

Safety Data Sheet

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Document group: 31-5491-1 **Version number:** 4.00 **Revision date:** 19/06/2015 **Supersedes date:** 07/10/2014

Transportation version number: 10.00 (12/11/2015)

This Safety Data Sheet has been prepared in accordance with the REACH Regulation (EC) 1907/2006 and its modifications.

IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

3M(TM) Scotch-Weld(TM) Acrylic Adhesive DP8405NS, Green

Product Identification Numbers

62-2856-1445-9 62-2856-3630-4

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

Identified uses

Adhesive

1.3. Details of the supplier of the safety data sheet

Address: 3M United Kingdom PLC, 3M Centre, Cain Road, Bracknell, Berkshire, RG12 8HT.

Telephone: +44 (0)1344 858 000 E Mail: tox.uk@mmm.com Website: www.3M.com/uk

1.4. Emergency telephone number

+44 (0)1344 858 000

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

31-5470-5, 31-5479-6

TRANSPORTATION INFORMATION

62-2856-1445-9

ADR/RID: UN1133, ADHESIVES, LIMITED QUANTITY, 3., II, (E), ADR Classification Code: F1.

IMDG-CODE: UN1133, ADHESIVES, 3., II, IMDG-Code segregation code: NONE, LIMITED QUANTITY, EMS:

FE.SD.

ICAO/IATA: FORBIDDEN: NOT ALLOWED FOR AIR FREIGHT

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62-2856-3630-4

ADR/RID: UN1133, ADHESIVES, LIMITED QUANTITY, 3., II, (E), ADR Classification Code: F1.

IMDG-CODE: UN1133, ADHESIVES, 3., II, IMDG-Code segregation code: NONE, LIMITED QUANTITY, EMS:

FE,SD.

ICAO/IATA: UN1133, ADHESIVES, 3., II.

KIT LABEL

2.2. Label elements

CLP REGULATION (EC) No 1272/2008

SIGNAL WORD

DANGER.

Symbols:

GHS02 (Flame) |GHS07 (Exclamation mark) |GHS09 (Environment) |

Pictograms



HAZARD STATEMENTS:

H225 Highly flammable liquid and vapour.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction. H335 May cause respiratory irritation.

H410 Very toxic to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS

Prevention:

P210A Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P261A Avoid breathing vapours. P280E Wear protective gloves.

P273 Avoid release to the environment.

Response:

P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.

P370 + P378G 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.

For containers not exceeding 125 ml the following Hazard and Precautionary statements may be used:

<=125 ml Hazard statements

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H317 May cause an allergic skin reaction.

<=125 ml Precautionary statements

Prevention:

P280E Wear protective gloves.

Response:

P333 + P313 If skin irritation or rash occurs; Get medical advice/attention.

Refer to Safety Data Sheet for component % unknown values (www.3M.com/msds).

Revision information:

Revision Changes:

Section 01: 1.3. Details of the supplier of the safety data sheet heading information was modified.

Copyright information was modified.

Label: Signal Word information was modified.

Section 2: <125ml Hazard - Health information was modified.

Section 2: <125ml Precautionary - Prevention information was modified.

Safety phrase information was deleted.

Section 2: Contains heading information was deleted.

Section 2: Safety phrases heading information was deleted.

Section 2: Risk phrase information information was deleted.

Section 2: Risk phrases heading information was deleted.

Kit label ingredient disclosure information information was deleted.

Section 2: Notes on labelling heading information was deleted.

Section 2: Label remarks information was deleted.

Section 2: 2.2 & 2.3. DSD/DPD heading information was deleted.

Label: Graphic Text information was deleted.

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Label: Graphic Text information was deleted.

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Safety Data Sheet

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 31-5479-6
 Version number:
 4.00

 Revision date:
 19/06/2015
 Supersedes date:
 07/10/2014

Transportation version number: 1.00 (29/08/2013)

This Safety Data Sheet has been prepared in accordance with the REACH Regulation (EC) 1907/2006 and its modifications.

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

3M(TM) Scotch-Weld(TM) Acrylic Adhesive DP8405NS, Green, Part B

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

Identified uses

Adhesive

1.3. Details of the supplier of the safety data sheet

Address: 3M United Kingdom PLC, 3M Centre, Cain Road, Bracknell, Berkshire, RG12 8HT.

 Telephone:
 +44 (0)1344 858 000

 E Mail:
 tox.uk@mmm.com

 Website:
 www.3M.com/uk

1.4. Emergency telephone number

+44 (0)1344 858 000

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture CLP REGULATION (EC) No 1272/2008

CLASSIFICATION:

Flammable Liquid, Category 2 - Flam. Liq. 2; H225 Skin Corrosion/Irritation, Category 2 - Skin Irrit. 2; H315 Skin Sensitization, Category 1 - Skin Sens. 1; H317

Specific Target Organ Toxicity-Single Exposure, Category 3 - STOT SE 3; H335 Hazardous to the Aquatic Environment (Acute), Category 1 - Aquatic Acute 1; H400 Hazardous to the Aquatic Environment (Chronic), Category 1 - Aquatic Chronic 1; H410

For full text of H phrases, see Section 16.

Dangerous substances(67/548/EEC)/preparations(1999/45/EC) directive Indication of danger

Highly flammable; F; R11

Irritant; Xi; R37/38 Sensitising; R43

Dangerous for the environment; N; R50/53

For full text of R phrases, see Section 16.

2.2. Label elements

CLP REGULATION (EC) No 1272/2008

SIGNAL WORD

DANGER.

Symbols:

GHS02 (Flame) |GHS07 (Exclamation mark) |GHS09 (Environment) |

Pictograms



Ingredient	CAS Nbr	% by Wt
Methyl methacrylate	80-62-6	45 - 65
2-Hydroxyethyl methacrylate	868-77-9	0.1 - 10

HAZARD STATEMENTS:

H225 Highly flammable liquid and vapour.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction. May cause respiratory irritation. H335

Very toxic to aquatic life with long lasting effects. H410

PRECAUTIONARY STATEMENTS

Prevention:

P210A Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P261A Avoid breathing vapours. P280E Wear protective gloves.

Avoid release to the environment. P273

Response:

P333 + P313If skin irritation or rash occurs: Get medical advice/attention.

P370 + P378GIn 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.

For containers not exceeding 125 ml the following Hazard and Precautionary statements may be used:

<=125 ml Hazard statements

May cause an allergic skin reaction. H317

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<=125 ml Precautionary statements

Prevention:

P280E Wear protective gloves.

Response:

P333 + P313If skin irritation or rash occurs: Get medical advice/attention.

4% of the mixture consists of components of unknown acute oral toxicity.

4% of the mixture consists of components of unknown acute dermal toxicity.

6% of the mixture consists of components of unknown acute inhalation toxicity.

Contains 13% of components with unknown hazards to the aquatic environment.

Dangerous substances(67/548/EEC)/preparations(1999/45/EC) directive

Symbol(s)









Highly Flammable

Dangerous for the

environment

Irritant

Contains:

2-Hydroxyethyl methacrylate; Methyl methacrylate

Risk phrases

R11 Highly flammable.

R37/38 Irritating to respiratory system and skin. May cause sensitisation by skin contact. R43

R50/53 Very toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

Safety phrases

Keep away from sources of ignition - No Smoking. S16

Avoid contact with skin. S24 S37 Wear suitable gloves.

S61 Avoid release to the environment. Refer to special instructions/safety data sheets.

Notes on labelling

For containers <125 mL, label with: F, Xi, N; R43 and S24-37.

2.3. Other hazards

None known.

SECTION 3: Composition/information on ingredients

Ingredient	CAS Nbr	EU Inventory	% by Wt	Classification
Methyl methacrylate	80-62-6	EINECS 201- 297-1	45 - 65	F:R11; Xi:R37-38; R43 - Nota D (EU) R52 (Self Classified)
				Flam. Liq. 2, H225; Skin Irrit. 2,

				H315; Skin Sens. 1, H317;
				STOT SE 3, H335 - Nota D
				(CLP)
Fillers - N.J.T.S. Reg. No. 04499600-6923	Trade Secret		1 - 20	
Acrylonitrile - butadiene polymer	9003-18-3		1 - 20	
Bisphenol A dimethacrylate, ethoxylated	41637-38-1		0.1 - 10	
2-Hydroxyethyl methacrylate	868-77-9	EINECS 212- 782-2	0.1 - 10	Xi:R36-38; R43 - Nota D (EU)
				Skin Irrit. 2, H315; Eye Irrit. 2,
				H319; Skin Sens. 1, H317 - Nota
				D (CLP)
Phosphate Esters of PPG Methacrylate -	Trade Secret		0.1 - 5	
N.J.T.S. Reg. No. 04499600-6924				
Dispersing Agent - N.J.T.S. Reg. No. 04499600-6929	Trade Secret		0.1 - 5	
Naphthenic acids, copper salts	1338-02-9	EINECS 215- 657-0	< 0.2	Xn:R22; N:R50/53; R10 (EU)
				Flam. Liq. 3, H226; Acute Tox.
				4, H302 (CLP)
				Aquatic Acute 1, H400,M=1000;
				Aquatic Chronic 1,
				H410,M=1000 (Self Classified)

Please see section 16 for the full text of any R phrases and H statements referred to in this section Please refer to section 15 for the any applicable Notas that have been applied to the above components

For information on ingredient occupational exposure limits or PBT or vPvB status, see sections 8 and 12 of this SDS

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

See Section 11.1 Information on toxicological effects

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

Not applicable

SECTION 5: Fire-fighting measures

5.1. 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
Carbon monoxide.
Carbon dioxide.
Oxides of nitrogen.

