



Safety Data Sheet

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Document group:	08-6768-9	Version number:	20.01
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SECTION 1: Identification

1.1. Product identifier

3M™ Advanced Finishing Glaze PN 05821

Product Identification Numbers

60-9800-3493-2

1.2. Recommended use and restrictions on use

Recommended use

Automotive, Kit containing hardener and filler for auto body repair

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: 1-800-3M HELPS / 1-800-364-3577; 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:

08-5639-3, 29-5993-0

Transport in accordance with applicable regulations.

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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



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Document group: 29-5993-0 **Version number:** 7.01
Issue Date: 2023/06/14 **Supersedes Date:** 2023/03/16

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

LB-K100-0965-7	LB-K100-0965-8	LB-K100-0965-9	LB-K100-0966-0	LB-K100-0966-1
LB-K100-0966-2	LB-K100-0966-3	LB-K100-1035-6	LB-K100-1045-4	LB-K100-1286-7
LB-K100-2043-9	LB-K100-2044-1	34-8720-4551-2	34-8723-2151-7	34-8723-6649-6
41-0003-6674-4	41-0003-6682-7	41-0003-6685-0	41-0003-6686-8	41-0003-6687-6
41-0003-7901-0	41-0003-7903-6	41-0003-7904-4	41-0003-7922-6	41-0003-7928-3
41-0003-7930-9	41-0003-7931-7	41-0003-7932-5	41-0003-7933-3	41-0003-7935-8
41-0003-7987-9	41-0003-8059-6	41-0003-8072-9	41-0003-8073-7	41-0003-8074-5
41-0003-8146-1	60-4550-6614-6	60-4550-6981-9	60-4550-6982-7	60-4550-8123-6
60-4551-0388-1				

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:1-800-3M HELPS / 1-800-364-3577; Transportation Emergency Telephone (CANUTEC): (613) 996-6666

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

Organic Peroxide: Type E.
Serious Eye Damage/Irritation: Category 2A.
Skin Sensitizer: Category 1B.
Specific Target Organ Toxicity (single exposure): Category 1.

2.2. Label elements

Signal word

Danger

Symbols

Flame | Exclamation mark | Health Hazard |

Pictograms



Hazard statements

Heating may cause a fire.
Causes serious eye irritation. May cause an allergic skin reaction.
Causes damage to organs: cardiovascular system | nervous system | kidney/urinary tract | respiratory system |

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. 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 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. IF exposed or concerned: Call a POISON CENTRE or doctor/physician. 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 locked up. Store separately.

Disposal:

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

Notes to Physician:

This product contains ethylene glycol. If there is reasonable suspicion of ethylene glycol poisoning, intravenous (IV) administration with either fomepizole (preferred) or ethanol (if fomepizole is unavailable) should be considered as part of the medical management.

2.3. Other hazards

None known.

17% 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
Benzoic Acid, C9-11-Branched Alkyl Esters	131298-44-7	10 - 30	Benzoic acid, C9-11-branched alkyl esters
Water	7732-18-5	10 - 30	Water
Calcium Sulfate	7778-18-9	1 - 10	Sulfuric acid, calcium salt (1:1)
Zinc Stearate	557-05-1	1 - 10	Octadecanoic acid, zinc salt
Ethylene Glycol	107-21-1	0 - 7.5	1,2-Ethanediol
Iron Oxide (Fe ₂ O ₃)	1309-37-1	<= 5	Iron oxide (Fe ₂ O ₃)
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	9038-95-3	<= 5	Oxirane, methyl-, polymer with oxirane, monobutyl ether
Ferric Ammonium Ferrocyanide	25869-00-5	<= 1	Ferrate(4-), hexakis(cyano-C)-, ammonium iron(3+) (1:1:1), (OC-6-11)-
Ferric Ferrocyanide	14038-43-8	<= 1	Ferrate(4-), hexakis(cyano-C)-, iron(3+) (3:4), (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

Allergic skin reaction (redness, swelling, blistering, and itching). Target organ effects. See Section 11 for additional details.

