Safety Data Sheet

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Document group:	34-8339-3	**Version number:**	6.00
Issue Date:	2025/10/01	**Supersedes Date:**	2022/08/19

SECTION 1: Identification

1.1. Product identifier
3M™ Scotch-Weld™ Epoxy Adhesive EC-3542 B/A FR

Product Identification Numbers
87-3300-0075-0 87-3300-0078-4 87-3300-0130-3

1.2. Recommended use and restrictions on use

Recommended use
2-part, semi-structural adhesive, Industrial use

1.3. Supplier's details

Company: 3M Canada Company
Division: Automotive and Aerospace Solutions Division
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 / 1800 364 3577

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:

36-6157-6, 36-6156-8

Transport in accordance with applicable regulations.

The information in this Safety Data Sheet (SDS) is believed to be correct as of the date issued. The manufacturer MAKES NO WARRANTIES, EXPRESS OR IMPLIED, STATUTORY OR OTHERWISE, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY IMPLIED WARRANTY OR CONDITION ARISING OUT OF A COURSE OF PERFORMANCE, COURSE OF DEALING, CUSTOM OR USAGE OF TRADE. User is responsible for determining whether the product is fit for a particular purpose and suitable for user's method of use or application. Given the variety of factors that can affect the

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

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

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Document group:	36-6156-8	**Version number:**	4.00
Issue Date:	2025/10/03	**Supersedes Date:**	2022/08/19

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

SECTION 1: Identification

1.1. Product identifier
3M™ Scotch-Weld™ Epoxy Adhesive EC-3542 B/A FR Part A

Product Identification Numbers
LA-T100-2217-8 LC-B100-1984-8 LC-B100-1985-5 42-0044-2811-8 87-3300-0076-8

1.2. Recommended use and restrictions on use

Intended Use
Part A of a 2-part Epoxy Adhesive, Industrial use

Restrictions on use
Not applicable

1.3. Supplier's details

Company:	3M Canada Company
Division:	Automotive and Aerospace Solutions Division
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 / 1800 364 3577

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture
Corrosive to metal: Category 1.
Skin Corrosion/Irritation: Category 1C.
Serious Eye Damage/Irritation: Category 1.
Skin Sensitizer: Category 1A.
Reproductive Toxicity: Category 1B.
Specific Target Organ Toxicity (single exposure): Category 1.
Health Hazards Not Otherwise Classified - Category 1

2.2. Label elements

Signal word
Danger

Symbols
Corrosion |Exclamation mark |Health Hazard |

Pictograms



Hazard Statements
May be corrosive to metals.
Causes severe skin burns and eye damage. May cause an allergic skin reaction. May damage fertility or the unborn child. May cause chemical gastrointestinal burns.
Causes damage to organs: blood or blood-forming organs.

Precautionary statements

Prevention:
Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep only in original packaging. Do not breathe vapours or dust. Wash exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves, protective clothing, eye protection, face protection, and if needed, respiratory protection (see SDS Section 8).

Response:
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor. Specific treatment (see Notes to Physician on this label). If skin irritation or rash occurs: Get medical attention. Take off contaminated clothing and wash it before reuse. Absorb spillage to prevent material damage.

Storage:
Store locked up. Store in a corrosion-resistant container with a resistant inner liner.

Disposal:
Dispose of contents and container in accordance with applicable local, regional, national, and international regulations.

Notes to Physician:
Overexposure to this product may result in methemoglobinemia. Methemoglobinemia may be clinically suspected by the presence of clinical "cyanosis" in the presence of a normal PaO2 (as obtained by arterial blood gases). Routine pulse oximetry may be inaccurate for monitoring oxygen saturation in the presence of methemoglobinemia, and should not be used to make the diagnosis of this disorder. If the patient is symptomatic or if the methemoglobin level is >20%, specific therapy with methylene blue should be consider as part of the medical management

2.3. Other hazards
None known.

15% of the mixture consists of ingredients of unknown acute oral toxicity.
15% of the mixture consists of ingredients of unknown acute dermal toxicity.

SECTION 3: Composition/information on ingredients

This material is a mixture.

Ingredient	C.A.S. No.	% by Wt	Common Name
Glass Bubbles	65997-17-3	20 - 40	Glass, oxide, chemicals
Bis(3-Aminopropyl) Ether Of Diethylene Glycol	4246-51-9	10 - 30 Trade Secret *	1-Propanamine, 3,3'-[oxybis(2,1-ethanediyloxy)]bis-
Ethylene Diamine Phosphate	14852-17-6	10 - 30 Trade Secret *	1,2-Ethanediamine, phosphate
UNDISCLOSED MATERIAL	None	5 - 20	Not Applicable
META-XYLENEDIAMINE	1477-55-0	5 - 10 Trade Secret *	1,3-Benzenedimethanamine
Silane, Trimethoxyoctyl-, Hydrolysis Products with Silica	92797-60-9	1 - 10	Silane, trimethoxyoctyl-, hydrolysis products with silica
CALCIUM NITRATE TETRAHYDRATE	13477-34-4	1 - 5 Trade Secret *	Nitric acid, calcium salt, tetrahydrate
UREA, N,N'-BIS[3-(DIMETHYLAMINO)PROPYL]-	52338-87-1	1 - 5 Trade Secret *	Urea, N,N'-bis[3-(dimethylamino)propyl]-
Toluene	108-88-3	0 - 0.99	No Data Available

UNDISCLOSED MATERIAL is a non-hazardous material according to WHMIS criteria. Specific information has been withheld as a trade secret.

