



Safety Data Sheet

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

SECTION 1: Identification

1.1. Product identifier

3M™ Scotch-Weld™ Acrylic Adhesive DP8425NS Green and Acrylic Adhesive 8425NS Green, Part B

Product Identification Numbers

62-2862-8530-9 62-2862-8531-7 62-2862-9530-8

1.2. Recommended use and restrictions on use

Recommended use

Adhesive, Structural 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

Flammable Liquid: Category 2.

Skin Corrosion/Irritation: Category 2.

Serious Eye Damage/Irritation: Category 2.

Skin Sensitizer: Category 1.

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

Specific Target Organ Toxicity (single exposure): Category 3.

2.2. Label elements

Signal word

Danger

Symbols

Flame | Exclamation mark | Health Hazard |

Pictograms



Hazard Statements:

H225	Highly flammable liquid and vapor.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H317	May cause an allergic skin reaction.
H335	May cause respiratory irritation.
H372	Causes damage to organs through prolonged or repeated exposure: sensory organs.

Precautionary statements

Prevention:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P280E	Wear protective gloves.

Response:

P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P370 + P378	In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry chemical or carbon dioxide to extinguish.

2.3. Other hazards

None known

SECTION 3: Composition/information on ingredients

This material is a mixture.

Ingredient	C.A.S. No.	% by Wt
Methyl Methacrylate	80-62-6	40 - 65
Acrylonitrile-Butadiene Polymer	9003-18-3	1 - 25
Fillers	Trade Secret	5 - 25
Bisphenol A polyethylene glycol diether dimethacrylate (polymer)	41637-38-1	0.1 - 10
Hydroxyethyl Methacrylate	868-77-9	< 10
Hydrotreated light paraffinic distillates (petroleum)	64742-55-8	< 5
Calcium Stearate	1592-23-0	0.1 - 5
Phosphate Esters of PPG Methacrylate	95175-93-2	< 3
Copper Naphthenates	1338-02-9	< 0.2

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:

Remove person to fresh air. If you feel unwell, get medical attention.

Skin Contact:

Immediately wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms develop, get medical attention.

Eye Contact:

Immediately flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. Get medical attention.

If Swallowed:

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

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

Irritating to the respiratory tract (coughing, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain). Allergic skin reaction (redness, swelling, blistering, and itching). Target organ effects following prolonged or repeated exposure. See Section 11 for additional details.

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 flammable liquids such as dry chemical or carbon dioxide to extinguish.

5.2. Special hazards arising from the substance or mixture

Closed containers exposed to heat from fire may build pressure and explode.

Hazardous Decomposition or By-Products

<u>Substance</u>	<u>Condition</u>
Carbon monoxide	During Combustion
Carbon dioxide	During Combustion
Hydrogen Chloride	During Combustion
Oxides of Nitrogen	During Combustion

5.3. Special protective actions for fire-fighters

Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture. Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate area. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

Contain spill. Cover spill area with a fire-extinguishing foam. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible using non-sparking tools. Place in a metal container approved for transportation by appropriate authorities. Clean up residue with an appropriate solvent selected by a qualified and 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. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe dust/fume/gas/mist/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.) Wear low static or properly grounded shoes. To minimize the risk of ignition, determine applicable electrical classifications for the process using this product and select specific local exhaust ventilation equipment to avoid flammable vapor accumulation. Ground/bond container and receiving equipment if there is potential for static electricity accumulation during transfer.

