Safety Data Sheet

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Document group:	41-7884-4	**Version number:**	2.01
Revision date:	24/07/2024	**Supersedes date:**	25/06/2024
Transportation version number:			

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™ Scotch-Weld™ Low Odor Acrylic Adhesive DP8710NS, Black, Kit

Product Identification Numbers

62-2870-1445-0	62-2870-3630-5	62-2870-5030-6
7100233348	7100233349	7100291547

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 Ireland Limited, The Iveagh Building, The Park, Carrickmines, Dublin 18.
Telephone: +353 1 280 3555
E Mail: tox.uk@mmm.com

Website: www.3M.com

1.4. Emergency telephone number
Emergency medical information: 8am-10pm (seven days) contact National Poisons Information Centre, Beaumont Hospital, Dublin 9 DOV2NO, Ireland. Telephone Number: +353 (0)1 809 2166

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:

41-7883-6, 41-7837-2

TRANSPORTATION INFORMATION

Refer to section 14 of the kit components for transport information.

KIT LABEL

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

CLASSIFICATION:
Skin Corrosion/Irritation, Category 2 - Skin Irrit. 2; H315
Serious Eye Damage/Eye Irritation, Category 2 - Eye Irrit. 2; H319
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 (Chronic), Category 3 - Aquatic Chronic 3; H412

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) |

Pictograms

Contains:
2-hydroxyethyl methacrylate; mequinol; CYCLOHEXYL METHACRYLATE; hydroxypropyl methacrylate; dodecyl methacrylate; methyl methacrylate; Tert-butyl 3,5,5-trimethylperoxyhexanoate.

HAZARD STATEMENTS:

H315	Causes skin irritation.
H319	Causes serious eye irritation.
H317	May cause an allergic skin reaction.
H335	May cause respiratory irritation.
H412	Harmful to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS

Prevention:

P261A	Avoid breathing vapours.
P280E	Wear protective gloves.

Response:

P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.

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

Revision information:
Kit: Component document group number(s) information was modified.

Safety Data Sheet

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Document group:	41-7883-6	**Version number:**	3.00
Revision date:	26/07/2024	**Supersedes date:**	01/03/2023

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™ Scotch-Weld™ Low Odor Acrylic Adhesive DP8710NS, Black, 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 Ireland Limited, The Iveagh Building, The Park, Carrickmines, Dublin 18.
Telephone:	+353 1 280 3555
E Mail:	tox.uk@mmm.com
Website:	www.3M.com

1.4. Emergency telephone number
Emergency medical information: 8am-10pm (seven days) contact National Poisons Information Centre, Beaumont Hospital, Dublin 9 DOV2NO, Ireland. Telephone Number: +353 (0)1 809 2166

SECTION 2: Hazard identification

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

The health and environmental classifications of this material have been derived using the calculation method, except in cases where test data are available or the physical form impacts classification. Classification(s) based on test data or physical form are noted below, if applicable.

CLASSIFICATION:
Skin Sensitization, Category 1 - Skin Sens. 1; H317
Hazardous to the Aquatic Environment (Chronic), Category 3 - Aquatic Chronic 3; H412

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) |

Pictograms

Ingredients:

Ingredient	CAS Nbr	EC No.	% by Wt
Tert-butyl 3,5,5-trimethylperoxyhexanoate	13122-18-4	236-050-7	0.1 - 10

HAZARD STATEMENTS:

H317	May cause an allergic skin reaction.
H412	Harmful to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS

Prevention:

P280E	Wear protective gloves.

Response:

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

11% of the mixture consists of components of unknown acute oral toxicity.

Contains 45% of components with unknown hazards to the aquatic environment.

2.3. Other hazards

None known.
This material does not contain any substances that are assessed to be a PBT or vPvB

SECTION 3: Composition/information on ingredients

3.1. Substances
Not applicable

3.2. Mixtures

Ingredient	Identifier(s)	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Oxydipropyl dibenzoate	(CAS-No.) 27138-31-4 (EC-No.) 248-258-5	45 - 65	Aquatic Chronic 3, H412
Styrene, polymer with 1,3-Butadiene, butylacrylate and methyl methacrylate	(CAS-No.) 25101-28-4	10 - 30	Substance not classified as hazardous

Catalyst.	Trade Secret	1 - 20	Substance not classified as hazardous
reaction mass of: cis-1,4-dimethylcyclohexyl dibenzoate	None	< 11	Substance not classified as hazardous
Tert-butyl 3,5,5-trimethylperoxyhexanoate	(CAS-No.) 13122-18-4 (EC-No.) 236-050-7	0.1 - 10	Org. Perox. CD, H242 Skin Sens. 1B, H317 Aquatic Acute 1, H400,M=1 Aquatic Chronic 3, H412

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

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
If exposed, flush eyes with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms develop, 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
The most important symptoms and effects based on the CLP classification include:
Allergic skin reaction (redness, swelling, blistering, and itching).

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

SECTION 5: Fire-fighting measures

5.1. 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
None inherent in this product.

Hazardous Decomposition or By-Products

Substance	Condition
Carbon monoxide	During combustion.
Carbon dioxide.	During combustion.

5.3. Advice for fire-fighters
Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Evacuate area. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust 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
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
For industrial/occupational use only. Not for consumer sale or use. Avoid breathing dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.)

7.2. Conditions for safe storage including any incompatibilities
Protect from sunlight. Store away from heat. Store away from acids. Store away from strong bases. Store away from oxidising agents. Store in a dry place. 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.
Gloves made from the following material(s) are recommended:

Material	Thickness (mm)	Breakthrough Time
Butyl rubber.	No data available	No data available
Neoprene.	No data available	No data available

Applicable Norms/Standards
Use gloves tested to EN 374

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 – Butyl rubber Neoprene apron.

Respiratory protection
None required.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid.
Specific Physical Form:	Paste
Colour	Grey
Odor	Mild Hydrocarbon
Odour threshold	*No data available.*
Melting point/freezing point	*Not applicable.*
Boiling point/boiling range	>=65.6 ºC
Flammability	Not applicable.
Flammable Limits(LEL)	*No data available.*
Flammable Limits(UEL)	*No data available.*
Flash point	> 93.3 ºC [*Test Method:*Closed Cup]
Autoignition temperature	*No data available.*
Decomposition temperature	*No data available.*
pH	*substance/mixture is non-soluble (in water)*
Kinematic Viscosity	18,500 mm²/sec
Water solubility	Nil
Solubility- non-water	*No data available.*
Partition coefficient: n-octanol/water	*No data available.*
Vapour pressure	*No data available.*
Density	1.08 g/ml
Relative density	1.08 [*Ref Std:*WATER=1]
Relative Vapour Density	*No data available.*
Particle Characteristics	*Not applicable.*

9.2. Other information

9.2.2 Other safety characteristics

EU Volatile Organic Compounds	*No data available.*
Evaporation rate	*No data available.*
Molecular weight	*Not applicable.*
Percent volatile	< 6

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 internal hazard assessments.

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Signs and Symptoms of Exposure

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

Inhalation
This product may have a characteristic odour; however, no adverse health effects are anticipated.

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	Dermal		No data available; calculated ATE >5,000 mg/kg
Overall product	Ingestion		No data available; calculated ATE >2,000 - =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	Dermal		LD50 estimated to be > 5,000 mg/kg
Styrene, polymer with 1,3-Butadiene, butylacrylate and methyl methacrylate	Ingestion	Rat	LD50 > 5,000 mg/kg
Catalyst.	Dermal	Professional judgement	LD50 estimated to be 2,000 - 5,000 mg/kg
Catalyst.	Ingestion	Rat	LD50 > 2,000 mg/kg
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 classified
Catalyst.	Mouse	Not classified
Tert-butyl 3,5,5-trimethylperoxyhexanoate	Guinea pig	Sensitising

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.	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 classified for female reproduction	Rat	NOAEL 500 mg/kg/day	2 generation
Oxydipropyl dibenzoate	Ingestion	Not classified for male reproduction	Rat	NOAEL 400 mg/kg/day	2 generation
Oxydipropyl dibenzoate	Ingestion	Not classified for development	Rat	NOAEL 1,000 mg/kg/day	during gestation

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Catalyst.	Ingestion	nervous system	Not classified	Rat	NOAEL 2,000 mg/kg	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Oxydipropyl dibenzoate	Ingestion	hematopoietic system | liver	Not classified	Rat	NOAEL 2,500 mg/kg/day	90 days

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.

