

Safety Data Sheet

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SECTION 1: Identification

1.1. Product identifier

3MTM Scotch-WeldTM DP-490 Black Structural Adhesive Kit

Product Identification Numbers

60-4551-0956-5	62-3546-1430-7	62-3546-1435-6	62-3546-3530-2	62-3546-3830-6
FJ-490N-0400-0	FJ-9251-0561-3	FJ-KITD-P490-6	FS-9100-2418-1	FS-9100-2877-8
FS-9100-2878-6	FS-9100-3331-5	FS-9100-3445-3	FS-9100-3446-1	FS-9100-3850-4
FS-9100-4033-6	FS-9100-4034-4	FS-9100-4035-1	FS-9100-4036-9	FS-9100-5074-9
FS-9100-5287-7	FS-9100-5288-5	FS-9100-5289-3	FS-9100-5290-1	UU-0101-3332-8
UU-0101-3333-6	UU-0101-3334-4	UU-0109-5900-3	UU-0113-1165-9	UU-0128-1811-6
UU-0146-2526-1	UU-0146-8625-5	XD-0055-2893-5	XF-6001-3992-7	

1.2. Recommended use and restrictions on use

Recommended use

Structural Bonding, Structural adhesive

1.3. Supplier's details

Company: 3M Canada Company

Division: Industrial Adhesives and Tapes 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:

19-2630-2, 19-2691-4

Transport in accordance with applicable regulations.

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



Safety Data Sheet

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 19-2630-2
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 2025/06/24
 Supercedes Date:
 2024/10/25

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

SECTION 1: Identification

1.1. Product identifier

3MTM Scotch-WeldTM DP-490 Black Structural Adhesive Part B

Product Identification Numbers

FJ-9600-0123-0 UU-0096-8394-5 UU-0115-9462-7

1.2. Recommended use and restrictions on use

Intended Use

Structural adhesive

Specific Use

Part B of 2-Part Epoxy Adhesive

Restrictions on use

Not applicable

1.3. Supplier's details

Company: 3M Canada Company

Division: Industrial Adhesives and Tapes 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 2A.

Skin Sensitizer: Category 1.

2.2. Label elements

Signal word

Warning

Symbols

Exclamation mark

Pictograms



Hazard Statements

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

Precautionary statements

Prevention:

Avoid breathing fumes. Wash exposed skin thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves and eye protection.

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. If skin irritation or rash occurs: Get medical attention. If eye irritation persists: Get medical advice. Take off contaminated clothing and wash it before reuse.

Disposal:

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

2.3. Other hazards

None known.

16% of the mixture consists of ingredients of unknown acute oral toxicity. 16% 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
Bisphenol A Diglycidyl Ether	1675-54-3	45 - 70 Trade Secret *	Oxirane, 2,2'-[(1-methylethylidene)bis(4,1-
			phenyleneoxymethylene)]bis-
1,4-Bis[(2,3-	14228-73-0	7 - 30 Trade Secret *	Oxirane, 2,2'-[1,4-
Epoxypropoxy)Methyl]Cyclohe			cyclohexanediylbis(methyleneoxymethylen
xane			e)]bis-
MBS POLYMER (METHYL	Trade Secret	10 - 20	Not Applicable
METHACRYLATE-			
BUTADIENE-STYRENE			
POLYMER)			
Carbon Black	1333-86-4	1 - 5 Trade Secret *	Carbon black
Oxide glass chemicals	65997-17-3	1 - 5	Glass, oxide, chemicals
Siloxanes and Silicones, di-Me,	67762-90-7	1 - 5	Siloxanes and Silicones, di-Me, reaction
reaction products with silica			products with silica
3-(trimethoxysilyl)propyl	2530-83-8	0.5 - 1.5 Trade Secret *	Silane, trimethoxy[3-

glycidyl ether			(oxiranylmethoxy)propyl]-
Titanium Dioxide	13463-67-7	0.5 - 1.5 Trade Secret *	Titanium oxide (TiO2)
2,6-Di-tert-butyl-P-cresol	128-37-0	< 1	Phenol, 2,6-bis(1,1-dimethylethyl)-4-
			methyl-

MBS POLYMER (METHYL METHACRYLATE-BUTADIENE-STYRENE POLYMER)

is a non-hazardous

material according to WHMIS criteria. Specific information has been withheld as a trade secret.

Carbon black is inextricably bound in this product. Exposure to carbon black is not expected during product use

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.

Eve 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).