Condition

During combustion. During combustion. During combustion.

5.3. Advice 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.

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 vapours, 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 dykes 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. An appropriate aqueous film forming foam (AFFF) is recommended. 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 authorised person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and Safety Data Sheet. Seal the container. Dispose of collected material as soon as possible.

6.4. Reference to other sections

Refer to Section 8 and Section 13 for more information

SECTION 7: Handling and storage

7.1. Precautions for safe handling

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/vapours/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.) Wear low static or properly grounded shoes. To minimize the risk of ignition, determine applicable electrical classifications for the process using this product and select specific local exhaust ventilation equipment to avoid flammable vapour 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 oxidising agents. Store away from amines.

7.3. Specific end use(s)

See information in Section 7.1 and 7.2 for handling and storage recommendations. See Section 8 for exposure controls and personal protection recommendations.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

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

Ingredient CAS Nbr Agency Limit type Additional comments

Methyl methacrylate 80-62-6 UK HSC TWA:208 mg/m3(50

ppm);STEL:416 mg/m3(100

ppm)

Fillers - N.J.T.S. Reg. No. Trade Secret UK HSC TWA (as respirable dust): 2

04499600-6923 mg/m^3

UK HSC: UK Health and Safety Commission

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

CEIL: Ceiling

Biological limit values

No biological limit values exist for any of the components listed in Section 3 of this safety data sheet.

8.2. Exposure controls

8.2.1. Engineering controls

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

Indirect vented goggles.

Skin/hand protection

Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing.

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

MaterialThickness (mm)Breakthrough TimeButyl rubber.No data availableNo data available

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

Pages (of

a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:

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

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

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state Liquid.
Specific Physical Form: Paste

Appearance/Odour White methacrylate odour

Odour thresholdNo data available.pHNot applicable.Boiling point/boiling range>=37.8 °CMelting pointNot applicable.Flammability (solid, gas)Not applicable.Explosive propertiesNot classifiedOxidising propertiesNot classified

Flash point >=10 °C [Test Method:Closed Cup]

Autoignition temperatureNo data available.Flammable Limits(LEL)No data available.Flammable Limits(UEL)No data available.Vapour pressureNo data available.

Relative density 1.07 [*Ref Std*:WATER=1]

Water solubility Nil

Solubility- non-waterNo data available.Partition coefficient: n-octanol/waterNo data available.Evaporation rateNo data available.Decomposition temperatureNo data available.Viscosity50 - 80 Pa-sDensity1.07 g/ml

9.2. Other information

VOC less H2O & exempt solvents

17.2 g/l [Details: when used as intended with Part A]

VOC less H2O & exempt solvents

16 % [Details: when used as intended with Part A]

SECTION 10: Stability and reactivity

10.1 Reactivity

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

10.2 Chemical stability

Stable.

10.3 Possibility of hazardous reactions

Hazardous polymerisation will not occur.

10.4 Conditions to avoid

Heat.

Sparks and/or flames.

10.5 Incompatible materials

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Amines.

Strong acids.

Strong bases.

Strong oxidising 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 agree with the EU material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 11 are based on UN GHS calculation rules and classifications derived from 3M assessments.

11.1 Information on Toxicological effects

Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

Inhalation

Respiratory tract irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. May cause additional health effects (see below).

Skin contact

Mild Skin Irritation: Signs/symptoms may include localised 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 diarrhoea.

Additional Health Effects:

Prolonged or repeated exposure may cause target organ effects:

Pneumoconiosis: Sign/symptoms may include persistent cough, breathlessness, chest pain, increased amounts of sputum, and changes in lung function tests. Olfactory effects: Signs/symptoms may include decreased ability to detect odours and complete loss of smell.

Toxicological Data

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

Acute Toxicity

Acute Toxicity			
Name	Route S	Species	Value
Overall product	Dermal		No data available; calculated ATE >5,000 mg/kg
Overall product	Inhalation-		No data available; calculated ATE >50 mg/l
	Vapor(4 hr)		-
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg

Methyl methacrylate	Dermal	Rabbit	LD50 > 5,000 mg/kg
Methyl methacrylate	Inhalation-	Rat	LC50 29 mg/l
	Vapor (4		
	hours)		
Methyl methacrylate	Ingestion	Rat	LD50 7,900 mg/kg
Acrylonitrile - butadiene polymer	Dermal	Rabbit	LD50 > 15,000 mg/kg
Acrylonitrile - butadiene polymer	Ingestion	Rat	LD50 > 30,000 mg/kg
Bisphenol A dimethacrylate, ethoxylated	Dermal	Professio	LD50 estimated to be > 5,000 mg/kg
		nal	
		judgeme	
		nt	
Bisphenol A dimethacrylate, ethoxylated	Ingestion	Rat	LD50 > 2,000 mg/kg
Fillers - N.J.T.S. Reg. No. 04499600-6923	Dermal		LD50 estimated to be > 5,000 mg/kg
Fillers - N.J.T.S. Reg. No. 04499600-6923	Ingestion	Human	LD50 > 15,000 mg/kg
2-Hydroxyethyl methacrylate	Dermal	Rabbit	LD50 > 5,000 mg/kg
2-Hydroxyethyl methacrylate	Ingestion	Rat	LD50 5,564 mg/kg
Naphthenic acids, copper salts	Dermal		estimated to be > 5,000 mg/kg
Naphthenic acids, copper salts	Inhalation-		estimated to be > 12.5 mg/l
	Dust/Mist		
Naphthenic acids, copper salts	Inhalation-		estimated to be > 50 mg/l
	Vapor		
Naphthenic acids, copper salts	Ingestion		estimated to be 300 - 2,000 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Methyl methacrylate	Human	Mild irritant
	and	
	animal	
Acrylonitrile - butadiene polymer	Professio	No significant irritation
	nal	
	judgemen	
	t	
Fillers - N.J.T.S. Reg. No. 04499600-6923	Professio	No significant irritation
	nal	
	judgemen	
	t	
2-Hydroxyethyl methacrylate	Rabbit	Minimal irritation

Serious Eve Damage/Irritation

Name	Species	Value
Methyl methacrylate	Rabbit	Moderate irritant
Acrylonitrile - butadiene polymer	Professio nal judgemen t	No significant irritation
Fillers - N.J.T.S. Reg. No. 04499600-6923	Professio nal judgemen t	No significant irritation
2-Hydroxyethyl methacrylate	Rabbit	Moderate irritant

Skin Sensitisation

Name	Species	Value
Methyl methacrylate	Human	Sensitising
	and	
	animal	
Bisphenol A dimethacrylate, ethoxylated	Guinea	Not sensitising
	pig	
2-Hydroxyethyl methacrylate	Human	Sensitising
	and	
	animal	

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Respiratory Sensitisation

Name	Species	Value
Methyl methacrylate	Human	Some positive data exist, but the data are not sufficient for classification

Germ Cell Mutagenicity

Germ Cen Fratagementy				
Name	Route	Value		
Methyl methacrylate	In vivo	Not mutagenic		
Methyl methacrylate	In Vitro	Some positive data exist, but the data are not sufficient for classification		
Bisphenol A dimethacrylate, ethoxylated	In Vitro	Not mutagenic		
2-Hydroxyethyl methacrylate	In vivo	Not mutagenic		
2-Hydroxyethyl methacrylate	In Vitro	Some positive data exist, but the data are not sufficient for classification		

Carcinogenicity

Name	Route	Species	Value
Methyl methacrylate	Ingestion	Rat	Not carcinogenic
Methyl methacrylate	Inhalation	Human and animal	Not carcinogenic
Fillers - N.J.T.S. Reg. No. 04499600-6923	Inhalation	Multiple animal species	Not carcinogenic

