



Safety Data Sheet

Copyright, 2020, 3M Canada Company. All rights reserved. Copying and/or downloading of this information for the purpose of properly utilizing 3M products is allowed provided that: (1) the information is copied in full with no changes unless prior written agreement is obtained from 3M, and (2) neither the copy nor the original is resold or otherwise distributed with the intention of earning a profit thereon.

Document group:	33-5242-4	Version number:	1.00
Issue Date:	2020/09/30	Supersedes Date:	Initial Issue

This Safety Data Sheet has been prepared in accordance with the Canadian Hazardous Products Regulations.

SECTION 1: Identification

1.1. Product identifier

Bondo® Metal Reinforced Filler, 90451, 90452, 90451C

1.2. Recommended use and restrictions on use

Intended Use

Automotive

Restrictions on use

Not applicable

1.3. Supplier's details

Company:	3M Canada Company
Division:	Construction and Home Improvement Markets
Address:	1840 Oxford Street East, Post Office Box 5757, London, Ontario N6A 4T1
Telephone:	(800) 364-3577
Website:	www.3M.ca

1.4. Emergency telephone number

Medical Emergency Telephone: (519) 451-2500, Ext. 2222; Transportation Emergency Telephone (CANUTEC): (613) 996-6666

SECTION 2: Hazard identification

The following product identification number(s) are sold in the consumer market place:
7100086021

2.1. Classification of the substance or mixture

Flammable Liquid: Category 3.
Serious Eye Damage/Irritation: Category 2A.
Skin Sensitizer: Category 1A.
Reproductive Toxicity: Category 1B.
Carcinogenicity: Category 1A.
Specific Target Organ Toxicity (single exposure): Category 1.
Specific Target Organ Toxicity (repeated exposure): Category 1.

2.2. Label elements

Signal word

Danger

Symbols

Flame | Exclamation mark | Health Hazard |

Pictograms



Hazard statements

Flammable liquid and vapour.

Causes serious eye irritation. May cause an allergic skin reaction. May damage fertility or the unborn child. May cause cancer.

Causes damage to organs: liver | sensory organs |

Causes damage to organs through prolonged or repeated exposure: respiratory system | sensory organs |

May cause damage to organs through prolonged or repeated exposure: liver |

Precautionary statements

General:

Keep out of reach of children.

Prevention:

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground and bond container and receiving equipment. Use non-sparking tools. Take action to prevent static discharges. Keep container tightly closed. Use explosion-proof electrical/ventilating/lighting equipment. Do not breathe dust/fume/gas/mist/vapours/spray. Wear protective gloves and eye/face protection. Do not eat, drink or smoke when using this product. Wash exposed skin thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.

Response:

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. IF exposed or concerned: Get medical advice/attention. In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry chemical or carbon dioxide to extinguish.

Storage:

Store in a well-ventilated place. Keep cool. Store locked up.

Disposal:

Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

2.3. Other hazards

None known.

27% of the mixture consists of ingredients of unknown acute oral toxicity.

27% of the mixture consists of ingredients of unknown acute dermal toxicity.

27% of the mixture consists of ingredients of unknown acute inhalation toxicity.

SECTION 3: Composition/information on ingredients

This material is a mixture.