*The concentration (exact or range) of this component 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. Get immediate medical attention.

Skin Contact:
Immediately flush with large amounts of water for at least 15 minutes. Remove contaminated clothing. Get immediate medical attention. Wash clothing before reuse.

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. Do not induce vomiting. Get immediate medical attention.

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

Corrosive to respiratory tract (severe nose and throat pain, chest tightness and pain, wheezing, and breathlessness). Skin burns (localized redness, swelling, itching, intense pain, blistering, and tissue destruction). Allergic skin reaction (redness, swelling, blistering, and itching). Serious damage to the eyes (corneal cloudiness, severe pain, tearing, ulcerations, and significantly impaired or loss of vision). Target organ effects. See Section 11 for additional details.

4.3. Indication of any immediate medical attention and special treatment required
Overexposure to this product may result in methemoglobinemia. Methemoglobinemia may be clinically suspected by the presence of clinical "cyanosis" in the presence of a normal PaO2 (as obtained by arterial blood gases). Routine pulse oximetry may be inaccurate for monitoring oxygen saturation in the presence of methemoglobinemia, and should not be used to make the diagnosis of this disorder. If the patient is symptomatic or if the methemoglobin level is >20%, specific therapy with methylene blue should be considered as part of the medical management.

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. Unsuitable extinguishing media
None Determined

5.3. Special hazards arising from the substance or mixture
None inherent in this product.

Hazardous Decomposition or By-Products

Substance	Condition
Carbon monoxide	During Combustion
Carbon dioxide	During Combustion
Irritant Vapours or Gases	During Combustion

5.4. Special protection 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. 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. Use personal protective equipment based on the results of an exposure assessment. Refer to Section 8 for PPE recommendations. If anticipated exposure resulting from an accidental release exceeds the protective capabilities of the PPE listed in Section 8, or are unknown, select PPE that offers an appropriate level of protection. Consider the physical and chemical hazards of the material when doing so. Examples of PPE ensembles for emergency response could include wearing bunker gear for a release of flammable material; wearing chemical protective clothing if the spilled material is a corrosive, a sensitizer, a significant dermal irritant, or can be absorbed through the skin; or donning a positive pressure supplied-air respirator for chemicals with inhalation hazards. For information regarding physical and health hazards, refer to sections 2 and 11 of the SDS.

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. For large spills, if necessary, get assistance from professional spill clean up team. For small spills, carefully neutralize spill by adding appropriate dilute acid such as vinegar. Work slowly to avoid boiling or spattering. Continue to add neutralizing agent until reaction stops. Let cool before collecting. Or use a commercially available caustic (alkaline or basic) spill clean-up kit. Follow kit directions exactly. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible. Place in a metal container approved for use in transportation by appropriate authorities. The container must be lined with polyethylene plastic or contain a plastic drum liner made of polyethylene. 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. Cover, but do not seal for 48 hours. 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. Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Do not eat,

drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse. Use personal protective equipment (gloves, respirators, etc.) as required.

7.2. Conditions for safe storage including any incompatibilities
Store in a well-ventilated place. Keep container tightly closed. Protect from sunlight. Store away from heat. Keep only in original container. Store in a corrosive resistant container with a resistant inner liner. Store away from acids. Store locked up.

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
Toluene	108-88-3	ACGIH	TWA:20 ppm	
META-XYLENEDIAMINE	1477-55-0	ACGIH	CEIL:0.018 ppm	Danger of cutaneous absorption
Glass Bubbles	65997-17-3	Manufacturer determined	TWA(as non-fibrous, respirable)(8 hours):3 mg/m3;TWA(as non-fibrous, inhalable fraction)(8 hours):10 mg/m3	
Particles (insoluble or poorly soluble) not otherwise specified, inhalable particles	65997-17-3	ACGIH	TWA(inhalable particulates):10 mg/m3	
Particles (insoluble or poorly soluble) not otherwise specified, respirable particles	65997-17-3	ACGIH	TWA(respirable particles):3 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
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. Provide appropriate local exhaust ventilation for cutting, grinding, sanding or machining.

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:
Full Face Shield
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.

For prolonged or repeated contact, gloves made from the following material(s) are recommended (breakthrough times are >4 hours): Butyl Rubber, Neoprene

Any glove recommended for prolonged/repeated contact is also suitable for short-term/splash contact.

If this product is used in a manner that presents a higher potential for exposure (e.g., spraying, high splash potential, etc.), then use of a protective apron may be necessary. See recommended glove material(s) for determining appropriate apron material(s). If a glove material is not available as an apron, polymer laminate is a suitable option.