11.2. Information on other hazards

This material does not contain any substances that are assessed to be an endocrine disruptor for human health.

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 #	Organism	Type	Exposure	Test endpoint	Test result
Oxydipropyl dibenzoate	27138-31-4	Fathead minnow	Experimental	96 hours	LC50	3.7 mg/l
Oxydipropyl dibenzoate	27138-31-4	Green algae	Experimental	72 hours	EL50	4.9 mg/l
Oxydipropyl dibenzoate	27138-31-4	Water flea	Experimental	48 hours	EL50	19.31 mg/l
Oxydipropyl dibenzoate	27138-31-4	Green algae	Experimental	72 hours	EC10	0.89 mg/l
Styrene, polymer with 1,3-Butadiene, butylacrylate and methyl methacrylate	25101-28-4	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
Catalyst.	Trade Secret	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
Tert-butyl 3,5,5-trimethylperoxyhexanoate	13122-18-4	Green algae	Experimental	72 hours	ErC50	0.51 mg/l
Tert-butyl 3,5,5-trimethylperoxyhexanoate	13122-18-4	Rainbow trout	Experimental	96 hours	LC50	7.03 mg/l
Tert-butyl 3,5,5-trimethylperoxyhexanoate	13122-18-4	Water flea	Experimental	48 hours	EC50	>100 mg/l
Tert-butyl 3,5,5-trimethylperoxyhexanoate	13122-18-4	Green algae	Experimental	72 hours	NOEC	0.125 mg/l
Tert-butyl 3,5,5-trimethylperoxyhexanoate	13122-18-4	Water flea	Experimental	21 days	NOEC	0.22 mg/l
Tert-butyl 3,5,5-trimethylperoxyhexanoate	13122-18-4	Activated sludge	Experimental	3 hours	EC50	327.02 mg/l

12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Oxydipropyl dibenzoate	27138-31-4	Experimental Biodegradation	28 days	CO2 evolution	85 %CO2 evolution/THCO2 evolution	OECD 301B - Modified sturm or CO2
Styrene, polymer with 1,3-Butadiene, butylacrylate and methyl methacrylate	25101-28-4	Data not availbl-insufficient	N/A	N/A	N/A	N/A
Catalyst.	Trade Secret	Experimental Biodegradation	28 days	CO2 evolution	29.1 %CO2 evolution/THCO2 evolution	OECD 301B - Modified sturm or CO2
Catalyst.	Trade Secret	Estimated Photolysis		Photolytic half-life (in air)	1.48 days (t 1/2)	
Tert-butyl 3,5,5-trimethylperoxyhexanoate	13122-18-4	Experimental Biodegradation	28 days	BOD	72 %BOD/ThOD	OECD 301D - Closed bottle test
Tert-butyl 3,5,5-trimethylperoxyhexanoate	13122-18-4	Experimental Aquatic Inherent Biodegrad.	56 days	BOD	58 %BOD/ThOD	OECD 302A - Modified SCAS Test
Tert-butyl 3,5,5-trimethylperoxyhexanoate	13122-18-4	Experimental Hydrolysis		Hydrolytic half-life (pH 7)	51 hours (t 1/2)	OECD 111 Hydrolysis func of pH

12.3 : Bioaccumulative potential

Material	Cas No.	Test type	Duration	Study Type	Test result	Protocol

Oxydipropyl dibenzoate	27138-31-4	Modeled Bioconcentration		Bioaccumulation factor	8	Catalogic™
Styrene, polymer with 1,3-Butadiene, butylacrylate and methyl methacrylate	25101-28-4	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Catalyst.	Trade Secret	Experimental Bioconcentration		Log Kow	2.57	
Tert-butyl 3,5,5-trimethylperoxyhexanoate	13122-18-4	Modeled Bioconcentration		Bioaccumulation factor	380	Catalogic™
Tert-butyl 3,5,5-trimethylperoxyhexanoate	13122-18-4	Experimental Bioconcentration		Log Kow	5.16	OECD 117 log Kow HPLC method

12.4. Mobility in soil

Material	Cas No.	Test type	Study Type	Test result	Protocol
Catalyst.	Trade Secret	Estimated Mobility in Soil	Koc	<270 l/kg	ACD/Labs ChemSketch™
Tert-butyl 3,5,5-trimethylperoxyhexanoate	13122-18-4	Modeled Mobility in Soil	Koc	3,550 l/kg	Episuite™

12.5. Results of the PBT and vPvB assessment

This material does not contain any substances that are assessed to be a PBT or vPvB

12.6. Endocrine disrupting properties

This material does not contain any substances that are assessed to be an endocrine disruptor for environmental effects

12.7. Other adverse effects
No information available.

SECTION 13: Disposal considerations

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

Dispose of completely cured (or polymerized) material in a permitted industrial waste facility. As a disposal alternative, incinerate uncured product in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. 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

Not hazardous for transportation.

	Ground Transport (ADR)	Air Transport (IATA)	Marine Transport (IMDG)
14.1 UN number or ID number	No data available.	No data available.	No data available.
14.2 UN proper shipping name	No data available.	No data available.	No data available.
14.3 Transport hazard class(es)	No data available.	No data available.	No data available.
14.4 Packing group	No data available.	No data available.	No data available.
14.5 Environmental hazards	No data available.	No data available.	No data available.
14.6 Special precautions for user	Please refer to the other sections of the SDS for further information.	Please refer to the other sections of the SDS for further information.	Please refer to the other sections of the SDS for further information.
14.7 Marine Transport in bulk according to IMO instruments	No data available.	No data available.	No data available.
Control Temperature	No data available.	No data available.	No data available.
Emergency Temperature	No data available.	No data available.	No data available.
ADR Classification Code	No data available.	No data available.	No data available.
IMDG Segregation Code	No data available.	No data available.	No data available.

Please contact the address or phone number listed on the first page of the SDS for additional information on the transport/shipment of the material by rail (RID) or inland waterways (ADN).

SECTION 15: Regulatory information

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

Global inventory status
Contact 3M for more information. The components of this product are in compliance with the chemical notification requirements of TSCA. All required components of this product are listed on the active portion of the TSCA Inventory.

DIRECTIVE 2012/18/EU
Seveso hazard categories, Annex 1, Part 1

Hazard Categories	Qualifying quantity (tonnes) for the application of	
	Lower-tier requirements	Upper-tier requirements
E2 Hazardous to the Aquatic environment	200	500

Seveso named dangerous substances, Annex 1, Part 2
None

Regulation (EU) No 649/2012
No chemicals listed

15.2. Chemical Safety Assessment
A chemical safety assessment has not been carried out for this substance/mixture in accordance with Regulation (EC) No 1907/2006, as amended.

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.
H412	Harmful to aquatic life with long lasting effects.

Revision information:
Label: CLP Classification information was modified.
Label: CLP Environmental Hazard Statements information was modified.
Label: CLP Percent Unknown information was added.
Label: CLP Percent Unknown information was modified.
Label: CLP Precautionary - Prevention information was modified.
Label: CLP Precautionary - Response information was modified.
Label: Graphic information was modified.
Section 3: Composition/ Information of ingredients table information was modified.
Section 9: Flammability (solid, gas) information information was deleted.
Section 09: Flammability information information was added.
Section 09: Odor information was modified.
Section 09: Particle Characteristics N/A information was added.
Section 12: Component ecotoxicity information information was modified.
Section 12: Mobility in soil information information was modified.
Section 12: Persistence and Degradability information information was modified.
Section 12:Bioccumulative potential information information was modified.
Two-column table displaying the unique list of H Codes and statements (std phrases) for all components of the given material. information was modified.

