



Safety Data Sheet

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This Safety Data Sheet has been prepared in accordance with the Malaysia Occupational Safety and Health (Chemical Classification, Labelling and Safety Data Sheets) Regulations 2013.

SECTION 1: Identification

1.1. Product identifier

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

Product Identification Numbers

62-2788-7530-7 62-2788-8730-2

1.2. Recommended use and restrictions on use

Recommended use
Adhesive

1.3. Supplier's details

ADDRESS: 3M Malaysia Sdn. Bhd., Level 8, Block F, Oasis Square, No.2, Jalan PJU 1A/7A, Ara Damansara 47301
Petaling, Jaya, Selangor
Telephone: 03-7884 2888
E Mail: 3mmyehsr@mmm.com
Website: www.3M.com.my

1.4. Emergency telephone number

+60 03-7884 2888

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

Skin Corrosion/Irritation: Category 2.
Serious Eye Damage/Irritation: Category 1.
Skin Sensitizer: Category 1.
Chronic Aquatic Toxicity: Category 2.

2.2. Label elements

Signal word
Danger

Symbols

Corrosion | Exclamation mark | Environment |

Pictograms



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:

P273 Avoid release to the environment.
 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 CENTER or doctor/physician.
 P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.

Disposal:

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

2.3. Other hazards

None known

SECTION 3: Composition/information on ingredients

This material is a mixture.

Ingredient	C.A.S. No.	% by Wt
Phenoxyethyl Methacrylate	10595-06-9	10 - 40
2-Hydroxyethyl Methacrylate	868-77-9	10 - 30
Acrylate Oligomer	41637-38-1	5 - 20
Acrylonitrile-Butadiene Polymer	9010-81-5	5 - 20
Hydroxypropyl Methacrylate	27813-02-1	10 - 20
2-Hydroxyethyl Methacrylate Phosphate	52628-03-2	1 - 4
4-Methoxyphenol	150-76-5	< 1
Carbon Black	1333-86-4	< 1
Phenothiazine	92-84-2	< 1

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

Allergic skin reaction (redness, swelling, blistering, and itching). Serious damage to the eyes (corneal cloudiness, severe pain, tearing, ulcerations, and significantly impaired or loss of vision).

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

Not applicable

SECTION 5: Fire-fighting measures

5.1. Suitable 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

Carbon monoxide
Carbon dioxide
Oxides of Nitrogen
Toxic Vapor, Gas, Particulate

Condition

During Combustion
During Combustion
During Combustion
During Combustion

5.3. Special protective actions 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 vapors, 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 dikes 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 authorized person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and SDS. Seal the container. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

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/vapors/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 oxidizing agents (eg. chlorine, chromic acid etc.) Keep away from reactive metals (eg. Aluminum, 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 oxidizing agents. Store away from amines.

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	C.A.S. No.	Agency	Limit type	Additional Comments
Carbon Black	1333-86-4	ACGIH	TWA(inhalable fraction):3 mg/m ³	A3: Confirmed animal carcin.
Carbon Black	1333-86-4	Malaysia OELs	TWA(8 hours):3.5 mg/m ³	
4-Methoxyphenol	150-76-5	ACGIH	TWA:5 mg/m ³	
4-Methoxyphenol	150-76-5	Malaysia OELs	TWA(8 hours):5 mg/m ³	
Phenothiazine	92-84-2	ACGIH	TWA(inhalable fraction):0.5 mg/m ³	A4: Not class. as human carcin, SKIN; Dermal sensitizer
Phenothiazine	92-84-2	Malaysia OELs	TWA(8 hours):5 mg/m ³	SKIN

ACGIH : American Conference of Governmental Industrial Hygienists

CMRG : Chemical Manufacturer's Recommended Guidelines

Malaysia OELs : Malaysia. Occupational Safety and Health (Use and Standards of Exposure of Chemicals Hazardous to Health) Regulations

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

CEIL: Ceiling

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/vapors/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