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
Half facepiece or full facepiece supplied-air respirator

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:	Thixotropic paste
Colour	Gray
Odour	Slight Amine
Odour threshold	*No Data Available*
pH	*Not Applicable*
Melting point/Freezing point	*Not Applicable*
Boiling point	*No Data Available*
Flash Point	Flash point > 93 °C (200 °F) [*Test Method:*Closed Cup]
Evaporation rate	*No Data Available*
Flammability	Not Applicable
Flammable Limits(LEL)	*No Data Available*
Flammable Limits(UEL)	*No Data Available*
Vapour Pressure	*No Data Available*
Relative Vapour Density	*No Data Available*
Density	0.65 g/ml
Relative density	0.65 [*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*
Kinematic Viscosity	*No Data Available*
Volatile Organic Compounds	23.8 g/l
Percent volatile	3.7 %
VOC Less H2O & Exempt Solvents	23.9 g/l

Molecular weight	*No Data Available*

Particle Characteristics	*Not Applicable*

SECTION 10: Stability and reactivity

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

10.2. Chemical stability
Stable.

10.3. Possibility of hazardous reactions
Hazardous polymerization will not occur.

10.4. Conditions to avoid
Heat
Heat is generated during cure. Do not cure a mass larger than 50 grams in a confined space to prevent a premature exothermic reaction with production of intense heat and smoke.

10.5. Incompatible materials
None known.

10.6. Hazardous decomposition products

Substance	Condition
None known.	

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

The information below may not 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 Corrosion: Signs/symptoms may include nasal discharge, severe nose and throat pain, chest tightness and pain, coughing up blood, wheezing, and breathlessness, possibly progressing to respiratory failure. May cause additional health effects (see below).

Skin Contact:
Corrosive (Skin Burns): Signs/symptoms may include localized redness, swelling, itching, intense pain, blistering, ulceration, and tissue destruction. Allergic Skin Reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

Eye Contact:
Corrosive (Eye Burns): Signs/symptoms may include cloudy appearance of the cornea, chemical burns, severe pain, tearing,

ulcerations, significantly impaired vision or complete loss of vision.

Ingestion:
May be harmful if swallowed. Gastrointestinal Corrosion: Signs/symptoms may include severe mouth, throat and abdominal pain; nausea; vomiting; and diarrhea; blood in the feces and/or vomitus may also be seen. May cause additional health effects (see below).

Additional Health Effects:

Single exposure may cause target organ effects:
Methemoglobinemia: Signs/symptoms may include headache, dizziness, nausea, difficulty breathing, and generalized weakness.

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

Additional Information:
Persons previously sensitized to amines may develop a cross-sensitization reaction to certain other amines.

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

Acute Toxicity

Name	Route	Species	Value
Overall product	Dermal		No data available; calculated ATE >5,000 mg/kg
Overall product	Ingestion		No data available; calculated ATE >2,000 - =5,000 mg/kg
Bis(3-Aminopropyl) Ether Of Diethylene Glycol	Dermal	Rabbit	LD50 2,525 mg/kg
Bis(3-Aminopropyl) Ether Of Diethylene Glycol	Ingestion	Rat	LD50 2,850 mg/kg
Glass Bubbles	Dermal		LD50 estimated to be > 5,000 mg/kg
Glass Bubbles	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
Ethylene Diamine Phosphate	Inhalation-Vapor	Professional judgement	LC50 estimated to be > 50 mg/l
Ethylene Diamine Phosphate	Dermal	Rat	LD50 > 2,000 mg/kg
Ethylene Diamine Phosphate	Ingestion	Rat	LD50 > 2,000 mg/kg
META-XYLENEDIAMINE	Dermal	Rabbit	LD50 > 2,000 mg/kg
META-XYLENEDIAMINE	Inhalation-Dust/Mist (4 hours)	Rat	LC50 1.2 mg/l
META-XYLENEDIAMINE	Ingestion	Rat	LD50 980 mg/kg
Silane, Trimethoxyoctyl-, Hydrolysis Products with Silica	Dermal		LD50 estimated to be > 5,000 mg/kg
Silane, Trimethoxyoctyl-, Hydrolysis Products with Silica	Ingestion	Rat	LD50 > 5,340 mg/kg
UREA, N,N'-BIS[3-(DIMETHYLAMINO)PROPYL]-	Dermal	Rat	LD50 > 2,050 mg/kg
UREA, N,N'-BIS[3-(DIMETHYLAMINO)PROPYL]-	Ingestion	Rat	LD50 5,125 mg/kg
CALCIUM NITRATE TETRAHYDRATE	Ingestion	Rat	LD50 >300, <2000 mg/kg
CALCIUM NITRATE TETRAHYDRATE	Dermal	similar compounds	LD50 > 2,000 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

Overall product	In vitro data	Corrosive
Bis(3-Aminopropyl) Ether Of Diethylene Glycol	Rabbit	Corrosive
Glass Bubbles	Professional judgement	No significant irritation
Ethylene Diamine Phosphate	Rabbit	No significant irritation
META-XYLENEDIAMINE	Rat	Corrosive
UREA, N,N'-BIS[3-(DIMETHYLAMINO)PROPYL]-	Rabbit	No significant irritation
CALCIUM NITRATE TETRAHYDRATE	similar compounds	No significant irritation
Toluene	Rabbit	Irritant

Serious Eye Damage/Irritation

Name	Species	Value
Bis(3-Aminopropyl) Ether Of Diethylene Glycol	Rabbit	Corrosive
Glass Bubbles	Professional judgement	No significant irritation
Ethylene Diamine Phosphate	Rabbit	No significant irritation
META-XYLENEDIAMINE	Rabbit	Corrosive
UREA, N,N'-BIS[3-(DIMETHYLAMINO)PROPYL]-	Rabbit	Corrosive
CALCIUM NITRATE TETRAHYDRATE	Rabbit	Corrosive
Toluene	Rabbit	Moderate irritant