7.2. Conditions for safe storage including any incompatibilities

Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store away from heat. Store away from acids. Store away from strong bases. Store away from 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
COPPER COMPOUNDS	1338-02-9	ACGIH	TWA(as Cu, fume):0.2 mg/m ³ ;TWA(as Cu dust or mist):1 mg/m ³	
STEARATES	1592-23-0	ACGIH	TWA(respirable fraction):3 mg/m ³ ;TWA(inhalable fraction):10 mg/m ³	A4: Not class. as human carcin
STEARATES	1592-23-0	Malaysia OELs	TWA(8 hours):10 mg/m ³	
OIL MIST, MINERAL	64742-55-8	Malaysia OELs	TWA(as mist)(8 hours):5 mg/m ³	
Methyl Methacrylate	80-62-6	ACGIH	TWA:50 ppm;STEL:100 ppm	A4: Not class. as human carcin, Dermal Sensitizer
Methyl Methacrylate	80-62-6	Malaysia OELs	TWA(8 hours):410 mg/m ³ (100 ppm)	
Fillers	Trade Secret	ACGIH	TWA(respirable fraction):2 mg/m ³	A4: Not class. as human carcin

Fillers	Trade Secret	Malaysia OELs	TWA (proposed)(respirable fraction)(8 hours):2 mg/m3	
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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. Use explosion-proof ventilation equipment.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:

Safety Glasses with side shields

Indirect Vented Goggles

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: Butyl Rubber

Polymer laminate

Respiratory protection

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

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

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

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid
Specific Physical Form:	Paste
Color	White
Odor	Strong Methacrylate
Odor threshold	No Data Available
pH	Not Applicable
Melting point/Freezing point	Not Applicable
Boiling point/Initial boiling point/Boiling range	>=37.8 °C
Flash Point	>=10 °C [Test Method: Closed Cup]

Evaporation rate	No Data Available
Flammability	Flammable Liquid: Category 2.
Flammable Limits(LEL)	No Data Available
Flammable Limits(UEL)	No Data Available
Vapor Pressure	No Data Available
Vapor Density and/or Relative Vapor Density	No Data Available
Density	1.15 g/ml
Relative Density	1.15 [Ref Std: WATER=1]
Water solubility	Nil
Solubility- non-water	No Data Available
Partition coefficient: n-octanol/ water	No Data Available
Autoignition temperature	No Data Available
Decomposition temperature	No Data Available
Kinematic Viscosity	73,913 mm ² /sec
Volatile Organic Compounds	No Data Available
Percent volatile	No Data Available
VOC Less H ₂ O & Exempt Solvents	21.8 g/l [Details:when used as intended with Part A]
VOC Less H ₂ O & Exempt Solvents	1.9 % [Details:when used as intended with Part A]

Particle Characteristics	Not Applicable
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SECTION 10: Stability and reactivity

10.1. Reactivity

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

10.2. Chemical stability

Stable.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Heat
Sparks and/or flames

10.5. Incompatible materials

Amines
Strong acids
Strong bases
Strong oxidizing 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:

Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

May cause additional health effects (see below).

Skin Contact:

Skin Irritation: Signs/symptoms may include 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:

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

Ingestion:

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

Additional Health Effects:

Prolonged or repeated exposure may cause target organ effects:

Olfactory Effects: Signs/symptoms may include decreased ability to detect odors and/or complete loss of smell.

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	Inhalation-Vapor(4 hr)		No data available; calculated ATE >50 mg/l
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
Methyl Methacrylate	Dermal	Rabbit	LD50 > 5,000 mg/kg
Methyl Methacrylate	Inhalation-Vapor (4 hours)	Rat	LC50 29.8 mg/l
Methyl Methacrylate	Ingestion	Rat	LD50 7,900 mg/kg
Acrylonitrile-Butadiene Polymer	Dermal	Rabbit	LD50 > 15,000 mg/kg
Acrylonitrile-Butadiene Polymer	Ingestion	Rat	LD50 > 30,000 mg/kg
Bisphenol A polyethylene glycol diether dimethacrylate (polymer)	Dermal	Rat	LD50 > 2,000 mg/kg
Bisphenol A polyethylene glycol diether dimethacrylate (polymer)	Ingestion	Rat	LD50 > 35,000 mg/kg
Fillers	Dermal		LD50 estimated to be > 5,000 mg/kg
Fillers	Ingestion	Human	LD50 > 15,000 mg/kg
Hydroxyethyl Methacrylate	Dermal	Rabbit	LD50 > 5,000 mg/kg
Hydroxyethyl Methacrylate	Ingestion	Rat	LD50 5,564 mg/kg
Hydrotreated light paraffinic distillates (petroleum)	Dermal	similar compounds	LD50 > 2,000 mg/kg
Hydrotreated light paraffinic distillates (petroleum)	Inhalation-	similar	LC50 > 5.53 mg/l