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
Methyl methacrylate	Inhalation	Not toxic to male reproduction	Mouse	NOAEL 36.9 mg/l	
Methyl methacrylate	Inhalation	Not toxic to development	Rat	NOAEL 8.3 mg/l	during organogenesis
2-Hydroxyethyl methacrylate	Ingestion	Not toxic to female reproduction	Rat	NOAEL 1,000 mg/kg/day	premating & during gestation
2-Hydroxyethyl methacrylate	Ingestion	Not toxic to male reproduction	Rat	NOAEL 1,000 mg/kg/day	49 days
2-Hydroxyethyl methacrylate	Ingestion	Not toxic to development	Rat	NOAEL 1,000 mg/kg/day	premating & during gestation

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

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Methyl methacrylate	Dermal	peripheral nervous system	Some positive data exist, but the data are not sufficient for classification	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	Some positive data exist, but the data are not sufficient for classification	Multiple animal species	NOAEL Not available	14 weeks

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Methyl methacrylate	Inhalation	liver	Some positive data exist, but the	Mouse	NOAEL 12.3	14 weeks
			data are not sufficient for		mg/l	
			classification			
Methyl methacrylate	Inhalation	respiratory system	Some positive data exist, but the	Human	NOAEL Not	occupational
			data are not sufficient for		available	exposure
			classification			
Fillers - N.J.T.S. Reg. No.	Inhalation	pneumoconiosis	Causes damage to organs through	Human	NOAEL NA	occupational
04499600-6923			prolonged or repeated exposure			exposure
Fillers - N.J.T.S. Reg. No.	Inhalation	pulmonary fibrosis	Some positive data exist, but the	Rat	NOAEL Not	
04499600-6923			data are not sufficient for		available	
			classification			

Aspiration Hazard

For the component/components, either no data is currently available or the data is 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 agree with the EU material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 12 are based on UN GHS calculation rules and classifications derived from 3M assessments.

12.1. Toxicity

No product test data available.

Material	CAS Nbr	Organism	Type	Exposure	Test endpoint	Test result
Naphthenic acids, copper salts	1338-02-9	Fish	Experimental	96 hours	LC50	0.00034 mg/l
Naphthenic acids, copper salts	1338-02-9	Water flea	Experimental	48 hours	EC50	0.34 mg/l
2- Hydroxyethyl methacrylate	868-77-9	Water flea	Experimental	48 hours	EC50	380 mg/l
2- Hydroxyethyl methacrylate	868-77-9	Fathead minnow	Experimental	96 hours	LC50	227 mg/l
Methyl methacrylate	80-62-6	Green algae	Experimental	96 hours	EC50	170 mg/l
Methyl methacrylate	80-62-6	Water flea	Experimental	48 hours	EC50	69 mg/l
Methyl methacrylate	80-62-6	Bluegill	Experimental	96 hours	LC50	191 mg/l
2- Hydroxyethyl methacrylate	868-77-9	Green Algae	Experimental	72 hours	EC50	345 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

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Methyl	80-62-6	Water flea	Experimental	21 days	NOEC	37 mg/l
methacrylate						
Acrylonitrile -	9003-18-3		Data not			
butadiene			available or			
polymer			insufficient for			
			classification			
Bisphenol A	41637-38-1		Data not			
dimethacrylate,			available or			
ethoxylated			insufficient for			
			classification			
Dispersing	Trade Secret		Data not			
Agent -			available or			
N.J.T.S. Reg.			insufficient for			
No. 04499600-			classification			
6929						
Fillers -	Trade Secret		Data not			
N.J.T.S. Reg.			available or			
No. 04499600-			insufficient for			
6923			classification			

12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Methyl methacrylate	80-62-6	Estimated Photolysis		Photolytic half- life (in air)	1/2)	Other methods
2- Hydroxyethyl methacrylate	868-77-9	Experimental Hydrolysis		Hydrolytic half-life	10.9 days (t 1/2)	Other methods
Bisphenol A dimethacrylate, ethoxylated	41637-38-1	Calculated Biodegradation	28 days	BOD	38 % weight	OECD 301C - MITI test (I)
Dispersing Agent - N.J.T.S. Reg. No. 04499600- 6929	Trade Secret	Experimental Biodegradation	24 days	CO2 evolution	91 % weight	OECD 301B - Modified sturm or CO2
Naphthenic acids, copper salts	1338-02-9	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Fillers - N.J.T.S. Reg. No. 04499600- 6923	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Acrylonitrile - butadiene polymer	9003-18-3	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
2- Hydroxyethyl methacrylate	868-77-9	Experimental Biodegradation	14 days	BOD	95 % weight	OECD 301C - MITI test (I)
Methyl methacrylate	80-62-6	Experimental Biodegradation	28 days	BOD	88 % weight	OECD 301D - Closed bottle test

12.3 : Bioaccumulative potential

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Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Dispersing Agent - N.J.T.S. Reg. No. 04499600- 6929	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Bisphenol A dimethacrylate, ethoxylated	41637-38-1	Calculated Bioconcentrati on		Bioaccumulati on factor	6.7	Estimated: Bioconcentration factor
Fillers - N.J.T.S. Reg. No. 04499600- 6923	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Acrylonitrile - butadiene polymer	9003-18-3	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
2- Hydroxyethyl methacrylate	868-77-9	Experimental Bioconcentrati on		Log Kow	0.47	Other methods
Naphthenic acids, copper salts	1338-02-9	Experimental Bioconcentrati on		Log Kow	4.1	Other methods
Methyl methacrylate	80-62-6	Experimental Bioconcentrati on		Log Kow	1.38	Other methods

12.4. Mobility in soil

Please contact manufacturer for more details

12.5. Results of the PBT and vPvB assessment

No information available at this time, contact manufacturer for more details

12.6. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

See Section 11.1 Information on toxicological effects

Incinerate uncured product in a permitted waste incineration facility. As a disposal alternative, utilize an acceptable permitted waste disposal 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.

The coding of a waste stream is based on the application of the product by the consumer. Since this is out of the control of 3M, no waste code(s) for products after use will be provided. Please refer to the European Waste Code (EWC - 2000/532/EC and amendments) to assign the correct waste code to your waste stream. Ensure national and/or regional regulations are complied with and always use a licensed waste contractor.

EU waste code (product as sold)

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08 04 09* Waste adhesives and sealants containing organic solvents or other dangerous substances

20 01 27* Paint, inks, adhesives and resins containing dangerous substances

SECTION 14: Transportation information

ADR: UN1133 Adhesives; 3; II; (E); F1. IATA: UN1133 Adhesives; 3; II.

IMDG: UN1133 Adhesives; 3; II; EmS: F-E,S-D

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Carcinogenicity

IngredientCAS NbrClassificationRegulationMethyl methacrylate80-62-6Gr. 3: Not classifiableInternational Agency
for Research on Cancer

Global inventory status

Contact 3M for more information. The components of this material are in compliance with the China "Measures on Environmental Management of New Chemical Substance". Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Australia National Industrial Chemical Notification and Assessment Scheme (NICNAS). Certain restrictions may apply. Contact the selling division for additional information. The components of this product are in compliance with the chemical notification requirements of TSCA.

15.2. Chemical Safety Assessment

Not applicable

SECTION 16: Other information

List of relevant H statements

H226 Flammable liquid and vapour.	
H302 Harmful if swallowed.	
H315 Causes skin irritation.	
H317 May cause an allergic skin reaction.	
H319 Causes serious eye irritation.	
H335 May cause respiratory irritation.	
H400 Very toxic to aquatic life.	

Very toxic to aquatic life with long lasting effects.

List of relevant R-phrases

H410

R10 Flammable.
R11 Highly flammable.
R22 Harmful if swallowed.
R36 Irritating to eyes.

R37 Irritating to respiratory system.

R37/38 Irritating to respiratory system and skin.

R38 Irritating to skin.

R43 May cause sensitisation by skin contact.

R50/53 Very toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

R52 Harmful to aquatic organisms.

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Revision information:

Revision Changes:

Section 01: 1.3. Details of the supplier of the safety data sheet heading information was modified.

Section 3: Composition/ Information of ingredients table information was modified.

Section 2: Indication of danger information information was modified.

Section 12: Persistence and Degradability information information was modified.

Section 12:Bioccumulative potential information information was modified.

Copyright information was modified.

Section 9: Property description for optional properties information was modified.

Label: Signal Word information was modified.

Section 11: Acute Toxicity table information was modified.

Section 11: Serious Eye Damage/Irritation Table information was modified.

Section 11: Additional Health Effects heading information was modified.

Section 11: Skin Sensitization Table information was modified.

Section 11: Skin Corrosion/Irritation Table information was modified.