Ingredient	C.A.S. No.	% by Wt	Common Name
Polymer 2	Trade Secret	10 - 30	Not Applicable
Talc	14807-96-6	10 - 30 Trade Secret *	Talc (Mg ₃ H ₂ (SiO ₃) ₄)
Styrene Monomer	100-42-5	< 20 Trade Secret *	Benzene, ethenyl-
1,3-Isobenzofurandione, Polymer With 2,5-Furandione And 2,2'-Oxybis[Ethanol]	26123-45-5	5 - 10	1,3-Isobenzofurandione, polymer with 2,5-furandione and 2,2'-oxybis[ethanol]
Aluminum	7429-90-5	5 - 10	Aluminum
Magnesium Carbonate	546-93-0	1 - 5	Carbonic acid, magnesium salt (1:1)
Oxide Glass Chemicals	65997-17-3	1 - 5	Glass, oxide, chemicals
Polymer 1	Trade Secret	1 - 5	Not Applicable
Sodium silicate	1344-09-8	< 3 Trade Secret *	Silicic acid, sodium salt
Thickening Agent	Trade Secret	0.5 - 1.5	Not Applicable
2-hydroxyethyl methacrylate	868-77-9	0.1 - 1 Trade Secret *	2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester
Butanediol diglycidyl ether	2425-79-8	0.1 - 1 Trade Secret *	Oxirane, 2,2'-[1,4-butanediylbis(oxyethylene)]bis-
Sodium Metaborate	7775-19-1	0.1 - 1 Trade Secret *	No Data Available
Cobalt Octoate	136-52-7	< 0.3 Trade Secret *	Hexanoic acid, 2-ethyl-, cobalt(2+) salt
Quartz Silica	14808-60-7	< 0.3 Trade Secret *	Quartz (SiO ₂)

Polymer 1 is a non-hazardous Trade Secret material according to WHMIS criteria.

Polymer 2 is a non-hazardous Trade Secret material according to WHMIS criteria.

Thickening Agent is a non-hazardous Trade Secret material according to WHMIS criteria.

*The actual concentration of this ingredient has been withheld as a trade secret.

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 for at least 15 minutes. Remove contact lenses if easy to do. Continue rinsing. Immediately 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. Suitable extinguishing media

In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry chemical or carbon dioxide to extinguish.

5.2. Special hazards arising from the substance or mixture

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

Hazardous Decomposition or By-Products

<u>Substance</u>	<u>Condition</u>
Carbon monoxide	During Combustion
Carbon dioxide	During Combustion

5.3. Special protective actions for fire-fighters

Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture.

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 vapours in the spill area to burn or explode. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

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

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Keep out of reach of children. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe dust/fume/gas/mist/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 oxidizing agents (eg. chlorine, chromic acid etc.) Wear low static or properly grounded shoes. Use personal protective equipment (gloves, respirators, etc.) as required. To minimize the risk of ignition, determine applicable electrical classifications for the process using this product and select specific local exhaust ventilation equipment to avoid flammable vapor accumulation. Ground/bond container and receiving equipment if there is potential for static electricity accumulation during transfer.

7.2. Conditions for safe storage including any incompatibilities

Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store away from heat. Store away from acids. Store away from strong bases. Store away from oxidizing agents.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Occupational exposure limits**

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

Ingredient	C.A.S. No.	Agency	Limit type	Additional Comments
Styrene Monomer	100-42-5	ACGIH	TWA:10 ppm;STEL:20 ppm	
Talc	14807-96-6	ACGIH	TWA(respirable fraction):2 mg/m ³	
Quartz Silica	14808-60-7	ACGIH	TWA(respirable fraction):0.025 mg/m ³	
Oxide Glass Chemicals	65997-17-3	Manufacturer determined	TWA(as non-fibrous, respirable)(8 hours):3 mg/m ³ ;TWA(as non-fibrous, inhalable fraction)(8 hours):10 mg/m ³	
Aluminum	7429-90-5	ACGIH	TWA(respirable fraction):1 mg/m ³	

ACGIH : American Conference of Governmental Industrial Hygienists

AIHA : American Industrial Hygiene Association

CMRG : Chemical Manufacturer's Recommended Guidelines

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

CEIL: Ceiling

8.2. Exposure controls**8.2.1. Engineering controls**

Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/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: Fluoroelastomer

