

Safety Data Sheet

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 Document Group:
 16-0854-6
 Version Number:
 3.00

 Issue Date:
 02/12/2019
 Supercedes Date:
 29/12/2014

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 A

Product Identification Numbers

62-2888-7530-5 62-2888-8730-0

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

Serious Eye Damage/Irritation: Category 1.

Skin Corrosion/Irritation: Category 2.

Skin Sensitizer: Category 1.

Specific Target Organ Toxicity (repeated exposure): Category 2.

Chronic Aquatic Toxicity: Category 2.

2.2. Label elements

Signal word

Danger

Symbols

Corrosion | Exclamation mark | Health Hazard | Environment |

Pictograms



Hazard Statements

H318 Causes serious eye damage. H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H373 May cause damage to organs through prolonged or repeated exposure:

nervous system | respiratory system |

H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

General:

P102 Keep out of reach of children.

P101 If medical advice is needed, have product container or label at hand.

Prevention:

P260 Do not breathe dust/fume/gas/mist/vapors/spray.
P280B Wear protective gloves and eye/face protection.

P273 Avoid release to the environment.

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.

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
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	1 - 20
Acrylonitrile-Butadiene Polymer	9010-81-5	1 - 20
Hydroxypropyl Methacrylate	27813-02-1	1 - 20
Cumene Hydroperoxide	80-15-9	1 - 5
2,2'-Methylenebis(6-tert-butyl-p-cresol)	119-47-1	< 1

Cumene 98-82-8	< 1
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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

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. 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

<u>Substance</u>	<u>Condition</u>
Carbon monoxide	During Combustion
Carbon dioxide	During Combustion
Oxides of Nitrogen	During Combustion
Toxic Vapor, Gas, Particulate	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. Do not handle until all safety precautions have been read and understood. Do not breathe 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. Use personal protective equipment (gloves, respirators, etc.) as required.

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
Cumene	98-82-8	Malaysia OELs	TWA(8 hours):246 mg/m3(50	SKIN
			ppm)	
Cumene	98-82-8	ACGIH	TWA:50 ppm	

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.

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

Fluoroelastomer

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 stateLiquidSpecific Physical Form:Paste

ColorWhiteOdorLow OdorOdor thresholdNo Data AvailablepHNot ApplicableMelting point/Freezing pointNot Applicable

Boiling point/Initial boiling point/Boiling range 80 °C

Flash Point 103.9 °C [Test Method:Closed Cup]

Evaporation rateNo Data AvailableFlammability (solid, gas)Not ApplicableFlammable Limits(LEL)No Data AvailableVapor PressureNo Data AvailableVapor DensityNo Data Available

Density 1.07 g/ml

Relative Density
1.07 [Ref Std:WATER=1]
Water solubility
Solubility- non-water
No Data Available
Partition coefficient: n-octanol/ water
Autoignition temperature
No Data Available
No Data Available
Decomposition temperature
No Data Available

Viscosity 20,000 mPa-s [@ 25 °C] **Molecular weight** No Data Available

VOC Less H2O & Exempt Solvents3.1 g/l [Details: when used as intended with Part B]VOC Less H2O & Exempt Solvents0.3 % [Details: when used as intended with Part B]

VOC Less H2O & Exempt Solvents 349 g/l [Test Method:tested per EPA method 24] [Details:as

supplied]

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

Avoid curing large quantities of material to prevent a premature reaction (exotherm) with production of intense heat and smoke.

10.5. Incompatible materials

Amines Strong oxidizing agents Reactive metals

Reducing agents

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 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:

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:

May be harmful in contact with skin.

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.

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.

May cause additional health effects (see below).

Additional Health Effects:

Prolonged or repeated exposure may cause target organ effects:

Neurological Effects: Signs/symptoms may include personality changes, lack of coordination, sensory loss, tingling or numbness of the extremities, weakness, tremors, and/or changes in blood pressure and heart rate.

Respiratory Effects: Signs/symptoms may include cough, shortness of breath, chest tightness, wheezing, increased heart rate, bluish colored skin (cyanosis), sputum production, changes in lung function tests, and/or respiratory failure.

Reproductive/Developmental Toxicity:

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

Carcinogenicity:

Contains a chemical or chemicals which can cause cancer.