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3M Ireland MSDSs are available at www.3M.com

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™ Scotch-Weld™ Low Odor Acrylic Adhesive DP8710NS, Black, 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 Ireland Limited, The Iveagh Building, The Park, Carrickmines, Dublin 18.
Telephone:	+353 1 280 3555
E Mail:	tox.uk@mmm.com
Website:	www.3M.com

1.4. Emergency telephone number
Emergency medical information: 8am-10pm (seven days) contact National Poisons Information Centre, Beaumont Hospital, Dublin 9 DOV2NO, Ireland. Telephone Number: +353 (0)1 809 2166

SECTION 2: Hazard identification

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

The health and environmental classifications of this material have been derived using the calculation method, except in cases where test data are available or the physical form impacts classification. Classification(s) based on test data or physical form are noted below, if applicable.

CLASSIFICATION:
Skin Corrosion/Irritation, Category 2 - Skin Irrit. 2; H315
Serious Eye Damage/Eye Irritation, Category 2 - Eye Irrit. 2; H319
Skin Sensitization, Category 1 - Skin Sens. 1; H317
Specific Target Organ Toxicity-Single Exposure, Category 3 - STOT SE 3; H335

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) |

Pictograms

Ingredients:

Ingredient	CAS Nbr	EC No.	% by Wt
2-hydroxyethyl methacrylate	868-77-9	212-782-2	25 - 50
CYCLOHEXYL METHACRYLATE	101-43-9	202-943-5	1 - 15
dodecyl methacrylate	142-90-5	205-570-6	1 - 15
hydroxypropyl methacrylate	27813-02-1	248-666-3	0.1 - 5
mequinol	150-76-5	205-769-8	< 1
methyl methacrylate	80-62-6	201-297-1	< 1

HAZARD STATEMENTS:

H315	Causes skin irritation.
H319	Causes serious eye irritation.
H317	May cause an allergic skin reaction.
H335	May cause respiratory irritation.

PRECAUTIONARY STATEMENTS

Prevention:

P261A	Avoid breathing vapours.
P280E	Wear protective gloves.

Response:

P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.

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.

15% of the mixture consists of components of unknown acute oral toxicity.

Contains 22% of components with unknown hazards to the aquatic environment.

2.3. Other hazards

None known.
This material does not contain any substances that are assessed to be a PBT or vPvB

SECTION 3: Composition/information on ingredients

3.1. Substances
Not applicable

3.2. Mixtures

Ingredient	Identifier(s)	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
2-hydroxyethyl methacrylate	(CAS-No.) 868-77-9 (EC-No.) 212-782-2	25 - 50	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Nota D
Acrylonitrile - butadiene polymer	(CAS-No.) 9003-18-3	1 - 20	Substance not classified as hazardous
Kaolin	(CAS-No.) 1332-58-7 (EC-No.) 310-194-1	0.1 - 20	Substance with a national occupational exposure limit
CYCLOHEXYL METHACRYLATE	(CAS-No.) 101-43-9 (EC-No.) 202-943-5	1 - 15	Eye Irrit. 2, H319 STOT SE 3, H335 Skin Sens. 1, H317
dodecyl methacrylate	(CAS-No.) 142-90-5 (EC-No.) 205-570-6	1 - 15	STOT SE 3, H335
Polymeric Methacrylate	Trade Secret	3 - 15	Substance not classified as hazardous
Acrylic copolymer	Trade Secret	<= 10	Substance not classified as hazardous
Urethane Acrylate Oligomer	Trade Secret	0.1 - 5	Substance not classified as hazardous
MYRISTYL METHACRYLATE	(CAS-No.) 2549-53-3 (EC-No.) 219-835-9	1 - 5	Substance not classified as hazardous
HEXADECYL METHACRYLATE	(CAS-No.) 2495-27-4 (EC-No.) 219-672-3	0.1 - 5	Substance not classified as hazardous
hydroxypropyl methacrylate	(CAS-No.) 27813-02-1 (EC-No.) 248-666-3	0.1 - 5	Eye Irrit. 2, H319 Skin Sens. 1, H317
Siloxanes and Silicones, di-Me, reaction products with silica	(CAS-No.) 67762-90-7	1 - 5	Substance not classified as hazardous
Poly[oxy(methyl-1,2-ethanediyl)], .a.-(2-methyl-1-oxo-2-propenyl)-.w.-(phosphonooxy)-	(CAS-No.) 95175-93-2	< 3	Skin Irrit. 2, H315 Eye Dam. 1, H318
Carbon black	(CAS-No.) 1333-86-4 (EC-No.) 215-609-9	< 1	Substance with a national occupational exposure limit

methyl methacrylate	(CAS-No.) 80-62-6 (EC-No.) 201-297-1	< 1	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Skin Sens. 1, H317 STOT SE 3, H335 Nota D
mequinol	(CAS-No.) 150-76-5 (EC-No.) 205-769-8	< 1	Acute Tox. 4, H302 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 3, H412
toluene	(CAS-No.) 108-88-3 (EC-No.) 203-625-9	< 1	Flam. Liq. 2, H225 Asp. Tox. 1, H304 Skin Irrit. 2, H315 Repr. 2, H361d STOT SE 3, H336 STOT RE 2, H373 Aquatic Chronic 3, H412
naphthenic acids, copper salts	(CAS-No.) 1338-02-9 (EC-No.) 215-657-0	< 0.25	Flam. Liq. 3, H226 Acute Tox. 4, H302 Aquatic Acute 1, H400,M=10 Aquatic Chronic 1, H410,M=1

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

Specific Concentration Limits

Ingredient	Identifier(s)	Specific Concentration Limits
dodecyl methacrylate	(CAS-No.) 142-90-5 (EC-No.) 205-570-6	(C >= 10%) STOT SE 3, H335

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
The most important symptoms and effects based on the CLP classification include:

Irritating to the respiratory tract (coughing, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain). Irritation to the skin (localized redness, swelling, itching, and dryness). Allergic skin reaction (redness, swelling, blistering, and itching). Serious irritation to the eyes (significant redness, swelling, pain, tearing, and impaired vision).

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
Exposure to extreme heat can give rise to thermal decomposition.

Hazardous Decomposition or By-Products

Substance	Condition
Carbon monoxide	During combustion.
Carbon dioxide.	During combustion.
Hydrogen Chloride	During combustion.
Hydrogen Fluoride	During combustion.
Oxides of nitrogen.	During combustion.

5.3. Advice for fire-fighters
Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Evacuate area. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust 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 inhalation of thermal decomposition products. For industrial/occupational use only. Not for consumer sale or use. Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after

handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.) Use personal protective equipment (eg. gloves, respirators…) as required.

7.2. Conditions for safe storage including any incompatibilities
Store away from heat. Store away from 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
toluene	108-88-3	Ireland OELs	TWA(8 hours):192 mg/m3(50 ppm);TWA(8 hours):50 ppm(192 mg/m3);STEL(15 minutes):384 mg/m3(100 ppm);STEL(15 minutes):100 ppm(384 mg/m3)	SKIN
Kaolin	1332-58-7	Ireland OELs	TWA(as respirable dust)(8 hours):2 mg/m3	
Carbon black	1333-86-4	Ireland OELs	TWA(inhalable fraction)(8 hours):3 mg/m3	
mequinol	150-76-5	Ireland OELs	TWA(8 hours):5 mg/m3	
methyl methacrylate	80-62-6	Ireland OELs	TWA(8 hours):50 ppm;TWA(8 hours):50 ppm;STEL(15 minutes):100 ppm;STEL(15 minutes):100 ppm	Respiratory/Dermal Sensitizer

Ireland OELs : Ireland. OELs
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.

Recommended monitoring procedures: Information on recommended monitoring procedures can be obtained from Indust. Inspect./Ministry (IE)

8.2. Exposure controls

8.2.1. Engineering controls
For those situations where the material might be exposed to extreme overheating due to misuse or equipment failure, use with appropriate local exhaust ventilation sufficient to maintain levels of thermal decomposition products below their exposure guidelines. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapours/spray. If ventilation is not adequate, use respiratory protection equipment.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:
Safety glasses with side shields.
Indirect vented goggles.

