bioconcentration factor
Bisphenol A dimethacrylate, ethoxylated	41637-38-1	Experimental Bioconcentration		Log Kow	≥4.66	OECD 117 log Kow HPLC method
2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, phosphate	52628-03-2	Experimental Bioconcentration		Log Kow	1 - 2.72	OECD 117 log Kow HPLC method
mequinol	150-76-5	Experimental Bioconcentration		Log Kow	1.58	Non-standard method
Carbon black	1333-86-4	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Phenothiazine	92-84-2	Experimental BCF-Carp	56 days	Bioaccumulation factor	660	

12.4. Mobility in soil

Material	Cas No.	Test type	Study Type	Test result	Protocol
2-Phenoxyethyl methacrylate	10595-06-9	Estimated Mobility in Soil	Koc	380 l/kg	Episuite™
2-hydroxyethyl methacrylate	868-77-9	Experimental Mobility in Soil	Koc	42.7 l/kg	
2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, phosphate	52628-03-2	Modeled 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. 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.

Dispose of completely cured (or polymerized) material in a permitted industrial waste facility. As a disposal alternative, incinerate uncured product in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. 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	UN3082	UN3082	UN3082
14.2 UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
14.3 Transport hazard class(es)	9	9	9
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 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 Tunnel Code	(-)	Not applicable.	Not applicable.
ADR Classification Code	M6	Not applicable.	Not applicable.
ADR Transport Category	4	Not applicable.	Not applicable.
ADR Multiplier	0	0	0
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

Ingredient	CAS Nbr	Classification	Regulation
Carbon black	1333-86-4	Grp. 2B: Possible human carc.	International Agency for Research on Cancer

Global inventory status

Contact 3M for more information. The components of this material are in compliance with the provisions of the Korea Chemical Control Act. Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Australia National Industrial Chemical Notification and Assessment Scheme (NICNAS). Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Japan Chemical Substance Control Law. Certain restrictions may apply. Contact the selling division for additional information. This product complies with Measures on Environmental Management of New Chemical Substances. All ingredients are listed on or exempt from on China IECSC inventory. 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.

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.

SECTION 16: Other information

List of relevant H statements

H302 Harmful if swallowed.

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.
H373	May cause damage to organs through prolonged or repeated exposure.
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.
H413	May cause long lasting harmful effects to aquatic life.

Revision information:
EU Section 09: pH information information was added.
Section 2: <125ml Precautionary - Prevention information was modified.
Section 2: <125ml Precautionary - Response information was modified.
CLP: Ingredient table information was modified.
Label: CLP Classification information was modified.
Label: CLP Percent Unknown information was deleted.
Label: CLP Precautionary - Disposal information was deleted.
Label: CLP Precautionary - Prevention information was modified.
Label: CLP Precautionary - Response information was modified.
Section 03: Composition table % Column heading information was added.
Section 3: Composition/ Information of ingredients table information was modified.
Section 03: Substance not applicable information was added.
Section 04: Information on toxicological effects information was modified.
Section 5: Hazardous combustion products table information was modified.
Section 7: Precautions safe handling information information was modified.
Section 09: Color information was added.
Section 9: Evaporation Rate information information was deleted.
Section 9: Explosive properties information information was deleted.
Section 09: Kinematic Viscosity information information was added.
Section 9: Melting point information information was modified.
Section 09: Odor information was added.
Sections 3 and 9: Odour, colour, grade information information was deleted.
Section 9: Oxidising properties information information was deleted.
Section 9: pH information information was deleted.
Section 9: Property description for optional properties information was modified.
Section 9: Vapour density value information was added.
Section 9: Vapour density value information was deleted.
Section 9: Viscosity information information was deleted.
Section 11: Acute Toxicity table information was modified.
Section 11: Carcinogenicity Table information was modified.
Section 11: Classification disclaimer information was modified.
Section 11: Germ Cell Mutagenicity Table information was modified.
Section 11: No endocrine disruptor information available warning information was added.
Section 11: Reproductive and/or Developmental Effects text information was deleted.
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: 12.6. Endocrine Disrupting Properties information was added.
Section 12: 12.7. Other adverse effects information was modified.
Section 12: Component ecotoxicity information information was modified.

Section 12: Contact manufacturer for more detail. information was deleted.
Section 12: Mobility in soil information information was added.
Section 12: No endocrine disruptor information available warning information was added.
Section 12: Persistence and Degradability information information was modified.
Section 12:Bioccumulative potential information information was modified.
Section 13: 13.1. Waste disposal note information was modified.
Section 14 Classification Code – Main Heading information was added.
Section 14 Classification Code – Regulation Data information was added.
Section 14 Control Temperature – Main Heading information was added.
Section 14 Control Temperature – Regulation Data information was added.
Section 14 Disclaimer Information information was added.
Section 14 Emergency Temperature – Main Heading information was added.
Section 14 Emergency Temperature – Regulation Data information was added.
Section 14 Hazard Class + Sub Risk – Main Heading information was added.
Section 14 Hazard Class + Sub Risk – Regulation Data information was added.
Section 14 Hazardous/Not Hazardous for Transportation information was added.
Section 14 Multiplier – Main Heading information was added.
Section 14 Multiplier – Regulation Data information was added.
Section 14 Other Dangerous Goods – Main Heading information was added.
Section 14 Other Dangerous Goods – Regulation Data information was added.
Section 14 Packing Group – Main Heading information was added.
Section 14 Packing Group – Regulation Data information was added.
Section 14 Proper Shipping Name information was added.
Section 14 Regulations – Main Headings information was added.
Section 14 Segregation – Regulation Data information was added.
Section 14 Segregation Code – Main Heading information was added.
Section 14 Special Precautions – Main Heading information was added.
Section 14 Special Precautions – Regulation Data information was added.
Section 14 Transport Category – Main Heading information was added.
Section 14 Transport Category – Regulation Data information was added.
Section 14 Transport in bulk – Regulation Data information was added.
Section 14 Transport in bulk according to Annex II of Marpol and the IBC Code – Main Heading information was added.
Section 14 Tunnel Code – Main Heading information was added.
Section 14 Tunnel Code – Regulation Data information was added.
Section 14 UN Number Column data information was added.
Section 14 UN Number information was added.
Sectio 16: UK disclaimer information was deleted.

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