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 carbon dioxide or dry chemical extinguisher 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

SubstanceConditionAldehydesDuring CombustionCarbon monoxideDuring CombustionCarbon dioxideDuring CombustionHydrogen ChlorideDuring 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,

^{*}The concentration (exact or range) of this component has been withheld as a trade secret.

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

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. 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.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Collect as much of the spilled material as possible. 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

For industrial or professional use only. Not for consumer sale or use.
Decontaminate work surfaces frequently to avoid exposure by contact. Avoid breathing dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse. Avoid contact with oxidizing agents (eg. chlorine, chromic acid etc.)

7.2. Conditions for safe storage including any incompatibilities

Store away from acids. 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
2,6-Di-tert-butyl-P-cresol	128-37-0	ACGIH	TWA(inhalable fraction and	
			vapor):2 mg/m3	
Carbon Black	1333-86-4	ACGIH	TWA(inhalable fraction):3	
			mg/m3	
Titanium Dioxide	13463-67-7	ACGIH	TWA(Respirable nanoscale	
			particles):0.2	
			mg/m3;TWA(Respirable	
			finescale particles):2.5 mg/m3	
Oxide glass chemicals	65997-17-3	Manufacturer	TWA(as non-fibrous,	
		determined	respirable)(8 hours):3	
			mg/m3;TWA(as non-fibrous,	
			inhalable fraction)(8 hours):10	

			mg/m3	
Particles (insoluble or poorly	65997-17-3	ACGIH	TWA(inhalable	
soluble) not otherwise specified,			particulates):10 mg/m3	
inhalable particles				
Particles (insoluble or poorly	65997-17-3	ACGIH	TWA(respirable particles):3	
soluble) not otherwise specified,			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

Provide ventilated enclosure for curing. Curing enclosures must be exhausted to outdoors or to a suitable emission control device. 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: Butyl Rubber

Polymer laminate

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

Respiratory protection

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

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

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

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Solid	
Specific Physical Form:	Thixotropic paste	
Colour	Black	
Odour	Mild Epoxy	
Odour threshold	No Data Available	
рН	No Data Available	
Melting point/Freezing point	No Data Available	
Boiling point	No Data Available	
Flash Point	>=93.3 °C [Test Method:Closed Cup]	
Evaporation rate	Not Applicable	
Flammability	Not Applicable	
Flammable Limits(LEL)	No Data Available	
Flammable Limits(UEL)	No Data Available	
Vapour Pressure	< 0.01 Pa [@ 20 °C]	
Relative Vapour Density	Not Applicable	
Density	No Data Available	
Relative density	0.97 - 1.1 [@ 23 °C] [Ref Std:WATER=1]	
Water solubility	No Data Available	
Solubility- non-water	No Data Available	
Partition coefficient: n-octanol/ water	Not Applicable	
Autoignition temperature	No Data Available	
Decomposition temperature	No Data Available	
Kinematic Viscosity	No Data Available	
Volatile Organic Compounds	0 g/l [<i>Test Method</i> :calculated SCAQMD rule 443.1] [<i>Details</i> :as supplied]	
Percent volatile	1 % [Test Method: Estimated]	
VOC Less H2O & Exempt Solvents	No Data Available	
Molecular weight	Not Applicable	

SECTION 10: Stability and reactivity

10.1. Reactivity

This material is considered to be non reactive under normal use conditions.

10.2. Chemical stability

Stable.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

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

Strong acids

Strong oxidizing agents

10.6. Hazardous decomposition products

Substance

Condition

None known.

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

The information below may not 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:

No health effects are expected.

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.

Eve 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.

Carcinogenicity:

<u>Ingredient</u>	CAS No.	Class Description	Regulation
Carbon black	1333-86-4	Grp. 2B: Possible human carc.	International Agency for Research on Cancer
Titanium dioxide	13463-67-7	Grp. 2B: Possible human carc.	International Agency for Research on Cancer

Toxicological Data

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

Acute Toxicity

Name	Route	Species	Value
Overall product	Dermal		No data available; calculated ATE >5,000 mg/kg
Overall product	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
1,4-Bis[(2,3-Epoxypropoxy)Methyl]Cyclohexane	Dermal	Rabbit	LD50 > 2,000 mg/kg
1,4-Bis[(2,3-Epoxypropoxy)Methyl]Cyclohexane	Inhalation-	Rat	LC50 > 5.19 mg/l
	Dust/Mist		
	(4 hours)		
1,4-Bis[(2,3-Epoxypropoxy)Methyl]Cyclohexane	Ingestion	Rat	LD50 1,098 mg/kg
Siloxanes and Silicones, di-Me, reaction products with silica	Dermal	Rabbit	LD50 > 5,000 mg/kg
Siloxanes and Silicones, di-Me, reaction products with silica	Inhalation-	Rat	LC50 > 0.691 mg/l
	Dust/Mist		
	(4 hours)		