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 ATE2,000 - 5,000 mg/kg
Overall product	Inhalation- Vapor(4 hr)		No data available; calculated ATE20 - 50 mg/l
Overall product	Ingestion		No data available; calculated ATE2,000 - 5,000 mg/kg
Phenoxyethyl Methacrylate	Dermal		LD50 estimated to be 2,000 - 5,000 mg/kg
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-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 > 2,000 mg/kg
Acrylate Oligomer	Dermal	Professio nal judgeme nt	LD50 estimated to be > 5,000 mg/kg
Acrylate Oligomer	Ingestion	Rat	LD50 > 2,000 mg/kg
Cumene Hydroperoxide	Dermal	Rat	LD50 500 mg/kg
Cumene Hydroperoxide	Inhalation- Vapor (4 hours)	Rat	LC50 1.4 mg/l
Cumene Hydroperoxide	Ingestion	Rat	LD50 382 mg/kg
Cumene	Dermal	Rabbit	LD50 > 3,160 mg/kg
Cumene	Inhalation- Vapor (4 hours)	Rat	LC50 39.4 mg/l
Cumene	Ingestion	Rat	LD50 1,400 mg/kg

2,2'-Methylenebis(6-tert-butyl-p-cresol)	Dermal	Rabbit	LD50 > 10,000 mg/kg
2,2'-Methylenebis(6-tert-butyl-p-cresol)	Ingestion	Rat	LD50 > 5,000 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Phenoxyethyl Methacrylate	similar	Irritant
	compoun	
	ds	
2-Hydroxyethyl Methacrylate	Rabbit	Minimal irritation
Acrylonitrile-Butadiene Polymer	Professio	No significant irritation
	nal	
	judgemen	
	t	
Hydroxypropyl Methacrylate	Rabbit	Minimal irritation
Cumene Hydroperoxide	Rabbit	Corrosive
Cumene	Rabbit	Minimal irritation

Serious Eye Damage/Irritation

Name	Species	Value
Phenoxyethyl Methacrylate	similar compoun ds	Severe irritant
2-Hydroxyethyl Methacrylate	Rabbit	Moderate irritant
Acrylonitrile-Butadiene Polymer	Professio nal judgemen t	No significant irritation
Hydroxypropyl Methacrylate	Rabbit	Moderate irritant
Cumene Hydroperoxide	Rabbit	Corrosive
Cumene	Rabbit	Mild irritant

Skin Sensitization

Name	Species	Value
2-Hydroxyethyl Methacrylate	Human and animal	Sensitizing
Hydroxypropyl Methacrylate	Human and animal	Sensitizing
Acrylate Oligomer	Guinea pig	Not classified
Cumene	Guinea pig	Not classified

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
Cumene Hydroperoxide	In vivo	Not mutagenic

Cumene Hydroperoxide	In Vitro	Some positive data exist, but the data are not
		sufficient for classification
Cumene	In Vitro	Not mutagenic
Cumene	In vivo	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
Cumene	Inhalation	Multiple	Carcinogenic
		animal	
		species	

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
Cumene	Inhalation	Not classified for development	Rabbit	NOAEL 11.3 mg/l	during organogenesis
2,2'-Methylenebis(6-tert-butyl-p-cresol)	Ingestion	Not classified for female reproduction	Rat	NOAEL 50 mg/kg/day	premating & during gestation
2,2'-Methylenebis(6-tert-butyl-p-cresol)	Ingestion	Toxic to male reproduction	Rat	NOAEL 12.5 mg/kg/day	50 days

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	
Cumene Hydroperoxide	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	occupational exposure
Cumene Hydroperoxide	Inhalation	respiratory irritation	May cause respiratory irritation	Human	NOAEL Not available	occupational exposure
Cumene Hydroperoxide	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Professio nal judgeme nt	NOAEL Not available	
Cumene	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Multiple animal species	NOAEL Not available	not available
Cumene	Inhalation	respiratory irritation	May cause respiratory irritation	Human	LOAEL 0.2 mg/l	occupational exposure
Cumene	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Multiple animal	NOAEL Not available	not available

species

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
Cumene Hydroperoxide	Inhalation	nervous system respiratory system	Causes damage to organs through prolonged or repeated exposure	Rat	LOAEL 0.2 mg/l	7 days
Cumene Hydroperoxide	Inhalation	heart liver kidney and/or bladder	Not classified	Rat	NOAEL 0.03 mg/l	90 days
Cumene	Inhalation	auditory system endocrine system hematopoietic system liver nervous system eyes	Not classified	Rat	NOAEL 59 mg/l	13 weeks
Cumene	Inhalation	kidney and/or bladder	Not classified	Rat	NOAEL 4.9 mg/l	13 weeks
Cumene	Inhalation	respiratory system	Not classified	Rat	NOAEL 59 mg/l	13 weeks
Cumene	Ingestion	kidney and/or bladder heart endocrine system hematopoietic system liver respiratory system	Not classified	Rat	NOAEL 769 mg/kg/day	6 months

Aspiration Hazard

Name	Value
Cumene	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.