Skin Sensitization

Name	Species	Value
Bis(3-Aminopropyl) Ether Of Diethylene Glycol	Professional judgement	Sensitizing
Ethylene Diamine Phosphate	similar compounds	Sensitizing
META-XYLENEDIAMINE	Guinea pig	Sensitizing
UREA, N,N'-BIS[3-(DIMETHYLAMINO)PROPYL]-	Guinea pig	Not classified
CALCIUM NITRATE TETRAHYDRATE	similar compounds	Not classified
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
Bis(3-Aminopropyl) Ether Of Diethylene Glycol	In Vitro	Not mutagenic
Glass Bubbles	In Vitro	Some positive data exist, but the data are not sufficient for classification
Ethylene Diamine Phosphate	In Vitro	Not mutagenic
Ethylene Diamine Phosphate	In vivo	Not mutagenic
META-XYLENEDIAMINE	In Vitro	Not mutagenic
META-XYLENEDIAMINE	In vivo	Not mutagenic
UREA, N,N'-BIS[3-(DIMETHYLAMINO)PROPYL]-	In Vitro	Not mutagenic
UREA, N,N'-BIS[3-(DIMETHYLAMINO)PROPYL]-	In vivo	Not mutagenic

CALCIUM NITRATE TETRAHYDRATE	In Vitro	Not mutagenic
Toluene	In Vitro	Not mutagenic
Toluene	In vivo	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
Glass Bubbles	Inhalation	Multiple animal species	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
Bis(3-Aminopropyl) Ether Of Diethylene Glycol	Ingestion	Not classified for female reproduction	Rat	NOAEL 600 mg/kg/day	premating into lactation
Bis(3-Aminopropyl) Ether Of Diethylene Glycol	Ingestion	Not classified for male reproduction	Rat	NOAEL 600 mg/kg/day	59 days
Bis(3-Aminopropyl) Ether Of Diethylene Glycol	Ingestion	Not classified for development	Rat	NOAEL 600 mg/kg/day	premating into lactation
Ethylene Diamine Phosphate	Ingestion	Not classified for female reproduction	Rat	NOAEL 150 mg/kg/day	premating into lactation
Ethylene Diamine Phosphate	Ingestion	Not classified for male reproduction	Rat	NOAEL 150 mg/kg/day	33 days
Ethylene Diamine Phosphate	Ingestion	Not classified for development	Rat	NOAEL 150 mg/kg/day	premating into lactation
META-XYLENEDIAMINE	Ingestion	Not classified for female reproduction	Rat	NOAEL 450 mg/kg/day	premating into lactation
META-XYLENEDIAMINE	Ingestion	Not classified for male reproduction	Rat	NOAEL 450 mg/kg/day	48 days
META-XYLENEDIAMINE	Ingestion	Not classified for development	Rat	NOAEL 450 mg/kg/day	premating into lactation
UREA, N,N'-BIS[3-(DIMETHYLAMINO)PROPYL]-	Ingestion	Not classified for development	Rat	NOAEL 500 mg/kg/day	during gestation
CALCIUM NITRATE TETRAHYDRATE	Ingestion	Not classified for female reproduction	similar compounds	NOAEL 1,500 mg/kg/day	premating into lactation
CALCIUM NITRATE TETRAHYDRATE	Ingestion	Not classified for male reproduction	similar compounds	NOAEL 1,500 mg/kg/day	28 days
CALCIUM NITRATE TETRAHYDRATE	Ingestion	Not classified for development	similar compounds	NOAEL 1,500 mg/kg/day	premating into lactation
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

Bis(3-Aminopropyl) Ether Of Diethylene Glycol	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	
META-XYLENEDIAMINE	Inhalation	respiratory irritation	May cause respiratory irritation	similar health hazards	NOAEL Not avaliable	
UREA, N,N'-BIS[3-(DIMETHYLAMINO)PROPYL]-	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not Available	
CALCIUM NITRATE TETRAHYDRATE	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	
CALCIUM NITRATE TETRAHYDRATE	Ingestion	methemoglobinemia	Causes damage to organs	Human	NOAEL Not available	environmental exposure
Toluene	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
Toluene	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
Toluene	Inhalation	immune system	Not classified	Mouse	NOAEL 0.004 mg/l	3 hours
Toluene	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	poisoning and/or abuse

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Bis(3-Aminopropyl) Ether Of Diethylene Glycol	Ingestion	gastrointestinal tract | heart | endocrine system | bone, teeth, nails, and/or hair | hematopoietic system | liver | immune system | muscles | nervous system | eyes | kidney and/or bladder | respiratory system | vascular system	Not classified	Rat	NOAEL 600 mg/kg/day	59 days
Glass Bubbles	Inhalation	respiratory system	Not classified	Human	NOAEL not available	occupational exposure
Ethylene Diamine Phosphate	Ingestion	heart | endocrine system | hematopoietic system | liver | nervous system | eyes | kidney and/or bladder	Not classified	Rat	NOAEL 600 mg/kg/day	28 days
META-XYLENEDIAMINE	Inhalation	respiratory system	Not classified	Rat	NOAEL 0.005 mg/l	13 weeks
META-XYLENEDIAMINE	Inhalation	heart | skin | endocrine system | gastrointestinal tract | bone, teeth, nails, and/or hair | hematopoietic system | liver | immune system | muscles | nervous system | eyes | kidney and/or bladder | vascular system	Not classified	Rat	NOAEL 0.03 mg/l	13 weeks
META-XYLENEDIAMINE	Ingestion	endocrine system | hematopoietic system	Not classified	Rat	NOAEL 600 mg/kg/day	28 days
META-	Ingestion	gastrointestinal tract	Not classified	Rat	NOAEL 150	28 days