Applicable Norms/Standards
Use eye protection conforming to EN 166

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:

Material	**Thickness (mm)**	**Breakthrough Time**
Polymer laminate	No data available	No data available

Applicable Norms/Standards
Use gloves tested to EN 374

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:
For those situations where the material might be exposed to extreme overheating due to misuse or equipment failure, use a positive pressure supplied-air respirator.
Half facepiece or full facepiece air-purifying respirator suitable for organic vapours and particulates
Half facepiece or full facepiece supplied-air respirator

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

Applicable Norms/Standards
Use a respirator conforming to EN 140 or EN 136
Use a respirator conforming to EN 140 or EN 136: filter types A & P

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid.
Specific Physical Form:	Paste
Colour	Black
Odor	Mild Acrylate
Odour threshold	*No data available.*
Melting point/freezing point	*Not applicable.*
Boiling point/boiling range	*No data available.*

Flammability	Not applicable.
Flammable Limits(LEL)	*No data available.*
Flammable Limits(UEL)	*No data available.*
Flash point	> 93.3 ºC [*Test Method:*Closed Cup]
Autoignition temperature	*No data available.*
Decomposition temperature	*No data available.*
pH	*substance/mixture is non-soluble (in water)*
Kinematic Viscosity	38,462 mm²/sec
Water solubility	Nil
Solubility- non-water	*No data available.*
Partition coefficient: n-octanol/water	*No data available.*
Vapour pressure	*No data available.*
Density	1.04 g/ml
Relative density	1.04 [*Ref Std:*WATER=1]
Relative Vapour Density	*No data available.*
Particle Characteristics	*Not applicable.*

9.2. Other information

9.2.2 Other safety characteristics

EU Volatile Organic Compounds	*No data available.*
Evaporation rate	*No data available.*
Molecular weight	*Not applicable.*

SECTION 10: Stability and reactivity

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

10.2 Chemical stability
Stable.

10.3 Possibility of hazardous reactions
Hazardous 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.

Extreme heat arising from situations such as misuse or equipment failure can generate hydrogen fluoride as a decomposition product.

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 internal hazard assessments.

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

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. May cause additional health effects (see below).

Additional Health Effects:

Reproductive/Developmental Toxicity:
Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

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

Acute Toxicity

Name	Route	Species	Value
Overall product	Dermal		No data available; calculated ATE >5,000 mg/kg
Overall product	Inhalation-Vapour(4 hr)		No data available; calculated ATE >50 mg/l
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
2-hydroxyethyl methacrylate	Dermal	Rabbit	LD50 > 5,000 mg/kg
2-hydroxyethyl methacrylate	Ingestion	Rat	LD50 5,564 mg/kg
CYCLOHEXYL METHACRYLATE	Dermal	Rat	LD50 > 2,000 mg/kg
CYCLOHEXYL METHACRYLATE	Ingestion	Rat	LD50 12,900 mg/kg
CYCLOHEXYL METHACRYLATE	Inhalation-Vapour	similar compounds	LC50 estimated to be 20 - 50 mg/l
dodecyl methacrylate	Ingestion	Rat	LD50 > 5,000 mg/kg

dodecyl methacrylate	Dermal	similar compounds	LD50 > 3,000 mg/kg
Kaolin	Dermal		LD50 estimated to be > 5,000 mg/kg
Kaolin	Ingestion	Human	LD50 > 15,000 mg/kg
Acrylonitrile - butadiene polymer	Dermal	Rabbit	LD50 > 15,000 mg/kg
Acrylonitrile - butadiene polymer	Ingestion	Rat	LD50 > 30,000 mg/kg
Siloxanes and Silicones, di-Me, reaction products with silica	Dermal	Rabbit	LD50 > 5,000 mg/kg
Siloxanes and Silicones, di-Me, reaction products with silica	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 0.691 mg/l
Siloxanes and Silicones, di-Me, reaction products with silica	Ingestion	Rat	LD50 > 5,110 mg/kg
MYRISTYL METHACRYLATE	Dermal	Rabbit	LD50 > 3,000 mg/kg
MYRISTYL METHACRYLATE	Ingestion	Rat	LD50 > 5,000 mg/kg
Poly[oxy(methyl-1,2-ethanediyl)], .a.-(2-methyl-1-oxo-2-propenyl)-.w.-(phosphonooxy)-	Ingestion	Rat	LD50 > 5,000 mg/kg
Poly[oxy(methyl-1,2-ethanediyl)], .a.-(2-methyl-1-oxo-2-propenyl)-.w.-(phosphonooxy)-	Dermal	similar health hazards	LD50 estimated to be > 5,000 mg/kg
hydroxypropyl methacrylate	Dermal	Rabbit	LD50 > 5,000 mg/kg
hydroxypropyl methacrylate	Ingestion	Rat	LD50 > 11,200 mg/kg
HEXADECYL METHACRYLATE	Dermal	Rabbit	LD50 > 3,000 mg/kg
HEXADECYL METHACRYLATE	Ingestion	Rat	LD50 > 5,000 mg/kg
Carbon black	Dermal	Rabbit	LD50 > 3,000 mg/kg
Carbon black	Ingestion	Rat	LD50 > 8,000 mg/kg
toluene	Dermal	Rat	LD50 12,000 mg/kg
toluene	Inhalation-Vapour (4 hours)	Rat	LC50 30 mg/l
toluene	Ingestion	Rat	LD50 5,550 mg/kg
methyl methacrylate	Dermal	Rabbit	LD50 > 5,000 mg/kg
methyl methacrylate	Inhalation-Vapour (4 hours)	Rat	LC50 29.8 mg/l
methyl methacrylate	Ingestion	Rat	LD50 7,900 mg/kg
naphthenic acids, copper salts	Dermal	similar compounds	LD50 > 2,000 mg/kg
naphthenic acids, copper salts	Ingestion	similar compounds	LD50 >300, < 2,000 mg/kg
mequinol	Dermal	Rat	LD50 > 2,000 mg/kg
mequinol	Ingestion	Rat	LD50 1,630 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
2-hydroxyethyl methacrylate	Rabbit	Minimal irritation
CYCLOHEXYL METHACRYLATE	Rabbit	Minimal irritation
dodecyl methacrylate	similar compounds	Minimal irritation
Acrylonitrile - butadiene polymer	Professional judgement	No significant irritation
Kaolin	Professional judgement	No significant irritation
Siloxanes and Silicones, di-Me, reaction products with silica	Rabbit	No significant irritation
MYRISTYL METHACRYLATE	Rabbit	Minimal irritation
Poly[oxy(methyl-1,2-ethanediyl)], .a.-(2-methyl-1-oxo-2-propenyl)-.w.-(phosphonooxy)-	Not available	Irritant

hydroxypropyl methacrylate	Rabbit	Minimal irritation
HEXADECYL METHACRYLATE	Rabbit	Minimal irritation
Carbon black	Rabbit	No significant irritation
toluene	Rabbit	Irritant
methyl methacrylate	Rabbit	Irritant
naphthenic acids, copper salts	Rabbit	No significant irritation
mequinol	Rabbit	Mild irritant

Serious Eye Damage/Irritation

Name	Species	Value
2-hydroxyethyl methacrylate	Rabbit	Moderate irritant
CYCLOHEXYL METHACRYLATE	In vitro data	Severe irritant
dodecyl methacrylate	similar compounds	No significant irritation
Acrylonitrile - butadiene polymer	Professional judgement	No significant irritation
Kaolin	Professional judgement	No significant irritation
Siloxanes and Silicones, di-Me, reaction products with silica	Rabbit	No significant irritation
MYRISTYL METHACRYLATE	Rabbit	No significant irritation
Poly[oxy(methyl-1,2-ethanediyl)], .a.-(2-methyl-1-oxo-2-propenyl)-.w.-(phosphonooxy)-	Not available	Corrosive
hydroxypropyl methacrylate	Rabbit	Moderate irritant
HEXADECYL METHACRYLATE	Rabbit	No significant irritation
Carbon black	Rabbit	No significant irritation
toluene	Rabbit	Moderate irritant
methyl methacrylate	Rabbit	Mild irritant
naphthenic acids, copper salts	In vitro data	No significant irritation
mequinol	Rabbit	Severe irritant

