3MTM Scotch-WeldTM Low Odor Acrylic Adhesive DP810 Black



Safety Data Sheet

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This Safety Data Sheet has been prepared in accordance with the GHS guidelines & India Hazardous substances (Classification, Labeling & Packaging) Draft Rules 2011.

IDENTIFICATION

1.1. Product identifier

3M[™] Scotch-Weld[™] Low Odor Acrylic Adhesive DP810 Black

Product Identification Numbers

62-2788-1436-3

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

Recommended use

Adhesive

1.3. Supplier's details

Address: 3M India Limited, plot-48-51, Electronic city, Hosur road, Bangalore-560100

Telephone: 080-45543000, contact Product EHS team

E Mail: productehs.in@mmm.com
Website: http://solutions.3mindia.co.in

1.4. Emergency telephone number

080-45543000 (Contact hours: 8:00 AM to 5:00 PM)

This product is a kit or a multipart product which consists of multiple, independently packaged components. A Safety Data Sheet for each of these components is included. Please do not separate the component Safety Data Sheets from this cover page. The document numbers of the MSDSs for components of this product are:

16-0853-8, 16-0854-6

TRANSPORT INFORMATION

Air Transport (IATA)Regulations

UN No Not applicable

Proper Shipping Name Not applicable Hazard Classs/Division Not applicable Subsidiary Risk Not applicable

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3MTM Scotch-WeldTM Low Odor Acrylic Adhesive DP810 Black

Packing Group: Not applicable

Marine Transport (IMDG) UN No Not applicable

Proper Shipping Name Not applicable Hazard Classs/Division Not applicable Subsidiary Risk Not applicable

Packing Group: Not applicable

Environmental Hazards: Not applicable

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3M India SDSs are available at http://solutions.3mindia.co.in

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SECTION 1: Identification

1.1. Product identifier

3MTM Scotch-WeldTM Low Odor Acrylic Adhesive DP810 Black and Low Odor Acrylic Adhesive 810 Black, Part B

1.2. Recommended use and restrictions on use

Recommended use

Adhesive

1.3. Supplier's details

Address: 3M India Limited, plot-48-51, Electronic city, Hosur road, Bangalore-560100

Telephone: 080-45543000, contact Product EHS team

E Mail: productehs.in@mmm.com
Website: http://solutions.3mindia.co.in

1.4. Emergency telephone number

080-45543000 (Contact hours: 8:00 AM to 5:00 PM)

SECTION 2: Hazard identification

Under MSIHC Rules, information is noted below on flammability, acute toxicity and explosivity relevant to this product. In line with international standards, information on other hazard classes and associated precautionary statements relevant to this product are included as well.

2.1. Classification of the substance or mixture

Acute Toxicity (oral): Category 5.

Serious Eye Damage/Irritation: Category 1.

Skin Corrosion/Irritation: Category 2.

Skin Sensitizer: Category 1.

Acute Aquatic Toxicity: Category 2. Chronic Aquatic Toxicity: Category 2.

2.2. Label elements

Signal Word

DANGER!

Symbols

Corrosion | Exclamation mark | Environment |

Pictograms



HAZARD STATEMENTS:

H303 May be harmful if swallowed. H318 Causes serious eye damage. H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H411 Toxic to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS

Prevention:

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.

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	CAS Nbr	% by Wt
Phenoxyethyl Methacrylate	10595-06-9	10 - 40
2-hydroxyethyl methacrylate	868-77-9	10 - 30
Hydroxypropyl Methacrylate	27813-02-1	10 - 30
Acrylate oligomer	41637-38-1	5 - 20
Acrylonitrile-Butadiene Polymer	9010-81-5	5 - 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.

Eve 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

SubstanceConditionCarbon monoxide.During combustion.Carbon dioxide.During combustion.Oxides of nitrogen.During combustion.Toxic vapour, 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 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 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/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. 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 oxidising 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	CAS Nbr	Agency	Limit type	Additional comments
Carbon black	1333-86-4	ACGIH	TWA(inhalable fraction):3	A3: Confirmed animal
			mg/m3	carcin.
4-Methoxyphenol	150-76-5	ACGIH	TWA:5 mg/m3	
Phenothiazine	92-84-2	ACGIH	TWA:5 mg/m3	Danger of cutaneous
				absorption

ACGIH: American Conference of Governmental Industrial Hygienists

AIHA: American Industrial Hygiene Association

CMRG: Chemical Manufacturer's Recommended Guidelines

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/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.