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

This product contains ethylene glycol. Effects of oral ethylene glycol poisoning can be divided into three stages which generally occur over a time-course of hours to days following ingestion: Stage 1 (neurological effects), stage 2 (cardiopulmonary effects) and stage 3 (renal effects). If ethylene glycol poisoning is confirmed, intravenous (IV) administration of ethanol should be considered. Additional pharmacologic and supportive care should be based on the treating physician's judgement.

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). 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. 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, 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

Collect as much of the spilled material as possible using non-sparking tools. Place in a closed container approved for transportation by appropriate authorities. Clean up residue. 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. 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.

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
Ethylene Glycol	107-21-1	ACGIH	TWA(Vapor fraction):25	

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			ppm;STEL(Vapor fraction):50 ppm;STEL(Inhalable aerosol):10 mg/m3	
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 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: Polymer laminate

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

Respiratory protection

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

Half facepiece or full facepiece air-purifying respirator suitable for organic 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
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Specific Physical Form:	Paste
Colour	Red
Odour	Slight Ester
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 and/or Relative 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>
Partition coefficient: n-octanol/ water	<i>No Data Available</i>
Autoignition temperature	<i>No Data Available</i>
Decomposition temperature	<i>No Data Available</i>
Viscosity/Kinematic Viscosity	<i>No Data Available</i>
Volatile Organic Compounds	0 - 90 g/l [<i>Test Method: calculated SCAQMD rule 443.1</i>]
Volatile Organic Compounds	0 % weight [<i>Test Method: calculated per CARB title 2</i>]
Percent volatile	21 - 28.5 %
VOC Less H₂O & Exempt Solvents	0 - 121 g/l [<i>Test Method: calculated SCAQMD rule 443.1</i>]
Molecular weight	<i>Not Applicable</i>

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, swelling, blistering, and itching.

Eye Contact:

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

Ingestion:

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

Additional Health Effects:

Single exposure may cause target organ effects:

Cardiac Effects: Signs/symptoms may include irregular heartbeat (arrhythmia), changes in heart rate, damage to heart muscle, heart attack, and may be fatal. Neurological Effects: Signs/symptoms may include personality changes, lack of coordination, sensory loss, tingling or numbness of the extremities, weakness, tremors, and/or changes in blood pressure and heart rate. Respiratory Effects: Signs/symptoms may include cough, shortness of breath, chest tightness, wheezing, increased heart rate, bluish coloured skin (cyanosis), sputum production, changes in lung function tests, and/or respiratory failure. Kidney/Bladder Effects: Signs/symptoms may include changes in urine production, abdominal or lower back pain, increased protein in urine, increased blood urea nitrogen (BUN), blood in urine, and painful urination.

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

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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
Calcium Sulfate	Dermal	Professional judgement	LD50 estimated to be > 5,000 mg/kg
Calcium Sulfate	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 > 2,000 mg/kg
Ethylene Glycol	Ingestion	Human	LD50 1,600 mg/kg
Ethylene Glycol	Inhalation-Dust/Mist (4 hours)	Other	LC50 estimated to be 5 - 12.5 mg/l
Ethylene Glycol	Dermal	Rabbit	9,530 mg/kg
Iron Oxide (FE2O3)	Dermal	Not available	LD50 3,100 mg/kg
Iron Oxide (FE2O3)	Ingestion	Not available	LD50 3,700 mg/kg
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Dermal	Rabbit	LD50 > 16,960 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
Ferric Ferrocyanide	Dermal	Professional judgement	LD50 estimated to be > 5,000 mg/kg
Ferric Ammonium Ferrocyanide	Dermal	Rat	LD50 > 2,000 mg/kg
Ferric Ammonium Ferrocyanide	Ingestion	Rat	LD50 > 2,000 mg/kg
Ferric Ferrocyanide	Ingestion	similar compounds	LD50 > 2,000 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Benzoyl Peroxide	Rabbit	Minimal irritation
Zinc Stearate	Rabbit	No significant irritation
Ethylene Glycol	Rabbit	Minimal irritation
Iron Oxide (FE2O3)	Rabbit	No significant irritation
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Rabbit	Minimal irritation
Ferric Ammonium Ferrocyanide	Rabbit	No significant irritation
Ferric Ferrocyanide	similar compounds	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
Benzoyl Peroxide	Rabbit	Severe irritant
Zinc Stearate	Rabbit	No significant irritation
Ethylene Glycol	Rabbit	Mild irritant
Iron Oxide (FE2O3)	Rabbit	No significant irritation
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Rabbit	No significant irritation
Ferric Ammonium Ferrocyanide	Rabbit	Mild irritant
Ferric Ferrocyanide	similar compounds	No significant irritation

