Safety Data Sheet

Document Group:	39-2548-4	**Version Number:**	1.00
Issue Date:	10/10/2024	**Supercedes Date:**	Initial Issue

IDENTIFICATION

1.1. Product identifier
3M™ Scotch-Weld™ Metal Bonder Acrylic Adhesive DP8407NS, Gray, Kit

Product Identification Numbers
62-2853-1446-4

1.2. Recommended use and restrictions on use

Recommended use
Adhesive

1.3. Supplier's details

ADDRESS: 3M Philippines, 10th and 11th Floor, The Finance Center, 26th Street Corner 9th Avenue Bonifacio Global City, Taguig City, 1634 Philippines
Telephone: +632 827 11680
E Mail mcvillalva@mmm.com
Website: www.3m.com/ph

1.4. Emergency telephone number
Company Emergency Hotline:+632 827 11680

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:
39-2537-7, 39-2505-4

Transport Information

Marine Transport (IMDG)

UN Number:UN1133
Proper Shipping Name:ADHESIVES CONTAINING FLAMMABLE LIQUID
Technical Name: None assigned.
Hazard Class/Division:3
Subsidiary Risk: None assigned.
Packing Group:II
Limited Quantity: Yes
Marine Pollutant: None assigned.

Marine Pollutant Technical Name: None assigned.
Other Dangerous Goods Descriptions:
Control temperature = 10°C(50°F), Emergency temperature = 15°C(59°F)

Air Transport (IATA)
Forbidden:3M packaging does not meet regulatory agency requirements

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.

DISCLAIMER: The information on this Safety Data Sheet is based on our experience and is correct to the best of our knowledge at the date of publication, but we do not accept any liability for any loss, damage or injury resulting from its use (except as required by law). The information may not be valid for any use not referred to in this Data Sheet or use of the product in combination with other materials. For these reasons, it is important that customers carry out their own test to satisfy themselves as to the suitability of the product for their own intended applications.

3M Philippines SDSs are available at www.3m.com/ph

Safety Data Sheet

Document Group:	39-2505-4	**Version Number:**	2.00
Issue Date:	12/11/2024	**Supercedes Date:**	05/21/2024

This Safety Data Sheet has been prepared in accordance with the DENR Administrative Order No. 2015-09 Rules and Procedures for the Implementation of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) in Preparation of Safety Data Sheet (SDS) and Labelling Requirements of Toxic Chemical Substances.

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 Philippines, 10th and 11th Floor, The Finance Center, 26th Street Corner 9th Avenue Bonifacio Global City, Taguig City, 1634 Philippines
Telephone:	+632 827 11680
E Mail:	mcvillalva@mmm.com
Website:	www.3m.com/ph

1.4. Emergency telephone number
+632 827 11680

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture
Serious Eye Damage/Irritation: Category 2B.
Skin Sensitizer: Category 1.
Chronic Aquatic Toxicity: Category 2.

2.2. Label elements
Signal word
Warning

Symbols
Exclamation mark |Environment |

Pictograms

Hazard statements

H320	Causes 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:

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 - 35
Catalyst	Trade Secret	10 - 15
Fillers	Trade Secret	1 - 10
Non-Hazardous Components	Trade Secret	1 - 10
Organic Peroxide	13122-18-4	1 - 10
Carbon Black	1333-86-4	< 0.1

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:

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

Skin Contact:

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

Eye Contact:

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

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

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

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

4.3. Indication of any immediate medical attention and special treatment required
Not applicable

SECTION 5: Fire-fighting measures

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

5.2. Special hazards arising from the substance or mixture
Closed containers exposed to heat from fire may build pressure and explode.

Hazardous Decomposition or By-Products

Substance	Condition
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
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
If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

Ingredient	C.A.S. No.	Agency	Limit type	Additional Comments
Carbon Black	1333-86-4	ACGIH	TWA(inhalable fraction):3 mg/m3	A3: Confirmed animal carcin.
Carbon Black	1333-86-4	Philippines OELs	TWA(8 hours):3.5 mg/m3	
Fillers	Trade Secret	Philippines OELs	TWA(8 hours):0.8 mg/m3	

ACGIH : American Conference of Governmental Industrial Hygienists
AIHA : American Industrial Hygiene Association
CMRG : Chemical Manufacturer's Recommended Guidelines
Philippines OELs : Philippines. Threshold Limit Values for Airborne Contaminants
TWA: Time-Weighted-Average
STEL: Short Term Exposure Limit
CEIL: Ceiling