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Siloxanes and Silicones, di-Me, reaction products with silica	Ingestion	Rat	LD50 > 5,110 mg/kg
Carbon Black	Dermal	Rabbit	LD50 > 3,000 mg/kg
Carbon Black	Ingestion	Rat	LD50 > 8,000 mg/kg
Oxide glass chemicals	Dermal		LD50 estimated to be > 5,000 mg/kg
Oxide glass chemicals	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
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
2,6-Di-tert-butyl-P-cresol	Dermal	Rat	LD50 > 2,000 mg/kg
2,6-Di-tert-butyl-P-cresol	Ingestion	Rat	LD50 > 2,930 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Bisphenol A Diglycidyl Ether	Rabbit	Mild irritant
1,4-Bis[(2,3-Epoxypropoxy)Methyl]Cyclohexane	In vitro data	Irritant
Siloxanes and Silicones, di-Me, reaction products with silica	Rabbit	No significant irritation
Carbon Black	Rabbit	No significant irritation
Oxide glass chemicals	Professio	No significant irritation
	nal	
	judgeme	
	nt	
Titanium Dioxide	Rabbit	No significant irritation
3-(trimethoxysilyl)propyl glycidyl ether	Rabbit	Mild irritant
2,6-Di-tert-butyl-P-cresol	Human	Minimal irritation
	and	
	animal	

Serious Eye Damage/Irritation

Name	Species	Value
Bisphenol A Diglycidyl Ether	Rabbit	Moderate irritant
1,4-Bis[(2,3-Epoxypropoxy)Methyl]Cyclohexane	In vitro data	No significant irritation
Siloxanes and Silicones, di-Me, reaction products with silica	Rabbit	No significant irritation
Carbon Black	Rabbit	No significant irritation
Oxide glass chemicals	Professio	No significant irritation
	nal	
	judgeme	
	nt	
Titanium Dioxide	Rabbit	No significant irritation
3-(trimethoxysilyl)propyl glycidyl ether	Rabbit	Corrosive
2,6-Di-tert-butyl-P-cresol	Rabbit	Mild irritant

Skin Sensitization

SKIII SCHSILIZATION		<u> </u>
Name	Species	Value
Bisphenol A Diglycidyl Ether	Human	Sensitizing
	and	
	animal	
1,4-Bis[(2,3-Epoxypropoxy)Methyl]Cyclohexane	Mouse	Sensitizing
Siloxanes and Silicones, di-Me, reaction products with silica	Human	Not classified
•	and	
	animal	
Titanium Dioxide	Human	Not classified
	and	

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3MTM Scotch-WeldTM DP-490 Black Structural Adhesive Part B

	animal	
3-(trimethoxysilyl)propyl glycidyl ether	Guinea	Not classified
	pig	
2,6-Di-tert-butyl-P-cresol	Human	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
1,4-Bis[(2,3-Epoxypropoxy)Methyl]Cyclohexane	In vivo	Not mutagenic
1,4-Bis[(2,3-Epoxypropoxy)Methyl]Cyclohexane	In Vitro	Some positive data exist, but the data are not sufficient for classification
Siloxanes and Silicones, di-Me, reaction products with silica	In Vitro	Not mutagenic
Carbon Black	In Vitro	Not mutagenic
Carbon Black	In vivo	Some positive data exist, but the data are not sufficient for classification
Oxide glass chemicals	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
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
2,6-Di-tert-butyl-P-cresol	In Vitro	Not mutagenic
2,6-Di-tert-butyl-P-cresol	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
Siloxanes and Silicones, di-Me, reaction products with silica	Not	Mouse	Some positive data exist, but the data are not
	Specified		sufficient for classification
Carbon Black	Dermal	Mouse	Not carcinogenic
Carbon Black	Ingestion	Mouse	Not carcinogenic
Carbon Black	Inhalation	Rat	Carcinogenic
Oxide glass chemicals	Inhalation	Multiple	Some positive data exist, but the data are not
		animal	sufficient for classification
		species	
Titanium Dioxide	Ingestion	Multiple	Not carcinogenic
		animal	
		species	
Titanium Dioxide	Inhalation	Rat	Carcinogenic
3-(trimethoxysilyl)propyl glycidyl ether	Dermal	Mouse	Not carcinogenic
2,6-Di-tert-butyl-P-cresol	Ingestion	Multiple	Some positive data exist, but the data are not
		animal	sufficient for classification
		species	