Skin Sensitization

Name	Species	Value
Benzoyl Peroxide	Guinea pig	Sensitizing
Zinc Stearate	Human	Not classified
Ethylene Glycol	Human	Not classified
Iron Oxide (FE2O3)	Human	Not classified
Ferric Ammonium Ferrocyanide	Mouse	Not classified
Ferric Ferrocyanide	similar compounds	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
Zinc Stearate	In Vitro	Not mutagenic
Ethylene Glycol	In Vitro	Not mutagenic
Ethylene Glycol	In vivo	Not mutagenic
Iron Oxide (FE2O3)	In Vitro	Not mutagenic
Ferric Ammonium Ferrocyanide	In Vitro	Not mutagenic
Ferric Ferrocyanide	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
Ethylene Glycol	Ingestion	Multiple animal species	Not carcinogenic
Iron Oxide (FE2O3)	Inhalation	Human	Some positive data exist, but the data are not sufficient for classification
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Ingestion	Rat	Not carcinogenic

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
Ethylene Glycol	Dermal	Not classified for development	Mouse	NOAEL 3,549 mg/kg/day	during organogenesis
Ethylene Glycol	Ingestion	Not classified for development	Mouse	LOAEL 750 mg/kg/day	during organogenesis
Ethylene Glycol	Inhalation	Not classified for development	Mouse	NOAEL 1,000 mg/kg/day	during organogenesis

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Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Inhalation	Not classified for male reproduction	Rat	NOAEL 1 mg/l	2 weeks
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Target Organ(s)**Specific Target Organ Toxicity - single exposure**

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Ethylene Glycol	Ingestion	heart nervous system kidney and/or bladder respiratory system	Causes damage to organs	Human	NOAEL Not available	poisoning and/or abuse
Ethylene Glycol	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	poisoning and/or abuse
Ethylene Glycol	Ingestion	liver	Not classified	Human	NOAEL Not available	poisoning and/or abuse
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Ingestion	nervous system	Not classified	Rat	NOAEL Not available	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Zinc Stearate	Ingestion	heart endocrine system gastrointestinal tract hematopoietic system liver immune system nervous system eyes kidney and/or bladder respiratory system	Not classified	Rat	NOAEL 1,000 mg/kg/day	28 days
Ethylene Glycol	Ingestion	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 200 mg/kg/day	2 years
Ethylene Glycol	Ingestion	vascular system	Not classified	Rat	NOAEL 200 mg/kg/day	2 years
Ethylene Glycol	Ingestion	heart hematopoietic system liver immune system muscles	Not classified	Rat	NOAEL 1,000 mg/kg/day	2 years
Ethylene Glycol	Ingestion	respiratory system	Not classified	Mouse	NOAEL 12,000 mg/kg/day	2 years
Ethylene Glycol	Ingestion	skin endocrine system bone, teeth, nails, and/or hair nervous system eyes	Not classified	Multiple animal species	NOAEL 1,000 mg/kg/day	2 years
Iron Oxide (FE2O3)	Inhalation	pulmonary fibrosis pneumoconiosis	Not classified	Human	NOAEL Not available	occupational exposure
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

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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

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.