	Dust/Mist (4 hours)	compounds	
Hydrotreated light paraffinic distillates (petroleum)	Ingestion	similar compounds	LD50 > 5,000 mg/kg
Phosphate Esters of PPG Methacrylate	Ingestion	Rat	LD50 > 5,000 mg/kg
Phosphate Esters of PPG Methacrylate	Dermal	similar health hazards	LD50 estimated to be > 5,000 mg/kg
Calcium Stearate	Dermal	Rat	LD50 > 2,000 mg/kg
Calcium Stearate	Ingestion	Rat	LD50 > 2,000 mg/kg
Copper Naphthenates	Dermal	similar compounds	LD50 > 2,000 mg/kg
Copper Naphthenates	Ingestion	similar compounds	LD50 > 300, < 2,000 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Methyl Methacrylate	Rabbit	Irritant
Acrylonitrile-Butadiene Polymer	Professional judgement	No significant irritation
Bisphenol A polyethylene glycol diether dimethacrylate (polymer)	Rabbit	Minimal irritation
Fillers	Professional judgement	No significant irritation
Hydroxyethyl Methacrylate	Rabbit	Minimal irritation
Hydrotreated light paraffinic distillates (petroleum)	similar compounds	No significant irritation
Phosphate Esters of PPG Methacrylate	Not available	Irritant
Calcium Stearate	In vitro data	No significant irritation
Copper Naphthenates	Rabbit	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
Methyl Methacrylate	Rabbit	Mild irritant
Acrylonitrile-Butadiene Polymer	Professional judgement	No significant irritation
Bisphenol A polyethylene glycol diether dimethacrylate (polymer)	Rabbit	No significant irritation
Fillers	Professional judgement	No significant irritation
Hydroxyethyl Methacrylate	Rabbit	Moderate irritant
Hydrotreated light paraffinic distillates (petroleum)	similar compounds	No significant irritation
Phosphate Esters of PPG Methacrylate	Not available	Corrosive
Calcium Stearate	In vitro data	No significant irritation
Copper Naphthenates	In vitro data	No significant irritation

Sensitization:**Skin Sensitization**

Name	Species	Value
Methyl Methacrylate	Human and animal	Sensitizing
Bisphenol A polyethylene glycol diether dimethacrylate (polymer)	Guinea pig	Not classified
Hydroxyethyl Methacrylate	Human and animal	Sensitizing
Hydrotreated light paraffinic distillates (petroleum)	similar compounds	Not classified
Calcium Stearate	similar compounds	Not classified
Copper Naphthenates	Guinea pig	Not classified

Respiratory Sensitization

Name	Species	Value
Methyl Methacrylate	Human	Not classified

Germ Cell Mutagenicity

Name	Route	Value
Methyl Methacrylate	In vivo	Not mutagenic
Methyl Methacrylate	In Vitro	Some positive data exist, but the data are not sufficient for classification
Bisphenol A polyethylene glycol diether dimethacrylate (polymer)	In Vitro	Not mutagenic
Hydroxyethyl Methacrylate	In vivo	Not mutagenic
Hydroxyethyl Methacrylate	In Vitro	Some positive data exist, but the data are not sufficient for classification
Hydrotreated light paraffinic distillates (petroleum)	In Vitro	Not mutagenic
Calcium Stearate	In Vitro	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
Methyl Methacrylate	Ingestion	Rat	Not carcinogenic
Methyl Methacrylate	Inhalation	Human and animal	Not carcinogenic
Fillers	Inhalation	Multiple animal species	Not carcinogenic