XYLENEDIAMINE					mg/kg/day	
META-XYLENEDIAMINE	Ingestion	heart | liver | immune system | kidney and/or bladder	Not classified	Rat	NOAEL 600 mg/kg/day	28 days
UREA, N,N'-BIS[3-(DIMETHYLAMINO)PROPYL]-	Ingestion	blood | nervous system | kidney and/or bladder	Not classified	Rat	NOAEL 500 mg/kg/day	28 days
CALCIUM NITRATE TETRAHYDRATE	Ingestion	heart | skin | endocrine system | bone, teeth, nails, and/or hair | hematopoietic system | liver | immune system | nervous system | eyes | kidney and/or bladder | respiratory system | vascular system	Not classified	similar compounds	NOAEL 1,500 mg/kg/day	28 days
Toluene	Inhalation	auditory system | nervous system | eyes | olfactory system	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	poisoning and/or abuse
Toluene	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 2.3 mg/l	15 months
Toluene	Inhalation	heart | liver | kidney and/or bladder	Not classified	Rat	NOAEL 11.3 mg/l	15 weeks
Toluene	Inhalation	endocrine system	Not classified	Rat	NOAEL 1.1 mg/l	4 weeks
Toluene	Inhalation	immune system	Not classified	Mouse	NOAEL Not available	20 days
Toluene	Inhalation	bone, teeth, nails, and/or hair	Not classified	Mouse	NOAEL 1.1 mg/l	8 weeks
Toluene	Inhalation	hematopoietic system | vascular system	Not classified	Human	NOAEL Not available	occupational exposure
Toluene	Inhalation	gastrointestinal tract	Not classified	Multiple animal species	NOAEL 11.3 mg/l	15 weeks
Toluene	Ingestion	nervous system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 625 mg/kg/day	13 weeks
Toluene	Ingestion	heart	Not classified	Rat	NOAEL 2,500 mg/kg/day	13 weeks
Toluene	Ingestion	liver | kidney and/or bladder	Not classified	Multiple animal species	NOAEL 2,500 mg/kg/day	13 weeks
Toluene	Ingestion	hematopoietic system	Not classified	Mouse	NOAEL 600 mg/kg/day	14 days
Toluene	Ingestion	endocrine system	Not classified	Mouse	NOAEL 105 mg/kg/day	28 days
Toluene	Ingestion	immune system	Not classified	Mouse	NOAEL 105 mg/kg/day	4 weeks

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.

Dispose of waste product in a permitted industrial waste 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

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

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: 3 **Flammability:** 1 **Instability:** 0 **Special Hazards:** None

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

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Issue Date:	2025/10/03	**Supersedes Date:**	2022/08/19

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Safety Data Sheet

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Document group:	36-6157-6	**Version number:**	6.00
Issue Date:	2025/10/02	**Supersedes Date:**	2021/10/01

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

SECTION 1: Identification

1.1. Product identifier
3M™ Scotch-Weld™ Epoxy Adhesive EC-3542 B/A FR Part B

Product Identification Numbers
LA-T100-2217-9 LC-B100-1984-9 LC-B100-1985-6 41-3588-1689-4 87-3300-0077-6

1.2. Recommended use and restrictions on use

Intended Use
Part B of a 2-part Epoxy Adhesive, Industrial use

Restrictions on use
Not applicable

1.3. Supplier's details

Company:	3M Canada Company
Division:	Automotive and Aerospace Solutions Division
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 / 1800 364 3577

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture
Skin Corrosion/Irritation: Category 2.
Serious Eye Damage/Irritation: Category 1.
Skin Sensitizer: Category 1.
Germ Cell Mutagenicity: Category 2.
Reproductive Toxicity: Category 1B.

2.2. Label elements
Signal word
Danger

Symbols
Corrosion |Exclamation mark |Health Hazard |

Pictograms



Hazard Statements

Causes skin irritation. Causes serious eye damage. May cause an allergic skin reaction. Suspected of causing genetic defects. May damage fertility or the unborn child.

Precautionary statements

Prevention:
Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid breathing vapours or dust. Wash exposed skin thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves, eye protection, face protection, and if needed, respiratory protection (see SDS Section 8).

Response:
IF ON SKIN: Wash with plenty of soap and water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor. If skin irritation or rash occurs: Get medical attention. Take off contaminated clothing and wash it before reuse.

Storage:
Store locked up.