Section 11: Health Effects - Skin information information was modified.

Section 11: Health Effects - Inhalation information information was modified.

Section 6: Accidental release personal information information was modified.

Section 7: Precautions safe handling information information was modified.

Section 13: Standard Phrase Category Waste GHS information was modified.

Section 11: Prolonged or repeated exposure may cause target organ effects heading information was modified.

Section 2: <125ml Hazard - Health information was modified.

Section 2: <125ml Precautionary - Prevention information was modified.

Label: CLP Percent Unknown information was added.

Label: CLP Percent Unknown information was added.

Section 11: Aspiration Hazard text information was added.

Section 11: Respiratory Sensitization table - Name heading information was added.

Section 11: Respiratory Sensitization table - Species heading information was added.

Section 11: Respiratory Sensitization table - Value heading information was added.

Section 11: Skin Sensitization table - Name heading information was added.

Section 11: Skin Sensitization table - Species heading information was added.

Section 11: Skin Sensitization table - Value heading information was added.

Section 11: Serious Eye Damage/Irritation table - Name heading information was added.

Section 11: Serious Eye Damage/Irritation table - Species heading information was added.

Section 11: Serious Eye Damage/Irritation table - Value heading information was added.

Section 11: Skin Corrosion/Irritation table - Name heading information was added.

Section 11: Skin Corrosion/Irritation table - Species heading information was added.

Section 11: Skin Corrosion/Irritation table - Value heading information was added.

Section 11: Germ Cell Mutagenicity table - Name heading information was added.

Section 11: Germ Cell Mutagenicity table - Route heading information was added.

Section 11: Germ Cell Mutagenicity table - Value heading information was added.

Section 11: Specific Target Organ Toxicity - repeated exposure table - Name heading information was added.

Section 11: Specific Target Organ Toxicity - repeated exposure table - Route heading information was added.

Section 11: Specific Target Organ Toxicity - repeated exposure table - Target Organ(s) heading information was added.

Section 11: Specific Target Organ Toxicity - repeated exposure table - Value heading information was added.

Section 11: Specific Target Organ Toxicity - repeated exposure table - Species heading information was added.

Section 11: Specific Target Organ Toxicity - repeated exposure table - Test Result heading information was added.

Section 11: Specific Target Organ Toxicity - repeated exposure table - Exposure Duration heading information was added.

Section 11: Specific Target Organ Toxicity - single exposure table - Name heading information was added.

Section 11: Specific Target Organ Toxicity - single exposure table - Route heading information was added.

Section 11: Specific Target Organ Toxicity - single exposure table - Target Organ(s) heading information was added.

Section 11: Specific Target Organ Toxicity - single exposure table - Value heading information was added.

Section 11: Specific Target Organ Toxicity - single exposure table - Species heading information was added.

Section 11: Specific Target Organ Toxicity - single exposure table - Test Result heading information was added.

Section 11: Specific Target Organ Toxicity - single exposure table - Exposure Duration heading information was added.

- Section 11: Reproductive and/or Developmental Effects table Name heading information was added.
- Section 11: Reproductive and/or Developmental Effects table Route heading information was added.
- Section 11: Reproductive and/or Developmental Effects table Value heading information was added.
- Section 11: Reproductive and/or Developmental Effects table Species heading information was added.
- Section 11: Reproductive and/or Developmental Effects table Test Result heading information was added.
- Section 11: Reproductive and/or Developmental Effects text information was added.
- Section 11: Carcinogenicity table Name heading information was added.
- Section 11: Carcinogenicity table Route heading information was added.
- Section 11: Carcinogenicity table Species heading information was added.
- Section 11: Carcinogenicity table Value heading information was added.
- Section 8: glove data Material heading information was added.
- Section 8: glove data Thickness heading information was added.
- Section 8: glove data Breakthrough Time heading information was added.
- Section 8: glove data value information was added.
- Section 8: Skin protection recommended gloves information information was deleted.
- Section 11: Exposure Duration table heading information was deleted.
- Section 11: Test Result table heading information was deleted.

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 United Kingdom MSDSs are available at www.3M.com/uk



Safety Data Sheet

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This Safety Data Sheet has been prepared in accordance with the REACH Regulation (EC) 1907/2006 and its modifications.

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

3M(TM) Scotch-Weld(TM) Acrylic Adhesive DP8405NS, Green, Part A

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

Identified uses

Adhesive

1.3. Details of the supplier of the safety data sheet

Address: 3M United Kingdom PLC, 3M Centre, Cain Road, Bracknell, Berkshire, RG12 8HT.

 Telephone:
 +44 (0)1344 858 000

 E Mail:
 tox.uk@mmm.com

 Website:
 www.3M.com/uk

1.4. Emergency telephone number

+44 (0)1344 858 000

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

CLP REGULATION (EC) No 1272/2008

CLASSIFICATION:

Skin Sensitization, Category 1 - Skin Sens. 1; H317

Hazardous to the Aquatic Environment (Chronic), Category 2 - Aquatic Chronic 2; H411

For full text of H phrases, see Section 16.

2.2. Label elements

CLP REGULATION (EC) No 1272/2008

SIGNAL WORD

WARNING.

Symbols:

GHS07 (Exclamation mark) |GHS09 (Environment) |

Pictograms





Ingredient
Tert-butyl 3,5,5-trimethylperoxyhexanoate

CAS Nbr 13122-18-4 % by Wt 0.1 - 10

HAZARD STATEMENTS:

H317 May cause an allergic skin reaction.

H411 Toxic to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS

Prevention:

P280E Wear protective gloves.

P273 Avoid release to the environment.

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.

For containers not exceeding 125 ml the following Hazard and Precautionary statements may be used:

<=125 ml Hazard statements

H317 May cause an allergic skin reaction.

<=125 ml Precautionary statements

Prevention:

P280E Wear protective gloves.

Response:

P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.

Contains 36% of components with unknown hazards to the aquatic environment.

2.3. Other hazards

None known.

SECTION 3: Composition/information on ingredients

Ingredient	CAS Nbr	EU Inventory	% by Wt	Classification
Oxydipropyl dibenzoate	27138-31-4	EINECS 248-	45 - 65	
		258-5		

Styrene, polymer with 1,3-Butadiene,	25101-28-4		10 - 30	
butylacrylate and methyl methacrylate				
Catalyst (NJTS Reg. No. 04499600-6922)	Trade Secret		1 - 15	
Tert-butyl 3,5,5-trimethylperoxyhexanoate	13122-18-4	EINECS 236-	0.1 - 10	Org. Perox. CD, H242; Aquatic
		050-7		Acute 1, H400,M=1; Aquatic
				Chronic 1, H410,M=1 (Vendor)
				Skin Sens. 1B, H317 (Self
				Classified)

Please see section 16 for the full text of any H statements referred to in this section

Please refer to section 15 for any applicable Notas that have been applied to the above components

For information on ingredient occupational exposure limits or PBT or vPvB status, see sections 8 and 12 of this SDS

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

See Section 11.1 Information on toxicological effects

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

Not applicable

SECTION 5: Fire-fighting measures

5.1. 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

Part of the oxygen for combustion is supplied by the peroxide itself.

Hazardous Decomposition or By-Products

Substance

Carbon monoxide. During combustion. Carbon dioxide. During combustion.

5.3. Advice for fire-fighters

No special protective actions for fire-fighters are anticipated.

Condition

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 vapours, in accordance with good industrial hygiene practice. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

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

6.4. Reference to other sections

Refer to Section 8 and Section 13 for more information

SECTION 7: Handling and storage

7.1. Precautions for safe handling

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

7.2. Conditions for safe storage including any incompatibilities

Keep cool. Store away from heat. Store away from acids. Store away from strong bases. Store away from oxidising agents. Store away from amines.

7.3. Specific end use(s)

See information in Section 7.1 and 7.2 for handling and storage recommendations. See Section 8 for exposure controls and personal protection recommendations.

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 Safety Data Sheet.

Biological limit values

No biological limit values exist for any of the components listed in Section 3 of this safety data sheet.

8.2. Exposure controls

8.2.1. Engineering controls

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

8.2.2. Personal protective equipment (PPE)

Eye/face protection

None required.

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:

MaterialThickness (mm)Breakthrough TimePolymer laminateNo data availableNo data available

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 vapours and particulates

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

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state Liquid.
Specific Physical Form: Paste

Appearance/Odour Blue, ester odour **Odour threshold** No data available. рH Not applicable. >=65.6 °C Boiling point/boiling range Melting point Not applicable. Flammability (solid, gas) Not applicable. **Explosive properties** Not classified **Oxidising properties** Not classified

Flash point > 93.3 °C [Test Method:Closed Cup]

Autoignition temperature

Flammable Limits(LEL)

Flammable Limits(UEL)

Vapour pressure

No data available.