Skin Sensitisation

Name	Species	Value
2-hydroxyethyl methacrylate	Human and animal	Sensitising
CYCLOHEXYL METHACRYLATE	Mouse	Sensitising
dodecyl methacrylate	Guinea pig	Not classified
Siloxanes and Silicones, di-Me, reaction products with silica	Human and animal	Not classified
MYRISTYL METHACRYLATE	Professional judgement	Some positive data exist, but the data are not sufficient for classification
hydroxypropyl methacrylate	Human and animal	Sensitising
HEXADECYL METHACRYLATE	Mouse	Some positive data exist, but the data are not sufficient for classification
toluene	Guinea pig	Not classified
methyl methacrylate	Human and animal	Sensitising
naphthenic acids, copper salts	Guinea	Not classified

	pig	
mequinol	Guinea pig	Sensitising

Respiratory Sensitisation

Name	Species	Value
methyl methacrylate	Human	Not classified

Germ Cell Mutagenicity

Name	Route	Value
2-hydroxyethyl methacrylate	In vivo	Not mutagenic
2-hydroxyethyl methacrylate	In Vitro	Some positive data exist, but the data are not sufficient for classification
CYCLOHEXYL METHACRYLATE	In Vitro	Not mutagenic
dodecyl methacrylate	In Vitro	Not mutagenic
dodecyl methacrylate	In vivo	Not mutagenic
Siloxanes and Silicones, di-Me, reaction products with silica	In Vitro	Not mutagenic
MYRISTYL METHACRYLATE	In Vitro	Not mutagenic
hydroxypropyl methacrylate	In vivo	Not mutagenic
hydroxypropyl methacrylate	In Vitro	Some positive data exist, but the data are not sufficient for classification
Carbon black	In Vitro	Not mutagenic
Carbon black	In vivo	Some positive data exist, but the data are not sufficient for classification
toluene	In Vitro	Not mutagenic
toluene	In vivo	Not mutagenic
methyl methacrylate	In vivo	Not mutagenic
methyl methacrylate	In Vitro	Some positive data exist, but the data are not sufficient for classification
mequinol	In vivo	Not mutagenic
mequinol	In Vitro	Some positive data exist, but the data are not sufficient for classification

Carcinogenicity

Name	Route	Species	Value
Kaolin	Inhalation	Multiple animal species	Not carcinogenic
Siloxanes and Silicones, di-Me, reaction products with silica	Not specified.	Mouse	Some positive data exist, but the data are not sufficient for classification
Carbon black	Dermal	Mouse	Not carcinogenic
Carbon black	Ingestion	Mouse	Not carcinogenic
Carbon black	Inhalation	Rat	Carcinogenic.
toluene	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification
toluene	Ingestion	Rat	Some positive data exist, but the data are not sufficient for classification
toluene	Inhalation	Mouse	Some positive data exist, but the data are not sufficient for classification
methyl methacrylate	Ingestion	Rat	Not carcinogenic
methyl methacrylate	Inhalation	Human and animal	Not carcinogenic
mequinol	Dermal	Multiple animal species	Not carcinogenic
mequinol	Ingestion	Multiple animal species	Some positive data exist, but the data are not sufficient for classification

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
2-hydroxyethyl methacrylate	Ingestion	Not classified for female reproduction	Rat	NOAEL 1,000 mg/kg/day	premating & during gestation
2-hydroxyethyl methacrylate	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,000 mg/kg/day	49 days
2-hydroxyethyl methacrylate	Ingestion	Not classified for development	Rat	NOAEL 1,000 mg/kg/day	premating & during gestation
CYCLOHEXYL METHACRYLATE	Ingestion	Not classified for female reproduction	Rat	NOAEL 1,000 mg/kg/day	premating into lactation
CYCLOHEXYL METHACRYLATE	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,000 mg/kg/day	15 weeks
CYCLOHEXYL METHACRYLATE	Ingestion	Not classified for development	Rabbit	NOAEL 500 mg/kg/day	during gestation
dodecyl methacrylate	Ingestion	Not classified for female reproduction	Rat	NOAEL 1,000 mg/kg/day	premating into lactation
dodecyl methacrylate	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,000 mg/kg/day	6 weeks
dodecyl methacrylate	Ingestion	Not classified for development	Rat	NOAEL 1,000 mg/kg/day	premating into lactation
Siloxanes and Silicones, di-Me, reaction products with silica	Ingestion	Not classified for female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation
Siloxanes and Silicones, di-Me, reaction products with silica	Ingestion	Not classified for male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
Siloxanes and Silicones, di-Me, reaction products with silica	Ingestion	Not classified for development	Rat	NOAEL 1,350 mg/kg/day	during organogenesis
hydroxypropyl methacrylate	Ingestion	Not classified for female reproduction	Rat	NOAEL 1,000 mg/kg/day	premating into lactation
hydroxypropyl methacrylate	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,000 mg/kg/day	49 days
hydroxypropyl methacrylate	Ingestion	Not classified for development	Rat	NOAEL 1,000 mg/kg/day	during gestation
toluene	Inhalation	Not classified for female reproduction	Human	NOAEL Not available	occupational exposure
toluene	Inhalation	Not classified for male reproduction	Rat	NOAEL 2.3 mg/l	1 generation
toluene	Ingestion	Toxic to development	Rat	LOAEL 520 mg/kg/day	during gestation
toluene	Inhalation	Toxic to development	Human	NOAEL Not available	poisoning and/or abuse
methyl methacrylate	Ingestion	Not classified for female reproduction	Rat	NOAEL 400 mg/kg/day	2 generation
methyl methacrylate	Ingestion	Not classified for male reproduction	Rat	NOAEL 400 mg/kg/day	2 generation
methyl methacrylate	Ingestion	Not classified for development	Rabbit	NOAEL 450 mg/kg/day	during gestation
methyl methacrylate	Inhalation	Not classified for development	Rat	NOAEL 8.3 mg/l	during organogenesis
mequinol	Ingestion	Not classified for female reproduction	Rat	NOAEL 300 mg/kg/day	premating into lactation
mequinol	Ingestion	Not classified for male reproduction	Rat	NOAEL 300 mg/kg/day	28 days
mequinol	Ingestion	Not classified for development	Rat	NOAEL 200	during

				mg/kg/day	gestation

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
CYCLOHEXYL METHACRYLATE	Inhalation	respiratory irritation	May cause respiratory irritation	official classification	NOAEL Not available	
dodecyl methacrylate	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Professional judgement	NOAEL Not available	
MYRISTYL METHACRYLATE	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Professional judgement	NOAEL not available	
Poly[oxy(methyl-1,2-ethanediyl)], .a.-(2-methyl-1-oxo-2-propenyl)-.w.-(phosphonooxy)-	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	
hydroxypropyl methacrylate	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	
toluene	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
toluene	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
toluene	Inhalation	immune system	Not classified	Mouse	NOAEL 0.004 mg/l	3 hours
toluene	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	poisoning and/or abuse
methyl methacrylate	Inhalation	respiratory irritation	May cause respiratory irritation	Human	NOAEL Not available	occupational exposure
mequinol	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
CYCLOHEXYL METHACRYLATE	Ingestion	endocrine system | hematopoietic system | liver | kidney and/or bladder | nervous system | eyes	Not classified	Rat	NOAEL 1,000 mg/kg/day	15 weeks
dodecyl methacrylate	Ingestion	hematopoietic system | liver | kidney and/or bladder	Not classified	Rat	NOAEL 1,000 mg/kg/day	6 weeks
Kaolin	Inhalation	pneumoconiosis	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL NA	occupational exposure
Kaolin	Inhalation	pulmonary fibrosis	Not classified	Rat	NOAEL Not available	
Siloxanes and Silicones, di-Me, reaction products with silica	Inhalation	respiratory system | silicosis	Not classified	Human	NOAEL Not available	occupational exposure
hydroxypropyl methacrylate	Inhalation	blood	Not classified	Rat	NOAEL 0.5 mg/l	21 days
hydroxypropyl methacrylate	Ingestion	hematopoietic system | heart | endocrine system | liver | immune	Not classified	Rat	NOAEL 1,000 mg/kg/day	41 days

