



Safety Data Sheet

Copyright, 2017, 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:	24-2540-3	Version number:	7.01
Issue Date:	2017/05/02	Supersedes Date:	2016/11/11

SECTION 1: Identification

1.1. Product identifier

3M™ Bondo® Autobody Filler Repair Kit 310, 310M, 310C, 310T, 312, 312M, 312C, 312ES, 312K

Product Identification Numbers

60-4550-5642-8 60-4550-5643-6 60-4550-5644-4 60-4550-6616-1 70-0080-0011-2

1.2. Recommended use and restrictions on use

Recommended use

Automotive

1.3. Supplier's details

Company: 3M Canada Company
Division: Automotive Aftermarket
Address: 1840 Oxford Street East, Post Office Box 5757, London, Ontario N6A 4T1

Telephone: (800) 364-3577
E Mail:

1.4. Emergency telephone number

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

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

24-2534-6, 29-5993-0

Transport in accordance with applicable regulations.

The information in this Safety Data Sheet (SDS) is believed to be correct as of the date issued. 3M 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 3M

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 3M product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for user's method of use or application.

3M provides information in electronic form as a service to its customers. Due to the remote possibility that electronic transfer may have resulted in errors, omissions or alterations in this information, 3M makes no representations as to its completeness or accuracy. In addition, information obtained from a database may not be as current as the information in the SDS available directly from 3M.

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



Safety Data Sheet

Copyright, 2019, 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:	29-5993-0	Version number:	5.04
Issue Date:	2019/02/11	Supersedes Date:	2018/10/05

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

SECTION 1: Identification

1.1. Product identifier

3M™ Cream Hardener (Red, White & Blue)

Product Identification Numbers

41-0003-7987-9 60-4550-6617-9 60-4550-6830-8 60-4550-6981-9 60-4550-6982-7

1.2. Recommended use and restrictions on use

Intended Use

Automotive

Specific Use

hardener for body fillers & glazes

Restrictions on use

Not applicable

1.3. Supplier's details

Company:	3M Canada Company
Division:	Automotive Aftermarket
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:

60-4550-6614-6, 60-4550-6617-9

2.1. Classification of the substance or mixture

Organic Peroxide: Type E.

Serious Eye Damage/Irritation: Category 2A.

3M™ Cream Hardener (Red, White & Blue)

Skin Sensitizer: Category 1B.

2.2. Label elements

Signal word

Warning

Symbols

Flame | Exclamation mark |

Pictograms



Hazard statements

Heating may cause a fire.

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

Precautionary statements

General:

Keep out of reach of children.

Prevention:

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground and bond container and receiving equipment. Keep only in original packaging. Avoid breathing dust/fume/gas/mist/vapours/spray. Wear protective gloves and eye/face protection. Wash exposed skin thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.

Response:

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 ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. In case of fire: Use a fire fighting agent suitable for ordinary combustible material such as water or foam to extinguish.

Storage:

Protect from sunlight. Store in a well-ventilated place. Store at temperatures not exceeding 32C/90F. Keep cool. Store separately.

Disposal:

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

2.3. Other hazards

None known.

8% 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
Benzoyl Peroxide	94-36-0	30 - 60 Trade Secret *	Peroxide, dibenzoyl
Water	7732-18-5	10 - 30	Water

3M™ Cream Hardener (Red, White & Blue)

Benzoic Acid, C9-11-Branched Alkyl Esters	131298-44-7	10 - 30	Benzoic acid, C9-11-branched alkyl esters
Zinc Stearate	557-05-1	3 - 7	Octadecanoic acid, zinc salt
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	9038-95-3	1 - 5	Oxirane, methyl-, polymer with oxirane, monobutyl ether
Calcium Sulfate	7778-18-9	1 - 5	Sulfuric acid, calcium salt (1:1)
Iron Oxide (Fe ₂ O ₃)	1309-37-1	1 - 5	Iron oxide (Fe ₂ O ₃)
Ferric Ferrocyanide	14038-43-8	0 - 1	Ferrate(4-), hexakis(cyano-C)-, iron(3+) (3:4), (OC-6-11)-
Ferric Ammonium Ferrocyanide	25869-00-5	0 - 1	Ferrate(4-), hexakis(cyano-C)-, ammonium iron(3+) (1:1:1), (OC-6-11)-

*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. Remove contact lenses if easy to do. Continue rinsing. Get medical attention.