No data available.

No data available.

No data available.

Relative density 1.08 [Ref Std: WATER=1]

Water solubility Nil

Solubility- non-waterNo data available.Partition coefficient: n-octanol/waterNo data available.Evaporation rateNo data available.Decomposition temperatureNo data available.Viscosity20 - 25 Pa-sDensity1.08 g/ml

9.2. Other information

Data is not available for other physical and chemical parameters.

SECTION 10: Stability and reactivity

10.1 Reactivity

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

10.2 Chemical stability

Stable.

10.3 Possibility of hazardous reactions

Hazardous polymerisation will not occur.

10.4 Conditions to avoid

Heat.

Sparks and/or flames.

10.5 Incompatible materials

Amines.

Strong acids.

Strong bases.

Strong oxidising 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 agree with the EU material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 11 are based on UN GHS calculation rules and classifications derived from 3M assessments.

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

Contact with the skin during product use is not expected to result in significant irritation. Allergic skin reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

Eye contact

Contact with the eyes during product use is not expected to result in significant irritation.

Ingestion

May be harmful if swallowed.

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	Ingestion		No data available; calculated ATE2,000 - 5,000 mg/kg
Oxydipropyl dibenzoate	Dermal	Rat	LD50 > 2,000 mg/kg
Oxydipropyl dibenzoate	Inhalation- Dust/Mist (4 hours)	Rat	LC50 > 200 mg/l
Oxydipropyl dibenzoate	Ingestion	Rat	LD50 3,295 mg/kg
Styrene, polymer with 1,3-Butadiene, butylacrylate and methyl methacrylate	Ingestion	Rat	LD50 > 5,000 mg/kg
Catalyst (NJTS Reg. No. 04499600-6922)	Dermal	Professio nal judgeme nt	LD50 estimated to be 2,000 - 5,000 mg/kg
Catalyst (NJTS Reg. No. 04499600-6922)	Ingestion	Rat	LD50 > 2,000 mg/kg
Tert-butyl 3,5,5-trimethylperoxyhexanoate	Dermal	Rat	LD50 > 2,000 mg/kg
Tert-butyl 3,5,5-trimethylperoxyhexanoate	Inhalation- Dust/Mist (4 hours)	Rat	LC50 > 0.8 mg/l
Tert-butyl 3,5,5-trimethylperoxyhexanoate	Ingestion	Rat	LD50 12,905 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Oxydipropyl dibenzoate	Rabbit	No significant irritation
Tert-butyl 3,5,5-trimethylperoxyhexanoate	Rabbit	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
Oxydipropyl dibenzoate	Rabbit	No significant irritation
Tert-butyl 3,5,5-trimethylperoxyhexanoate	Rabbit	No significant irritation

Skin Sensitisation

Name	Species	Value
Oxydipropyl dibenzoate	Guinea pig	Not sensitising
Catalyst (NJTS Reg. No. 04499600-6922)	Mouse	Not sensitising
Tert-butyl 3,5,5-trimethylperoxyhexanoate	Guinea	Sensitising
	pig	

Respiratory Sensitisation

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

Germ Cell Mutagenicity

Name	Route	Value
Oxydipropyl dibenzoate	In Vitro	Not mutagenic
Catalyst (NJTS Reg. No. 04499600-6922)	In Vitro	Not mutagenic

Carcinogenicity

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

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
Oxydipropyl dibenzoate	Ingestion	Not toxic to female reproduction	Rat	NOAEL 500 mg/kg/day	2 generation
Oxydipropyl dibenzoate	Ingestion	Not toxic to male reproduction	Rat	NOAEL 400 mg/kg/day	2 generation
Oxydipropyl dibenzoate	Ingestion	Some positive developmental data exist, but the data are not sufficient for classification	Rat	NOAEL 1,000 mg/kg/day	during gestation

Target Organ(s)

Specific Target Organ Toxicity - single exposure

specific 1 miget origin 1 omerty single enjoyate							
Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration	
Catalyst (NJTS Reg. No. 04499600-6922)	Ingestion	nervous system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 2,000 mg/kg		

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Oxydipropyl dibenzoate	Ingestion	hematopoietic	Some positive data exist, but the	Rat	NOAEL	90 days
		system liver	data are not sufficient for		2,500	
			classification		mg/kg/day	

Aspiration Hazard

For the component/components, either no data is currently available or the data is 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 agree with the EU material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 12 are based on UN GHS calculation rules and classifications derived from 3M assessments.

12.1. Toxicity

No product test data available.

Material	CAS Nbr	Organism	Type	Exposure	Test endpoint	Test result
Oxydipropyl dibenzoate	27138-31-4	Water flea	Experimental	48 hours	EC50	19.31 mg/l
Oxydipropyl	27138-31-4	Fathead	Experimental	96 hours	LC50	3.7 mg/l
dibenzoate		minnow				
Oxydipropyl	27138-31-4	Green Algae	Experimental	72 hours	EC50	4.9 mg/l
dibenzoate						
Catalyst (NJTS	Trade Secret		Data not			
Reg. No.			available or			

04499600- 6922)		insufficient for classification		
Styrene, polymer with 1,3-Butadiene, butylacrylate and methyl methacrylate	25101-28-4	Data not available or insufficient for classification		
Tert-butyl 3,5,5- trimethylperox yhexanoate	13122-18-4	Data not available or insufficient for classification		

12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Styrene,	25101-28-4	Data not	N/A	N/A	N/A	N/A
polymer with		available or				
1,3-Butadiene,		insufficient for				
butylacrylate		classification				
and methyl						
methacrylate						
Tert-butyl	13122-18-4	Data not	N/A	N/A	N/A	N/A
3,5,5-		available or				
trimethylperox		insufficient for				
yhexanoate		classification				
Oxydipropyl	27138-31-4	Experimental	28 days	CO2 evolution	85 % weight	OECD 301B - Modified
dibenzoate		Biodegradation				sturm or CO2
Catalyst (NJTS	Trade Secret	Modeled	28 days	BOD	30.6 % weight	OECD 301C - MITI
Reg. No.		Biodegradation				test (I)
04499600-						
6922)						

12.3 : Bioaccumulative potential

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Tert-butyl	13122-18-4	Data not	N/A	N/A	N/A	N/A
3,5,5-		available or				
trimethylperox		insufficient for				
yhexanoate		classification				
Styrene,	25101-28-4	Data not	N/A	N/A	N/A	N/A
polymer with		available or				
1,3-Butadiene,		insufficient for				
butylacrylate		classification				
and methyl						
methacrylate						
Oxydipropyl	27138-31-4	Estimated		Bioaccumulatio	8	Estimated:
dibenzoate		Bioconcentrati		n factor		Bioconcentration factor
		on				
Catalyst (NJTS	Trade Secret	Modeled		Bioaccumulatio	4.84	Other methods
Reg. No.		Bioconcentrati		n factor		
04499600-		on				
6922)						

12.4. Mobility in soil

Please contact manufacturer for more details

12.5. Results of the PBT and vPvB assessment

No information available at this time, contact manufacturer for more details

12.6. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

See Section 11.1 Information on toxicological effects

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

The coding of a waste stream is based on the application of the product by the consumer. Since this is out of the control of 3M, no waste code(s) for products after use will be provided. Please refer to the European Waste Code (EWC - 2000/532/EC and amendments) to assign the correct waste code to your waste stream. Ensure national and/or regional regulations are complied with and always use a licensed waste contractor.

EU waste code (product as sold)

08 04 09* Waste adhesives and sealants containing organic solvents or other dangerous substances

20 01 27* Paint, inks, adhesives and resins containing dangerous substances

SECTION 14: Transportation information

ADR/IATA/IMDG: For transport information please see the kit cover.

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.

15.2. Chemical Safety Assessment

Not applicable

SECTION 16: Other information

List of relevant H statements

H242 Heating may cause a fire.

H317 May cause an allergic skin reaction.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.
 H411 Toxic to aquatic life with long lasting effects.

Revision information:

Section 3: Composition/Information of ingredients table information was modified.

Section 11: Acute Toxicity table information was modified.

Section 11: Germ Cell Mutagenicity Table information was modified.

Section 11: Skin Sensitization Table information was modified.

Section 11: Target Organs - Single 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.

Section 14: Transportation classification information was modified.

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3M United Kingdom MSDSs are available at www.3M.com/uk



Safety Data Sheet

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This Safety Data Sheet has been prepared in accordance with the REACH Regulation (EC) 1907/2006 and its modifications.