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

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

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid
Specific Physical Form:	Paste
Color	Black
Odor	Slight Methacrylate
Odor threshold	No Data Available
pH	Not Applicable
Melting point/Freezing point	Not Applicable
Boiling point/Initial boiling point/Boiling range	>=99.4 °C
Flash Point	>=98.9 °C [Test Method:Closed Cup]
Evaporation rate	No Data Available
Flammability	Not Applicable
Flammable Limits(LEL)	No Data Available
Flammable Limits(UEL)	No Data Available
Vapor Pressure	No Data Available
Relative Vapor Density	No Data Available
Density	1.07 g/ml
Relative Density	1.07 [Ref Std:WATER=1]
Water solubility	Slight (less than 10%)
Solubility- non-water	No Data Available
Partition coefficient: n-octanol/ water	No Data Available
Autoignition temperature	No Data Available
Decomposition temperature	No Data Available
Kinematic Viscosity	18,692 mm2/sec
Volatile Organic Compounds	No Data Available
Percent volatile	No Data Available
VOC Less H2O & Exempt Solvents	3.1 g/l [Details:when used as intended with Part A]
VOC Less H2O & Exempt Solvents	0.3 % [Details:when used as intended with Part A]
VOC Less H2O & Exempt Solvents	319 g/l [Details:as supplied]
Molecular weight	No Data Available

Particle Characteristics	Not Applicable
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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 polymerization 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 oxidizing agents
Reducing agents
Reactive metals

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 be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labeling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

11.1. Information on Toxicological effects

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 localized redness, swelling, itching, dryness, cracking, blistering, and pain.

Allergic Skin Reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

Photosensitization: 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 diarrhea.

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 >2,000 - =5,000 mg/kg
Phenoxyethyl Methacrylate	Dermal	similar compounds	LD50 > 2,000 mg/kg
Phenoxyethyl Methacrylate	Ingestion	similar compounds	LD50 > 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-Butadiene Polymer	Dermal		LD50 estimated to be > 5,000 mg/kg
Acrylonitrile-Butadiene Polymer	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
Acrylate Oligomer	Dermal	Rat	LD50 > 2,000 mg/kg
Acrylate Oligomer	Ingestion	Rat	LD50 > 2,000 mg/kg
2-Hydroxyethyl Methacrylate Phosphate	Ingestion	Rat	LD50 > 2,000 mg/kg
Carbon Black	Dermal	Rabbit	LD50 > 3,000 mg/kg
4-Methoxyphenol	Dermal	Rat	LD50 > 2,000 mg/kg
4-Methoxyphenol	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
Phenoxyethyl Methacrylate	similar compounds	No significant irritation
2-Hydroxyethyl Methacrylate	Rabbit	Minimal irritation
Acrylonitrile-Butadiene Polymer	Professional judgement	No significant irritation
Hydroxypropyl Methacrylate	Rabbit	Minimal irritation
Acrylate Oligomer	In vitro data	No significant irritation
2-Hydroxyethyl Methacrylate Phosphate	Rabbit	Corrosive
4-Methoxyphenol	Rabbit	Mild irritant
Carbon Black	Rabbit	No significant irritation
Phenothiazine	Rabbit	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
Phenoxyethyl Methacrylate	similar compounds	No significant irritation

2-Hydroxyethyl Methacrylate	Rabbit	Moderate irritant
Acrylonitrile-Butadiene Polymer	Professional judgement	No significant irritation
Hydroxypropyl Methacrylate	Rabbit	Moderate irritant
Acrylate Oligomer	In vitro data	No significant irritation
2-Hydroxyethyl Methacrylate Phosphate	similar health hazards	Corrosive
4-Methoxyphenol	Rabbit	Severe irritant
Carbon Black	Rabbit	No significant irritation
Phenothiazine	Rabbit	Mild irritant

Sensitization:

Skin Sensitization

Name	Species	Value
Phenoxyethyl Methacrylate	similar compounds	Sensitizing
2-Hydroxyethyl Methacrylate	Human and animal	Sensitizing
Hydroxypropyl Methacrylate	Human and animal	Sensitizing
Acrylate Oligomer	Multiple animal species	Not classified
2-Hydroxyethyl Methacrylate Phosphate	Mouse	Sensitizing
4-Methoxyphenol	Guinea pig	Sensitizing
Phenothiazine	Guinea pig	Sensitizing