Dispose of waste product in a permitted industrial waste facility. As a disposal alternative, incinerate 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.

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**

Contact 3M 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 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:** 1 **Instability:** 0 **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: 4 **Flammability:** 1 **Physical Hazard:** 0 **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).

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



Safety Data Sheet

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Issue Date:	2020/10/20	Supersedes Date:	2019/08/19

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

SECTION 1: Identification

1.1. Product identifier

3M™ Advanced Finishing Glaze PN 05821

1.2. Recommended use and restrictions on use

Intended Use

Automotive

Specific Use

Automotive Putty

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:1-800-3M HELPS / 1-800-364-3577; 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.

Skin Sensitizer: Category 1B.

Reproductive Toxicity: Category 1B.

Carcinogenicity: Category 1A.

Specific Target Organ Toxicity (single exposure): Category 1.

Specific Target Organ Toxicity (single exposure): Category 3.

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 cause drowsiness or dizziness. 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: sensory organs |

May cause damage to organs through prolonged or repeated exposure: immune system | 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. Use explosion-proof electrical/ventilating/lighting equipment. Do not breathe dust/fume/gas/mist/vapours/spray. Use only outdoors or in a well-ventilated area. 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 INHALED: Remove person to fresh air and keep comfortable for breathing. 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. Keep container tightly closed. 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
Limestone	1317-65-3	10 - 30	Limestone primarily of calcium carbonate.
Polyester Resin	Trade Secret	10 - 30	Not Applicable
Styrene Monomer	100-42-5	10 - 30 Trade Secret *	Benzene, ethenyl-
Inert Filler	Trade Secret	7 - 13	Not Applicable
Titanium Dioxide	13463-67-7	3 - 7	Titanium oxide (TiO ₂)
Polyester Polymer	Trade Secret	1 - 5	Not Applicable
Synthetic Crystalline-Free Silica Gel	112926-00-8	1 - 5	Silica gel, pptd., cryst.-free
Trimethylolpropane Triacrylate	15625-89-5	1 - 5 Trade Secret *	2-Propenoic acid, 2-ethyl-2-[[[1-oxo-2-propenyl]oxy]methyl]-1,3-propanediyl ester
Alumina Trihydrate	21645-51-2	< 3	Aluminum hydroxide (Al(OH) ₃)
Zinc Phosphate	7779-90-0	0.5 - 1.5	Phosphoric acid, zinc salt (2:3)
Toluene	108-88-3	0.1 - 1 Trade Secret *	No Data Available
Hydrotreated light paraffinic distillates (petroleum)	64742-55-8	< 0.2	Distillates (petroleum), hydrotreated light paraffinic

*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>
Hydrocarbons	During Combustion
Carbon monoxide	During Combustion
Carbon dioxide	During Combustion
Toxic Vapor, Gas, Particulate	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. 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 to prevent loss of stabilizing materials. 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	
Toluene	108-88-3	ACGIH	TWA:20 ppm	
Titanium Dioxide	13463-67-7	ACGIH	TWA:10 mg/m ³	
Trimethylolpropane Triacrylate	15625-89-5	AIHA	TWA:1 mg/m ³	SKIN
Aluminum, insoluble compounds	21645-51-2	ACGIH	TWA(respirable fraction):1 mg/m ³	
Mineral oils (untreated and mildly treated)	64742-55-8	ACGIH	Limit value not established:	Cntrl all exposr-low as possib
Inert Filler	Trade Secret	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	
Inert Filler	Trade Secret	ACGIH	TWA(as fiber):0.2 fiber/cc	
Inert Filler	Trade Secret	ACGIH	TWA(as fiber):1 fiber/cc	
Inert Filler	Trade Secret	ACGIH	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.