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 vapours 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

OdorSlight MethacrylateOdour thresholdNo data available.pHNot applicable.Melting point/Freezing point: NANot applicable.

Boiling point/Initial boiling point/Boiling range >=99.4 °C

Flash point >=98.9 °C [Test Method:Closed Cup]

Evaporation rate

Flammability (solid, gas)

Flammable Limits(LEL)

Flammable Limits(UEL)

Vapour pressure

Vapour density

No data available.

No data available.

No data available.

No data available.

Density 1.07 g/ml

Relative density

1.07 [Ref Std:WATER=1]

Water solubility

Solubility- non-water

Partition coefficient: n-octanol/water

Autoignition temperature

Decomposition temperature

Viscosity

1.07 [Ref Std:WATER=1]

No data available.

No data available.

No data available.

No data available.

Vo data available.

Molecular weight

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]

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

Eve 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	1	No data available; calculated ATE >5,000 mg/kg
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	LD50 estimated to be > 5,000 mg/kg
		nal	
		judgeme	
		nt	
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	Irritant
	compoun	
	ds	
2-hydroxyethyl methacrylate	Rabbit	Minimal irritation
Acrylonitrile-Butadiene Polymer	Professio	No significant irritation
	nal	
	judgemen	
	t	
Hydroxypropyl Methacrylate	Rabbit	Minimal 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	Severe irritant
	compoun	
	ds	
2-hydroxyethyl methacrylate	Rabbit	Moderate irritant
Acrylonitrile-Butadiene Polymer	Professio	No significant irritation
	nal	
	judgemen	
	t	
Hydroxypropyl Methacrylate	Rabbit	Moderate irritant
2-Hydroxyethyl Methacrylate Phosphate	similar	Corrosive
•	health	
	hazards	

4-Methoxyphenol	Rabbit	Severe irritant
Carbon black	Rabbit	No significant irritation
Phenothiazine	Rabbit	Mild irritant

Skin Sensitisation

Name	Species	Value
2-hydroxyethyl methacrylate	Human	Sensitising
	and	
	animal	
Hydroxypropyl Methacrylate	Human	Sensitising
	and	
	animal	
Acrylate oligomer	Guinea	Not classified
	pig	
2-Hydroxyethyl Methacrylate Phosphate	Mouse	Sensitising
4-Methoxyphenol	Guinea	Sensitising
	pig	
Phenothiazine	Guinea	Sensitising
	pig	

Photosensitisation

Name	Species	Value
Phenothiazine	Human	Sensitising

Respiratory Sensitisation

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	Not carcinogenic
		animal	
		species	
4-Methoxyphenol	Ingestion	Multiple	Some positive data exist, but the data are not
		animal	sufficient for classification
		species	
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-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	Inhalation	respiratory irritation	Some positive data exist, but the	similar	NOAEL Not	
Methacrylate			data are not sufficient for	health	available	
			classification	hazards		
2-Hydroxyethyl	Inhalation	respiratory irritation	Some positive data exist, but the	similar	NOAEL Not	
Methacrylate Phosphate			data are not sufficient for	health	available	
			classification	hazards		
4-Methoxyphenol	Inhalation	respiratory irritation	Some positive data exist, but the	similar	NOAEL Not	
			data are not sufficient for	health	available	
			classification	hazards		