8.2. Exposure controls

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

8.2.2. Personal protective equipment (PPE)

Eye/face protection

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:
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
Half facepiece or full facepiece supplied-air respirator

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	Mild Ester
Odor threshold	*No Data Available*
pH	*Not Applicable*
Melting point/Freezing point	*Not Applicable*
Boiling point/Initial boiling point/Boiling range	>= 65.6 ºC
Flash Point	> 93.3 ºC [*Test Method:*Closed Cup]
Evaporation rate	*No Data Available*
Flammability	Not Applicable
Flammable Limits(LEL)	*No Data Available*
Flammable Limits(UEL)	*No Data Available*
Vapor Pressure	*No Data Available*
Relative Vapor Density	*No Data Available*
Density	1.08 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*
Kinematic Viscosity	18,519 mm2/sec
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*

Particle Characteristics	*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:
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.

Eye 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	Professional judgement	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
Fillers	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 0.691 mg/l
Fillers	Ingestion	Rat	LD50 > 5,110 mg/kg
Carbon Black	Dermal	Rabbit	LD50 > 3,000 mg/kg
Carbon Black	Ingestion	Rat	LD50 > 8,000 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
Carbon Black	Rabbit	No significant irritation

Serious Eye Damage/Irritation

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

Sensitization:

Skin Sensitization

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

Respiratory Sensitization

Name	Species	Value
Epoxy Resin	Human	Not classified

Germ Cell Mutagenicity

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

Carcinogenicity

Name	Route	Species	Value
Epoxy Resin	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification
Fillers	Not Specified	Mouse	Some positive data exist, but the data are not sufficient for classification
Carbon Black	Dermal	Mouse	Not carcinogenic
Carbon Black	Ingestion	Mouse	Not carcinogenic
Carbon Black	Inhalation	Rat	Carcinogenic

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test Result	Exposure Duration
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
Carbon Black	Inhalation	pneumoconiosis	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	Green algae	Experimental	72 hours	ErC50	0.51 mg/l
Organic Peroxide	13122-18-4	Rainbow Trout	Experimental	96 hours	LC50	7.03 mg/l
Organic Peroxide	13122-18-4	Water flea	Experimental	48 hours	EC50	>100 mg/l
Organic Peroxide	13122-18-4	Green algae	Experimental	72 hours	NOEC	0.125 mg/l
Organic Peroxide	13122-18-4	Water flea	Experimental	21 days	NOEC	0.22 mg/l
Organic Peroxide	13122-18-4	Activated sludge	Experimental	3 hours	EC50	327.02 mg/l
Carbon Black	1333-86-4	Green algae	Experimental	72 hours	No tox obs at lmt of water sol	>100 mg/l
Carbon Black	1333-86-4	Zebra Fish	Experimental	96 hours	No tox obs at lmt of water sol	>100 mg/l
Carbon Black	1333-86-4	Green algae	Experimental	72 hours	No tox obs at lmt of water sol	100 mg/l
Carbon Black	1333-86-4	Activated sludge	Experimental	3 hours	NOEC	>800 mg/l

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
Catalyst	Trade Secret	Estimated Photolysis		Photolytic half-life (in air)	1.48 days (t 1/2)	
Fillers	Trade Secret	Data not availbl-insufficient	N/A	N/A	N/A	N/A
Organic Peroxide	13122-18-4	Experimental Biodegradation	28 days	Biological Oxygen Demand	72 %BOD/ThOD	OECD 301D - Closed Bottle Test
Organic Peroxide	13122-18-4	Experimental Aquatic Inherent Biodegrad.	56 days	Biological Oxygen Demand	58 %BOD/ThOD	OECD 302A - Modified SCAS Test
Organic Peroxide	13122-18-4	Experimental Hydrolysis		Hydrolytic half-life (pH 7)	51 hours (t 1/2)	OECD 111 Hydrolysis func of pH
Carbon Black	1333-86-4	Data not availbl-insufficient	N/A	N/A	N/A	N/A

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™
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	Modeled Bioconcentration		Bioaccumulation Factor	380	Catalogic™
Organic Peroxide	13122-18-4	Experimental Bioconcentration		Log of Octanol/H2O part. coeff	5.16	OECD 117 log Kow HPLC method
Carbon Black	1333-86-4	Data not available or insufficient for classification	N/A	N/A	N/A	N/A

12.4. Mobility in soil
Please contact manufacturer for more details

12.5 Other adverse effects
No information available

SECTION 13: Disposal considerations

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

Dispose of completely cured (or polymerized) material in a permitted industrial waste facility. As a disposal alternative, incinerate uncured product in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. Combustion products will include halogen acid (HCl/HF/HBr). Facility must be capable of handling halogenated materials. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

SECTION 14: Transport Information

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.
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.