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

3M(TM) Scotch-Weld(TM) Acrylic Adhesive DP8405NS, Green, Part B

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

Identified uses

Adhesive

1.3. Details of the supplier of the safety data sheet

Address: 3M United Kingdom PLC, 3M Centre, Cain Road, Bracknell, Berkshire, RG12 8HT.

 Telephone:
 +44 (0)1344 858 000

 E Mail:
 tox.uk@mmm.com

 Website:
 www.3M.com/uk

1.4. Emergency telephone number

+44 (0)1344 858 000

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture CLP REGULATION (EC) No 1272/2008

CLASSIFICATION:

Flammable Liquid, Category 2 - Flam. Liq. 2; H225 Skin Corrosion/Irritation, Category 2 - Skin Irrit. 2; H315 Skin Sensitization, Category 1 - Skin Sens. 1; H317

Specific Target Organ Toxicity-Single Exposure, Category 3 - STOT SE 3; H335 Hazardous to the Aquatic Environment (Acute), Category 1 - Aquatic Acute 1; H400

Hazardous to the Aquatic Environment (Chronic), Category 1 - Aquatic Chronic 1; H410

For full text of H phrases, see Section 16.

Dangerous substances(67/548/EEC)/preparations(1999/45/EC) directive Indication of danger

Highly flammable; F; R11

Irritant; Xi; R37/38 Sensitising; R43

Dangerous for the environment; N; R50/53

For full text of R phrases, see Section 16.

2.2. Label elements

CLP REGULATION (EC) No 1272/2008

SIGNAL WORD

DANGER.

Symbols:

GHS02 (Flame) |GHS07 (Exclamation mark) |GHS09 (Environment) |

Pictograms



Ingredient	CAS Nbr	% by Wt
Methyl methacrylate	80-62-6	45 - 65
2-Hydroxyethyl methacrylate	868-77-9	0.1 - 10

HAZARD STATEMENTS:

H225 Highly flammable liquid and vapour.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction. May cause respiratory irritation. H335

Very toxic to aquatic life with long lasting effects. H410

PRECAUTIONARY STATEMENTS

Prevention:

P210A Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P261A Avoid breathing vapours. P280E Wear protective gloves.

Avoid release to the environment. P273

Response:

P333 + P313If skin irritation or rash occurs: Get medical advice/attention.

P370 + P378GIn 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.

For containers not exceeding 125 ml the following Hazard and Precautionary statements may be used:

<=125 ml Hazard statements

May cause an allergic skin reaction. H317

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<=125 ml Precautionary statements

Prevention:

P280E Wear protective gloves.

Response:

P333 + P313If skin irritation or rash occurs: Get medical advice/attention.

4% of the mixture consists of components of unknown acute oral toxicity.

4% of the mixture consists of components of unknown acute dermal toxicity.

6% of the mixture consists of components of unknown acute inhalation toxicity.

Contains 13% of components with unknown hazards to the aquatic environment.

Dangerous substances(67/548/EEC)/preparations(1999/45/EC) directive

Symbol(s)





Flammable



Irritant

Dangerous for the environment

Contains:

2-Hydroxyethyl methacrylate; Methyl methacrylate

Risk phrases

R11 Highly flammable.

R37/38 Irritating to respiratory system and skin. May cause sensitisation by skin contact. R43

R50/53 Very toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

Safety phrases

Keep away from sources of ignition - No Smoking. S16

Avoid contact with skin. S24 S37 Wear suitable gloves.

S61 Avoid release to the environment. Refer to special instructions/safety data sheets.

Notes on labelling

For containers <125 mL, label with: F, Xi, N; R43 and S24-37.

2.3. Other hazards

None known.

SECTION 3: Composition/information on ingredients

Ingredient	CAS Nbr	EU Inventory	% by Wt	Classification
Methyl methacrylate	80-62-6	EINECS 201- 297-1	45 - 65	F:R11; Xi:R37-38; R43 - Nota D (EU) R52 (Self Classified)
				Flam. Liq. 2, H225; Skin Irrit. 2,

				H315; Skin Sens. 1, H317;
				STOT SE 3, H335 - Nota D
				(CLP)
Fillers - N.J.T.S. Reg. No. 04499600-6923	Trade Secret		1 - 20	
Acrylonitrile - butadiene polymer	9003-18-3		1 - 20	
Bisphenol A dimethacrylate, ethoxylated	41637-38-1		0.1 - 10	
2-Hydroxyethyl methacrylate	868-77-9	EINECS 212- 782-2	0.1 - 10	Xi:R36-38; R43 - Nota D (EU)
				Skin Irrit. 2, H315; Eye Irrit. 2,
				H319; Skin Sens. 1, H317 - Nota
				D (CLP)
Phosphate Esters of PPG Methacrylate -	Trade Secret		0.1 - 5	
N.J.T.S. Reg. No. 04499600-6924				
Dispersing Agent - N.J.T.S. Reg. No. 04499600-6929	Trade Secret		0.1 - 5	
Naphthenic acids, copper salts	1338-02-9	EINECS 215- 657-0	< 0.2	Xn:R22; N:R50/53; R10 (EU)
				Flam. Liq. 3, H226; Acute Tox.
				4, H302 (CLP)
				Aquatic Acute 1, H400,M=1000;
				Aquatic Chronic 1,
				H410,M=1000 (Self Classified)

Please see section 16 for the full text of any R phrases and H statements referred to in this section Please refer to section 15 for the any applicable Notas that have been applied to the above components

For information on ingredient occupational exposure limits or PBT or vPvB status, see sections 8 and 12 of this SDS

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

See Section 11.1 Information on toxicological effects

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

Not applicable

SECTION 5: Fire-fighting measures

5.1. 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
Carbon monoxide.
Carbon dioxide.
Oxides of nitrogen.

Condition

During combustion. During combustion. During combustion.

5.3. Advice 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.

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 vapours, 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 dykes 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. An appropriate aqueous film forming foam (AFFF) is recommended. 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 authorised person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and Safety Data Sheet. Seal the container. Dispose of collected material as soon as possible.

6.4. Reference to other sections

Refer to Section 8 and Section 13 for more information

SECTION 7: Handling and storage

7.1. Precautions for safe handling

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/vapours/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.) Wear low static or properly grounded shoes. To minimize the risk of ignition, determine applicable electrical classifications for the process using this product and select specific local exhaust ventilation equipment to avoid flammable vapour 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 oxidising agents. Store away from amines.

7.3. Specific end use(s)

See information in Section 7.1 and 7.2 for handling and storage recommendations. See Section 8 for exposure controls and personal protection recommendations.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

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

Ingredient CAS Nbr Agency Limit type Additional comments

Methyl methacrylate 80-62-6 UK HSC TWA:208 mg/m3(50

ppm);STEL:416 mg/m3(100

ppm)

Fillers - N.J.T.S. Reg. No. Trade Secret UK HSC TWA (as respirable dust): 2

04499600-6923 mg/m^3

UK HSC: UK Health and Safety Commission

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

CEIL: Ceiling

Biological limit values

No biological limit values exist for any of the components listed in Section 3 of this safety data sheet.

8.2. Exposure controls

8.2.1. Engineering controls

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

Indirect vented goggles.

Skin/hand protection

Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing.

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

MaterialThickness (mm)Breakthrough TimeButyl rubber.No data availableNo data available

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

Pages (of

a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:

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

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

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state Liquid.
Specific Physical Form: Paste

Appearance/Odour White methacrylate odour

Odour thresholdNo data available.pHNot applicable.Boiling point/boiling range>=37.8 °CMelting pointNot applicable.Flammability (solid, gas)Not applicable.Explosive propertiesNot classifiedOxidising propertiesNot classified

Flash point >=10 °C [Test Method:Closed Cup]

Autoignition temperatureNo data available.Flammable Limits(LEL)No data available.Flammable Limits(UEL)No data available.Vapour pressureNo data available.

Relative density 1.07 [*Ref Std*:WATER=1]

Water solubility Nil

Solubility- non-waterNo data available.Partition coefficient: n-octanol/waterNo data available.Evaporation rateNo data available.Decomposition temperatureNo data available.Viscosity50 - 80 Pa-sDensity1.07 g/ml

9.2. Other information

VOC less H2O & exempt solvents
17.2 g/l [Details: when used as intended with Part A]
16 % [Details: when used as intended with Part A]

SECTION 10: Stability and reactivity

10.1 Reactivity

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

10.2 Chemical stability

Stable.

10.3 Possibility of hazardous reactions

Hazardous polymerisation will not occur.

10.4 Conditions to avoid

Heat.

Sparks and/or flames.

10.5 Incompatible materials

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Amines.

Strong acids.

Strong bases.

Strong oxidising 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 agree with the EU material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 11 are based on UN GHS calculation rules and classifications derived from 3M assessments.