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-Hydroxyethyl Methacrylate Phosphate	Ingestion	hematopoietic system kidney and/or bladder heart liver immune system	Not classified	Rat	NOAEL 300 mg/kg/day	90 days

		eves				
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 labelling, 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 Nbr	Organism	Type	Exposure	Test endpoint	Test result
Phenoxyethyl	10595-06-9	Golden Orfe	Experimental	96 hours	LC50	10 mg/l
Methacrylate						
Phenoxyethyl	10595-06-9	Green algae	Experimental	96 hours	EC50	4.1 mg/l
Methacrylate						
Phenoxyethyl	10595-06-9	Water flea	Experimental	48 hours	EC50	1.21 mg/l
Methacrylate						
Phenoxyethyl	10595-06-9	Green algae	Experimental	96 hours	Effect	0.42 mg/l
Methacrylate					Concentration	
					10%	
2-hydroxyethyl	868-77-9	Fathead	Experimental	96 hours	LC50	227 mg/l

methacrylate		minnow				
2-hydroxyethyl	868-77-9	Green algae	Experimental	72 hours	EC50	710 mg/l
methacrylate	0.60.77.0	XX7 4 CI	D : . 1	40.1	EGEO	200 //
2-hydroxyethyl methacrylate	868-77-9	Water flea	Experimental	48 hours	EC50	380 mg/l
2-hydroxyethyl	868-77-9	Green Algae	Experimental	72 hours	NOEC	160 mg/l
methacrylate			Z.ip erimentur	72 110 0115	1,020	
2-hydroxyethyl	868-77-9	Water flea	Experimental	21 days	NOEC	24.1 mg/l
methacrylate		, attribu	Emperimentar	21 days	I TOLE	
Hydroxypropyl	27813-02-1	Golden Orfe	Experimental	48 hours	EC50	493 mg/l
Methacrylate	27013 02 1	Golden one	Experimentar	10 Hours	Leso	
Hydroxypropyl	27813-02-1	Green Algae	Experimental	72 hours	EC50	>97.2 mg/l
Methacrylate	27013-02-1	Green Aigae	Experimental	/2 nours	LC30	2 77.2 mg/1
Hydroxypropyl	27813-02-1	Water flea	Experimental	48 hours	EC50	>143 mg/l
Methacrylate	27613-02-1	water fied	Experimental	46 Hours	EC30	- 143 mg/1
Hydroxypropyl	27813-02-1	Green Algae	Experimental	72 hours	NOEC	97.2 mg/l
Methacrylate	27613-02-1	Green Aigae	Experimental	/2 Hours	NOEC	97.2 mg/1
Hydroxypropyl	27912 02 1	Water flea	Experimental	21 days	NOEC	45.2 mg/l
Methacrylate	2/813-02-1	water nea	Experimental	21 days	NOEC	43.2 mg/1
Acrylate	41637-38-1	Croop algae	Endpoint not	72 hours	EC50	>100 mg/l
	4103/-38-1	Green algae	reached	/2 nours	ECSU	100 mg/1
oligomer	41.627.20.1	C		70 1	NOEC	0.05
Acrylate	41637-38-1	Green algae	Experimental	72 hours	NOEC	0.05 mg/l
oligomer	0010 01 5		D			
Acrylonitrile-	9010-81-5		Data not			
Butadiene			available or			
Polymer			insufficient for			
	52620.02.2		classification			
2-	52628-03-2		Data not			
Hydroxyethyl			available or			
Methacrylate			insufficient for			
Phosphate	150.76.5	G 41	classification	72.1	EGEO	5 4 7 7
4-	150-76-5	Green Algae	Experimental	72 hours	EC50	54.7 mg/l
Methoxyphenol		D 11	D	0.61	T 050	20.5 //
4-	150-76-5	Rainbow trout	Experimental	96 hours	LC50	28.5 mg/l
Methoxyphenol		TT	D	40.1	P.G.50	
4-	150-76-5	Water flea	Experimental	48 hours	EC50	2.2 mg/l
Methoxyphenol			F	72.1	NOEG	2.06 /1
4-	150-76-5	Green Algae	Experimental	72 hours	NOEC	2.96 mg/l
Methoxyphenol		N7 / C	D	21.1	NOTE	0.60 //
4-	150-76-5	Water flea	Experimental	21 days	NOEC	0.68 mg/l
Methoxyphenol			D .			
Carbon black	1333-86-4		Data not			
			available or			
			insufficient for			
71 1: :			classification		17.050	100 //
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
Phenoxyethyl	10595-06-9	Experimental	28 days	BOD	22.3 %	OECD 301D - Closed
Methacrylate		Biodegradation	-		BOD/ThBOD	bottle test