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:	Putty
Colour	Black
Odour	Pungent Odour
Odour threshold	No Data Available
pH	Not Applicable
Melting point/Freezing point	No Data Available
Boiling point	146.1 °C
Flash Point	32.2 °C [Test Method: Closed Cup]
Evaporation rate	No Data Available
Flammability (solid, gas)	Not Applicable
Flammable Limits(LEL)	No Data Available
Flammable Limits(UEL)	No Data Available
Vapour Pressure	599.9 Pa
Viscosity/Kinematic Viscosity Viscosity/Kinematic Viscosity	No Data Available
Density	1.3 kg/l
Relative density	1.3
Water solubility	Nil
Solubility- non-water	Not Applicable
Partition coefficient: n-octanol/ water	No Data Available
Autoignition temperature	No Data Available
Decomposition temperature	Not Applicable
Viscosity/Kinematic Viscosity	360,000 - 440,000 mPa-s
Volatile Organic Compounds	18.4 % weight [Test Method: calculated per CARB title 2]
Volatile Organic Compounds	240 g/l [Test Method: calculated SCAQMD rule 443.1]
Percent volatile	18.8 % weight
VOC Less H ₂ O & Exempt Solvents	241 g/l [Test Method: calculated SCAQMD rule 443.1]

Nanoparticles

This material does not contain nanoparticles.

SECTION 10: Stability and reactivity

10.1. Reactivity

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

10.2. Chemical stability

Stable.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Heat

Sparks and/or flames

10.5. Incompatible materials

Strong acids

Strong oxidizing agents

Strong bases

Alkali and alkaline earth metals

10.6. Hazardous decomposition products

<u>Substance</u>	<u>Condition</u>
None known.	

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labeling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

11.1. Information on Toxicological effects

Signs and Symptoms of Exposure

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

Inhalation:

May be harmful if inhaled. Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. May cause additional health effects (see below).

Skin Contact:

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

Eye Contact:

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

Ingestion:

May be harmful if swallowed. Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea. May cause additional health effects (see below).

Additional Health Effects:

Single exposure may cause target organ effects:

Auditory Effects: Signs/symptoms may include hearing impairment, balance dysfunction and ringing in the ears. Liver

Effects: Signs/symptoms may include loss of appetite, weight loss, fatigue, weakness, abdominal tenderness and jaundice.

Prolonged or repeated exposure may cause target organ effects:

Pneumoconiosis: Signs/symptoms may include persistent cough, breathlessness, chest pain, increased amounts of sputum, and changes in lung function tests. Ocular Effects: Signs/symptoms may include blurred or significantly impaired vision. Auditory Effects: Signs/symptoms may include hearing impairment, balance dysfunction and ringing in the ears. Liver Effects: Signs/symptoms may include loss of appetite, weight loss, fatigue, weakness, abdominal tenderness and jaundice.

Reproductive/Developmental Toxicity:

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

Carcinogenicity:

Contains a chemical or chemicals which can cause cancer.

Ingredient	CAS No.	Class Description	Regulation
Quartz Silica	14808-60-7	Grp. 1: Carcinogenic to humans	International Agency for Research on Cancer
Styrene Monomer	100-42-5	Grp. 2A: Probable human carc.	International Agency for Research on Cancer
Styrene Monomer	100-42-5	Anticipated human carcinogen	National Toxicology Program Carcinogens