		system | nervous system | kidney and/or bladder				
Carbon black	Inhalation	pneumoconiosis	Not classified	Human	NOAEL Not available	occupational exposure
toluene	Inhalation	auditory system | nervous system | eyes | olfactory system	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	poisoning and/or abuse
toluene	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 2.3 mg/l	15 months
toluene	Inhalation	heart | liver | kidney and/or bladder	Not classified	Rat	NOAEL 11.3 mg/l	15 weeks
toluene	Inhalation	endocrine system	Not classified	Rat	NOAEL 1.1 mg/l	4 weeks
toluene	Inhalation	immune system	Not classified	Mouse	NOAEL Not available	20 days
toluene	Inhalation	bone, teeth, nails, and/or hair	Not classified	Mouse	NOAEL 1.1 mg/l	8 weeks
toluene	Inhalation	hematopoietic system | vascular system	Not classified	Human	NOAEL Not available	occupational exposure
toluene	Inhalation	gastrointestinal tract	Not classified	Multiple animal species	NOAEL 11.3 mg/l	15 weeks
toluene	Ingestion	nervous system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 625 mg/kg/day	13 weeks
toluene	Ingestion	heart	Not classified	Rat	NOAEL 2,500 mg/kg/day	13 weeks
toluene	Ingestion	liver | kidney and/or bladder	Not classified	Multiple animal species	NOAEL 2,500 mg/kg/day	13 weeks
toluene	Ingestion	hematopoietic system	Not classified	Mouse	NOAEL 600 mg/kg/day	14 days
toluene	Ingestion	endocrine system	Not classified	Mouse	NOAEL 105 mg/kg/day	28 days
toluene	Ingestion	immune system	Not classified	Mouse	NOAEL 105 mg/kg/day	4 weeks
methyl methacrylate	Dermal	peripheral nervous system	Not classified	Human	NOAEL Not available	occupational exposure
methyl methacrylate	Inhalation	olfactory system	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	occupational exposure
methyl methacrylate	Inhalation	kidney and/or bladder	Not classified	Multiple animal species	NOAEL Not available	14 weeks
methyl methacrylate	Inhalation	liver	Not classified	Mouse	NOAEL 12.3 mg/l	14 weeks
methyl methacrylate	Inhalation	respiratory system	Not classified	Human	NOAEL Not available	occupational exposure
methyl methacrylate	Ingestion	kidney and/or bladder | heart | skin | endocrine system | gastrointestinal tract | hematopoietic system | liver | muscles | nervous system | respiratory system	Not classified	Rat	NOAEL 90.3 mg/kg/day	2 years
mequinol	Ingestion	gastrointestinal tract	Not classified	Rat	LOAEL 300 mg/kg/day	28 days
mequinol	Ingestion	liver | immune system	Not classified	Rat	NOAEL 300 mg/kg/day	28 days
mequinol	Ingestion	kidney and/or bladder	Not classified	Rat	LOAEL 300 mg/kg/day	28 days
mequinol	Ingestion	heart | endocrine	Not classified	Rat	NOAEL 300	28 days

		system | hematopoietic system | nervous system | respiratory system			mg/kg/day	

Aspiration Hazard

Name	Value
toluene	Aspiration hazard

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

11.2. Information on other hazards

This material does not contain any substances that are assessed to be an endocrine disruptor for human health.

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 #	Organism	Type	Exposure	Test endpoint	Test result
2-hydroxyethyl methacrylate	868-77-9	Turbot	Analogous Compound	96 hours	LC50	833 mg/l
2-hydroxyethyl methacrylate	868-77-9	Fathead minnow	Experimental	96 hours	LC50	227 mg/l
2-hydroxyethyl methacrylate	868-77-9	Green algae	Experimental	72 hours	EC50	710 mg/l
2-hydroxyethyl methacrylate	868-77-9	Water flea	Experimental	48 hours	EC50	380 mg/l
2-hydroxyethyl methacrylate	868-77-9	Green algae	Experimental	72 hours	NOEC	160 mg/l
2-hydroxyethyl methacrylate	868-77-9	Water flea	Experimental	21 days	NOEC	24.1 mg/l
2-hydroxyethyl methacrylate	868-77-9	N/A	Experimental	16 hours	EC0	>3,000 mg/l
2-hydroxyethyl methacrylate	868-77-9	N/A	Experimental	18 hours	LD50	<98 mg per kg of bodyweight
Acrylonitrile - butadiene polymer	9003-18-3	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
Kaolin	1332-58-7	Water flea	Experimental	48 hours	LC50	>1,100 mg/l
CYCLOHEXYL METHACRYLATE	101-43-9	Activated sludge	Experimental	30 minutes	EC50	900 mg/l
CYCLOHEXYL METHACRYLATE	101-43-9	Green algae	Experimental	72 hours	EC50	12.5 mg/l
CYCLOHEXYL METHACRYLATE	101-43-9	Water flea	Experimental	48 hours	EC50	33.9 mg/l
CYCLOHEXYL METHACRYLATE	101-43-9	Zebra Fish	Experimental	96 hours	LC50	590 mg/l
CYCLOHEXYL METHACRYLATE	101-43-9	Zebra Fish	Estimated	35 days	NOEC	9.4 mg/l
CYCLOHEXYL METHACRYLATE	101-43-9	Green algae	Experimental	72 hours	EC10	5.49 mg/l

dodecyl methacrylate	142-90-5	Zebra Fish	Analogous Compound	96 hours	No tox obs at lmt of water sol	>100
dodecyl methacrylate	142-90-5	Green algae	Experimental	72 hours	No tox obs at lmt of water sol	>100
dodecyl methacrylate	142-90-5	Green algae	Experimental	72 hours	No tox obs at lmt of water sol	>100
dodecyl methacrylate	142-90-5	Water flea	Experimental	21 days	No tox obs at lmt of water sol	>100
dodecyl methacrylate	142-90-5	Activated sludge	Analogous Compound	3 hours	EC50	>10,000
HEXADECYL METHACRYLATE	2495-27-4	Activated sludge	Estimated	3 hours	EC10	>10,000 mg/l
HEXADECYL METHACRYLATE	2495-27-4	Green algae	Estimated	72 hours	No tox obs at lmt of water sol	>100 mg/l
HEXADECYL METHACRYLATE	2495-27-4	Zebra Fish	Estimated	96 hours	No tox obs at lmt of water sol	>100 mg/l
HEXADECYL METHACRYLATE	2495-27-4	Green algae	Estimated	72 hours	No tox obs at lmt of water sol	>100 mg/l
HEXADECYL METHACRYLATE	2495-27-4	Water flea	Estimated	21 days	No tox obs at lmt of water sol	>100 mg/l
hydroxypropyl methacrylate	27813-02-1	Bacteria	Experimental	N/A	EC10	1,140 mg/l
hydroxypropyl methacrylate	27813-02-1	Golden Orfe	Experimental	48 hours	EC50	493 mg/l
hydroxypropyl methacrylate	27813-02-1	Green algae	Experimental	72 hours	ErC50	>97.2 mg/l
hydroxypropyl methacrylate	27813-02-1	Water flea	Experimental	48 hours	EC50	>143 mg/l
hydroxypropyl methacrylate	27813-02-1	Green algae	Experimental	72 hours	NOEC	97.2 mg/l
hydroxypropyl methacrylate	27813-02-1	Water flea	Experimental	21 days	NOEC	45.2 mg/l
MYRISTYL METHACRYLATE	2549-53-3	Activated sludge	Estimated	3 hours	EC50	>10,000 mg/l
MYRISTYL METHACRYLATE	2549-53-3	Green algae	Estimated	72 hours	No tox obs at lmt of water sol	>100 mg/l
MYRISTYL METHACRYLATE	2549-53-3	Zebra Fish	Estimated	96 hours	No tox obs at lmt of water sol	>100 mg/l
MYRISTYL METHACRYLATE	2549-53-3	Green algae	Estimated	72 hours	No tox obs at lmt of water sol	>100 mg/l
MYRISTYL METHACRYLATE	2549-53-3	Water flea	Estimated	21 days	No tox obs at lmt of water sol	>100 mg/l
Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
Poly[oxy(methyl-1,2-ethanediyl)], .a.-(2-methyl-1-oxo-2-propenyl)-.w.-(phosphonooxy)-	95175-93-2	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
mequinol	150-76-5	Ciliated protozoa	Experimental	40 hours	IC50	171.4 mg/l
mequinol	150-76-5	Green algae	Experimental	72 hours	ErC50	54.7 mg/l
mequinol	150-76-5	Rainbow trout	Experimental	96 hours	LC50	28.5 mg/l
mequinol	150-76-5	Water flea	Experimental	48 hours	EC50	2.2 mg/l
mequinol	150-76-5	Green algae	Experimental	72 hours	NOEC	2.96 mg/l
mequinol	150-76-5	Water flea	Experimental	21 days	NOEC	0.68 mg/l
Carbon black	1333-86-4	Green algae	Experimental	72 hours	No tox obs at lmt of water sol	>100 mg/l
Carbon black	1333-86-4	Zebra Fish	Experimental	96 hours	No tox obs at lmt of water sol	>100 mg/l

