

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.

IDENTIFICATION

1.1. Product identifier

3MTM Scotch-WeldTM Metal Bonder Acrylic Adhesive DP8407NS, Gray, Kit

Product Identification Numbers

62-2853-1446-4 62-2853-1451-4 62-2853-5030-2

1.2. Recommended use and restrictions on use

Recommended use

Adhesive

1.3. Supplier's details

ADDRESS: 3M Malaysia Sdn. Bhd., Level 8, Block F, Oasis Square, No.2, Jalan PJU 1A/7A, Ara Damansara 47301

Petaling, Jaya, Selangor

03-7884 2888 **Telephone:**

E Mail: 3mmyehsr@mmm.com Website: www.3M.com.my

1.4. Emergency telephone number

+60 03-7884 2888

This product is a kit or a multipart product which consists of multiple, independently packaged components. An SDS for each of these components is included. Please do not separate the component SDSs from this cover page. The document numbers of the SDSs for components of this product are:

39-2505-4, 39-2537-7

TRANSPORT INFORMATION

This product is a kit that consists of two or more different regulated materials packed in the same outer packaging (ship unit). The transportation classifications of the individual components appear in Section 14 of the attached SDSs.

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.

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

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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

3MTM Scotch-WeldTM Metal Bonder Acrylic Adhesive DP8407NS, Gray, Part B

1.2. Recommended use and restrictions on use

Recommended use

Adhesive, Professional

For Industrial or Professional use only

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, Java, 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.

Reproductive Toxicity: Category 1B.

Specific Target Organ Toxicity (repeated exposure): Category 1. Specific Target Organ Toxicity (single exposure): Category 3.

Chronic Aquatic Toxicity: 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. H360 May damage fertility or the unborn child.

H335 May cause respiratory irritation.

H372 Causes damage to organs through prolonged or repeated exposure: sensory organs.

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

Prevention:

P201 Obtain special instructions before use.

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.

P281 Use personal protective equipment as required.

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.

P308 + P313 IF exposed or concerned: Get medical advice/attention.
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.

Disposal:

P501 Dispose of contents/container in accordance with applicable

local/regional/national/international regulations.

2.3. Other hazards

None known

SECTION 3: Composition/information on ingredients

This material is a mixture.

Ingredient	C.A.S. No.	% by Wt
Methyl Methacrylate	80-62-6	45 - 65
Acrylonitrile-Butadiene Polymers	Trade Secret	10 - 30

2-hydroxyethyl methacrylate	868-77-9	1 - 10
Fillers	Trade Secret	1 - 10
Barium Metaborate	13701-59-2	0.1 - 5
Hydrotreated light paraffinic distillates	64742-55-8	0.1 - 5
(petroleum)		
Hydroxypropyl Methacrylate	27813-02-1	0.1 - 5
Urethane Acrylate Oligomer	Trade Secret	0.1 - 5
Polyolmethacrylate Phosphate Esters	95175-93-2	< 3
COPPER NAPHTHENATES	1338-02-9	< 0.2
Zinc	7440-66-6	< 0.02

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

Substance	Condition
Carbon monoxide	During Combustion
Carbon dioxide	During Combustion
Hydrogen Chloride	During Combustion
Hydrogen Cyanide	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. Do not handle until all safety precautions have been read and understood. 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. Use personal protective equipment (gloves, respirators, etc.) as required. 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/m3;TWA(as Cu dust or	
			mist):1 mg/m3	

BARIUM, SOLUBLE	13701-59-2	ACGIH	TWA(as Ba):0.5 mg/m3	A4: Not class. as human
COMPOUNDS				carcin
BARIUM, SOLUBLE	13701-59-2	Malaysia OELs	TWA(as Ba)(8 hours):0.5	
COMPOUNDS			mg/m3	
OIL MIST, MINERAL	64742-55-8	Malaysia OELs	TWA(as mist)(8 hours):5	
			mg/m3	
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/m3(100 ppm)	

ACGIH: American Conference of Governmental Industrial Hygienists

CMRG: Chemical Manufacturer's Recommended Guidelines

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

TWA: Time-Weighted-Average STEL: Short Term Exposure Limit

CEIL: Ceiling

8.2. Exposure controls

8.2.1. Engineering controls

Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapors/spray. If ventilation is not adequate, use respiratory protection equipment. 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: Polymer laminate

If this product is used in a manner that presents a higher potential for exposure (eg. spraying, high splash potential etc.), then use of protective coveralls may be necessary. Select and use body protection to prevent contact based on the results of an exposure assessment. The following protective clothing material(s) are recommended: Apron - 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