Toxicological Data

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

Acute Toxicity

Name	Route	Species	Value
Overall product	Dermal		No data available; calculated ATE >5,000 mg/kg
Overall product	Inhalation-Vapor(4 hr)		No data available; calculated ATE ₂₀ - 50 mg/l
Overall product	Ingestion		No data available; calculated ATE _{2,000} - 5,000 mg/kg
Talc	Dermal		LD ₅₀ estimated to be > 5,000 mg/kg
Talc	Ingestion		LD ₅₀ estimated to be > 5,000 mg/kg
Styrene Monomer	Dermal	Rat	LD ₅₀ > 2,000 mg/kg
Styrene Monomer	Inhalation-Vapor (4 hours)	Rat	LC ₅₀ 8.3 mg/l
Styrene Monomer	Ingestion	Rat	LD ₅₀ 5,000 mg/kg
Aluminum	Dermal		LD ₅₀ estimated to be > 5,000 mg/kg
Aluminum	Ingestion		LD ₅₀ estimated to be > 5,000 mg/kg
Aluminum	Inhalation-Dust/Mist (4 hours)	Rat	LC ₅₀ > 0.888 mg/l
1,3-Isobenzofurandione, Polymer With 2,5-Furandione And 2,2'-Oxybis[Ethanol]	Dermal		LD ₅₀ estimated to be > 5,000 mg/kg
1,3-Isobenzofurandione, Polymer With 2,5-Furandione And 2,2'-Oxybis[Ethanol]	Ingestion		LD ₅₀ estimated to be 2,000 - 5,000 mg/kg
Oxide Glass Chemicals	Dermal		LD ₅₀ estimated to be > 5,000 mg/kg
Oxide Glass Chemicals	Ingestion		LD ₅₀ estimated to be 2,000 - 5,000 mg/kg
Magnesium Carbonate	Dermal	Professional judgment	LD ₅₀ estimated to be 2,000 - 5,000 mg/kg
Magnesium Carbonate	Ingestion	Rat	LD ₅₀ > 2,000 mg/kg
Sodium silicate	Dermal	Rabbit	LD ₅₀ > 4,640 mg/kg
Sodium silicate	Ingestion	Rat	LD ₅₀ 500 mg/kg
2-hydroxyethyl methacrylate	Dermal	Rabbit	LD ₅₀ > 5,000 mg/kg
2-hydroxyethyl methacrylate	Ingestion	Rat	LD ₅₀ 5,564 mg/kg
Sodium Metaborate	Dermal	Rabbit	LD ₅₀ > 2,000 mg/kg
Sodium Metaborate	Inhalation-Dust/Mist (4 hours)	Rat	LC ₅₀ > 2.03 mg/l

Sodium Metaborate	Ingestion	Rat	LD50 2,330 mg/kg
Butanediol diglycidyl ether	Dermal	Rabbit	LD50 1,130 mg/kg
Butanediol diglycidyl ether	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 11.3 mg/l
Butanediol diglycidyl ether	Ingestion	Rat	LD50 1,134 mg/kg
Quartz Silica	Dermal		LD50 estimated to be > 5,000 mg/kg
Quartz Silica	Ingestion		LD50 estimated to be > 5,000 mg/kg
Cobalt Octoate	Dermal		LD50 estimated to be 2,000 - 5,000 mg/kg
Cobalt Octoate	Ingestion	Rat	LD50 3,129 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Talc	Rabbit	No significant irritation
Styrene Monomer	official classification	Mild irritant
Aluminum	Rabbit	No significant irritation
Oxide Glass Chemicals	Professional judgement	No significant irritation
Magnesium Carbonate	In vitro data	No significant irritation
Sodium silicate	Rabbit	Corrosive
2-hydroxyethyl methacrylate	Rabbit	Minimal irritation
Sodium Metaborate	Rabbit	No significant irritation
Quartz Silica	Professional judgement	No significant irritation
Cobalt Octoate	In vitro data	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
Talc	Rabbit	No significant irritation
Styrene Monomer	official classification	Moderate irritant
Aluminum	Rabbit	No significant irritation
Oxide Glass Chemicals	Professional judgement	No significant irritation
Magnesium Carbonate	Rabbit	Mild irritant
Sodium silicate	Rabbit	Corrosive
2-hydroxyethyl methacrylate	Rabbit	Moderate irritant
Sodium Metaborate	Rabbit	Severe irritant
Cobalt Octoate	Rabbit	Severe irritant

Skin Sensitization

Name	Species	Value
Styrene Monomer	Guinea pig	Not classified
Aluminum	Guinea pig	Not classified
Sodium silicate	Mouse	Not classified
2-hydroxyethyl methacrylate	Human and animal	Sensitizing

Sodium Metaborate	similar compounds	Not classified
Cobalt Octoate	Mouse	Sensitizing

Respiratory Sensitization

Name	Species	Value
Talc	Human	Not classified
Aluminum	Human	Not classified

Germ Cell Mutagenicity

Name	Route	Value
Talc	In Vitro	Not mutagenic
Talc	In vivo	Not mutagenic
Styrene Monomer	In Vitro	Some positive data exist, but the data are not sufficient for classification
Styrene Monomer	In vivo	Some positive data exist, but the data are not sufficient for classification
Aluminum	In Vitro	Not mutagenic
Oxide Glass Chemicals	In Vitro	Some positive data exist, but the data are not sufficient for classification
Sodium silicate	In Vitro	Not mutagenic
Sodium silicate	In vivo	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
Sodium Metaborate	In Vitro	Not mutagenic
Sodium Metaborate	In vivo	Not mutagenic
Quartz Silica	In Vitro	Some positive data exist, but the data are not sufficient for classification
Quartz Silica	In vivo	Some positive data exist, but the data are not sufficient for classification