Disposal:
Dispose of contents and container in accordance with applicable local, regional, national, and 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
Bisphenol A Diglycidyl Ether	1675-54-3	15 - 40 Trade Secret *	Oxirane, 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis-
Glass Bubbles	65997-17-3	20 - 40	Glass, oxide, chemicals
Copolymer	30499-70-8	10 - 30 Trade Secret *	1,3-Propanediol, 2-ethyl-2-(hydroxymethyl)-, polymer with (chloromethyl)oxirane
Ethylene Diamine Phosphate	14852-17-6	5 - 10 Trade Secret *	1,2-Ethanediamine, phosphate
Silane, Trimethoxyoctyl-, Hydrolysis Products with Silica	92797-60-9	< 10	Silane, trimethoxyoctyl-, hydrolysis products with silica
3-(Trimethoxysilyl) Propyl Glycidyl Ether	2530-83-8	0.5 - 1.5 Trade Secret *	Silane, trimethoxy[3-(oxiranylmethoxy)propyl]-
TiO2	13463-67-7	0.1 - 1 Trade Secret *	Titanium oxide (TiO2)

Toluene	108-88-3	< 0.2	No Data Available

*The concentration (exact or range) of this component 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

Allergic skin reaction (redness, swelling, blistering, and itching). Serious damage to the eyes (corneal cloudiness, severe pain, tearing, ulcerations, and significantly impaired or loss of vision).

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. Unsuitable extinguishing media
None Determined

5.3. Special hazards arising from the substance or mixture
None inherent in this product.

Hazardous Decomposition or By-Products

Substance	Condition
Carbon monoxide	During Combustion
Carbon dioxide	During Combustion
Irritant Vapours or Gases	During Combustion

5.4. Special protection 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. 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. Use personal protective equipment based on the results of an exposure assessment. Refer to Section 8 for PPE recommendations. If anticipated exposure

resulting from an accidental release exceeds the protective capabilities of the PPE listed in Section 8, or are unknown, select PPE that offers an appropriate level of protection. Consider the physical and chemical hazards of the material when doing so. Examples of PPE ensembles for emergency response could include wearing bunker gear for a release of flammable material; wearing chemical protective clothing if the spilled material is a corrosive, a sensitizer, a significant dermal irritant, or can be absorbed through the skin; or donning a positive pressure supplied-air respirator for chemicals with inhalation hazards. For information regarding physical and health hazards, refer to sections 2 and 11 of the SDS.

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. Place in a closed 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
Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse. Use personal protective equipment (gloves, respirators, etc.) as required.

7.2. Conditions for safe storage including any incompatibilities
Store away from heat. Store away from amines. Store locked up.

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
Toluene	108-88-3	ACGIH	TWA:20 ppm	
TiO2	13463-67-7	ACGIH	TWA(Respirable nanoscale particles):0.2 mg/m3;TWA(Respirable finescale particles):2.5 mg/m3	
Glass Bubbles	65997-17-3	Manufacturer determined	TWA(as non-fibrous, respirable)(8 hours):3 mg/m3;TWA(as non-fibrous, inhalable fraction)(8 hours):10 mg/m3	
Particles (insoluble or poorly soluble) not otherwise specified, inhalable particles	65997-17-3	ACGIH	TWA(inhalable particulates):10 mg/m3	
Particles (insoluble or poorly soluble) not otherwise specified,	65997-17-3	ACGIH	TWA(respirable particles):3 mg/m3	

respirable particles				

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.

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:
Full Face Shield
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 (e.g., spraying, high splash potential, etc.), then use of a protective apron may be necessary. See recommended glove material(s) for determining appropriate apron material(s). If a glove material is not available as an apron, polymer laminate is a suitable option.

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
Colour	White
Odour	Slight Epoxy
Odour threshold	*No Data Available*
pH	*Not Applicable*
Melting point/Freezing point	*Not Applicable*
Boiling point	*No Data Available*
Flash Point	Flash point > 93 °C (200 °F) [*Test Method:*Closed Cup]

Evaporation rate	*No Data Available*
Flammability	Not Applicable
Flammable Limits(LEL)	*Not Applicable*
Flammable Limits(UEL)	*Not Applicable*
Vapour Pressure	*No Data Available*
Relative Vapour Density	*No Data Available*
Density	0.65 g/ml
Relative density	0.68 - 0.7 [*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*
Kinematic Viscosity	*No Data Available*
Volatile Organic Compounds	*No Data Available*
Percent volatile as Text	Negligible
VOC Less H2O & Exempt Solvents	*No Data Available*
Molecular weight	*No Data Available*

Particle Characteristics	*Not Applicable*

SECTION 10: Stability and reactivity

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

10.2. Chemical stability
Stable.

10.3. Possibility of hazardous reactions
Hazardous polymerization will not occur.

10.4. Conditions to avoid
Heat
Heat is generated during cure. Do not cure a mass larger than 50 grams in a confined space to prevent a premature exothermic reaction with production of intense heat and smoke.

10.5. Incompatible materials
Amines

10.6. Hazardous decomposition products

Substance	**Condition**
None known.	

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

The information below may not 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. May cause additional health effects (see below).

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

Eye Contact:
Corrosive (Eye Burns): Signs/symptoms may include cloudy appearance of the cornea, chemical burns, severe pain, tearing, ulcerations, significantly impaired vision or complete loss of 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:

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

Genotoxicity:
Genotoxicity and Mutagenicity: May interact with genetic material and possibly alter gene expression.