11.1 Information on Toxicological effects

Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

Inhalation

Respiratory tract irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. May cause additional health effects (see below).

Skin contact

Mild Skin Irritation: Signs/symptoms may include localised 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 diarrhoea.

Additional Health Effects:

Prolonged or repeated exposure may cause target organ effects:

Pneumoconiosis: Sign/symptoms may include persistent cough, breathlessness, chest pain, increased amounts of sputum, and changes in lung function tests. Olfactory effects: Signs/symptoms may include decreased ability to detect odours and complete loss of smell.

Toxicological Data

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

Acute Toxicity

Acute Toxicity			
Name	Route S	Species	Value
Overall product	Dermal		No data available; calculated ATE >5,000 mg/kg
Overall product	Inhalation-		No data available; calculated ATE >50 mg/l
	Vapor(4 hr)		-
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg

Methyl methacrylate	Dermal	Rabbit	LD50 > 5,000 mg/kg
Methyl methacrylate	Inhalation-	Rat	LC50 29 mg/l
	Vapor (4		
	hours)		
Methyl methacrylate	Ingestion	Rat	LD50 7,900 mg/kg
Acrylonitrile - butadiene polymer	Dermal	Rabbit	LD50 > 15,000 mg/kg
Acrylonitrile - butadiene polymer	Ingestion	Rat	LD50 > 30,000 mg/kg
Bisphenol A dimethacrylate, ethoxylated	Dermal	Professio	LD50 estimated to be > 5,000 mg/kg
		nal	
		judgeme	
		nt	
Bisphenol A dimethacrylate, ethoxylated	Ingestion	Rat	LD50 > 2,000 mg/kg
Fillers - N.J.T.S. Reg. No. 04499600-6923	Dermal		LD50 estimated to be > 5,000 mg/kg
Fillers - N.J.T.S. Reg. No. 04499600-6923	Ingestion	Human	LD50 > 15,000 mg/kg
2-Hydroxyethyl methacrylate	Dermal	Rabbit	LD50 > 5,000 mg/kg
2-Hydroxyethyl methacrylate	Ingestion	Rat	LD50 5,564 mg/kg
Naphthenic acids, copper salts	Dermal		estimated to be > 5,000 mg/kg
Naphthenic acids, copper salts	Inhalation-		estimated to be > 12.5 mg/l
	Dust/Mist		
Naphthenic acids, copper salts	Inhalation-		estimated to be > 50 mg/l
	Vapor		
Naphthenic acids, copper salts	Ingestion		estimated to be 300 - 2,000 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Methyl methacrylate	Human	Mild irritant
	and	
	animal	
Acrylonitrile - butadiene polymer	Professio	No significant irritation
	nal	
	judgemen	
	t	
Fillers - N.J.T.S. Reg. No. 04499600-6923	Professio	No significant irritation
•	nal	
	judgemen	
	t	
2-Hydroxyethyl methacrylate	Rabbit	Minimal irritation

Serious Eve Damage/Irritation

Name	Species	Value
Methyl methacrylate	Rabbit	Moderate irritant
Acrylonitrile - butadiene polymer	Professio nal judgemen t	No significant irritation
Fillers - N.J.T.S. Reg. No. 04499600-6923	Professio nal judgemen t	No significant irritation
2-Hydroxyethyl methacrylate	Rabbit	Moderate irritant

Skin Sensitisation

Name	Species	Value
Methyl methacrylate	Human	Sensitising
	and	
	animal	
Bisphenol A dimethacrylate, ethoxylated	Guinea	Not sensitising
	pig	
2-Hydroxyethyl methacrylate	Human	Sensitising
	and	
	animal	

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Respiratory Sensitisation

Name	Species	Value
Methyl methacrylate	Human	Some positive data exist, but the data are not sufficient for classification

Germ Cell Mutagenicity

Germ Cen Fratagementy							
Name	Route	Value					
Methyl methacrylate	In vivo	Not mutagenic					
Methyl methacrylate	In Vitro	Some positive data exist, but the data are not sufficient for classification					
Bisphenol A dimethacrylate, ethoxylated	In Vitro	Not mutagenic					
2-Hydroxyethyl methacrylate	In vivo	Not mutagenic					
2-Hydroxyethyl methacrylate	In Vitro	Some positive data exist, but the data are not sufficient for classification					

Carcinogenicity

Name	Route	Species	Value
Methyl methacrylate	Ingestion	Rat	Not carcinogenic
Methyl methacrylate	Inhalation	Human and animal	Not carcinogenic
Fillers - N.J.T.S. Reg. No. 04499600-6923	Inhalation	Multiple animal species	Not carcinogenic

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
Methyl methacrylate	Inhalation	Not toxic to male reproduction	Mouse	NOAEL 36.9 mg/l	
Methyl methacrylate	Inhalation	Not toxic to development	Rat	NOAEL 8.3 mg/l	during organogenesis
2-Hydroxyethyl methacrylate	Ingestion	Not toxic to female reproduction	Rat	NOAEL 1,000 mg/kg/day	premating & during gestation
2-Hydroxyethyl methacrylate	Ingestion	Not toxic to male reproduction	Rat	NOAEL 1,000 mg/kg/day	49 days
2-Hydroxyethyl methacrylate	Ingestion	Not toxic to development	Rat	NOAEL 1,000 mg/kg/day	premating & during gestation

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

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Methyl methacrylate	Dermal	peripheral nervous system	Some positive data exist, but the data are not sufficient for classification	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	Some positive data exist, but the data are not sufficient for classification	Multiple animal species	NOAEL Not available	14 weeks

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Methyl methacrylate	Inhalation	liver	Some positive data exist, but the		NOAEL 12.3	14 weeks
			data are not sufficient for		mg/l	
			classification			
Methyl methacrylate	Inhalation	respiratory system	Some positive data exist, but the	Human	NOAEL Not	occupational
			data are not sufficient for		available	exposure
			classification			
Fillers - N.J.T.S. Reg. No.	Inhalation	pneumoconiosis	Causes damage to organs through	Human	NOAEL NA	occupational
04499600-6923			prolonged or repeated exposure			exposure
Fillers - N.J.T.S. Reg. No.	Inhalation	pulmonary fibrosis	Some positive data exist, but the	Rat	NOAEL Not	
04499600-6923			data are not sufficient for		available	
			classification			

Aspiration Hazard

For the component/components, either no data is currently available or the data is 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 agree with the EU material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 12 are based on UN GHS calculation rules and classifications derived from 3M assessments.

12.1. Toxicity

No product test data available.

Material	CAS Nbr	Organism	Type	Exposure	Test endpoint	Test result
Naphthenic acids, copper salts	1338-02-9	Fish	Experimental	96 hours	LC50	0.00034 mg/l
Naphthenic acids, copper salts	1338-02-9	Water flea	Experimental	48 hours	EC50	0.34 mg/l
2- Hydroxyethyl methacrylate	868-77-9	Water flea	Experimental	48 hours	EC50	380 mg/l
2- Hydroxyethyl methacrylate	868-77-9	Fathead minnow	Experimental	96 hours	LC50	227 mg/l
Methyl methacrylate	80-62-6	Green algae	Experimental	96 hours	EC50	170 mg/l
Methyl methacrylate	80-62-6	Water flea	Experimental	48 hours	EC50	69 mg/l
Methyl methacrylate	80-62-6	Bluegill	Experimental	96 hours	LC50	191 mg/l
2- Hydroxyethyl methacrylate	868-77-9	Green Algae	Experimental	72 hours	EC50	345 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

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Methyl	80-62-6	Water flea	Experimental	21 days	NOEC	37 mg/l
methacrylate						
Acrylonitrile -	9003-18-3		Data not			
butadiene			available or			
polymer			insufficient for			
			classification			
Bisphenol A	41637-38-1		Data not			
dimethacrylate,			available or			
ethoxylated			insufficient for			
			classification			
Dispersing	Trade Secret		Data not			
Agent -			available or			
N.J.T.S. Reg.			insufficient for			
No. 04499600-			classification			
6929						
Fillers -	Trade Secret		Data not			
N.J.T.S. Reg.			available or			
No. 04499600-			insufficient for			
6923			classification			