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2-hydroxyethyl methacrylate	868-77-9	Experimental Biodegradation	14 days	BOD	95 % BOD/ThBOD	OECD 301C - MITI test (I)
Hydroxypropyl Methacrylate	27813-02-1		28 days	BOD	81 % BOD/ThBOD	OECD 301C - MITI test (I)
Acrylate oligomer	41637-38-1	Estimated Biodegradation	28 days	CO2 evolution	7-12 % weight	OECD 301B - Modified sturm or CO2
Acrylonitrile- Butadiene Polymer	9010-81-5	Data not available- insufficient			N/A	
2- Hydroxyethyl Methacrylate Phosphate	52628-03-2	Data not available- insufficient			N/A	
4- Methoxyphenol	150-76-5	Experimental Biodegradation	28 days	BOD	86 % BOD/ThBOD	OECD 301C - MITI test (I)
Carbon black	1333-86-4	Data not available- 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 Nbr	Test type	Duration	Study Type	Test result	Protocol
Phenoxyethyl	10595-06-9	Estimated		Bioaccumulatio	5.8	Estimated:
Methacrylate		Bioconcentrati		n factor		Bioconcentration factor
2-hydroxyethyl methacrylate	868-77-9	Experimental Bioconcentrati		Log Kow	0.42	Other methods
Hydroxypropyl Methacrylate	27813-02-1	Experimental Bioconcentrati on		Log Kow	0.97	Other methods
Acrylate oligomer	41637-38-1	Estimated Bioconcentrati on		Bioaccumulatio n factor	6.6	Estimated: Bioconcentration factor
Acrylonitrile- Butadiene Polymer	9010-81-5	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
2- Hydroxyethyl Methacrylate Phosphate	52628-03-2	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
4- Methoxyphenol	150-76-5	Experimental Bioconcentrati on		Log Kow	1.58	Other methods
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	Bioaccumulatio n factor	660	

12.4. Mobility in soil

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Please contact manufacturer for more details

12.5 Other Adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Disposal methods

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

Dispose of completely cured (or polymerised) 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.

SECTION 14: Transport Information

Air Transport (IATA)Regulations

UN No UN3082

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

Methacrylate)

Hazard Classs/Division 9
Subsidiary Risk Not applicable

Packing Group: III

Marine Transport (IMDG)

UN No UN3082

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

Methacrylate)

Hazard Classs/Division 9 Subsidiary Risk Not applicable

Packing Group: III

Environmental Hazards: Marine Pollutant: Yes

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.

Applicable Environmental, Health and Safety Regulations

The Manufacture, Storage and Import of Hazardous Chemical Rules, 1989 Hazardous Waste(Management, Handling & Transboundary) Rules, 2008

Hazardous Chemicals (Classification, Packaging and Labelling Draft Rules), 2011

The following ingredients are listed as hazardous on Part II of Schedule I of the India Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) rules

None.

The following ingredients are classified as hazardous based on the criteria listed under Part I of Schedule I of the India Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) rules:

The product is classified as Non-Hazardous as per MSIHC Rules, 1989.

SECTION 16: Other information

NFPA Hazard Classification

Health: 3 Flammability: 1 Instability: 0 Special Hazards: None

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

Revision information:

No revision 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 India SDSs are available at http://solutions.3mindia.co.in



Safety Data Sheet

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This Safety Data Sheet has been prepared in accordance with the GHS guidelines & India Hazardous substances (Classification, Labeling & Packaging) Draft Rules 2011.

SECTION 1: Identification

1.1. Product identifier

3MTM Scotch-WeldTM Low Odor Acrylic Adhesive DP810 Black and Low Odor Acrylic Adhesive 810 Black, Part A

1.2. Recommended use and restrictions on use

Recommended use

Adhesive

1.3. Supplier's details

Address: 3M India Limited, plot-48-51, Electronic city, Hosur road, Bangalore-560100

Telephone: 080-45543000, contact Product EHS team

E Mail: productehs.in@mmm.com
Website: http://solutions.3mindia.co.in

1.4. Emergency telephone number

080-45543000 (Contact hours: 8:00 AM to 5:00 PM)

SECTION 2: Hazard identification

Under MSIHC Rules, information is noted below on flammability, acute toxicity and explosivity relevant to this product. In line with international standards, information on other hazard classes and associated precautionary statements relevant to this product are included as well.