If Swallowed:

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

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

See Section 11.1. Information on toxicological effects.

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

Not applicable

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

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

5.2. Special hazards arising from the substance or mixture

Closed containers exposed to heat from fire may build pressure and explode. Part of the oxygen for combustion is supplied by the peroxide itself.

5.3. Special protective actions for fire-fighters

Wear full protective equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA).

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate area. Eliminate all ignition sources if safe to do so. 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,

3M™ Cream Hardener (Red, White & Blue)

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. 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. 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

Do not use in a confined area with minimal air exchange. Keep out of reach of children. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. 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.

7.2. Conditions for safe storage including any incompatibilities

Keep container tightly closed. Protect from sunlight. Store away from heat. Store at temperatures not exceeding 32C/90F. Keep cool. Keep only in original container. Store away from other materials. Keep/store away from clothing and other combustible materials.

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
Iron Oxide (FE2O3)	1309-37-1	ACGIH	TWA(respirable fraction):5 mg/m3	
Calcium Sulfate	7778-18-9	ACGIH	TWA(inhalable fraction):10 mg/m3	
Benzoyl Peroxide	94-36-0	ACGIH	TWA:5 mg/m3	

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

Provide ventilation adequate to maintain dust concentration below minimum explosive concentrations. Use general dilution

3M™ Cream Hardener (Red, White & Blue)

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:

Indirect Vented Goggles

Skin/hand protection

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

Gloves made from the following material(s) are recommended: Nitrile Rubber
Polymer laminate

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

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	Solid
Specific Physical Form:	Viscous
Appearance/Odour	Red paste with slight ester odour
Odour threshold	<i>No Data Available</i>
pH	<i>No Data Available</i>
Melting point/Freezing point	<i>No Data Available</i>
Boiling point	<i>No Data Available</i>
Flash Point	111 °C [<i>Test Method:Estimated</i>]
Evaporation rate	<i>No Data Available</i>
Flammability (solid, gas)	Organic Peroxide: Type E.
Flammable Limits(LEL)	<i>Not Applicable</i>
Flammable Limits(UEL)	<i>Not Applicable</i>
Vapour Pressure	<i>Not Applicable</i>
Vapour Density	<i>Not Applicable</i>
Density	1.2 g/cm ³
Relative density	1.2 [<i>@ 25 °C</i>] [<i>Ref Std: WATER=1</i>]
Water solubility	Negligible
Solubility- non-water	<i>No Data Available</i>

3M™ Cream Hardener (Red, White & Blue)

Partition coefficient: n-octanol/ water	No Data Available
Autoignition temperature	No Data Available
Decomposition temperature	No Data Available
Viscosity	No Data Available
Molecular weight	Not Applicable
Volatile Organic Compounds	0 g/l [Test Method:calculated SCAQMD rule 443.1]
Volatile Organic Compounds	0 % weight [Test Method:calculated per CARB title 2]
Percent volatile	20 % [Details:Water is the volatile component]
VOC Less H2O & Exempt Solvents	0 g/l [Test Method:calculated SCAQMD rule 443.1]

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. Stable unless exposed to heat, flames and drying conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Heat

10.5. Incompatible materials

Accelerators

10.6. Hazardous decomposition products

<u>Substance</u>	<u>Condition</u>
Carbon monoxide	Not Specified
Carbon dioxide	Not Specified
Toxic Vapor, Gas, Particulate	Not Specified

SECTION 11: Toxicological information

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

11.1. Information on Toxicological effects

Signs and Symptoms of Exposure

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

Inhalation:

Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Skin Contact:

May be harmful in contact with skin. Allergic Skin Reaction (non-photo induced): Signs/symptoms may include redness,

3M™ Cream Hardener (Red, White & Blue)

swelling, blistering, and itching.