Carcinogenicity:

Ingredient	CAS No.	Class Description	Regulation
Titanium dioxide	13463-67-7	Grp. 2B: Possible human carc.	International Agency for Research on Cancer

Additional Information:
Persons previously sensitized to amines may develop a cross-sensitization reaction to certain other amines.

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

Acute Toxicity

Name	Route	Species	Value
Overall product	Dermal		No data available; calculated ATE >5,000 mg/kg
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
Bisphenol A Diglycidyl Ether	Dermal	Rat	LD50 > 1,600 mg/kg
Bisphenol A Diglycidyl Ether	Ingestion	Rat	LD50 > 1,000 mg/kg
Copolymer	Dermal	Rat	LD50 > 3,170 mg/kg
Copolymer	Ingestion	Rat	LD50 3,398 mg/kg
Glass Bubbles	Dermal		LD50 estimated to be > 5,000 mg/kg
Glass Bubbles	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
Ethylene Diamine Phosphate	Inhalation-Vapor	Professional judgement	LC50 estimated to be > 50 mg/l

Ethylene Diamine Phosphate	Dermal	Rat	LD50 > 2,000 mg/kg
Ethylene Diamine Phosphate	Ingestion	Rat	LD50 > 2,000 mg/kg
Silane, Trimethoxyoctyl-, Hydrolysis Products with Silica	Dermal		LD50 estimated to be > 5,000 mg/kg
Silane, Trimethoxyoctyl-, Hydrolysis Products with Silica	Ingestion	Rat	LD50 > 5,340 mg/kg
3-(Trimethoxysilyl) Propyl Glycidyl Ether	Dermal	Rabbit	LD50 4,000 mg/kg
3-(Trimethoxysilyl) Propyl Glycidyl Ether	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 5.3 mg/l
3-(Trimethoxysilyl) Propyl Glycidyl Ether	Ingestion	Rat	LD50 7,010 mg/kg
TiO2	Dermal	Rabbit	LD50 > 10,000 mg/kg
TiO2	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 6.82 mg/l
TiO2	Ingestion	Rat	LD50 > 10,000 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
Bisphenol A Diglycidyl Ether	Rabbit	Mild irritant
Copolymer	In vitro data	Irritant
Glass Bubbles	Professional judgement	No significant irritation
Ethylene Diamine Phosphate	Rabbit	No significant irritation
3-(Trimethoxysilyl) Propyl Glycidyl Ether	Rabbit	Mild irritant
TiO2	Rabbit	No significant irritation
Toluene	Rabbit	Irritant

Serious Eye Damage/Irritation

Name	Species	Value
Bisphenol A Diglycidyl Ether	Rabbit	Moderate irritant
Copolymer	Rabbit	Corrosive
Glass Bubbles	Professional judgement	No significant irritation
Ethylene Diamine Phosphate	Rabbit	No significant irritation
3-(Trimethoxysilyl) Propyl Glycidyl Ether	Rabbit	Corrosive
TiO2	Rabbit	No significant irritation
Toluene	Rabbit	Moderate irritant

Skin Sensitization

Name	Species	Value
Bisphenol A Diglycidyl Ether	Human and animal	Sensitizing
Copolymer	similar compounds	Sensitizing
Ethylene Diamine Phosphate	similar compounds	Sensitizing
3-(Trimethoxysilyl) Propyl Glycidyl Ether	Guinea pig	Not classified
TiO2	Human	Not classified

	and animal	
Toluene	Guinea pig	Not classified

Respiratory Sensitization

Name	Species	Value
Bisphenol A Diglycidyl Ether	Human	Not classified

Germ Cell Mutagenicity

Name	Route	Value
Bisphenol A Diglycidyl Ether	In vivo	Not mutagenic
Bisphenol A Diglycidyl Ether	In Vitro	Some positive data exist, but the data are not sufficient for classification
Copolymer	In Vitro	Some positive data exist, but the data are not sufficient for classification
Copolymer	In vivo	Mutagenic
Glass Bubbles	In Vitro	Some positive data exist, but the data are not sufficient for classification
Ethylene Diamine Phosphate	In Vitro	Not mutagenic
Ethylene Diamine Phosphate	In vivo	Not mutagenic
3-(Trimethoxysilyl) Propyl Glycidyl Ether	In Vitro	Some positive data exist, but the data are not sufficient for classification
3-(Trimethoxysilyl) Propyl Glycidyl Ether	In vivo	Some positive data exist, but the data are not sufficient for classification
TiO2	In Vitro	Not mutagenic
TiO2	In vivo	Not mutagenic
Toluene	In Vitro	Not mutagenic
Toluene	In vivo	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
Bisphenol A Diglycidyl Ether	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification
Glass Bubbles	Inhalation	Multiple animal species	Some positive data exist, but the data are not sufficient for classification
3-(Trimethoxysilyl) Propyl Glycidyl Ether	Dermal	Mouse	Not carcinogenic
TiO2	Ingestion	Multiple animal species	Not carcinogenic
TiO2	Inhalation	Rat	Carcinogenic
Toluene	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification
Toluene	Ingestion	Rat	Some positive data exist, but the data are not sufficient for classification
Toluene	Inhalation	Mouse	Some positive data exist, but the data are not sufficient for classification