Carcinogenicity

Name	Route	Species	Value
Talc	Inhalation	Rat	Some positive data exist, but the data are not sufficient for classification
Styrene Monomer	Ingestion	Mouse	Carcinogenic
Styrene Monomer	Inhalation	Human and animal	Carcinogenic
Oxide Glass Chemicals	Inhalation	Multiple animal species	Some positive data exist, but the data are not sufficient for classification
Quartz Silica	Inhalation	Human and animal	Carcinogenic

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
Talc	Ingestion	Not classified for development	Rat	NOAEL 1,600 mg/kg	during organogenesis
Styrene Monomer	Ingestion	Not classified for female reproduction	Rat	NOAEL 21 mg/kg/day	3 generation
Styrene Monomer	Inhalation	Not classified for female reproduction	Rat	NOAEL 2.1 mg/l	2 generation
Styrene Monomer	Inhalation	Not classified for male reproduction	Rat	NOAEL 2.1 mg/l	2 generation

Styrene Monomer	Ingestion	Not classified for male reproduction	Rat	NOAEL 400 mg/kg/day	60 days
Styrene Monomer	Ingestion	Not classified for development	Rat	NOAEL 400 mg/kg/day	during gestation
Styrene Monomer	Inhalation	Not classified for development	Multiple animal species	NOAEL 2.1 mg/l	during gestation
Sodium silicate	Ingestion	Not classified for development	Mouse	NOAEL 200 mg/kg/day	during gestation
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
Sodium Metaborate	Ingestion	Toxic to female reproduction	similar compounds	NOAEL 106 mg/kg/day	3 generation
Sodium Metaborate	Ingestion	Toxic to male reproduction	similar compounds	NOAEL 106 mg/kg/day	3 generation
Sodium Metaborate	Ingestion	Toxic to development	similar compounds	NOAEL 133 mg/kg/day	during gestation
Cobalt Octoate	Ingestion	Toxic to female reproduction	Rat	NOAEL 300 mg/kg/day	1 generation
Cobalt Octoate	Ingestion	Toxic to male reproduction	Rat	NOAEL 300 mg/kg/day	1 generation
Cobalt Octoate	Ingestion	Toxic to development	Rat	NOAEL 100 mg/kg/day	1 generation

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Styrene Monomer	Inhalation	auditory system	Causes damage to organs	Multiple animal species	LOAEL 4.3 mg/l	not available
Styrene Monomer	Inhalation	liver	Causes damage to organs	Mouse	LOAEL 2.1 mg/l	not available
Styrene Monomer	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	occupational exposure
Styrene Monomer	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human and animal	NOAEL Not available	
Styrene Monomer	Inhalation	endocrine system	Not classified	Rat	NOAEL Not available	not available
Styrene Monomer	Inhalation	kidney and/or bladder	Not classified	Multiple animal species	NOAEL 2.1 mg/l	not available
Sodium silicate	Inhalation	respiratory irritation	May cause respiratory irritation	official classification	NOAEL Not available	
Sodium Metaborate	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	
Cobalt Octoate	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
------	-------	-----------------	-------	---------	-------------	-------------------