2.1. Classification of the substance or mixture

Acute Toxicity (oral): Category 5.

Acute Toxicity (dermal): Category 5. Acute Toxicity (inhalation): Category 5.

Serious Eye Damage/Irritation: Category 1.

Skin Corrosion/Irritation: Category 2.

Skin Sensitizer: Category 1.

Reproductive Toxicity: Category 2.

Carcinogenicity: Category 2.

Specific Target Organ Toxicity (repeated exposure): Category 1.

Acute Aquatic Toxicity: Category 2. Chronic Aquatic Toxicity: Category 2.

2.2. Label elements

Signal Word

DANGER!

Symbols

Corrosion | Exclamation mark | Health Hazard | Environment |

Pictograms



HAZARD STATEMENTS:

H303 + H313 + H333 May be harmful if swallowed, in contact with skin or if inhaled.

H318 Causes serious eye damage. H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H361 Suspected of damaging fertility or the unborn child.

H351 Suspected of causing cancer.

H372 Causes damage to organs through prolonged or repeated exposure:

nervous system respiratory system

H411 Toxic to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS

Prevention:

P260 Do not breathe dust/fume/gas/mist/vapours/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.

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	CAS Nbr	% 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
α,α-Dimethylbenzyl hydroperoxide	80-15-9	1 - 5
2,2'-Methylenebis(6-tert-butyl-p-cresol)	119-47-1	< 1
Cumene	98-82-8	< 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

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

SubstanceConditionCarbon monoxide.During combustion.Carbon dioxide.During combustion.Oxides of nitrogen.During combustion.Toxic vapour, 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 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 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/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. Aluminum, zinc etc.) to avoid the formation of hydrogen gas that could create an explosion hazard. Use personal protective equipment (eg. gloves, respirators...) as required.

7.2. Conditions for safe storage including any incompatibilities

Store away from heat. Store away from oxidising 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	CAS Nbr	Agency	Limit type	Additional comments
α,α-Dimethylbenzyl	80-15-9	AIHA	TWA:6 mg/m3(1 ppm)	SKIN
hydroperoxide				
Cumene	98-82-8	ACGIH	TWA:50 ppm	

ACGIH: American Conference of Governmental Industrial Hygienists

AIHA: American Industrial Hygiene Association

CMRG: Chemical Manufacturer's Recommended Guidelines

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/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.

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

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 vapours 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

White Color Low Odor Odor

Odour threshold No data available. *Not applicable.* Melting point/Freezing point: NA Not applicable.

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

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

Evaporation rate No data available. Flammability (solid, gas) Not applicable. Flammable Limits(LEL) No data available. Flammable Limits(UEL) No data available. Vapour pressure No data available. Vapour 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.

No data available. Partition coefficient: n-octanol/water **Autoignition temperature** No data available. **Decomposition temperature** No data available. Viscosity 20,000 mPa-s [@ 25 °C] Molecular weight No data available.

VOC less H2O & exempt solvents 3.1 g/l [Details: when used as intended with Part B]

VOC less H2O & exempt solvents VOC less H2O & exempt solvents

0.3 % [Details: when used as intended with Part B] 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 polymerisation 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 oxidising agents.

Reactive metals

Reducing agents.

10.6 Hazardous decomposition products

Substance
None known.

Condition

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 labelling, 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 diarrhoea. 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 changes in blood pressure and heart rate. Respiratory effects: Signs/symptoms may include cough, shortness of breath, chest tightness, wheezing, increased heart rate, bluish coloured skin (cyanosis), sputum production, changes in lung function tests, and 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
α,α-Dimethylbenzyl hydroperoxide	Dermal	Rat	LD50 500 mg/kg
α, α -Dimethylbenzyl hydroperoxide	Inhalation- Vapor (4 hours)	Rat	LC50 1.4 mg/l
α,α-Dimethylbenzyl 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 compoun	Irritant
2-hydroxyethyl methacrylate	ds Rabbit	Minimal irritation
Acrylonitrile-Butadiene Polymer	Professio	No significant irritation
	nal judgemen t	
Hydroxypropyl Methacrylate	Rabbit	Minimal irritation
α,α-Dimethylbenzyl 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
α,α-Dimethylbenzyl hydroperoxide	Rabbit	Corrosive
Cumene	Rabbit	Mild irritant