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 Exp	xposure Test Endpoint Test Result	
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Phenoxyethyl	10595-06-9	Green algae	Experimental	96 hours	Effect	4.1 mg/l
Methacrylate	10393-00-9	Green argae	Experimental	90 Hours	Concentration	4.1 mg/1
Trictifact y face					50%	
Phenoxyethyl	10595-06-9	Golden Orfe	Experimental	96 hours	Lethal	10 mg/l
Methacrylate			1		Concentration	
-					50%	
Phenoxyethyl	10595-06-9	Water flea	Experimental	48 hours	Effect	1.21 mg/l
Methacrylate					Concentration	
					50%	
Phenoxyethyl	10595-06-9	Green algae	Experimental	96 hours	Effect	0.42 mg/l
Methacrylate					Concentration	
	0.00.77.0	TTT		40.1	10%	200 //
2-	868-77-9	Water flea	Experimental	48 hours	Effect	380 mg/l
Hydroxyethyl					Concentration	
Methacrylate 2-	868-77-9	Cross sless	E-manina antal	72 h a	50% Effect	710 ~/1
_	808-77-9	Green algae	Experimental	72 hours	Concentration	710 mg/l
Hydroxyethyl Methacrylate					50%	
2-	868-77-9	Fathead	Experimental	96 hours	Lethal	227 mg/l
Hydroxyethyl	000-11 - 3	Minnow	Laperinientai) Hours	Concentration	22 / 111 <u>5</u> /1
Methacrylate		IVIIIIIO W			50%	
2-	868-77-9	Green Algae	Experimental	72 hours	No obs Effect	160 mg/l
Hydroxyethyl		Green ringue	Zapermientar	/2 Hours	Conc	i vo mg
Methacrylate						
2-	868-77-9	Water flea	Experimental	21 days	No obs Effect	24.1 mg/l
Hydroxyethyl			1		Conc	
Methacrylate						
Acrylate	41637-38-1	Green algae	Endpoint not	72 hours	Effect	>100 mg/l
Oligomer			reached		Concentration	
					50%	
Acrylate	41637-38-1	Green algae	Experimental	72 hours	No obs Effect	0.05 mg/l
Oligomer	2010 01 5				Conc	
Acrylonitrile-	9010-81-5		Data not			
Butadiene			available or			
Polymer			insufficient for classification			
Hydroxypropyl	27912 02 1	Green Algae		72 hours	Effect	>97.2 mg/l
Methacrylate	2/813-02-1	Green Aigae	Experimental	/2 Hours	Concentration	/97.2 mg/1
ivictilaci yiatc					50%	
Hydroxypropyl	27813-02-1	Water flea	Experimental	48 hours	Effect	>143 mg/l
Methacrylate	2/013-02-1	Water fied	Experimentar	40 Hours	Concentration	7 143 Ilig/1
Treemacry race					50%	
Hydroxypropyl	27813-02-1	Golden Orfe	Experimental	48 hours	Effect	493 mg/l
Methacrylate			F		Concentration	- 5-
					50%	
Hydroxypropyl	27813-02-1	Green Algae	Experimental	72 hours	No obs Effect	97.2 mg/l
Methacrylate					Conc	
Hydroxypropyl	27813-02-1	Water flea	Experimental	21 days	No obs Effect	45.2 mg/l
Methacrylate					Conc	
Cumene	80-15-9	Green algae	Experimental	72 hours	Effect	3.1 mg/l
Hydroperoxide					Concentration	
					50%	
Cumene	80-15-9	Water flea	Experimental	48 hours	Effect	18.84 mg/l
Hydroperoxide					Concentration	
	<u> </u>	1			50%	