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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

Revision information:
Section 02: PH GHS Classification information was modified.
Section 02: PH Hazard - Health information was modified.
Section 03: Ingredient table information was modified.
Section 03: Material is a mixture standard phrase information was added.
Section 08: Eye/face protection information information was modified.
Section 08: Occupational exposure limit table information was modified.
Section 08: Respiratory protection - recommended respirators information information was modified.
Section 09: Vapor Density Value information was modified.
Section 11: Acute Toxicity table information was modified.
Section 11: Carcinogenicity Table information was modified.
Section 11: Germ Cell Mutagenicity Table information was modified.
Section 11: Serious Eye Damage/Irritation Table information was modified.
Section 11: Skin Corrosion/Irritation Table information was modified.
Section 11: Target Organs - Repeated Table information was modified.
Section 12: Component ecotoxicity information information was modified.
Section 12: Persistence and Degradability information information was modified.
Section 12:Bioccumulative potential information information was modified.

DISCLAIMER: The information on this Safety Data Sheet is based on our experience and is correct to the best of our knowledge at the date of publication, but we do not accept any liability for any loss, damage or injury resulting from its use (except as required by law). The information may not be valid for any use not referred to in this Data Sheet or use of the product in combination with other materials. For these reasons, it is important that customers carry out their own test to satisfy themselves as to the suitability of the product for their own intended applications.

3M Philippines SDSs are available at www.3m.com/ph

Safety Data Sheet

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This Safety Data Sheet has been prepared in accordance with the DENR Administrative Order No. 2015-09 Rules and Procedures for the Implementation of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) in Preparation of Safety Data Sheet (SDS) and Labelling Requirements of Toxic Chemical Substances.

SECTION 1: Identification

1.1. Product identifier
3M™ Scotch-Weld™ 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 Philippines, 10th and 11th Floor, The Finance Center, 26th Street Corner 9th Avenue Bonifacio Global City, Taguig City, 1634 Philippines
Telephone: +632 827 11680
E Mail: mcvillalva@mmm.com
Website: www.3m.com/ph

1.4. Emergency telephone number
+632 827 11680

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 2A.
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.
P280K	Wear protective gloves and respiratory protection.

Response:

P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
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

Fillers	Trade Secret	1 - 10
2-hydroxyethyl methacrylate	868-77-9	< 10
Hydrotreated light paraffinic distillates (petroleum)	64742-55-8	0.1 - 5
Hydroxypropyl Methacrylate	27813-02-1	0.1 - 5
Urethane Acrylate Oligomer	Trade Secret	0.1 - 5
Polyolmethacrylate Phosphate Esters	95175-93-2	< 3
Barium Metaborate	13701-59-2	< 2.5
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 COMPOUNDS	13701-59-2	ACGIH	TWA(as Ba):0.5 mg/m3	A4: Not class. as human carcin
BARIUM, SOLUBLE COMPOUNDS	13701-59-2	Philippines OELs	TWA(8 hours):0.5 mg/m3	
OIL MIST, MINERAL	64742-55-8	Philippines 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	Philippines OELs	TWA(8 hours):410 mg/m3(100 ppm)	
Fillers	Trade Secret	Philippines OELs	TWA(8 hours):0.8 mg/m3	

ACGIH : American Conference of Governmental Industrial Hygienists
AIHA : American Industrial Hygiene Association
CMRG : Chemical Manufacturer's Recommended Guidelines
Philippines OELs : Philippines. Threshold Limit Values for Airborne Contaminants
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 mask or full facepiece air-purifying respirator with N100 particulate filters
Half facepiece or full facepiece air-purifying respirator suitable for organic vapors and particulates
Half facepiece or full facepiece supplied-air respirator

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	Brown
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 ºC
Flash Point	>=10 ºC [*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	1.01 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*
Kinematic Viscosity	14,851 mm2/sec
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*

Particle Characteristics	*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:
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.