Di : 1 4 4	T · · · 1	
Physical state	Liquid	
Specific Physical Form:	Paste	
Color	Brown	
Odor	Methacrylate	
Odor threshold	No Data Available	
рН	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 (solid, gas)	Not Applicable	
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	1.01 g/ml	
Relative Density	1.01 [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	
Viscosity/Kinematic Viscosity	12,000 - 18,000 mPa-s	
Volatile Organic Compounds	No Data Available	
Percent volatile	No Data Available	
VOC Less H2O & Exempt Solvents	20.2 g/l [Details: when used as intended with Part A]	
VOC Less H2O & Exempt Solvents	2 % [Details: when used as intended with Part A]	
Molecular weight	Not Applicable	

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:

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:

Mild Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, and dryness. 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.

May cause additional health effects (see below).

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.

Reproductive/Developmental Toxicity:

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

Toxicological Data

If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

Acute Toxicity

Name	Route	Species	Value
Overall product	Dermal		No data available; calculated ATE >5,000 mg/kg

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Overall product	Inhalation- Vapor(4 hr)		No data available; calculated ATE >20 - =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 mg/l
Methyl Methacrylate	Ingestion	Rat	LD50 7,900 mg/kg
Acrylonitrile-Butadiene Polymers	Dermal	Rabbit	LD50 > 15,000 mg/kg
Acrylonitrile-Butadiene Polymers	Ingestion	Rat	LD50 > 30,000 mg/kg
2-hydroxyethyl methacrylate	Dermal	Rabbit	LD50 > 5,000 mg/kg
2-hydroxyethyl methacrylate	Ingestion	Rat	LD50 5,564 mg/kg
Polyolmethacrylate Phosphate Esters	Ingestion	Rat	LD50 > 5,000 mg/kg
Polyolmethacrylate Phosphate Esters	Dermal	similar health hazards	LD50 estimated to be > 5,000 mg/kg
Fillers	Dermal	Rabbit	LD50 > 5,000 mg/kg
Fillers	Inhalation- Dust/Mist (4 hours)	Rat	LC50 > 0.691 mg/l
Fillers	Ingestion	Rat	LD50 > 5,110 mg/kg
Hydroxypropyl Methacrylate	Dermal	Rabbit	LD50 > 5,000 mg/kg
Hydroxypropyl Methacrylate	Ingestion	Rat	LD50 > 11,200 mg/kg
Hydrotreated light paraffinic distillates (petroleum)	Dermal	similar compoun ds	LD50 > 2,000 mg/kg
Hydrotreated light paraffinic distillates (petroleum)	Inhalation- Dust/Mist (4 hours)	similar compoun ds	LC50 > 5.53 mg/l
Hydrotreated light paraffinic distillates (petroleum)	Ingestion	similar compoun ds	LD50 > 5,000 mg/kg
Barium Metaborate	Dermal	Rabbit	LD50 > 2,000 mg/kg
Barium Metaborate	Inhalation- Dust/Mist (4 hours)	Rat	LC50 > 3.54 mg/l
Barium Metaborate	Ingestion	Rat	LD50 530 mg/kg
COPPER NAPHTHENATES	Dermal	similar compoun ds	LD50 > 2,000 mg/kg
COPPER NAPHTHENATES	Ingestion	similar compoun ds	LD50 >300, < 2,000 mg/kg
Zinc	Dermal	Professio nal judgeme nt	LD50 estimated to be > 5,000 mg/kg
Zinc	Inhalation- Dust/Mist (4 hours)	Rat	LC50 > 5.41 mg/l
Zinc	Ingestion	Rat	LD50 > 2,000 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Methyl Methacrylate	Human and animal	Mild irritant
Acrylonitrile-Butadiene Polymers	Professio nal judgemen t	No significant irritation
2-hydroxyethyl methacrylate	Rabbit	Minimal irritation
Polyolmethacrylate Phosphate Esters	Not available	Irritant