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

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

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
Colour	Off-White
Odour	Pungent Styrene
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
Flash Point	31.1 °C
Evaporation rate	<i>No Data Available</i>
Flammability (solid, gas)	Not Applicable
Flammable Limits(LEL)	<i>No Data Available</i>
Flammable Limits(UEL)	<i>No Data Available</i>
Vapour Pressure	573.3 Pa [<i>@ 20 °C</i>]
Viscosity/Kinematic Viscosity	3.6 [<i>Ref Std: AIR=1</i>] [<i>Details: Styrene</i>]
Density	0.94 g/ml
Relative density	0.94 [<i>Ref Std: WATER=1</i>]
Water solubility	Nil
Solubility- non-water	<i>No Data Available</i>
Partition coefficient: n-octanol/ water	<i>No Data Available</i>
Autoignition temperature	<i>No Data Available</i>
Decomposition temperature	<i>No Data Available</i>
Viscosity/Kinematic Viscosity	15,000 - 25,000 mPa-s
Volatile Organic Compounds	274 g/l [<i>Test Method: calculated SCAQMD rule 443.1</i>]
Volatile Organic Compounds	29.1 % weight [<i>Test Method: calculated per CARB title 2</i>]
Percent volatile	29.1 % weight
VOC Less H2O & Exempt Solvents	274 g/l [<i>Test Method: calculated SCAQMD rule 443.1</i>]

Nanoparticles

This material contains 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. Stable under normal conditions. May become unstable at elevated temperatures and/or pressure.

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>
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. May cause additional health effects (see below).

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. Central Nervous System (CNS) Depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness.

Prolonged or repeated exposure may cause target organ effects:

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. Immunological Effects: Signs/symptoms may include alterations in the number of circulating immune cells, allergic skin and /or respiratory reaction, and changes in immune function.

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
SILICA, CRYST AIRRESP	14808-60-7	Known human carcinogen	National Toxicology Program Carcinogens
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
Generic: Mineral oils (untreated and mildly treated)	64742-55-8	Grp. 1: Carcinogenic to humans	International Agency for Research on Cancer
Generic: Mineral oils (untreated and mildly treated)	64742-55-8	Known human carcinogen	National Toxicology Program Carcinogens
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
Titanium Dioxide	13463-67-7	Grp. 2B: Possible human carc.	International Agency for Research on Cancer
Trimethylolpropane Triacrylate	15625-89-5	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
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
Limestone	Dermal	Rat	LD ₅₀ > 2,000 mg/kg
Limestone	Inhalation-Dust/Mist (4 hours)	Rat	LC ₅₀ 3 mg/l
Limestone	Ingestion	Rat	LD ₅₀ 6,450 mg/kg
Inert Filler	Dermal		LD ₅₀ estimated to be > 5,000 mg/kg

Inert Filler	Ingestion		LD50 estimated to be 2,000 - 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
Synthetic Crystalline-Free Silica Gel	Dermal	Rabbit	LD50 > 5,000 mg/kg
Synthetic Crystalline-Free Silica Gel	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 0.691 mg/l
Synthetic Crystalline-Free Silica Gel	Ingestion	Rat	LD50 > 5,110 mg/kg
Polyester Polymer	Dermal		LD50 estimated to be > 5,000 mg/kg
Polyester Polymer	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
Alumina Trihydrate	Dermal		LD50 estimated to be > 5,000 mg/kg
Alumina Trihydrate	Ingestion	Rat	LD50 > 5,000 mg/kg
Trimethylolpropane Triacrylate	Dermal	Rabbit	LD50 5,170 mg/kg
Trimethylolpropane Triacrylate	Ingestion	Rat	LD50 > 5,000 mg/kg
Zinc Phosphate	Dermal		LD50 estimated to be > 5,000 mg/kg
Zinc Phosphate	Ingestion	Rat	LD50 > 5,000 mg/kg
Toluene	Dermal	Rat	LD50 12,000 mg/kg
Toluene	Inhalation-Vapor (4 hours)	Rat	LC50 30 mg/l
Toluene	Ingestion	Rat	LD50 5,550 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Styrene Monomer	official classification	Mild irritant
Limestone	Rabbit	No significant irritation
Inert Filler	Professional judgement	No significant irritation
Titanium Dioxide	Rabbit	No significant irritation
Synthetic Crystalline-Free Silica Gel	Rabbit	No significant irritation
Alumina Trihydrate	Rabbit	No significant irritation
Trimethylolpropane Triacrylate	Rabbit	Mild irritant
Toluene	Rabbit	Irritant