Carbon black	1333-86-4	Green algae	Experimental	72 hours	No tox obs at lmt of water sol	100 mg/l
Carbon black	1333-86-4	Activated sludge	Experimental	3 hours	NOEC	>800 mg/l
methyl methacrylate	80-62-6	Green algae	Experimental	72 hours	EC50	>110 mg/l
methyl methacrylate	80-62-6	Rainbow trout	Experimental	96 hours	LC50	>79 mg/l
methyl methacrylate	80-62-6	Water flea	Experimental	48 hours	EC50	69 mg/l
methyl methacrylate	80-62-6	Green algae	Experimental	72 hours	NOEC	110 mg/l
methyl methacrylate	80-62-6	Water flea	Experimental	21 days	NOEC	37 mg/l
methyl methacrylate	80-62-6	Activated sludge	Experimental	30 minutes	EC20	150 mg/l
methyl methacrylate	80-62-6	Soil microbes	Experimental	28 days	NOEC	>1,000 mg/kg (Dry Weight)
toluene	108-88-3	Coho Salmon	Experimental	96 hours	LC50	5.5 mg/l
toluene	108-88-3	Grass Shrimp	Experimental	96 hours	LC50	9.5 mg/l
toluene	108-88-3	Green algae	Experimental	72 hours	EC50	12.5 mg/l
toluene	108-88-3	Leopard frog	Experimental	9 days	LC50	0.39 mg/l
toluene	108-88-3	Pink Salmon	Experimental	96 hours	LC50	6.41 mg/l
toluene	108-88-3	Water flea	Experimental	48 hours	EC50	3.78 mg/l
toluene	108-88-3	Coho Salmon	Experimental	40 days	NOEC	1.39 mg/l
toluene	108-88-3	Diatom	Experimental	72 hours	NOEC	10 mg/l
toluene	108-88-3	Water flea	Experimental	7 days	NOEC	0.74 mg/l
toluene	108-88-3	Activated sludge	Experimental	12 hours	IC50	292 mg/l
toluene	108-88-3	Bacteria	Experimental	16 hours	NOEC	29 mg/l
toluene	108-88-3	Bacteria	Experimental	24 hours	EC50	84 mg/l
toluene	108-88-3	Redworm	Experimental	28 days	LC50	>150 mg per kg of bodyweight
toluene	108-88-3	Soil microbes	Experimental	28 days	NOEC	<26 mg/kg (Dry Weight)
naphthenic acids, copper salts	1338-02-9	Green algae	Estimated	72 hours	ErC50	0.629 mg/l
naphthenic acids, copper salts	1338-02-9	Water flea	Estimated	48 hours	EC50	0.0756 mg/l
naphthenic acids, copper salts	1338-02-9	Zebra Fish	Estimated	96 hours	LC50	0.07 mg/l
naphthenic acids, copper salts	1338-02-9	Fathead minnow	Estimated	32 days	EC10	0.0354 mg/l
naphthenic acids, copper salts	1338-02-9	Green algae	Estimated	N/A	NOEC	0.132 mg/l
naphthenic acids, copper salts	1338-02-9	Sediment Worm	Estimated	28 days	NOEC	110 mg/kg (Dry Weight)
naphthenic acids, copper salts	1338-02-9	Water flea	Estimated	7 days	NOEC	0.02 mg/l
naphthenic acids, copper salts	1338-02-9	Activated sludge	Estimated	N/A	EC50	42 mg/l
naphthenic acids, copper salts	1338-02-9	Barley	Estimated	4 days	NOEC	96 mg/kg (Dry Weight)
naphthenic acids, copper salts	1338-02-9	Redworm	Estimated	56 days	NOEC	60 mg/kg (Dry Weight)

naphthenic acids, copper salts	1338-02-9	Soil microbes	Estimated	4 days	NOEC	72 mg/kg (Dry Weight)
naphthenic acids, copper salts	1338-02-9	Springtail	Estimated	28 days	NOEC	167 mg/kg (Dry Weight)

12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
2-hydroxyethyl methacrylate	868-77-9	Experimental Biodegradation	28 days	BOD	84 %BOD/COD	OECD 301D - Closed bottle test
2-hydroxyethyl methacrylate	868-77-9	Experimental Hydrolysis		Hydrolytic half-life basic pH	10.9 days (t 1/2)	OECD 111 Hydrolysis func of pH
Acrylonitrile - butadiene polymer	9003-18-3	Data not availbl-insufficient	N/A	N/A	N/A	N/A
Kaolin	1332-58-7	Data not availbl-insufficient	N/A	N/A	N/A	N/A
CYCLOHEXYL METHACRYLATE	101-43-9	Experimental Biodegradation	28 days	CO2 evolution	70-80 %CO2 evolution/THCO2 evolution	OECD 310 CO2 Headspace
dodecyl methacrylate	142-90-5	Experimental Biodegradation	28 days	BOD	88.5 %BOD/ThOD	OECD 301C - MITI test (I)
Polymeric Methacrylate	Trade Secret	Data not availbl-insufficient	N/A	N/A	N/A	N/A
HEXADECYL METHACRYLATE	2495-27-4	Estimated Biodegradation	28 days	BOD	87 %BOD/ThOD	OECD 301C - MITI test (I)
hydroxypropyl methacrylate	27813-02-1	Experimental Biodegradation	28 days	BOD	81 %BOD/ThOD	OECD 301C - MITI test (I)
MYRISTYL METHACRYLATE	2549-53-3	Estimated Biodegradation	28 days	BOD	88.5 %BOD/ThOD	
Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Data not availbl-insufficient	N/A	N/A	N/A	N/A
Poly[oxy(methyl-1,2-ethanediyl)], .a.-(2-methyl-1-oxo-2-propenyl)-.w.-(phosphonooxy)-	95175-93-2	Data not availbl-insufficient	N/A	N/A	N/A	N/A
mequinol	150-76-5	Experimental Biodegradation - Anaerobic	28 days	Percent degraded	>90 %degraded	
mequinol	150-76-5	Experimental Biodegradation	28 days	BOD	86 %BOD/ThOD	OECD 301C - MITI test (I)
Carbon black	1333-86-4	Data not availbl-insufficient	N/A	N/A	N/A	N/A
methyl methacrylate	80-62-6	Experimental Biodegradation	14 days	BOD	94 %BOD/ThOD	OECD 301C - MITI test (I)
toluene	108-88-3	Experimental Biodegradation	20 days	BOD	80 %BOD/ThOD	APHA Std Meth Water/Wastewater
toluene	108-88-3	Experimental Photolysis		Photolytic half-life (in air)	5.2 days (t 1/2)	
naphthenic acids, copper salts	1338-02-9	Data not availbl-insufficient	N/A	N/A	N/A	N/A