Fillers	Rabbit	No significant irritation
Hydroxypropyl Methacrylate	Rabbit	Minimal irritation
Hydrotreated light paraffinic distillates (petroleum)	similar	No significant irritation
	compoun	
	ds	
Barium Metaborate	Rabbit	No significant irritation
COPPER NAPHTHENATES	Rabbit	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
Methyl Methacrylate	Rabbit	Moderate irritant
Acrylonitrile-Butadiene Polymers	Professio	No significant irritation
	nal	
	judgemen	
	t	
2-hydroxyethyl methacrylate	Rabbit	Moderate irritant
Polyolmethacrylate Phosphate Esters	Not	Corrosive
	available	
Fillers	Rabbit	No significant irritation
Hydroxypropyl Methacrylate	Rabbit	Moderate irritant
Hydrotreated light paraffinic distillates (petroleum)	similar	No significant irritation
	compoun	
	ds	
Barium Metaborate	Rabbit	No significant irritation
COPPER NAPHTHENATES	In vitro	No significant irritation
	data	-
Zinc	Rabbit	No significant irritation

Sensitization:

Skin Sensitization

Name	Species	Value
Methyl Methacrylate	Human	Sensitizing
	and	
	animal	
2-hydroxyethyl methacrylate	Human	Sensitizing
	and	
	animal	
Fillers	Human	Not classified
	and	
	animal	
Hydroxypropyl Methacrylate	Human	Sensitizing
	and	
	animal	
Hydrotreated light paraffinic distillates (petroleum)	similar	Not classified
	compoun	
	ds	
Barium Metaborate	Guinea	Not classified
	pig	
COPPER NAPHTHENATES	Guinea	Not classified
	pig	

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
2-hydroxyethyl methacrylate	In vivo	Not mutagenic
2-hydroxyethyl methacrylate	In Vitro	Some positive data exist, but the data are not sufficient for classification
Fillers	In Vitro	Not mutagenic
Hydroxypropyl Methacrylate	In vivo	Not mutagenic
Hydroxypropyl Methacrylate	In Vitro	Some positive data exist, but the data are not sufficient for classification
Hydrotreated light paraffinic distillates (petroleum)	In Vitro	Not mutagenic
Barium Metaborate	In Vitro	Not mutagenic
Barium Metaborate	In vivo	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
Methyl Methacrylate	Ingestion	Rat	Not carcinogenic
Methyl Methacrylate	Inhalation	Human and animal	Not carcinogenic
Fillers	Not	Mouse	Some positive data exist, but the data are not
	Specified		sufficient for classification

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name			Species	Test Result	Exposure Duration	
Methyl Methacrylate	Inhalation	Not classified for male reproduction	Mouse	NOAEL 36.9 mg/l		
Methyl Methacrylate	Inhalation	Not classified for development	Rat	NOAEL 8.3 mg/l	during organogenesis	
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	
Fillers	Ingestion	Not classified for female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation	
Fillers	Ingestion	Not classified for male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation	
Fillers	Ingestion	Not classified for development	Rat	NOAEL 1,350 mg/kg/day	during organogenesis	
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	
Barium Metaborate	Ingestion	Toxic to female reproduction	Rat	NOAEL 800 mg/kg/day	90 days	
Barium Metaborate	Ingestion	Toxic to development	Rabbit	NOAEL 20 mg/kg/day	during organogenesis	
Barium Metaborate	Ingestion	Toxic to male reproduction	Rat	NOAEL 350 mg/kg/day	90 days	

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
Polyolmethacrylate Phosphate Esters	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	
Hydroxypropyl Methacrylate	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	
Barium Metaborate	Ingestion	nervous system	Not classified	Rat	NOAEL 200 mg/kg	

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
Fillers	Inhalation	respiratory system silicosis	Not classified	Human	NOAEL Not available	occupational exposure
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
Barium Metaborate	Ingestion	hematopoietic system liver heart skin endocrine system bone, teeth, nails, and/or hair immune system muscles nervous system eyes kidney and/or bladder respiratory system vascular system	Not classified	Rat	NOAEL 700 mg/kg/day	90 days

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:

GHS Chronic 3: Harmful to aquatic life with long lasting effects

No product test data available

Material	Cas #	Organism	Type	Exposure	Test Endpoint	
Methyl	80-62-6	Green algae	Experimental	72 hours	EC50	>110 mg/l
Methacrylate			1			
Methyl	80-62-6	Rainbow Trout	Experimental	96 hours	LC50	>79 mg/l
Methacrylate			-			
Methyl	80-62-6	Water flea	Experimental	48 hours	EC50	69 mg/l
Methacrylate						
Methyl	80-62-6	Green algae	Experimental	72 hours	NOEC	110 mg/l
Methacrylate						
Methyl	80-62-6	Water flea	Experimental	21 days	NOEC	37 mg/l
Methacrylate	00.00				7.000	
Methyl	80-62-6	Activated sludge	Experimental	30 minutes	EC20	150 mg/l
Methacrylate	00.6	2 11 1			11070	
Methyl Methacrylate	80-62-6	Soil microbes	Experimental	28 days	NOEC	>1,000 mg/kg (Dry Weight)
Acrylonitrile-	Trade Secret	N/A	Data not available	N/A	N/A	N/A
Butadiene			or insufficient for			
Polymers			classification			
2-hydroxyethyl	868-77-9	Turbot	Analogous	96 hours	LC50	833 mg/l
methacrylate			Compound			
2-hydroxyethyl	868-77-9	Fathead Minnow	Experimental	96 hours	LC50	227 mg/l
methacrylate	0.00 55.0		T		D050	7.0
2-hydroxyethyl	868-77-9	Green algae	Experimental	72 hours	EC50	710 mg/l
methacrylate 2-hydroxyethyl	868-77-9	Water flea	Experimental	48 hours	EC50	380 mg/l
methacrylate	808-77-9	water nea	Experimental	48 nours	EC30	380 mg/1
2-hydroxyethyl	868-77-9	Green algae	Experimental	72 hours	NOEC	160 mg/l
methacrylate	000-77-9	Green algae	Experimental	72 Hours	NOEC	100 mg/1
2-hydroxyethyl	868-77-9	Water flea	Experimental	21 days	NOEC	24.1 mg/l
methacrylate	000 77 9	Water freu	Емрегипения	21 days	Nobe	2
2-hydroxyethyl	868-77-9	N/A	Experimental	16 hours	EC0	>3,000 mg/l
methacrylate		1,1,1	Z.iperimentar	10 110 415		2,000 mg/1
2-hydroxyethyl	868-77-9	N/A	Experimental	18 hours	LD50	<98 mg per kg of bodyweight
methacrylate						
Fillers	Trade Secret	N/A	Data not available	N/A	N/A	N/A
			or insufficient for			
			classification			
Barium Metaborate		Activated sludge	Experimental	3 hours	NOEC	100 mg/l
Barium Metaborate		Green algae	Experimental	72 hours	EC50	7.8 mg/l
Barium Metaborate	13701-59-2	Rainbow Trout	Experimental	96 hours	LC50	62 mg/l
Barium Metaborate		Water flea	Experimental	48 hours	EC50	20.3 mg/l
Barium Metaborate	13701-59-2	Green algae	Experimental	72 hours	NOEC	1.1 mg/l
Hydrotreated light	64742-55-8	Fathead Minnow	Estimated	96 hours	LL50	>100 mg/l
paraffinic distillates						
(petroleum)	(4742.55.0	XXX 4 C	ID 41 4 1	40.1	ELSO	2 100 //
Hydrotreated light	64742-55-8	Water flea	Estimated	48 hours	EL50	>100 mg/l
paraffinic distillates						
(petroleum) Hydrotreated light	64742-55-8	Green algae	Estimated	72 hours	NOEL	100 mg/l
paraffinic distillates		Green algae	Estimated	/2 Hours	INUEL	100 mg/1
(petroleum)						
(penoieum)	l			1		

Hydrotreated light paraffinic distillates (petroleum)	64742-55-8	Water flea	Estimated	21 days	NOEC	10 mg/l
Hydroxypropyl Methacrylate	27813-02-1	Bacteria	Experimental	N/A	EC10	1,140 mg/l
Hydroxypropyl Methacrylate	27813-02-1	Golden Orfe	Experimental	48 hours	EC50	493 mg/l
Hydroxypropyl Methacrylate	27813-02-1	Green algae	Experimental	72 hours	ErC50	>97.2 mg/l
Hydroxypropyl Methacrylate	27813-02-1	Water flea	Experimental	48 hours	EC50	>143 mg/l
Hydroxypropyl Methacrylate	27813-02-1	Green algae	Experimental	72 hours	NOEC	97.2 mg/l
Hydroxypropyl Methacrylate	27813-02-1	Water flea	Experimental	21 days	NOEC	45.2 mg/l
Polyolmethacrylate Phosphate Esters	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	EC50	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	0.0702 mg/l
COPPER NAPHTHENATES	1338-02-9	Algae or other aquatic plants	Estimated	N/A	NOEC	0.132 mg/l
COPPER NAPHTHENATES	1338-02-9	Fathead Minnow	Estimated	32 days	EC10	0.0354 mg/l
COPPER NAPHTHENATES	1338-02-9	Water flea	Estimated	21 days	NOEC	0.0756 mg/l
Zinc	7440-66-6	Bacteria	Estimated	30 minutes	EC10	0.3 mg/l
Zinc	7440-66-6	Green algae	Estimated	72 hours	EC50	0.042 mg/l
Zinc	7440-66-6	Rainbow Trout	Estimated	96 hours	LC50	0.169 mg/l
Zinc	7440-66-6	Water flea	Estimated	48 hours	EC50	0.06 mg/l
Zinc	7440-66-6	Green algae	Estimated	72 hours	NOEC	0.005 mg/l
Zinc	7440-66-6	Water flea	Estimated	7 days	NOEC	0.013 mg/l