Photosensitization

Name	Species	Value
Phenothiazine	Human	Sensitizing

Respiratory Sensitization

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

Germ Cell Mutagenicity

Name	Route	Value
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
Acrylate Oligomer	In Vitro	Not mutagenic
2-Hydroxyethyl Methacrylate Phosphate	In Vitro	Not mutagenic
4-Methoxyphenol	In vivo	Not mutagenic
4-Methoxyphenol	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
4-Methoxyphenol	Dermal	Multiple animal species	Not carcinogenic
4-Methoxyphenol	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
Phenoxyethyl Methacrylate	Ingestion	Toxic to female reproduction	similar compounds	NOAEL 300 mg/kg/day	premating into lactation
Phenoxyethyl Methacrylate	Ingestion	Toxic to development	similar compounds	NOAEL 300 mg/kg/day	premating into lactation
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
Acrylate Oligomer	Ingestion	Not classified for female reproduction	Rat	NOAEL 1,000 mg/kg/day	premating into lactation
Acrylate Oligomer	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,000 mg/kg/day	28 days
Acrylate Oligomer	Ingestion	Not classified for development	Rat	NOAEL 1,000 mg/kg/day	during gestation
2-Hydroxyethyl Methacrylate Phosphate	Ingestion	Not classified for development	Rat	NOAEL 1,000 mg/kg/day	during gestation
4-Methoxyphenol	Ingestion	Not classified for female reproduction	Rat	NOAEL 300 mg/kg/day	premating into lactation
4-Methoxyphenol	Ingestion	Not classified for male reproduction	Rat	NOAEL 300 mg/kg/day	28 days
4-Methoxyphenol	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-Hydroxyethyl Methacrylate Phosphate	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	
4-Methoxyphenol	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
Acrylate Oligomer	Ingestion	hematopoietic system liver immune system kidney and/or bladder endocrine system eyes	Not classified	Rat	NOAEL 1,000 mg/kg/day	13 weeks
2-Hydroxyethyl Methacrylate Phosphate	Ingestion	hematopoietic system kidney and/or bladder heart liver immune system eyes	Not classified	Rat	NOAEL 300 mg/kg/day	90 days
4-Methoxyphenol	Ingestion	gastrointestinal tract	Not classified	Rat	LOAEL 300 mg/kg/day	28 days
4-Methoxyphenol	Ingestion	liver immune system	Not classified	Rat	NOAEL 300 mg/kg/day	28 days
4-Methoxyphenol	Ingestion	kidney and/or bladder	Not classified	Rat	LOAEL 300 mg/kg/day	28 days
4-Methoxyphenol	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 are currently available or the data are 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.

SECTION 12: Ecological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. Additional information leading to material classification in Section 2 is available upon request. In addition, environmental fate and effects data on ingredients may not be reflected in this section because an ingredient is present below the threshold for labeling, an ingredient is not expected to be available for exposure, or the data is considered not relevant to the material as a whole.

12.1. Toxicity

Acute aquatic hazard:

GHS Acute 2: Toxic to aquatic life.

Chronic aquatic hazard:

GHS Chronic 2: Toxic to aquatic life with long lasting effects

No product test data available

Material	Cas #	Organism	Type	Exposure	Test Endpoint	Test Result
Phenoxyethyl Methacrylate	10595-06-9	Activated sludge	Analogous Compound	3 hours	EC50	177 mg/l
Phenoxyethyl Methacrylate	10595-06-9	Golden Orfe	Analogous Compound	96 hours	LC50	10 mg/l
Phenoxyethyl Methacrylate	10595-06-9	Green algae	Analogous Compound	96 hours	ErC50	4.4 mg/l
Phenoxyethyl Methacrylate	10595-06-9	Water flea	Analogous Compound	48 hours	EC50	1.21 mg/l
Phenoxyethyl Methacrylate	10595-06-9	Green algae	Analogous Compound	96 hours	ErC10	0.74 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	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
Acrylate Oligomer	41637-38-1	Green algae	Analogous Compound	72 hours	No tox obs at lmt of water sol	>100 mg/l
Acrylate Oligomer	41637-38-1	Rainbow Trout	Analogous Compound	96 hours	No tox obs at lmt of water sol	>100 mg/l
Acrylate Oligomer	41637-38-1	Water flea	Experimental	48 hours	No tox obs at lmt of water sol	>100 mg/l
Acrylate Oligomer	41637-38-1	Green algae	Analogous Compound	72 hours	No tox obs at lmt of water sol	100 mg/l
Acrylate Oligomer	41637-38-1	Water flea	Analogous Compound	21 days	No tox obs at lmt of water sol	100 mg/l
Acrylate Oligomer	41637-38-1	Zebra Fish	Analogous Compound	34 days	No tox obs at lmt of water sol	100 mg/l
Acrylate Oligomer	41637-38-1	Activated sludge	Experimental	3 hours	EC50	>1,000 mg/l
Acrylonitrile-Butadiene Polymer	9010-81-5	N/A	Data not available or insufficient for	N/A	N/A	N/A