Skin Sensitisation

Name	Species	Value
2-hydroxyethyl methacrylate	Human and animal	Sensitising
Hydroxypropyl Methacrylate	Human and animal	Sensitising
Acrylate oligomer	Guinea pig	Not classified
Cumene	Guinea pig	Not classified

Respiratory Sensitisation

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
α,α-Dimethylbenzyl hydroperoxide	In vivo	Not mutagenic

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α,α-Dimethylbenzyl 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	
α,α-Dimethylbenzyl hydroperoxide	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	occupational exposure
α,α-Dimethylbenzyl hydroperoxide	Inhalation	respiratory irritation	May cause respiratory irritation	Human	NOAEL Not available	occupational exposure
α,α-Dimethylbenzyl 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

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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
α,α-Dimethylbenzyl hydroperoxide	Inhalation	nervous system respiratory system	Causes damage to organs through prolonged or repeated exposure	Rat	LOAEL 0.2 mg/l	7 days
α,α-Dimethylbenzyl 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		
F	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 labelling, 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.

Phenoxyethyl	10595-06-9	Golden Orfe	Experimental	96 hours	LC50	10 mg/l
Methacrylate			1			
Phenoxyethyl	10595-06-9	Green algae	Experimental	96 hours	EC50	4.1 mg/l
Methacrylate	10.50.5.00	7		10.1	7.7.	1.01
Phenoxyethyl Methacrylate	10595-06-9	Water flea	Experimental	48 hours	EC50	1.21 mg/l
Phenoxyethyl	10595-06-9	Green algae	Experimental	96 hours	Effect	0.42 mg/l
Methacrylate					Concentration 10%	
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
Acrylate oligomer	41637-38-1	Green algae	Endpoint not reached	72 hours	EC50	>100 mg/l
Acrylate oligomer	41637-38-1	Green algae	Experimental	72 hours	NOEC	0.05 mg/l
Acrylonitrile-	9010-81-5		Data not			
Butadiene			available or			
Polymer			insufficient for classification			
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
α,α- Dimethylbenzy I hydroperoxide	80-15-9	Green algae	Experimental	72 hours	EC50	3.1 mg/l
α,α- Dimethylbenzy I hydroperoxide	80-15-9	Rainbow trout	Experimental	96 hours	LC50	3.9 mg/l
α,α- Dimethylbenzy I hydroperoxide	80-15-9	Water flea	Experimental	48 hours	EC50	18.84 mg/l
α,α- Dimethylbenzy I hydroperoxide	80-15-9	Green algae	Experimental	72 hours	NOEC	1 mg/l
2,2'-	119-47-1	Green Algae	Endpoint not	72 hours	EC50	>100 mg/l
Methylenebis(6]	reached			
-tert-butyl-p-						
cresol)	110 47 1	Water G	Endu-int	40 1	EC50	> 100 0 /1
2,2'-	119-47-1	Water flea	Endpoint not	48 hours	EC50	>100 mg/l

Methylenebis(6			reached			
-tert-butyl-p-						
cresol)						
2,2'-	119-47-1	Ricefish	Experimental	96 hours	No tox obs at	>100 mg/l
Methylenebis(6					lmt of water sol	
-tert-butyl-p-						
cresol)						
2,2'-	119-47-1	Green Algae	Experimental	72 hours	NOEC	1.3 mg/l
Methylenebis(6						
-tert-butyl-p-						
cresol)						
Cumene	98-82-8	Green algae	Experimental	72 hours	EC50	2.6 mg/l
Cumene	98-82-8	Mysid Shrimp	Experimental	96 hours	EC50	1.2 mg/l
Cumene	98-82-8	Rainbow trout	Experimental	96 hours	LC50	2.7 mg/l
Cumene	98-82-8	Water flea	Experimental	48 hours	EC50	2.14 mg/l
Cumene	98-82-8	Green algae	Experimental	72 hours	NOEC	0.22 mg/l
Cumene	98-82-8	Water flea	Experimental	21 days	NOEC	0.35 mg/l