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 Polymers	Trade Secret	Data not availbl- insufficient	N/A	N/A	N/A	N/A
2-hydroxyethyl methacrylate	868-77-9	Experimental Biodegradation	28 days	Biological Oxygen Demand	84 %BOD/COD	OECD 301D - Closed Bottle Test
2-hydroxyethyl methacrylate	868-77-9	Experimental Hydrolysis		Hydrolytic half-life basic pH	10.9 days (t 1/2)	OECD 111 Hydrolysis func of pH
Fillers	Trade Secret	Data not availbl- insufficient	N/A	N/A	N/A	N/A
Barium Metaborate	13701-59-2	Data not availbl- insufficient	N/A	N/A	N/A	N/A
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
Hydroxypropyl Methacrylate	27813-02-1	Experimental Biodegradation	28 days	Biological Oxygen Demand	81 %BOD/ThOD	OECD 301C - MITI (I)
Polyolmethacrylate Phosphate Esters	95175-93-2	Data not availbl- insufficient	N/A	N/A	N/A	N/A
COPPER NAPHTHENATES	1338-02-9	Data not availbl- insufficient	N/A	N/A	N/A	N/A

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Zinc	7440-66-6	Data not availbl-	N/A	N/A	N/A	N/A
		insufficient				

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 shke flsk mtd
Acrylonitrile- Butadiene Polymers	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
2-hydroxyethyl methacrylate	868-77-9	Experimental Bioconcentration		Log of Octanol/H2O part. coeff	0.42	OECD 107 log Kow shke flsk mtd
Fillers	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Barium Metaborate	13701-59-2	Experimental Bioconcentration		Log of Octanol/H2O part. coeff	-0.70	
Hydrotreated light paraffinic distillates (petroleum)	64742-55-8	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Hydroxypropyl Methacrylate	27813-02-1	Experimental Bioconcentration		Log of Octanol/H2O part. coeff	0.97	EC A.8 Partition Coefficient
Polyolmethacrylate Phosphate Esters	95175-93-2	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
COPPER NAPHTHENATES	1338-02-9	Estimated BCF - Fish	42 days	Bioaccumulation Factor	≤27	OECD305-Bioconcentration
Zinc	7440-66-6	Estimated BCF - Fish	56 days	Bioaccumulation Factor	242	

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:Yes

3M™ Scotch-Weld™ Metal Bonder Acrylic Adhesive DP8407NS, Gray, Part B

Marine Pollutant: Yes

Marine Pollutant Technical Name: (Copper naphthenates)

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: Yes

Marine Pollutant Technical Name: (Copper naphthenates)

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 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



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[™] Metal Bonder Acrylic Adhesive DP8407NS, Gray, Part A

1.2. Recommended use and restrictions on use

Recommended use

Adhesive, acrylic adhesive

For Industrial or Professional use only

1.3. Supplier's details

ADDRESS: 3M Malaysia Sdn. Bhd., Level 8, Block F, Oasis Square, No.2, Jalan PJU 1A/7A, Ara Damansara 47301

Petaling, Jaya, Selangor

Telephone: 03-7884 2888

E Mail: 3mmyehsr@mmm.com Website: www.3M.com.my

1.4. Emergency telephone number

+60 03-7884 2888

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

Serious Eye Damage/Irritation: Category 2.

Skin Sensitizer: Category 1.

Chronic Aquatic Toxicity: Category 2.

2.2. Label elements

Signal word

Warning

Symbols

Exclamation mark |Environment |

Pictograms



Hazard Statements:

H319 Causes serious eye irritation. H317 May cause an allergic skin reaction.

H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention:

P273 Avoid release to the environment.

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.

Disposal:

P501 Dispose of contents/container in accordance with applicable

local/regional/national/international regulations.