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

			classification			
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
2-Hydroxyethyl Methacrylate Phosphate	52628-03-2	Green algae	Experimental	72 hours	EC50	>120 mg/l
2-Hydroxyethyl Methacrylate Phosphate	52628-03-2	Rainbow Trout	Experimental	96 hours	LC50	>112 mg/l
2-Hydroxyethyl Methacrylate Phosphate	52628-03-2	Water flea	Experimental	48 hours	EC50	68 mg/l
2-Hydroxyethyl Methacrylate Phosphate	52628-03-2	Green algae	Experimental	72 hours	NOEC	30 mg/l
4-Methoxyphenol	150-76-5	Ciliated protozoa	Experimental	40 hours	IC50	171.4 mg/l
4-Methoxyphenol	150-76-5	Green algae	Experimental	72 hours	ErC50	54.7 mg/l
4-Methoxyphenol	150-76-5	Rainbow Trout	Experimental	96 hours	LC50	28.5 mg/l
4-Methoxyphenol	150-76-5	Water flea	Experimental	48 hours	EC50	2.2 mg/l
4-Methoxyphenol	150-76-5	Green algae	Experimental	72 hours	NOEC	2.96 mg/l
4-Methoxyphenol	150-76-5	Water flea	Experimental	21 days	NOEC	0.68 mg/l
Carbon Black	1333-86-4	Green algae	Experimental	72 hours	No tox obs at lmt of water sol	>100 mg/l
Carbon Black	1333-86-4	Zebra Fish	Experimental	96 hours	No tox obs at lmt of water sol	>100 mg/l
Carbon Black	1333-86-4	Green algae	Experimental	72 hours	No tox obs at lmt of water sol	100 mg/l
Carbon Black	1333-86-4	Activated sludge	Experimental	3 hours	NOEC	>800 mg/l
Phenothiazine	92-84-2	Activated sludge	Experimental	3 hours	IC50	>100 mg/l
Phenothiazine	92-84-2	Ciliated protozoa	Experimental	48 hours	IC50	8 mg/l
Phenothiazine	92-84-2	Green algae	Experimental	72 hours	ErC50	>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 No.	Test Type	Duration	Study Type	Test Result	Protocol
Phenoxyethyl Methacrylate	10595-06-9	Analogous Compound Biodegradation	28 days	Biological Oxygen Demand	22.3 %BOD/ThOD	OECD 301D - Closed Bottle Test
Phenoxyethyl Methacrylate	10595-06-9	Experimental Hydrolysis		Hydrolytic half-life (pH 7)	1 years (t 1/2)	OECD 111 Hydrolysis func of pH
2-Hydroxyethyl Methacrylate	868-77-9	Experimental Biodegradation	28 days	Biological Oxygen Demand	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
Acrylate Oligomer	41637-38-1	Experimental Biodegradation	28 days	Biological Oxygen Demand	24 %BOD/ThOD	OECD 301D - Closed Bottle Test
Acrylonitrile-Butadiene Polymer	9010-81-5	Data not availbl-insufficient	N/A	N/A	N/A	N/A
Hydroxypropyl Methacrylate	27813-02-1	Experimental Biodegradation	28 days	Biological Oxygen Demand	81 %BOD/ThOD	OECD 301C - MITI (I)

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

2-Hydroxyethyl Methacrylate Phosphate	52628-03-2	Experimental Biodegradation	28 days	Biological Oxygen Demand	93.1 %BOD/ThOD	OECD 301F - Manometric Respiro
4-Methoxyphenol	150-76-5	Experimental Biodegradation - Anaerobic	28 days	Percent degraded	>90 %degraded	
4-Methoxyphenol	150-76-5	Experimental Biodegradation	28 days	Biological Oxygen Demand	86 %BOD/ThOD	OECD 301C - MITI (I)
Carbon Black	1333-86-4	Data not available - insufficient	N/A	N/A	N/A	N/A
Phenothiazine	92-84-2	Experimental Biodegradation	28 days	Biological Oxygen Demand	0 %BOD/ThOD	OECD 301D - Closed Bottle Test