Eye Contact:

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

Ingestion:

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

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 2,000 - 5,000 mg/kg
Overall product	Inhalation-Dust/Mist(4 hr)		No data available; calculated ATE >12.5 mg/l
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
Benzoyl Peroxide	Dermal		LD50 estimated to be 2,000 - 5,000 mg/kg
Benzoyl Peroxide	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 24.3 mg/l
Benzoyl Peroxide	Ingestion	Rat	LD50 > 5,000 mg/kg
Benzoic Acid, C9-11-Branched Alkyl Esters	Dermal	Rabbit	LD50 > 2,000 mg/kg
Benzoic Acid, C9-11-Branched Alkyl Esters	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 5 mg/l
Benzoic Acid, C9-11-Branched Alkyl Esters	Ingestion	Rat	LD50 > 5,000 mg/kg
Zinc Stearate	Dermal	Rabbit	LD50 > 2,000 mg/kg
Zinc Stearate	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 50 mg/l
Zinc Stearate	Ingestion	Rat	LD50 > 5,000 mg/kg
Calcium Sulfate	Dermal	Professional judgement	LD50 estimated to be > 5,000 mg/kg
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Dermal	Rabbit	LD50 > 16,960 mg/kg
Calcium Sulfate	Ingestion	Rat	LD50 > 5,000 mg/kg
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 5 mg/l
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Ingestion	Rat	LD50 4,240 mg/kg
Iron Oxide (Fe2O3)	Dermal	Not available	LD50 3,100 mg/kg
Iron Oxide (Fe2O3)	Ingestion	Not available	LD50 3,700 mg/kg
Ferric Ammonium Ferrocyanide	Dermal		LD50 estimated to be > 5,000 mg/kg
Ferric Ferrocyanide	Dermal		LD50 estimated to be > 5,000 mg/kg
Ferric Ammonium Ferrocyanide	Ingestion	Rat	LD50 > 5,110 mg/kg
Ferric Ferrocyanide	Ingestion	Rat	LD50 > 8,000 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Benzoyl Peroxide	Rabbit	Minimal irritation
Zinc Stearate	Rabbit	No significant irritation
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Rabbit	Minimal irritation
Iron Oxide (Fe2O3)	Rabbit	No significant irritation

3M™ Cream Hardener (Red, White & Blue)**Serious Eye Damage/Irritation**

Name	Species	Value
Benzoyl Peroxide	Rabbit	Severe irritant
Zinc Stearate	Rabbit	No significant irritation
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Rabbit	No significant irritation
Iron Oxide (FE2O3)	Rabbit	No significant irritation

Skin Sensitization

Name	Species	Value
Benzoyl Peroxide	Guinea pig	Sensitizing
Iron Oxide (FE2O3)	Human	Not classified

Respiratory Sensitization

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

Germ Cell Mutagenicity

Name	Route	Value
Benzoyl Peroxide	In Vitro	Not mutagenic
Benzoyl Peroxide	In vivo	Not mutagenic
Iron Oxide (FE2O3)	In Vitro	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
Benzoyl Peroxide	Ingestion	Multiple animal species	Not carcinogenic
Benzoyl Peroxide	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Ingestion	Rat	Not carcinogenic
Iron Oxide (FE2O3)	Inhalation	Human	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
Benzoyl Peroxide	Ingestion	Not classified for female reproduction	Rat	NOAEL 1,000 mg/kg/day	prematuring & during gestation
Benzoyl Peroxide	Ingestion	Not classified for male reproduction	Rat	NOAEL 500 mg/kg/day	prematuring & during gestation
Benzoyl Peroxide	Ingestion	Not classified for development	Rat	NOAEL 500 mg/kg/day	prematuring & during gestation
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Inhalation	Not classified for male reproduction	Rat	NOAEL 1 mg/l	2 weeks

Target Organ(s)**Specific Target Organ Toxicity - single exposure**

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Ingestion	nervous system	Not classified	Rat	NOAEL Not available	

3M™ Cream Hardener (Red, White & Blue)**Specific Target Organ Toxicity - repeated exposure**

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Inhalation	endocrine system hematopoietic system liver nervous system	Not classified	Rat	NOAEL 1 mg/l	2 weeks
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Inhalation	kidney and/or bladder	Not classified	Rat	NOAEL 0.005 mg/l	2 weeks
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Inhalation	respiratory system	Not classified	Rat	LOAEL 0.001 mg/l	2 weeks
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Inhalation	heart	Not classified	Rat	NOAEL 0.5 mg/l	2 weeks
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Ingestion	liver kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 145 mg/kg/day	90 days
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Ingestion	hematopoietic system	Not classified	Rat	NOAEL 500 mg/kg/day	2 years
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Ingestion	heart endocrine system respiratory system	Not classified	Rat	NOAEL 3,770 mg/kg/day	90 days
Iron Oxide (FE2O3)	Inhalation	pulmonary fibrosis pneumoconiosis	Not classified	Human	NOAEL Not available	occupational exposure

Aspiration Hazard

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

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

SECTION 12: Ecological information

No data available.