2.3. Other hazards

None known

SECTION 3: Composition/information on ingredients

This material is a mixture.

Ingredient	C.A.S. No.	% by Wt
Dibenzoate Propanol	27138-31-4	40 - 60
Epoxy Resin	25068-38-6	15 - 30
Catalyst	Trade Secret	10 - 15
Organic Peroxide	13122-18-4	1 - 10
Fillers	Trade Secret	1 - 10
Non-Hazardous Components	Trade Secret	1 - 10

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

Flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms persist, get medical

3M™ Scotch-Weld™ Metal Bonder Acrylic Adhesive DP8407NS, Gray, Part A

attention.

If Swallowed:

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

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

Allergic skin reaction (redness, swelling, blistering, and itching).

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

Not applicable

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

In case of fire: Use a fire fighting agent suitable for ordinary combustible material such as water or foam to extinguish.

5.2. Special hazards arising from the substance or mixture

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

Hazardous Decomposition or By-Products

<u>Substance</u>	<u>Condition</u>
Aldehydes	During Combustion
Carbon monoxide	During Combustion
Carbon dioxide	During Combustion
Hydrogen Chloride	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. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

Contain spill. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Clean up residue with an appropriate solvent selected by a qualified and authorized person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and SDS. Seal the container. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

3M™ Scotch-Weld™ Metal Bonder Acrylic Adhesive DP8407NS, Gray, Part A

For industrial/occupational use only. Not for consumer sale or use. Avoid breathing dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse. Avoid contact with oxidizing agents (eg. chlorine, chromic acid etc.)

7.2. Conditions for safe storage including any incompatibilities

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

No occupational exposure limit values exist for any of the components listed in Section 3 of this SDS.

8.2. Exposure controls

8.2.1. Engineering controls

Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapors/spray. If ventilation is not adequate, use respiratory protection equipment.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

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

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

If this product is used in a manner that presents a higher potential for exposure (eg. spraying, high splash potential etc.), then use of protective coveralls may be necessary. Select and use body protection to prevent contact based on the results of an exposure assessment. The following protective clothing material(s) are recommended: Apron - 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	Gray			
Odor	Ester			
Odor threshold	No Data Available			
рН	Not Applicable			
Melting point/Freezing point	Not Applicable			
Boiling point/Initial boiling point/Boiling range	>= 65.6 °C			
Flash Point	> 93.3 °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			
Vapor Pressure	No Data Available			
Vapor Density and/or Relative Vapor Density	No Data Available			
Density	1.08 g/ml			
Relative Density	1.08 [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			
Viscosity/Kinematic Viscosity	20,000 mPa-s			
Volatile Organic Compounds	No Data Available			
Percent volatile	No Data Available			
VOC Less H2O & Exempt Solvents	20.2 g/l [Details: when used as intended with Part B]			
Molecular weight	No Data Available			

SECTION 10: Stability and reactivity

10.1. Reactivity

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

10.2. Chemical stability

Stable.

10.3. Possibility of hazardous reactions

Hazardous 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.

Skin Contact:

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

Eve Contact:

Moderate Eye Irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

Ingestion:

May be harmful if swallowed.

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

Toxicological Data

If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

Acute Toxicity

Name	Route	Species	Value
Overall product	Dermal		No data available; calculated ATE >5,000 mg/kg
Overall product	Ingestion		No data available; calculated ATE >2,000 - =5,000 mg/kg
Dibenzoate Propanol	Dermal	Rat	LD50 > 2,000 mg/kg
Dibenzoate Propanol	Inhalation- Dust/Mist (4 hours)	Rat	LC50 > 200 mg/l
Dibenzoate Propanol	Ingestion	Rat	LD50 3,295 mg/kg
Epoxy Resin	Dermal	Rat	LD50 > 1,600 mg/kg
Epoxy Resin	Ingestion	Rat	LD50 > 1,000 mg/kg
Catalyst	Dermal	Professio nal judgeme nt	LD50 estimated to be 2,000 - 5,000 mg/kg
Catalyst	Ingestion	Rat	LD50 > 2,000 mg/kg
Organic Peroxide	Dermal	Rat	LD50 > 2,000 mg/kg
Organic Peroxide	Inhalation- Dust/Mist (4 hours)	Rat	LC50 > 0.8 mg/l
Organic Peroxide	Ingestion	Rat	LD50 12,905 mg/kg
Fillers	Dermal	Rabbit	LD50 > 5,000 mg/kg