Talc	Inhalation	pneumoconiosis	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	occupational exposure
Talc	Inhalation	pulmonary fibrosis respiratory system	Not classified	Rat	NOAEL 18 mg/m3	113 weeks
Styrene Monomer	Inhalation	eyes	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	occupational exposure
Styrene Monomer	Inhalation	auditory system	May cause damage to organs though prolonged or repeated exposure	Multiple animal species	NOAEL 1.3 mg/l	not available
Styrene Monomer	Inhalation	liver	May cause damage to organs though prolonged or repeated exposure	Mouse	LOAEL 0.85 mg/l	13 weeks
Styrene Monomer	Inhalation	nervous system	Some positive data exist, but the data are not sufficient for classification	Multiple animal species	LOAEL 1.1 mg/l	not available
Styrene Monomer	Inhalation	hematopoietic system	Not classified	Rat	NOAEL 0.85 mg/l	7 days
Styrene Monomer	Inhalation	endocrine system	Not classified	Rat	NOAEL 0.6 mg/l	10 days
Styrene Monomer	Inhalation	respiratory system	Not classified	Multiple animal species	LOAEL 0.09 mg/l	not available
Styrene Monomer	Inhalation	heart gastrointestinal tract bone, teeth, nails, and/or hair muscles kidney and/or bladder	Not classified	Multiple animal species	NOAEL 4.3 mg/l	2 years
Styrene Monomer	Ingestion	nervous system	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 500 mg/kg/day	8 weeks
Styrene Monomer	Ingestion	immune system	Some positive data exist, but the data are not sufficient for classification	Multiple animal species	NOAEL Not available	not available
Styrene Monomer	Ingestion	liver kidney and/or bladder	Not classified	Rat	NOAEL 677 mg/kg/day	6 months
Styrene Monomer	Ingestion	hematopoietic system	Not classified	Dog	NOAEL 600 mg/kg/day	470 days
Styrene Monomer	Ingestion	heart respiratory system	Not classified	Rat	NOAEL 35 mg/kg/day	105 weeks
Aluminum	Inhalation	nervous system respiratory system	Not classified	Human	NOAEL Not available	occupational exposure
Oxide Glass Chemicals	Inhalation	respiratory system	Not classified	Human	NOAEL not available	occupational exposure
Sodium silicate	Ingestion	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Dog	LOAEL 2,400 mg/kg/day	4 weeks
Sodium silicate	Ingestion	endocrine system blood	Not classified	Rat	NOAEL 804 mg/kg/day	3 months
Sodium silicate	Ingestion	heart liver	Not classified	Rat	NOAEL 1,259 mg/kg/day	8 weeks
Sodium Metaborate	Ingestion	hematopoietic system eyes	Not classified	similar compounds	NOAEL 100 mg/kg/day	2 years
Quartz Silica	Inhalation	silicosis	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	occupational exposure

Aspiration Hazard

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

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

SECTION 12: Ecological information

No data available.

SECTION 13: Disposal considerations

13.1. Disposal methods

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

Incinerate 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.

SECTION 14: Transport Information

For Transport Information, please visit <http://3M.com/Transportinfo> or call 1-800-364-3577 or 651-737-6501.

SECTION 15: Regulatory information

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

Global inventory status

All applicable chemical ingredients in this material are listed on the European Inventory of Existing Chemical Substances (EINECS), or are exempt polymers whose monomers are listed on EINECS. Contact 3M for more information. The components of this product are in compliance with the new substance notification requirements of CEPA. The components of this product are in compliance with the chemical notification requirements of TSCA. All required components of this product are listed on the active portion of the TSCA Inventory.

SECTION 16: Other information

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

Health: 2 Flammability: 3 Instability: 0 Special Hazards: None

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

Document group:	33-5242-4	Version number:	1.00
Issue Date:	2020/09/30	Supersedes Date:	Initial Issue

The information in this Safety Data Sheet (SDS) is believed to be correct as of the date issued. The manufacturer MAKES NO WARRANTIES, EXPRESS OR IMPLIED, STATUTORY OR OTHERWISE, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY IMPLIED WARRANTY OR CONDITION ARISING OUT OF A COURSE OF PERFORMANCE, COURSE OF DEALING, CUSTOM OR USAGE OF TRADE. User is responsible for determining whether the product is fit

for a particular purpose and suitable for user's method of use or application. Given the variety of factors that can affect the use and application of a product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the product to determine whether it is fit for a particular purpose and suitable for user's method of use or application.

3M Canada SDSs are available at www.3M.ca