SECTION 13: Disposal considerations

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

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**

One or more of the components of this product have been notified to ELINCS (European List of Notified or New Chemical Substances). Certain restrictions apply. Contact the selling division for additional information. Contact manufacturer for more information. The components of this material are in compliance with the provisions of the Korea Chemical Control Act. Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Australia National Industrial Chemical Notification and Assessment Scheme

3M™ Cream Hardener (Red, White & Blue)

(NICNAS). Certain restrictions may apply. Contact the selling division for additional information. The components of this product are in compliance with the new substance notification requirements of CEPA. This product complies with Measures on Environmental Management of New Chemical Substances. All ingredients are listed on or exempt from on China IECSC inventory. 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: 2 Instability: 1 Special Hazards: Oxidizer

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.

HMIS Hazard Classification

Health: 2 Flammability: 1 Physical Hazard: 1 Personal Protection: X - See PPE section.

Hazardous Material Identification System (HMIS® IV) hazard ratings are designed to inform employees of chemical hazards in the workplace. These ratings are based on the inherent properties of the material under expected conditions of normal use and are not intended for use in emergency situations. HMIS® IV ratings are to be used with a fully implemented HMIS® IV program. HMIS® is a registered mark of the American Coatings Association (ACA).

Document group:	29-5993-0	Version number:	5.04
Issue Date:	2019/02/11	Supersedes Date:	2018/10/05

The information in this Safety Data Sheet (SDS) is believed to be correct as of the date issued. 3M 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 3M 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 3M product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M 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



Safety Data Sheet

Copyright, 2018, 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:	24-2534-6	Version number:	7.00
Issue Date:	2018/12/13	Supersedes Date:	2016/01/13

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

SECTION 1: Identification

1.1. Product identifier

3M™ Bondo® Autobody Filler 310C

1.2. Recommended use and restrictions on use

Intended Use

Automotive

Specific Use

Body Repair

Restrictions on use

Not applicable

1.3. Supplier's details

Company:	3M Canada Company
Division:	Automotive Aftermarket
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

2.1. Classification of the substance or mixture

Flammable Liquid: Category 3.

Serious Eye Damage/Irritation: Category 2A.

Carcinogenicity: Category 2.

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. Suspected of causing cancer.

Causes damage to organs: liver | sensory organs |

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

Precautionary statements

General:

Keep out of reach of children. Read label before use. If medical advice is needed, have product container or label at hand.

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.

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 exposed or concerned: Call a POISON CENTRE or doctor/physician. Get medical advice/attention if you feel unwell. 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.

SECTION 3: Composition/information on ingredients

This material is a mixture.

Ingredient	C.A.S. No.	% by Wt	Common Name
Polyester Resin	Trade Secret	15 - 40	Not Applicable
Styrene Monomer	100-42-5	10 - 30 Trade Secret *	Benzene, ethenyl-

3M™ Bondo® Autobody Filler 310C

Talc	14807-96-6	10 - 30 Trade Secret *	Talc (Mg ₃ H ₂ (SiO ₃) ₄)
Magnesium Carbonate	546-93-0	7 - 15	Carbonic acid, magnesium salt (1:1)
Inert Filler	Trade Secret	5 - 10	Not Applicable
Limestone	1317-65-3	1 - 5	Limestones primarily of calcium carbonate.
Sodium silicate	Trade Secret	1 - 5	Not Applicable
Thickening Agent	Trade Secret	< 3	Not Applicable
Chlorite (Mineral)	1318-59-8	< 2	Chlorite-group minerals
Titanium Dioxide	13463-67-7	0.1 - 1 Trade Secret *	Titanium oxide (TiO ₂)

*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**Substance**

Carbon monoxide
Carbon dioxide

Condition

During Combustion
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

Cover spill area with a fire-extinguishing foam. An appropriate aqueous film forming foam (AFFF) is recommended. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible using non-sparking tools. Place in a metal container approved for transportation by appropriate authorities. Clean up residue with an appropriate solvent selected by a qualified and 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**

Avoid breathing of dust created by cutting, sanding, grinding or machining. 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. Avoid release to the environment. 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:20 ppm;STEL:40 ppm	
Titanium Dioxide	13463-67-7	ACGIH	TWA:10 mg/m ³	
Talc	14807-96-6	ACGIH	TWA(respirable fraction):2 mg/m ³	
Inert Filler	Trade Secret	ACGIH	TWA(as fiber):0.2 fiber/cc;TWA(as fiber):1 fiber/cc;TWA(inhalable fraction):5 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. Note: Nitrile gloves may be worn over polymer laminate gloves to improve dexterity.