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Fillers	Inhalation- Dust/Mist (4 hours)	Rat	LC50 > 0.691 mg/l
Fillers	Ingestion	Rat	LD50 > 5,110 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Dibenzoate Propanol	Rabbit	No significant irritation
Epoxy Resin	Rabbit	Mild irritant
Organic Peroxide	Rabbit	No significant irritation
Fillers	Rabbit	No significant irritation

Serious Eye Damage/Irritation

Name		Value
Dibenzoate Propanol	Rabbit	No significant irritation
Epoxy Resin	Rabbit	Moderate irritant
Organic Peroxide	Rabbit	No significant irritation
Fillers	Rabbit	No significant irritation

Sensitization:

Skin Sensitization

Name	Species	Value
Name	Species	value
Dibenzoate Propanol	Guinea	Not classified
•	pig	
Epoxy Resin	Human	Sensitizing
	and	
	animal	
Catalyst	Mouse	Not classified
Organic Peroxide	Guinea	Sensitizing
	pig	
Fillers	Human	Not classified
	and	
	animal	

Respiratory Sensitization

====p=================================		
Name	Species	Value
Epoxy Resin	Human	Not classified

Germ Cell Mutagenicity

Seria Con Municipality			
Name	Route	Value	
Dibenzoate Propanol	In Vitro	Not mutagenic	
Epoxy Resin	In vivo	Not mutagenic	
Epoxy Resin	In Vitro	Some positive data exist, but the data are not	
		sufficient for classification	
Catalyst	In Vitro	Not mutagenic	
Fillers	In Vitro	Not mutagenic	

Carcinogenicity

Name	Route	Species	Value
Epoxy Resin	Dermal	Mouse	Some positive data exist, but the data are not
			sufficient for classification
Fillers	Not	Mouse	Some positive data exist, but the data are not
	Specified		sufficient for classification

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route Value		Species	Test Result	Exposure Duration	
Dibenzoate Propanol	Ingestion	Not classified for female reproduction	Rat	NOAEL 500 mg/kg/day	2 generation	
Dibenzoate Propanol	Ingestion	Not classified for male reproduction	Rat	NOAEL 400 mg/kg/day	2 generation	
Dibenzoate Propanol	Ingestion	Not classified for development	Rat	NOAEL 1,000 mg/kg/day	during gestation	
Epoxy Resin	Ingestion	Not classified for female reproduction	Rat	NOAEL 750 mg/kg/day	2 generation	
Epoxy Resin	Ingestion	Not classified for male reproduction	Rat	NOAEL 750 mg/kg/day	2 generation	
Epoxy Resin	Dermal	Not classified for development	Rabbit	NOAEL 300 mg/kg/day	during organogenesis	
Epoxy Resin	Ingestion	Not classified for development	Rat	NOAEL 750 mg/kg/day	2 generation	
Fillers	Ingestion	Not classified for female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation	
Fillers	Ingestion	Not classified for male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation	
Fillers	Ingestion	Not classified for development	Rat	NOAEL 1,350 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
Catalyst	Ingestion	nervous system	Not classified	Rat	NOAEL 2,000 mg/kg	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Dibenzoate Propanol	Ingestion	hematopoietic system liver	Not classified	Rat	NOAEL 2,500 mg/kg/day	90 days
Epoxy Resin	Dermal	liver	Not classified	Rat	NOAEL 1,000 mg/kg/day	2 years
Epoxy Resin	Dermal	nervous system	Not classified	Rat	NOAEL 1,000 mg/kg/day	13 weeks
Epoxy Resin	Ingestion	auditory system heart endocrine system hematopoietic system liver eyes kidney and/or bladder	Not classified	Rat	NOAEL 1,000 mg/kg/day	28 days
Fillers	Inhalation	respiratory system silicosis	Not classified	Human	NOAEL Not available	occupational exposure

Aspiration Hazard

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

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

SECTION 12: Ecological information

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

12.1. Toxicity

Acute aquatic hazard:

GHS Acute 2: Toxic to aquatic life.