12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Methyl methacrylate	80-62-6	Estimated Photolysis		Photolytic half- life (in air)	1/2)	Other methods
2- Hydroxyethyl methacrylate	868-77-9	Experimental Hydrolysis		Hydrolytic half-life	10.9 days (t 1/2)	Other methods
Bisphenol A dimethacrylate, ethoxylated	41637-38-1	Calculated Biodegradation	28 days	BOD	38 % weight	OECD 301C - MITI test (I)
Dispersing Agent - N.J.T.S. Reg. No. 04499600- 6929	Trade Secret	Experimental Biodegradation	24 days	CO2 evolution	91 % weight	OECD 301B - Modified sturm or CO2
Naphthenic acids, copper salts	1338-02-9	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Fillers - N.J.T.S. Reg. No. 04499600- 6923	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Acrylonitrile - butadiene polymer	9003-18-3	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
2- Hydroxyethyl methacrylate	868-77-9	Experimental Biodegradation	14 days	BOD	95 % weight	OECD 301C - MITI test (I)
Methyl methacrylate	80-62-6	Experimental Biodegradation	28 days	BOD	88 % weight	OECD 301D - Closed bottle test

12.3 : Bioaccumulative potential

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Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Dispersing Agent - N.J.T.S. Reg. No. 04499600- 6929	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Bisphenol A dimethacrylate, ethoxylated	41637-38-1	Calculated Bioconcentrati on		Bioaccumulati on factor	6.7	Estimated: Bioconcentration factor
Fillers - N.J.T.S. Reg. No. 04499600- 6923	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Acrylonitrile - butadiene polymer	9003-18-3	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
2- Hydroxyethyl methacrylate	868-77-9	Experimental Bioconcentrati on		Log Kow	0.47	Other methods
Naphthenic acids, copper salts	1338-02-9	Experimental Bioconcentrati on		Log Kow	4.1	Other methods
Methyl methacrylate	80-62-6	Experimental Bioconcentrati on		Log Kow	1.38	Other methods

12.4. Mobility in soil

Please contact manufacturer for more details

12.5. Results of the PBT and vPvB assessment

No information available at this time, contact manufacturer for more details

12.6. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

See Section 11.1 Information on toxicological effects

Incinerate uncured product in a permitted waste incineration facility. As a disposal alternative, utilize an acceptable permitted waste disposal 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.

The coding of a waste stream is based on the application of the product by the consumer. Since this is out of the control of 3M, no waste code(s) for products after use will be provided. Please refer to the European Waste Code (EWC - 2000/532/EC and amendments) to assign the correct waste code to your waste stream. Ensure national and/or regional regulations are complied with and always use a licensed waste contractor.

EU waste code (product as sold)

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08 04 09* Waste adhesives and sealants containing organic solvents or other dangerous substances

20 01 27* Paint, inks, adhesives and resins containing dangerous substances

SECTION 14: Transportation information

ADR: UN1133 Adhesives; 3; II; (E); F1. IATA: UN1133 Adhesives; 3; II.

IMDG: UN1133 Adhesives; 3; II; EmS: F-E,S-D

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Carcinogenicity

IngredientCAS NbrClassificationRegulationMethyl methacrylate80-62-6Gr. 3: Not classifiableInternational Agency
for Research on Cancer

Global inventory status

Contact 3M for more information. The components of this material are in compliance with the China "Measures on Environmental Management of New Chemical Substance". Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Australia National Industrial Chemical Notification and Assessment Scheme (NICNAS). Certain restrictions may apply. Contact the selling division for additional information. The components of this product are in compliance with the chemical notification requirements of TSCA.

15.2. Chemical Safety Assessment

Not applicable

SECTION 16: Other information

List of relevant H statements

Highly flammable liquid and vapour.
Flammable liquid and vapour.
Harmful if swallowed.
Causes skin irritation.
May cause an allergic skin reaction.
Causes serious eye irritation.
May cause respiratory irritation.
Very toxic to aquatic life.

Very toxic to aquatic life with long lasting effects.

List of relevant R-phrases

H410

R10 Flammable.
R11 Highly flammable.
R22 Harmful if swallowed.
R36 Irritating to eyes.

R37 Irritating to respiratory system.

R37/38 Irritating to respiratory system and skin.

R38 Irritating to skin.

R43 May cause sensitisation by skin contact.

R50/53 Very toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

R52 Harmful to aquatic organisms.

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Revision information:

Revision Changes:

Section 01: 1.3. Details of the supplier of the safety data sheet heading information was modified.

Section 3: Composition/ Information of ingredients table information was modified.

Section 2: Indication of danger information information was modified.

Section 12: Persistence and Degradability information information was modified.

Section 12:Bioccumulative potential information information was modified.

Copyright information was modified.

Section 9: Property description for optional properties information was modified.

Label: Signal Word information was modified.

Section 11: Acute Toxicity table information was modified.

Section 11: Serious Eye Damage/Irritation Table information was modified.

Section 11: Additional Health Effects heading information was modified.

Section 11: Skin Sensitization Table information was modified.

Section 11: Skin Corrosion/Irritation Table information was modified.

Section 11: Health Effects - Skin information information was modified.

Section 11: Health Effects - Inhalation information information was modified.

Section 6: Accidental release personal information information was modified.

Section 7: Precautions safe handling information information was modified.

Section 13: Standard Phrase Category Waste GHS information was modified.

Section 11: Prolonged or repeated exposure may cause target organ effects heading information was modified.

Section 2: <125ml Hazard - Health information was modified.

Section 2: <125ml Precautionary - Prevention information was modified.

Label: CLP Percent Unknown information was added.

Label: CLP Percent Unknown information was added.

Section 11: Aspiration Hazard text information was added.

Section 11: Respiratory Sensitization table - Name heading information was added.

Section 11: Respiratory Sensitization table - Species heading information was added.

Section 11: Respiratory Sensitization table - Value heading information was added.

Section 11: Skin Sensitization table - Name heading information was added.

Section 11: Skin Sensitization table - Species heading information was added.

Section 11: Skin Sensitization table - Value heading information was added.

Section 11: Serious Eye Damage/Irritation table - Name heading information was added.

Section 11: Serious Eye Damage/Irritation table - Species heading information was added.

Section 11: Serious Eye Damage/Irritation table - Value heading information was added.

Section 11: Skin Corrosion/Irritation table - Name heading information was added.

Section 11: Skin Corrosion/Irritation table - Species heading information was added.

Section 11: Skin Corrosion/Irritation table - Value heading information was added. Section 11: Germ Cell Mutagenicity table - Name heading information was added.

Section 11: Germ Cell Mutagenicity table - Route heading information was added.

Section 11. Germ Cen wutagementy table - Notice heading information was added.

Section 11: Germ Cell Mutagenicity table - Value heading information was added.

Section 11: Specific Target Organ Toxicity - repeated exposure table - Name heading information was added.

Section 11: Specific Target Organ Toxicity - repeated exposure table - Route heading information was added.

Section 11: Specific Target Organ Toxicity - repeated exposure table - Target Organ(s) heading information was added.

Section 11: Specific Target Organ Toxicity - repeated exposure table - Value heading information was added.

Section 11: Specific Target Organ Toxicity - repeated exposure table - Species heading information was added.

Section 11: Specific Target Organ Toxicity - repeated exposure table - Test Result heading information was added.

Section 11: Specific Target Organ Toxicity - repeated exposure table - Exposure Duration heading information was added.

Section 11: Specific Target Organ Toxicity - single exposure table - Name heading information was added.

Section 11: Specific Target Organ Toxicity - single exposure table - Route heading information was added.

Section 11: Specific Target Organ Toxicity - single exposure table - Target Organ(s) heading information was added.

Section 11: Specific Target Organ Toxicity - single exposure table - Value heading information was added.

Section 11: Specific Target Organ Toxicity - single exposure table - Species heading information was added.

Section 11: Specific Target Organ Toxicity - single exposure table - Test Result heading information was added.

Section 11: Specific Target Organ Toxicity - single exposure table - Exposure Duration heading information was added.

- Section 11: Reproductive and/or Developmental Effects table Name heading information was added.
- Section 11: Reproductive and/or Developmental Effects table Route heading information was added.
- Section 11: Reproductive and/or Developmental Effects table Value heading information was added.
- Section 11: Reproductive and/or Developmental Effects table Species heading information was added.
- Section 11: Reproductive and/or Developmental Effects table Test Result heading information was added.
- Section 11: Reproductive and/or Developmental Effects text information was added.
- Section 11: Carcinogenicity table Name heading information was added.
- Section 11: Carcinogenicity table Route heading information was added.
- Section 11: Carcinogenicity table Species heading information was added.
- Section 11: Carcinogenicity table Value heading information was added.
- Section 8: glove data Material heading information was added.
- Section 8: glove data Thickness heading information was added.
- Section 8: glove data Breakthrough Time heading information was added.
- Section 8: glove data value information was added.
- Section 8: Skin protection recommended gloves information information was deleted.
- Section 11: Exposure Duration table heading information was deleted.
- Section 11: Test Result table heading information was deleted.

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 United Kingdom MSDSs are available at www.3M.com/uk

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