12.3 : Bioaccumulative potential

Material	Cas No.	Test type	Duration	Study Type	Test result	Protocol
2-hydroxyethyl methacrylate	868-77-9	Experimental Bioconcentration		Log Kow	0.42	OECD 107 log Kow shke flsk mtd
Acrylonitrile - butadiene polymer	9003-18-3	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Kaolin	1332-58-7	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
CYCLOHEXYL METHACRYLATE	101-43-9	Experimental Bioconcentration		Log Kow	3.9	

dodecyl methacrylate	142-90-5	Analogous Compound BCF - Other	56 hours	Bioaccumulation factor	37	OECD305-Bioconcentration
dodecyl methacrylate	142-90-5	Analogous Compound Bioconcentration		Log Kow	7.08	OECD 117 log Kow HPLC method
Polymeric Methacrylate	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
HEXADECYL METHACRYLATE	2495-27-4	Estimated BCF - Other	56 hours	Bioaccumulation factor	37	OECD305-Bioconcentration
hydroxypropyl methacrylate	27813-02-1	Experimental Bioconcentration		Log Kow	0.97	EC A.8 Partition Coefficient
MYRISTYL METHACRYLATE	2549-53-3	Estimated BCF - Other	56 hours	Bioaccumulation factor	37	OECD305-Bioconcentration
Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Poly[oxy(methyl-1,2-ethanediyl)], .a.-(2-methyl-1-oxo-2-propenyl)-.w.-(phosphonooxy)-	95175-93-2	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
mequinol	150-76-5	Experimental Bioconcentration		Log Kow	1.58	
Carbon black	1333-86-4	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
methyl methacrylate	80-62-6	Experimental Bioconcentration		Log Kow	1.38	OECD 107 log Kow shke flsk mtd
toluene	108-88-3	Experimental BCF - Other	72 hours	Bioaccumulation factor	90	
toluene	108-88-3	Experimental Bioconcentration		Log Kow	2.73	
naphthenic acids, copper salts	1338-02-9	Analogous Compound BCF - Fish	42 days	Bioaccumulation factor	≤27	OECD305-Bioconcentration

12.4. Mobility in soil

Material	Cas No.	Test type	Study Type	Test result	Protocol
2-hydroxyethyl methacrylate	868-77-9	Experimental Mobility in Soil	Koc	42.7 l/kg	
CYCLOHEXYL METHACRYLATE	101-43-9	Estimated Mobility in Soil	Koc	190 l/kg	Episuite™
dodecyl methacrylate	142-90-5	Analogous Compound Mobility in Soil	Koc	2040-51000 l/kg	OECD 106 Adsp-Desb Batch Equil
hydroxypropyl methacrylate	27813-02-1	Experimental Mobility in Soil	Koc	10 l/kg	Episuite™
mequinol	150-76-5	Experimental Mobility in Soil	Koc	55.7 l/kg	
methyl methacrylate	80-62-6	Experimental Mobility in Soil	Koc	8.7-72 l/kg	
toluene	108-88-3	Experimental Mobility in Soil	Koc	37-160 l/kg	

12.5. Results of the PBT and vPvB assessment

This material does not contain any substances that are assessed to be a PBT or vPvB

12.6. Endocrine disrupting properties

This material does not contain any substances that are assessed to be an endocrine disruptor for environmental effects

12.7. Other adverse effects
No information available.

SECTION 13: Disposal considerations

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

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

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

Not hazardous for transportation.

	Ground Transport (ADR)	Air Transport (IATA)	Marine Transport (IMDG)
14.1 UN number or ID number	No data available.	No data available.	No data available.
14.2 UN proper shipping name	No data available.	No data available.	No data available.
14.3 Transport hazard class(es)	No data available.	No data available.	No data available.
14.4 Packing group	No data available.	No data available.	No data available.
14.5 Environmental hazards	No data available.	No data available.	No data available.
14.6 Special precautions for user	Please refer to the other sections of the SDS for further information.	Please refer to the other sections of the SDS for further information.	Please refer to the other sections of the SDS for further information.
14.7 Marine Transport in bulk according to IMO instruments	No data available.	No data available.	No data available.

Control Temperature	No data available.	No data available.	No data available.
Emergency Temperature	No data available.	No data available.	No data available.
ADR Classification Code	No data available.	No data available.	No data available.
IMDG Segregation Code	No data available.	No data available.	No data available.

Please contact the address or phone number listed on the first page of the SDS for additional information on the transport/shipment of the material by rail (RID) or inland waterways (ADN).

SECTION 15: Regulatory information

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

Carcinogenicity

Ingredient	CAS Nbr	Classification	Regulation
Carbon black	1333-86-4	Grp. 2B: Possible human carc.	International Agency for Research on Cancer
methyl methacrylate	80-62-6	Gr. 3: Not classifiable	International Agency for Research on Cancer
toluene	108-88-3	Gr. 3: Not classifiable	International Agency for Research on Cancer

Restrictions on the manufacture, placing on the market and use:
The following substance(s) contained in this product is/are subject through Annex XVII of REACH regulation to restrictions on the manufacture, placing on the market and use when present in certain dangerous substances, mixtures and articles. Users of this product are required to comply with the restrictions placed upon it by the aforementioned provision.

Ingredient	CAS Nbr
toluene	108-88-3

Restriction status: listed in REACH Annex XVII
Restricted uses: See Annex XVII to Regulation (EC) No 1907/2006 for Conditions of Restriction

Global inventory status
Contact 3M for more information.

DIRECTIVE 2012/18/EU
Seveso hazard categories, Annex 1, Part 1
None

Seveso named dangerous substances, Annex 1, Part 2
None

Regulation (EU) No 649/2012
No chemicals listed

15.2. Chemical Safety Assessment

A chemical safety assessment has not been carried out for this substance/mixture in accordance with Regulation (EC) No 1907/2006, as amended.

SECTION 16: Other information

List of relevant H statements

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H361d	Suspected of damaging the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Revision information:
Label: CLP Percent Unknown information was modified.
Section 3: Composition/ Information of ingredients table information was modified.
Section 5: Fire - Special hazards information information was modified.
Section 5: Hazardous combustion products table information was modified.
Section 7: Conditions safe storage information was modified.
Section 7: Precautions safe handling information information was modified.
Section 8: Appropriate Engineering controls information information was modified.
Section 8: Occupational exposure limit table information was modified.
Section 8: Personal Protection - Respiratory Information information was modified.
Section 8: Respiratory protection - recommended respirators information information was modified.
Section 10: Hazardous Decomposition Products information information was added.
Section 11: Acute Toxicity table information was modified.
Section 11: Aspiration Hazard Table information was added.
Section 11: Aspiration Hazard text information was deleted.
Section 11: Carcinogenicity Table information was modified.
Section 11: Germ Cell Mutagenicity Table information was modified.
Section 11: Health Effects - Ingestion information information was modified.
Section 11: Health Effects - Inhalation information information was modified.
Section 11: Reproductive Toxicity Table information was modified.
Section 11: Reproductive/developmental effects information information was added.
Section 11: Serious Eye Damage/Irritation Table information was modified.
Section 11: Skin Corrosion/Irritation Table information was modified.
Section 11: Skin Sensitization Table information was modified.
Section 11: Target Organs - Repeated Table information was modified.
Section 11: Target Organs - Single Table information was modified.
Section 12: Component ecotoxicity information information was modified.
Section 12: Mobility in soil information information was modified.
Section 12: Persistence and Degradability information information was modified.
Section 12:Bioccumulative potential information information was modified.
Section 15: Carcinogenicity information information was modified.
Section 15: Restrictions on manufacture ingredients information information was added.

Two-column table displaying the unique list of H Codes and statements (std phrases) for all components of the given material. information was modified.

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

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