Cumene Hydroperoxide	80-15-9	Rainbow Trout		96 hours	Lethal Concentration 50%	3.9 mg/l
Cumene Hydroperoxide	80-15-9	Green algae	Experimental	72 hours	No obs Effect Conc	1 mg/l
2,2'- Methylenebis(6 -tert-butyl-p- cresol)	119-47-1	Water flea	Endpoint not reached	48 hours	Effect Concentration 50%	>100 mg/l
2,2'- Methylenebis(6 -tert-butyl-p- cresol)	119-47-1	Ricefish	Experimental	96 hours	No tox obs at lmt of water sol	>100 mg/l
2,2'- Methylenebis(6 -tert-butyl-p- cresol)	119-47-1	Green Algae	Endpoint not reached	72 hours	Effect Concentration 50%	>100 mg/l
2,2'- Methylenebis(6 -tert-butyl-p- cresol)	119-47-1	Green Algae	Experimental	72 hours	No obs Effect Conc	1.3 mg/l
Cumene	98-82-8	Mysid Shrimp	Experimental	96 hours	Effect Concentration 50%	1.2 mg/l
Cumene	98-82-8	Green algae	Experimental	72 hours	Effect Concentration 50%	2.6 mg/l
Cumene	98-82-8	Rainbow Trout	Experimental	96 hours	Lethal Concentration 50%	2.7 mg/l
Cumene	98-82-8	Water flea	Experimental	48 hours	Effect Concentration 50%	2.14 mg/l
Cumene	98-82-8	Water flea	Experimental	21 days	No obs Effect Conc	0.35 mg/l
Cumene	98-82-8	Green algae	Experimental	72 hours	No obs Effect Conc	0.22 mg/l

12.2. Persistence and degradability

Material	CAS No.	Test Type	Duration	Study Type	Test Result	Protocol
Phenoxyethyl	10595-06-9	Experimental	28 days	Biological	22.3 %	OECD 301D - Closed
Methacrylate		Biodegradation		Oxygen	BOD/ThBOD	Bottle Test
				Demand		
2-	868-77-9	Experimental	14 days	Biological	95 %	OECD 301C - MITI (I)
Hydroxyethyl		Biodegradation		Oxygen	BOD/ThBOD	
Methacrylate				Demand		
Acrylate	41637-38-1	Estimated	28 days	Carbon dioxide	7-12 % weight	OECD 301B - Mod.
Oligomer		Biodegradation		evolution		Sturm or CO2
Acrylonitrile-	9010-81-5	Data not			N/A	
Butadiene		availbl-				
Polymer		insufficient				
Hydroxypropyl	27813-02-1	Experimental	28 days	Biological	81 %	OECD 301C - MITI (I)
Methacrylate		Biodegradation		Oxygen	BOD/ThBOD	
				Demand		

Cumene	80-15-9	Experimental	28 days	Biological	0 %	OECD 301C - MITI (I)
Hydroperoxide		Biodegradation	-	Oxygen	BOD/ThBOD	
				Demand		
2,2'-	119-47-1	Experimental	28 days	Biological	0 %	OECD 301C - MITI (I)
Methylenebis(6		Biodegradation		Oxygen	BOD/ThBOD	
-tert-butyl-p-				Demand		
cresol)						
Cumene	98-82-8	Experimental		Photolytic half-	4.5 days (t 1/2)	Other methods
		Photolysis		life (in air)		
Cumene	98-82-8	Experimental	14 days	Biological	33 %	OECD 301C - MITI (I)
		Biodegradation		Oxygen	BOD/ThBOD	
		_		Demand		

12.3. Bioaccumulative potential

Material	CAS No.	Test Type	Duration	Study Type	Test Result	Protocol
Phenoxyethyl Methacrylate	10595-06-9	Estimated Bioconcentrati on		Bioaccumulatio n Factor	5.8	Est: Bioconcentration factor
2- Hydroxyethyl Methacrylate	868-77-9	Experimental Bioconcentrati on		Log of Octanol/H2O part. coeff	0.42	Other methods
Acrylate Oligomer	41637-38-1	Estimated Bioconcentrati on		Bioaccumulatio n Factor	6.6	Est: Bioconcentration factor
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 Bioconcentrati on		Log of Octanol/H2O part. coeff	0.97	Other methods
Cumene Hydroperoxide	80-15-9	Experimental Bioconcentrati on		Log of Octanol/H2O part. coeff	1.82	Other methods
2,2'- Methylenebis(6 -tert-butyl-p- cresol)	119-47-1	Experimental BCF-Carp	60 days	Bioaccumulatio n Factor	840	OECD 305E-Bioaccum Fl-thru fis
Cumene	98-82-8	Estimated Bioconcentrati on		Bioaccumulatio n Factor	140	Other methods

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 on this Safety Data Sheet 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 Data Sheet or use of the product in combination with other materials. For these reasons, it is important that customers carry out their own test to satisfy themselves as to the suitability of the product for their own intended applications.

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