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

Polyvinyl Alcohol (PVA)

Polymer laminate

Respiratory protection

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:

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

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

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid
Specific Physical Form:	Paste
Appearance/Odour	Pungent styrene odour coloured paste.
Odour threshold	<i>No Data Available</i>
pH	<i>No Data Available</i>
Melting point/Freezing point	<i>No Data Available</i>
Boiling point	145 °C [<i>Details:CONDITIONS: (Styrene)</i>]
Flash Point	26.7 °C - 27.8 °C [<i>Test Method:Closed Cup</i>]
Evaporation rate	0.1 - 0.5
Flammability (solid, gas)	Not Applicable
Flammable Limits(LEL)	0.9 %
Flammable Limits(UEL)	6.8 %
Vapour Pressure	693.3 Pa [<i>Details:CONDITIONS: at 20 C</i>]

Vapour Density	3.6
Density	1.1 kg/l
Density	1.14 g/ml
Relative density	1.14 [Ref Std: WATER=1]
Water solubility	Negligible
Solubility- non-water	No Data Available
Partition coefficient: n-octanol/ water	No Data Available
Autoignition temperature	No Data Available
Decomposition temperature	No Data Available
Viscosity	No Data Available
Volatile Organic Compounds	203 g/l [Test Method:calculated SCAQMD rule 443.1]
Volatile Organic Compounds	17.8 % weight [Test Method:calculated per CARB title 2]
Percent volatile	18.2 % weight
VOC Less H2O & Exempt Solvents	204 g/l [Test Method:calculated SCAQMD rule 443.1]

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. Stable under normal conditions. May become unstable at elevated temperatures and/or pressures.

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 bases
Strong oxidizing agents
Alkali and alkaline earth metals

10.6. Hazardous decomposition products

<u>Substance</u>	<u>Condition</u>
Hydrocarbons	Not Specified
Styrene Oxide	Not Specified
Toxic Vapor, Gas, Particulate	Not Specified

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.

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: Sign/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.

Carcinogenicity:

Contains a chemical or chemicals which can cause cancer.

Ingredient	CAS No.	Class Description	Regulation
Inert Filler	Trade Secret	Grp. 2B: Possible human carc.	International Agency for Research on Cancer
Inert Filler	Trade Secret	Grp. 2B: Possible human carc.	International Agency for Research on Cancer
Inert Filler	Trade Secret	Anticipated human carcinogen	National Toxicology Program Carcinogens
Inert Filler	Trade Secret	Anticipated human carcinogen	National Toxicology Program Carcinogens
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
Titanium Dioxide	13463-67-7	Grp. 2B: Possible human carc.	International Agency for Research on Cancer

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
Polyester Resin	Dermal		LD ₅₀ estimated to be > 5,000 mg/kg
Polyester Resin	Ingestion		LD ₅₀ estimated to be 2,000 - 5,000 mg/kg
Talc	Dermal		LD ₅₀ estimated to be > 5,000 mg/kg