Serious Eye Damage/Irritation

Name	Species	Value
Styrene Monomer	official classification	Moderate irritant
Limestone	Rabbit	No significant irritation
Inert Filler	Professional judgement	No significant irritation
Titanium Dioxide	Rabbit	No significant irritation
Synthetic Crystalline-Free Silica Gel	Rabbit	No significant irritation
Alumina Trihydrate	Rabbit	No significant irritation
Trimethylolpropane Triacrylate	Rabbit	Corrosive
Toluene	Rabbit	Moderate irritant

Skin Sensitization

Name	Species	Value
Styrene Monomer	Guinea	Not classified

	pig	
Titanium Dioxide	Human and animal	Not classified
Synthetic Crystalline-Free Silica Gel	Human and animal	Not classified
Alumina Trihydrate	Guinea pig	Not classified
Trimethylolpropane Triacrylate	Guinea pig	Sensitizing
Toluene	Guinea pig	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
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
Titanium Dioxide	In Vitro	Not mutagenic
Titanium Dioxide	In vivo	Not mutagenic
Synthetic Crystalline-Free Silica Gel	In Vitro	Not mutagenic
Trimethylolpropane Triacrylate	In vivo	Not mutagenic
Trimethylolpropane Triacrylate	In Vitro	Some positive data exist, but the data are not sufficient for classification
Toluene	In Vitro	Not mutagenic
Toluene	In vivo	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
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
Synthetic Crystalline-Free Silica Gel	Not Specified	Mouse	Some positive data exist, but the data are not sufficient for classification
Alumina Trihydrate	Not Specified	Multiple animal species	Not carcinogenic
Trimethylolpropane Triacrylate	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification
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

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
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
Limestone	Ingestion	Not classified for development	Rat	NOAEL 625 mg/kg/day	prematuring & during gestation
Synthetic Crystalline-Free Silica Gel	Ingestion	Not classified for female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation
Synthetic Crystalline-Free Silica Gel	Ingestion	Not classified for male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
Synthetic Crystalline-Free Silica Gel	Ingestion	Not classified for development	Rat	NOAEL 1,350 mg/kg/day	during organogenesis
Alumina Trihydrate	Ingestion	Not classified for development	Rat	NOAEL 768 mg/kg/day	during organogenesis
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

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

					0.004 mg/l	
Toluene	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	poisoning and/or abuse

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
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 through prolonged or repeated exposure	Multiple animal species	NOAEL 1.3 mg/l	not available
Styrene Monomer	Inhalation	liver	May cause damage to organs through 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
Limestone	Inhalation	respiratory system	Not classified	Human	NOAEL Not available	occupational exposure
Inert Filler	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
Synthetic Crystalline-Free Silica Gel	Inhalation	respiratory system silicosis	Not classified	Human	NOAEL Not available	occupational exposure
Trimethylolpropane Triacrylate	Dermal	immune system	May cause damage to organs through prolonged or repeated exposure	Mouse	NOAEL 50 mg/kg/day	16 days
Trimethylolpropane Triacrylate	Dermal	heart hematopoietic system kidney and/or bladder respiratory system	Not classified	Mouse	NOAEL 12 mg/kg/day	28 weeks
Toluene	Inhalation	auditory system eyes olfactory system	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	poisoning and/or abuse
Toluene	Inhalation	nervous system	May cause damage to organs through prolonged or repeated	Human	NOAEL Not available	poisoning and/or abuse

			exposure			
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

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.

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 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 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 Japan Industrial Safety and Health 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.

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.

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