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
Bisphenol A Diglycidyl Ether	Ingestion	Not classified for female reproduction	Rat	NOAEL 750 mg/kg/day	2 generation
Bisphenol A Diglycidyl Ether	Ingestion	Not classified for male reproduction	Rat	NOAEL 750 mg/kg/day	2 generation
Bisphenol A Diglycidyl Ether	Dermal	Not classified for development	Rabbit	NOAEL 300 mg/kg/day	during organogenesis
Bisphenol A Diglycidyl Ether	Ingestion	Not classified for development	Rat	NOAEL 750	2 generation

				mg/kg/day	
Copolymer	Ingestion	Not classified for female reproduction	Rat	NOAEL 100 mg/kg/day	premating into lactation
Copolymer	Ingestion	Not classified for development	Rat	NOAEL 100 mg/kg/day	premating into lactation
Copolymer	Ingestion	Toxic to male reproduction	Rat	NOAEL 100 mg/kg/day	14 days
Ethylene Diamine Phosphate	Ingestion	Not classified for female reproduction	Rat	NOAEL 150 mg/kg/day	premating into lactation
Ethylene Diamine Phosphate	Ingestion	Not classified for male reproduction	Rat	NOAEL 150 mg/kg/day	33 days
Ethylene Diamine Phosphate	Ingestion	Not classified for development	Rat	NOAEL 150 mg/kg/day	premating into lactation
3-(Trimethoxysilyl) Propyl Glycidyl Ether	Ingestion	Not classified for female reproduction	Rat	NOAEL 1,000 mg/kg/day	1 generation
3-(Trimethoxysilyl) Propyl Glycidyl Ether	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,000 mg/kg/day	1 generation
3-(Trimethoxysilyl) Propyl Glycidyl Ether	Ingestion	Not classified for development	Rat	NOAEL 3,000 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
Copolymer	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	
Toluene	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
Toluene	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
Toluene	Inhalation	immune system	Not classified	Mouse	NOAEL 0.004 mg/l	3 hours
Toluene	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	poisoning and/or abuse

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Bisphenol A Diglycidyl Ether	Dermal	liver	Not classified	Rat	NOAEL 1,000 mg/kg/day	2 years
Bisphenol A Diglycidyl Ether	Dermal	nervous system	Not classified	Rat	NOAEL 1,000 mg/kg/day	13 weeks
Bisphenol A Diglycidyl Ether	Ingestion	auditory system | heart | endocrine system | hematopoietic system | liver | eyes | kidney and/or bladder	Not classified	Rat	NOAEL 1,000 mg/kg/day	28 days
Copolymer	Ingestion	heart | skin | endocrine system | gastrointestinal tract	Not classified	Rat	NOAEL 300 mg/kg/day	43 days

		| bone, teeth, nails, and/or hair | hematopoietic system | liver | immune system | muscles | nervous system | eyes | kidney and/or bladder | respiratory system | vascular system				
Glass Bubbles	Inhalation	respiratory system	Not classified	Human	NOAEL not available	occupational exposure
Ethylene Diamine Phosphate	Ingestion	heart | endocrine system | hematopoietic system | liver | nervous system | eyes | kidney and/or bladder	Not classified	Rat	NOAEL 600 mg/kg/day	28 days
3-(Trimethoxysilyl) Propyl Glycidyl Ether	Ingestion	heart | endocrine system | bone, teeth, nails, and/or hair | hematopoietic system | liver | immune system | nervous system | kidney and/or bladder | respiratory system	Not classified	Rat	NOAEL 1,000 mg/kg/day	28 days
TiO2	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 0.01 mg/l	2 years
TiO2	Inhalation	pulmonary fibrosis	Not classified	Human	NOAEL Not available	occupational exposure
Toluene	Inhalation	auditory system | nervous system | eyes | olfactory system	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	poisoning and/or abuse
Toluene	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 2.3 mg/l	15 months
Toluene	Inhalation	heart | liver | kidney and/or bladder	Not classified	Rat	NOAEL 11.3 mg/l	15 weeks
Toluene	Inhalation	endocrine system	Not classified	Rat	NOAEL 1.1 mg/l	4 weeks
Toluene	Inhalation	immune system	Not classified	Mouse	NOAEL Not available	20 days
Toluene	Inhalation	bone, teeth, nails, and/or hair	Not classified	Mouse	NOAEL 1.1 mg/l	8 weeks
Toluene	Inhalation	hematopoietic system | vascular system	Not classified	Human	NOAEL Not available	occupational exposure
Toluene	Inhalation	gastrointestinal tract	Not classified	Multiple animal species	NOAEL 11.3 mg/l	15 weeks
Toluene	Ingestion	nervous system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 625 mg/kg/day	13 weeks
Toluene	Ingestion	heart	Not classified	Rat	NOAEL 2,500 mg/kg/day	13 weeks
Toluene	Ingestion	liver | kidney and/or bladder	Not classified	Multiple animal species	NOAEL 2,500 mg/kg/day	13 weeks
Toluene	Ingestion	hematopoietic system	Not classified	Mouse	NOAEL 600 mg/kg/day	14 days
Toluene	Ingestion	endocrine system	Not classified	Mouse	NOAEL 105	28 days

					mg/kg/day	
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.

Dispose of waste product in a permitted industrial waste 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

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

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: 3 **Flammability:** 1 **Instability:** 0 **Special Hazards:** None

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

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