Reproductive Toxicity**Reproductive and/or Developmental Effects**

Name	Route	Value	Species	Test Result	Exposure Duration
Methyl Methacrylate	Ingestion	Not classified for female reproduction	Rat	NOAEL 400 mg/kg/day	2 generation
Methyl Methacrylate	Ingestion	Not classified for male reproduction	Rat	NOAEL 400 mg/kg/day	2 generation
Methyl Methacrylate	Ingestion	Not classified for development	Rabbit	NOAEL 450 mg/kg/day	during gestation
Methyl Methacrylate	Inhalation	Not classified for development	Rat	NOAEL 8.3	during

				mg/l	organogenesis
Hydroxyethyl Methacrylate	Ingestion	Not classified for female reproduction	Rat	NOAEL 1,000 mg/kg/day	premating & during gestation
Hydroxyethyl Methacrylate	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,000 mg/kg/day	49 days
Hydroxyethyl Methacrylate	Ingestion	Not classified for development	Rat	NOAEL 1,000 mg/kg/day	premating & during gestation
Calcium Stearate	Ingestion	Not classified for female reproduction	Rat	NOAEL 1,000 mg/kg/day	premating into lactation
Calcium Stearate	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,000 mg/kg/day	28 days
Calcium Stearate	Ingestion	Not classified for development	Rat	NOAEL 1,000 mg/kg/day	premating into lactation

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Methyl Methacrylate	Inhalation	respiratory irritation	May cause respiratory irritation	Human	NOAEL Not available	occupational exposure
Phosphate Esters of PPG Methacrylate	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Methyl Methacrylate	Dermal	peripheral nervous system	Not classified	Human	NOAEL Not available	occupational exposure
Methyl Methacrylate	Inhalation	olfactory system	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	occupational exposure
Methyl Methacrylate	Inhalation	kidney and/or bladder	Not classified	Multiple animal species	NOAEL Not available	14 weeks
Methyl Methacrylate	Inhalation	liver	Not classified	Mouse	NOAEL 12.3 mg/l	14 weeks
Methyl Methacrylate	Inhalation	respiratory system	Not classified	Human	NOAEL Not available	occupational exposure
Methyl Methacrylate	Ingestion	kidney and/or bladder heart skin endocrine system gastrointestinal tract hematopoietic system liver muscles nervous system respiratory system	Not classified	Rat	NOAEL 90.3 mg/kg/day	2 years
Fillers	Inhalation	pneumoconiosis	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL NA	occupational exposure
Fillers	Inhalation	pulmonary fibrosis	Not classified	Rat	NOAEL Not available	
Calcium Stearate	Ingestion	hematopoietic system nervous system kidney and/or bladder heart skin endocrine system gastrointestinal tract bone, teeth, nails,	Not classified	Rat	NOAEL 2,000 mg/kg/day	28 days

		and/or hair liver immune system eyes respiratory system				
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Aspiration Hazard

Name	Value
Hydrotreated light paraffinic distillates (petroleum)	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 3: Harmful to aquatic life.

Chronic aquatic hazard:

Not chronically toxic to aquatic life by GHS criteria.

No product test data available

Material	Cas #	Organism	Type	Exposure	Test Endpoint	Test Result
Methyl Methacrylate	80-62-6	Green algae	Experimental	72 hours	EC50	>110 mg/l
Methyl Methacrylate	80-62-6	Rainbow Trout	Experimental	96 hours	LC50	>79 mg/l
Methyl Methacrylate	80-62-6	Water flea	Experimental	48 hours	EC50	69 mg/l
Methyl Methacrylate	80-62-6	Green algae	Experimental	72 hours	NOEC	110 mg/l
Methyl Methacrylate	80-62-6	Water flea	Experimental	21 days	NOEC	37 mg/l
Methyl Methacrylate	80-62-6	Activated sludge	Experimental	30 minutes	EC20	150 mg/l
Methyl Methacrylate	80-62-6	Soil microbes	Experimental	28 days	NOEC	>1,000 mg/kg (Dry Weight)
Acrylonitrile-Butadiene Polymer	9003-18-3	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
Fillers	Trade Secret	Water flea	Experimental	48 hours	LC50	>1,100 mg/l
Bisphenol A polyethylene glycol diether dimethacrylate (polymer)	41637-38-1	Activated sludge	Estimated	3 hours	EC50	>1,000 mg/l
Bisphenol A polyethylene glycol diether dimethacrylate (polymer)	41637-38-1	Green algae	Estimated	72 hours	EL50	>100 mg/l
Bisphenol A polyethylene glycol diether	41637-38-1	Water flea	Estimated	48 hours	EL50	>100 mg/l