3M™ Bondo® Autobody Filler 310C

Talc	Ingestion		LD50 estimated to be > 5,000 mg/kg
Styrene Monomer	Dermal	Rat	LD50 > 2,000 mg/kg
Styrene Monomer	Inhalation-Vapor (4 hours)	Rat	LC50 8.3 mg/l
Styrene Monomer	Ingestion	Rat	LD50 5,000 mg/kg
Magnesium Carbonate	Dermal		LD50 estimated to be > 5,000 mg/kg
Magnesium Carbonate	Ingestion	Mouse	LD50 > 5,000 mg/kg
Inert Filler	Dermal		LD50 estimated to be > 5,000 mg/kg
Inert Filler	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
Sodium silicate	Dermal	Rabbit	LD50 > 4,640 mg/kg
Sodium silicate	Ingestion	Rat	LD50 500 mg/kg
Limestone	Dermal	Rat	LD50 > 2,000 mg/kg
Limestone	Inhalation-Dust/Mist (4 hours)	Rat	LC50 3 mg/l
Limestone	Ingestion	Rat	LD50 6,450 mg/kg
Thickening Agent	Dermal		LD50 estimated to be > 5,000 mg/kg
Thickening Agent	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 12.6 mg/l
Thickening Agent	Ingestion	Rat	LD50 > 5,000 mg/kg
Chlorite (Mineral)	Dermal		LD50 estimated to be > 5,000 mg/kg
Chlorite (Mineral)	Ingestion		LD50 estimated to be > 5,000 mg/kg
Titanium Dioxide	Dermal	Rabbit	LD50 > 10,000 mg/kg
Titanium Dioxide	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 6.82 mg/l
Titanium Dioxide	Ingestion	Rat	LD50 > 10,000 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Talc	Rabbit	No significant irritation
Styrene Monomer	official classification	Mild irritant
Magnesium Carbonate	In vitro data	Minimal irritation
Inert Filler	Professional judgement	No significant irritation
Sodium silicate	Rabbit	Corrosive
Limestone	Rabbit	No significant irritation
Thickening Agent	Rat	No significant irritation
Chlorite (Mineral)	Professional judgement	No significant irritation
Titanium Dioxide	Rabbit	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
Talc	Rabbit	No significant irritation
Styrene Monomer	official classification	Moderate irritant
Magnesium Carbonate	Rabbit	Mild irritant
Inert Filler	Professional judgement	No significant irritation

3M™ Bondo® Autobody Filler 310C

	judgement	
Sodium silicate	Rabbit	Corrosive
Limestone	Rabbit	No significant irritation
Thickening Agent	Rabbit	No significant irritation
Chlorite (Mineral)	Professional judgement	No significant irritation
Titanium Dioxide	Rabbit	No significant irritation

Skin Sensitization

Name	Species	Value
Styrene Monomer	Guinea pig	Not classified
Sodium silicate	Mouse	Not classified
Titanium Dioxide	Human and animal	Not classified

Respiratory Sensitization

Name	Species	Value
Talc	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
Inert Filler	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
Titanium Dioxide	In Vitro	Not mutagenic
Titanium Dioxide	In vivo	Not mutagenic

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
Inert Filler	Inhalation	Multiple animal species	Some positive data exist, but the data are not sufficient for classification
Titanium Dioxide	Ingestion	Multiple animal species	Not carcinogenic
Titanium Dioxide	Inhalation	Rat	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	during

3M™ Bondo® Autobody Filler 310C

				mg/kg	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
Limestone	Ingestion	Not classified for development	Rat	NOAEL 625 mg/kg/day	prematuring & during gestation

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	
Limestone	Inhalation	respiratory system	Not classified	Rat	NOAEL 0.812 mg/l	90 minutes

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	Not classified	Rat	NOAEL 0.85	7 days

3M™ Bondo® Autobody Filler 310C

		system			mg/l	
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
Inert Filler	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
Limestone	Inhalation	respiratory system	Not classified	Human	NOAEL Not available	occupational exposure
Titanium Dioxide	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 0.01 mg/l	2 years
Titanium Dioxide	Inhalation	pulmonary fibrosis	Not classified	Human	NOAEL Not available	occupational exposure

Aspiration Hazard

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

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

SECTION 12: Ecological information

No data available.

SECTION 13: Disposal considerations

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

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 manufacturer for more information. The components of this material are in compliance with the provisions of the Korea Chemical Control Act. Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Australia National Industrial Chemical Notification and Assessment Scheme (NICNAS). Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Japan Chemical Substance Control Law. Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Philippines RA 6969 requirements. Certain restrictions may apply. Contact the selling division for additional 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. This product complies with Measures on Environmental Management of New Chemical Substances. All ingredients are listed on or exempt from China IECSC 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: 1 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:	24-2534-6	Version number:	7.00
Issue Date:	2018/12/13	Supersedes Date:	2016/01/13

The information in this Safety Data Sheet (SDS) is believed to be correct as of the date issued. 3M 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 3M 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 3M product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M 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