Chronic aquatic hazard:

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

No product test data available

Material	Cas #	Organism	Type	Exposure	Test Endpoint	Test Result
Dibenzoate Propanol	27138-31-4	Fathead Minnow	Experimental	96 hours	LC50	3.7 mg/l
Dibenzoate Propanol	27138-31-4	Green algae	Experimental	72 hours	EL50	4.9 mg/l
Dibenzoate Propanol	27138-31-4	Water flea	Experimental	48 hours	EL50	19.31 mg/l
Dibenzoate Propanol	27138-31-4	Green algae	Experimental	72 hours	EC10	0.89 mg/l
Epoxy Resin	25068-38-6	Activated sludge	Estimated	3 hours	IC50	>100 mg/l
Epoxy Resin	25068-38-6	Green algae	Estimated	72 hours	EC50	>11 mg/l
Epoxy Resin	25068-38-6	Rainbow Trout	Estimated	96 hours	LC50	2 mg/l
Epoxy Resin	25068-38-6	Water flea	Estimated	48 hours	EC50	1.8 mg/l
Epoxy Resin	25068-38-6	Green algae	Estimated	72 hours	NOEC	4.2 mg/l
Epoxy Resin	25068-38-6	Water flea	Estimated	21 days	NOEC	0.3 mg/l
Catalyst	Trade Secret	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
Fillers	Trade Secret	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
Organic Peroxide	13122-18-4	Activated sludge	Experimental	3 hours	NOEC	26.3 mg/l
Organic Peroxide	13122-18-4	Green algae	Experimental	N/A	EC50	0.51 mg/l
Organic Peroxide	13122-18-4	Rainbow Trout	Experimental	N/A	LC50	7 mg/l
Organic Peroxide	13122-18-4	Water flea	Experimental	N/A	EC50	>100 mg/l
Organic Peroxide	13122-18-4	Green algae	Experimental	N/A	NOEC	0.125 mg/l

12.2. Persistence and degradability

Material	CAS No.	Test Type	Duration	Study Type	Test Result	Protocol
Dibenzoate Propanol	27138-31-4	Experimental Biodegradation	28 days	Carbon dioxide evolution	85 %CO2 evolution/THCO2 evolution	OECD 301B - Mod. Sturm or CO2
Epoxy Resin	25068-38-6	Estimated Biodegradation	28 days	Biological Oxygen Demand	5 %BOD/COD	OECD 301F - Manometric Respiro
Epoxy Resin	25068-38-6	Estimated Hydrolysis		Hydrolytic half-life	117 hours (t 1/2)	
Catalyst	Trade Secret	Experimental Biodegradation	28 days	Carbon dioxide evolution	29.1 %CO2 evolution/THCO2 evolution	OECD 301B - Mod. Sturm or CO2

3M™ Scotch-Weld™ Metal Bonder Acrylic Adhesive DP8407NS, Gray, Part A

Catalyst	Trade Secret	Estimated		Photolytic half-life	1.48 days (t 1/2)	
		Photolysis		(in air)		
Fillers	Trade Secret	Data not availbl-	N/A	N/A	N/A	N/A
		insufficient				
Organic Peroxide	13122-18-4	Estimated	28	Biological Oxygen	14 %BOD/ThOD	OECD 301C - MITI (I)
		Biodegradation		Demand		

12.3. Bioaccumulative potential

Material	CAS No.	Test Type	Duration	Study Type	Test Result	Protocol
Dibenzoate Propanol	27138-31-4	Modeled Bioconcentration		Bioaccumulation Factor	8	Catalogic TM
Epoxy Resin	25068-38-6	Estimated Bioconcentration		Log of Octanol/H2O part. coeff	3.242	
Catalyst	Trade Secret	Experimental Bioconcentration		Log of Octanol/H2O part. coeff	2.57	
Fillers	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Organic Peroxide	13122-18-4	Estimated Bioconcentration		Bioaccumulation Factor	363	

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: None assigned.

Proper Shipping Name: None assigned.

Technical Name: None assigned.

Hazard Class/Division: None assigned.

Subsidiary Risk: None assigned.

Packing Group: None assigned.

Limited Quantity: None assigned.

Marine Pollutant: None assigned.

Marine Pollutant Technical Name: None assigned.

Other Dangerous Goods Descriptions:

Not restricted, as per IMDG code 2.10.2.7, marine pollutant exception.

Air Transport (IATA)

UN Number: None assigned.

Proper Shipping Name: None assigned.

3MTM Scotch-WeldTM Metal Bonder Acrylic Adhesive DP8407NS, Gray, Part A

Technical Name: None assigned.
Hazard Class/Division: None assigned.
Subsidiary Risk: None assigned.
Packing Group: None assigned.
Limited Quantity: None assigned.
Marine Pollutant: None assigned.

Marine Pollutant Technical Name: None assigned.

Other Dangerous Goods Descriptions:

Not restricted, as per Special Provision A197, environmentally hazardous substance exception.

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 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.

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