dimethacrylate (polymer)						
Bisphenol A polyethylene glycol diether dimethacrylate (polymer)	41637-38-1	Zebra Fish	Estimated	96 hours	LL50	>100 mg/l
Hydroxyethyl Methacrylate	868-77-9	Turbot	Analogous Compound	96 hours	LC50	833 mg/l
Hydroxyethyl Methacrylate	868-77-9	Fathead Minnow	Experimental	96 hours	LC50	227 mg/l
Hydroxyethyl Methacrylate	868-77-9	Green algae	Experimental	72 hours	EC50	710 mg/l
Hydroxyethyl Methacrylate	868-77-9	Water flea	Experimental	48 hours	EC50	380 mg/l
Hydroxyethyl Methacrylate	868-77-9	Green algae	Experimental	72 hours	NOEC	160 mg/l
Hydroxyethyl Methacrylate	868-77-9	Water flea	Experimental	21 days	NOEC	24.1 mg/l
Hydroxyethyl Methacrylate	868-77-9	N/A	Experimental	16 hours	EC0	>3,000 mg/l
Hydroxyethyl Methacrylate	868-77-9	N/A	Experimental	18 hours	LD50	<98 mg per kg of bodyweight
Calcium Stearate	1592-23-0	Green algae	Experimental	72 hours	EC50	>100 mg/l
Calcium Stearate	1592-23-0	Medaka	Experimental	96 hours	LC50	>100 mg/l
Calcium Stearate	1592-23-0	Green algae	Experimental	72 hours	NOEC	100 mg/l
Hydrotreated light paraffinic distillates (petroleum)	64742-55-8	Fathead Minnow	Estimated	96 hours	LL50	>100 mg/l
Hydrotreated light paraffinic distillates (petroleum)	64742-55-8	Water flea	Estimated	48 hours	EL50	>100 mg/l
Hydrotreated light paraffinic distillates (petroleum)	64742-55-8	Green algae	Estimated	72 hours	NOEL	100 mg/l
Hydrotreated light paraffinic distillates (petroleum)	64742-55-8	Water flea	Estimated	21 days	NOEC	10 mg/l
Phosphate Esters of PPG Methacrylate	95175-93-2	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
Copper Naphthenates	1338-02-9	Green algae	Estimated	72 hours	ErC50	0.629 mg/l
Copper Naphthenates	1338-02-9	Water flea	Estimated	48 hours	EC50	0.0756 mg/l
Copper Naphthenates	1338-02-9	Zebra Fish	Estimated	96 hours	LC50	0.07 mg/l
Copper Naphthenates	1338-02-9	Fathead Minnow	Estimated	32 days	EC10	0.0354 mg/l
Copper Naphthenates	1338-02-9	Green algae	Estimated	N/A	NOEC	0.132 mg/l
Copper Naphthenates	1338-02-9	Sediment Worm	Estimated	28 days	NOEC	110 mg/kg (Dry Weight)
Copper Naphthenates	1338-02-9	Water flea	Estimated	7 days	NOEC	0.02 mg/l
Copper Naphthenates	1338-02-9	Activated sludge	Estimated	N/A	EC50	42 mg/l
Copper Naphthenates	1338-02-9	Barley	Estimated	4 days	NOEC	96 mg/kg (Dry Weight)
Copper Naphthenates	1338-02-9	Redworm	Estimated	56 days	NOEC	60 mg/kg (Dry Weight)
Copper Naphthenates	1338-02-9	Soil microbes	Estimated	4 days	NOEC	72 mg/kg (Dry Weight)
Copper Naphthenates	1338-02-9	Springtail	Estimated	28 days	NOEC	167 mg/kg (Dry Weight)