12.3. Bioaccumulative potential

Material	CAS No.	Test Type	Duration	Study Type	Test Result	Protocol
Phenoxyethyl Methacrylate	10595-06-9	Modeled Bioconcentration		Bioaccumulation Factor	5.8	Catalogic™
Phenoxyethyl Methacrylate	10595-06-9	Experimental Bioconcentration		Log of Octanol/H2O part. coeff	3.137	OECD 117 log Kow HPLC method
2-Hydroxyethyl Methacrylate	868-77-9	Experimental Bioconcentration		Log of Octanol/H2O part. coeff	0.42	OECD 107 log Kow shke flask mtd
Acrylate Oligomer	41637-38-1	Modeled Bioconcentration		Bioaccumulation Factor	7	Catalogic™
Acrylate Oligomer	41637-38-1	Experimental Bioconcentration		Log of Octanol/H2O part. coeff	≥4.66	OECD 117 log Kow HPLC method
Acrylonitrile-Butadiene Polymer	9010-81-5	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Hydroxypropyl Methacrylate	27813-02-1	Experimental Bioconcentration		Log of Octanol/H2O part. coeff	0.97	EC A.8 Partition Coefficient
2-Hydroxyethyl Methacrylate Phosphate	52628-03-2	Experimental Bioconcentration		Log of Octanol/H2O part. coeff	1 - 2.72	OECD 117 log Kow HPLC method
4-Methoxyphenol	150-76-5	Experimental Bioconcentration		Log of Octanol/H2O part. coeff	1.58	
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 - Fish	56 days	Bioaccumulation Factor	660	
Phenothiazine	92-84-2	Experimental Bioconcentration		Log of Octanol/H2O part. coeff	3.78	OECD 117 log Kow HPLC method

12.4. Mobility in soil

Please contact manufacturer for more details

12.5 Other adverse effects

No information available

SECTION 13: Disposal considerations

13.1. Disposal methods

According to the Environmental Quality (Scheduled Wastes) Regulations 2005, scheduled waste has to be sent to a prescribed premise for recycling, treatment or disposal. Please approach Kualiti Alam for proper schedule waste classification and disposal.

SECTION 14: Transport Information

Marine Transport (IMDG)

UN Number:UN3082

Proper Shipping Name:ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

Technical Name:None assigned.

Hazard Class/Division:9

Subsidiary Risk:None assigned.

Packing Group:III

Limited Quantity:None assigned.

Marine Pollutant: None assigned.

Marine Pollutant Technical Name: None assigned.

Other Dangerous Goods Descriptions:

None assigned.

Air Transport (IATA)

UN Number:UN3082

Proper Shipping Name:ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

Technical Name:None assigned.

Hazard Class/Division:9

Subsidiary Risk:None assigned.

Packing Group:III

Limited Quantity:None assigned.

Marine Pollutant: None assigned.

Marine Pollutant Technical Name: None assigned.

Other Dangerous Goods Descriptions:

None assigned.

Transportation classifications are provided as a customer service. As for shipping, YOU remain responsible for complying with all applicable laws and regulations, including proper transportation classification and packaging. 3M's transportation classifications are based on product formulation, packaging, 3M policies and 3M's understanding of applicable current regulations. 3M does not guarantee the accuracy of this classification information. This information applies only to transportation classification and not the packaging, labeling or marking requirements. The above information is only for reference. If you are shipping by air or ocean, YOU are advised to check & meet applicable regulatory requirements.

SECTION 15: Regulatory information

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

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.

SECTION 16: Other information

DISCLAIMER: The information in this Safety Data Sheet (SDS) is based on our experience and is correct to the best of our knowledge at the date of publication, but we do not accept any liability for any loss, damage or injury resulting from its use (except as required by law). The information may not be valid for any use not referred to in this SDS or use of the product in combination with other materials. For these reasons, it is important that customers carry out their own evaluation to satisfy themselves as to the suitability of the product for their own intended applications. In addition, this SDS is being provided to convey health and safety information. If you are the importer of record of this product into Malaysia, you are responsible for all applicable regulatory requirements, including, but not limited to, product registrations/notifications, substance volume tracking, and potential substance registration/notification.

3M Malaysia SDSs are available at www.3M.com.my