12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Phenoxyethyl	10595-06-9	Experimental	28 days	BOD	22.3 %	OECD 301D - Closed
Methacrylate		Biodegradation			BOD/ThBOD	bottle test
2-hydroxyethyl	868-77-9	Experimental	14 days	BOD	95 %	OECD 301C - MITI
methacrylate		Biodegradation			BOD/ThBOD	test (I)
Acrylate	41637-38-1	Estimated	28 days	CO2 evolution	7-12 % weight	OECD 301B - Modified
oligomer		Biodegradation				sturm or CO2
Acrylonitrile-	9010-81-5	Data not			N/A	
Butadiene		available-				
Polymer		insufficient				
Hydroxypropyl	27813-02-1	Experimental	28 days	BOD	81 %	OECD 301C - MITI
Methacrylate		Biodegradation			BOD/ThBOD	test (I)
α,α-	80-15-9	Experimental	28 days	BOD	0 %	OECD 301C - MITI
Dimethylbenzy		Biodegradation			BOD/ThBOD	test (I)
l hydroperoxide						
2,2'-	119-47-1	Experimental	28 days	BOD	0 %	OECD 301C - MITI
Methylenebis(6		Biodegradation			BOD/ThBOD	test (I)
-tert-butyl-p-						
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	BOD	33 %	OECD 301C - MITI
		Biodegradation			BOD/ThBOD	test (I)

12.3 : Bioaccumulative potential

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Phenoxyethyl Methacrylate	10595-06-9	Estimated Bioconcentrati		Bioaccumulatio n factor	5.8	Estimated: Bioconcentration factor
2-hydroxyethyl methacrylate	868-77-9	Experimental Bioconcentrati on		Log Kow	0.42	Other methods
Acrylate	41637-38-1	Estimated		Bioaccumulatio	6.6	Estimated:

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oligomer		Bioconcentrati		n factor		Bioconcentration factor
		on				
Acrylonitrile-	9010-81-5	Data not	N/A	N/A	N/A	N/A
Butadiene		available or				
Polymer		insufficient for				
		classification				
Hydroxypropyl	27813-02-1	Experimental		Log Kow	0.97	Other methods
Methacrylate		Bioconcentrati				
		on				
α,α-	80-15-9	Experimental		Log Kow	1.82	Other methods
Dimethylbenzy		Bioconcentrati				
1 hydroperoxide		on				
2,2'-	119-47-1	Experimental	60 days	Bioaccumulatio	840	OECD 305E -
Methylenebis(6		BCF-Carp		n factor		Bioaccumulation flow-
-tert-butyl-p-						through fish test
cresol)						
Cumene	98-82-8	Estimated		Bioaccumulatio	140	Other methods
		Bioconcentrati		n factor		
		on				

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

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

Dispose of completely cured (or polymerised) 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.

SECTION 14: Transport Information

Air Transport (IATA)Regulations

UN No UN3082

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

methacrylate)

Hazard Classs/Division 9 Subsidiary Risk Not applicable

Packing Group: III

Marine Transport (IMDG)

UN No UN3082

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

methacrylate)

Hazard Classs/Division 9

Subsidiary Risk Not applicable

Packing Group: III

Environmental Hazards: Marine Pollutant: Yes

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.

Applicable Environmental, Health and Safety Regulations

The Manufacture, Storage and Import of Hazardous Chemical Rules, 1989 Hazardous Waste(Management, Handling & Transboundary) Rules, 2008 Hazardous Chemicals (Classification, Packaging and Labelling Draft Rules), 2011

The following ingredients are listed as hazardous on Part II of Schedule I of the India Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) rules

Cumene

The following ingredients are classified as hazardous based on the criteria listed under Part I of Schedule I of the India Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) rules: The product is classified as Non-Hazardous as per MSIHC Rules, 1989.

SECTION 16: Other information

NFPA Hazard Classification

Health: 3 Flammability: 1 Instability: 1 Special Hazards: None

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

Revision information:

No revision 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 India SDSs are available at http://solutions.3mindia.co.in