12.2. Persistence and degradability

Material	CAS No.	Test Type	Duration	Study Type	Test Result	Protocol
Methyl Methacrylate	80-62-6	Experimental Biodegradation	14 days	Biological Oxygen Demand	94 %BOD/ThOD	OECD 301C - MITI (I)
Acrylonitrile-Butadiene Polymer	9003-18-3	Data not available or insufficient	N/A	N/A	N/A	N/A
Fillers	Trade Secret	Data not available or insufficient	N/A	N/A	N/A	N/A
Bisphenol A polyethylene glycol diether dimethacrylate (polymer)	41637-38-1	Experimental Biodegradation	28 days	Percent degraded	24 %degraded	
Hydroxyethyl Methacrylate	868-77-9	Experimental Biodegradation	28 days	Biological Oxygen Demand	84 %BOD/COD	OECD 301D - Closed Bottle Test
Hydroxyethyl Methacrylate	868-77-9	Experimental Hydrolysis		Hydrolytic half-life basic pH	10.9 days (t 1/2)	OECD 111 Hydrolysis function of pH
Calcium Stearate	1592-23-0	Experimental Biodegradation	24 days	Carbon dioxide evolution	91 %CO2 evolution/THCO2 evolution	OECD 301B - Mod. Sturm or CO2
Hydrotreated light paraffinic distillates (petroleum)	64742-55-8	Estimated Biodegradation	28 days	Carbon dioxide evolution	22 %CO2 evolution/THCO2 evolution	OECD 301B - Mod. Sturm or CO2
Phosphate Esters of PPG Methacrylate	95175-93-2	Data not available or insufficient	N/A	N/A	N/A	N/A
Copper Naphthenates	1338-02-9	Data not available or insufficient	N/A	N/A	N/A	N/A

12.3. Bioaccumulative potential

Material	CAS No.	Test Type	Duration	Study Type	Test Result	Protocol
Methyl Methacrylate	80-62-6	Experimental Bioconcentration		Log of Octanol/H2O part. coeff	1.38	OECD 107 log Kow shake flask mtd
Acrylonitrile-Butadiene Polymer	9003-18-3	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Fillers	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Bisphenol A polyethylene glycol diether dimethacrylate (polymer)	41637-38-1	Estimated Bioconcentration		Bioaccumulation Factor	6.6	
Hydroxyethyl Methacrylate	868-77-9	Experimental Bioconcentration		Log of Octanol/H2O part. coeff	0.42	OECD 107 log Kow shake flask mtd
Calcium Stearate	1592-23-0	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Hydrotreated light paraffinic distillates (petroleum)	64742-55-8	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Phosphate Esters of PPG Methacrylate	95175-93-2	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Copper Naphthenates	1338-02-9	Analogous Compound BCF - Fish	42 days	Bioaccumulation Factor	≤27	OECD305-Bioconcentration

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:UN1133

Proper Shipping Name:ADHESIVES

Technical Name:None assigned.

Hazard Class/Division:3

Subsidiary Risk:None assigned.

Packing Group:II

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:UN1133

Proper Shipping Name:ADHESIVES

Technical Name:None assigned.

Hazard Class/Division:3

Subsidiary Risk:None assigned.

Packing Group:II

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 Australia National Industrial Chemical Notification and Assessment Scheme (NICNAS). Certain restrictions may apply. Contact the selling division for additional information. This product complies with Measures on Environmental Management of New Chemical Substances. All ingredients are listed on or exempt from on China IECSC inventory. The components of this product are in compliance with the chemical notification requirements of TSCA. All required components of this product are listed on the active portion of the TSCA Inventory.

SECTION 16: Other information

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

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