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
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 29.8 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 compounds	LD50 > 2,000 mg/kg
Hydrotreated light paraffinic distillates (petroleum)	Inhalation-Dust/Mist (4 hours)	similar compounds	LC50 > 5.53 mg/l
Hydrotreated light paraffinic distillates (petroleum)	Ingestion	similar compounds	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 compounds	LD50 > 2,000 mg/kg
COPPER NAPHTHENATES	Ingestion	similar compounds	LD50 >300, < 2,000 mg/kg
Zinc	Dermal	Professional judgement	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	Rabbit	Irritant

Acrylonitrile-Butadiene Polymers	Professional judgement	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 compounds	No significant irritation
Barium Metaborate	Rabbit	No significant irritation
COPPER NAPHTHENATES	Rabbit	No significant irritation

Serious Eye Damage/Irritation

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

Sensitization:

Skin Sensitization

Name	Species	Value
Methyl Methacrylate	Human and animal	Sensitizing
2-hydroxyethyl methacrylate	Human and animal	Sensitizing
Fillers	Human and animal	Not classified
Hydroxypropyl Methacrylate	Human and animal	Sensitizing
Hydrotreated light paraffinic distillates (petroleum)	similar compounds	Not classified
Barium Metaborate	Guinea pig	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
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 Specified	Mouse	Some positive data exist, but the data are not sufficient for classification

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 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	during gestation

				mg/kg/day	
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
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	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 |	Not classified	Rat	NOAEL 700 mg/kg/day	90 days

		kidney and/or bladder | respiratory system | vascular system				

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	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 Polymers	Trade Secret	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
2-hydroxyethyl methacrylate	868-77-9	Turbot	Analogous Compound	96 hours	LC50	833 mg/l
2-hydroxyethyl methacrylate	868-77-9	Fathead Minnow	Experimental	96 hours	LC50	227 mg/l
2-hydroxyethyl methacrylate	868-77-9	Green algae	Experimental	72 hours	EC50	710 mg/l
2-hydroxyethyl methacrylate	868-77-9	Water flea	Experimental	48 hours	EC50	380 mg/l
2-hydroxyethyl methacrylate	868-77-9	Green algae	Experimental	72 hours	NOEC	160 mg/l
2-hydroxyethyl methacrylate	868-77-9	Water flea	Experimental	21 days	NOEC	24.1 mg/l
2-hydroxyethyl	868-77-9	N/A	Experimental	16 hours	EC0	>3,000 mg/l

methacrylate						
2-hydroxyethyl methacrylate	868-77-9	N/A	Experimental	18 hours	LD50	<98 mg per kg of bodyweight
Fillers	Trade Secret	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
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
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
Barium Metaborate	13701-59-2	Activated sludge	Experimental	3 hours	NOEC	100 mg/l
Barium Metaborate	13701-59-2	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	13701-59-2	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
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)
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
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
Barium Metaborate	13701-59-2	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
Zinc	7440-66-6	Data not availbl-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 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
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
Barium Metaborate	13701-59-2	Experimental Bioconcentration		Log of Octanol/H2O part. coeff	-0.70	
COPPER NAPHTHENATES	1338-02-9	Analogous Compound 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
Dispose of contents/ container in accordance with the local/regional/national/international regulations.

Dispose of waste product in a permitted industrial waste facility. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

SECTION 14: Transport Information

Marine Transport (IMDG)

UN Number:UN1133
Proper Shipping Name:ADHESIVES CONTAINING FLAMMABLE LIQUID
Technical Name: None assigned.
Hazard Class/Division:3
Subsidiary Risk: None assigned.
Packing Group:II
Limited Quantity: Yes
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 CONTAINING FLAMMABLE LIQUID
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

Revision information:
No revision information

DISCLAIMER: The information on this Safety Data Sheet is based on our experience and is correct to the best of our knowledge at the date of publication, but we do not accept any liability for any loss, damage or injury resulting from its use (except as required by law). The information may not be valid for any use not referred to in this Data Sheet or use of the product in combination with other materials. For these reasons, it is important that customers carry out their own test to satisfy themselves as to the suitability of the product for their own intended applications.

3M Philippines SDSs are available at www.3m.com/ph