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

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Bisphenol A Diglycidyl Ether	Dermal	Not classified for development	Rabbit	NOAEL 300 mg/kg/day	during organogenesi s
Bisphenol A Diglycidyl Ether	Ingestion	Not classified for development	Rat	NOAEL 750 mg/kg/day	2 generation
1,4-Bis[(2,3- Epoxypropoxy)Methyl]Cyclohexane	Ingestion	Not classified for female reproduction	Rat	NOAEL 300 mg/kg/day	premating into lactation
1,4-Bis[(2,3- Epoxypropoxy)Methyl]Cyclohexane	Ingestion	Not classified for male reproduction	Rat	NOAEL 300 mg/kg/day	33 days
1,4-Bis[(2,3- Epoxypropoxy)Methyl]Cyclohexane	Ingestion	Not classified for development	Rat	NOAEL 300 mg/kg/day	premating into lactation
Siloxanes and Silicones, di-Me, reaction products with silica	Ingestion	Not classified for female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation
Siloxanes and Silicones, di-Me, reaction products with silica	Ingestion	Not classified for male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
Siloxanes and Silicones, di-Me, reaction products with silica	Ingestion	Not classified for development	Rat	NOAEL 1,350 mg/kg/day	during organogenesi s
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 organogenesi s
2,6-Di-tert-butyl-P-cresol	Ingestion	Not classified for female reproduction	Rat	NOAEL 500 mg/kg/day	2 generation
2,6-Di-tert-butyl-P-cresol	Ingestion	Not classified for male reproduction	Rat	NOAEL 500 mg/kg/day	2 generation
2,6-Di-tert-butyl-P-cresol	Ingestion	Not classified for development	Rat	NOAEL 100 mg/kg/day	2 generation

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
1,4-Bis[(2,3-	Inhalation	respiratory irritation	Some positive data exist, but the	similar	NOAEL Not	
Epoxypropoxy)Methyl]Cyc			data are not sufficient for	health	available	
lohexane			classification	hazards		

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
1,4-Bis[(2,3- Epoxypropoxy)Methyl]Cy clohexane	Ingestion	endocrine system gastrointestinal tract liver heart hematopoietic system immune system nervous system kidney and/or bladder	Not classified	Rat	NOAEL 300 mg/kg/day	33 days
Siloxanes and Silicones,	Inhalation	respiratory system	Not classified	Human	NOAEL Not	occupationa

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di-Me, reaction products with silica		silicosis			available	exposure
Carbon Black	Inhalation	pneumoconiosis	Not classified	Human	NOAEL Not available	occupational exposure
Oxide glass chemicals	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
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
2,6-Di-tert-butyl-P-cresol	Ingestion	liver	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 250 mg/kg/day	28 days
2,6-Di-tert-butyl-P-cresol	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 500 mg/kg/day	2 generation
2,6-Di-tert-butyl-P-cresol	Ingestion	blood	Not classified	Rat	LOAEL 420 mg/kg/day	40 days
2,6-Di-tert-butyl-P-cresol	Ingestion	endocrine system	Not classified	Rat	NOAEL 25 mg/kg/day	2 generation
2,6-Di-tert-butyl-P-cresol	Ingestion	heart	Not classified	Mouse	NOAEL 3,480 mg/kg/day	10 weeks

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 completely cured (or polymerized) material in a permitted industrial waste facility. As a disposal alternative, incinerate uncured product in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. Combustion products will include halogen acid (HCl/HF/HBr). Facility must be capable of handling halogenated materials. If no other disposal options are available, waste product—that has been completely cured or polymerized may be placed in a landfill properly designed for industrial waste. 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: 2 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.

Document group:	19-2630-2	Version number:	5.01
Issue Date:	2025/06/24	Supercedes Date:	2024/10/25

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

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Safety Data Sheet

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 Document group:
 19-2691-4
 Version number:
 5.06

 Issue Date:
 2025/06/24
 Supercedes Date:
 2024/10/25

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

SECTION 1: Identification

1.1. Product identifier

3MTM Scotch-WeldTM DP-490 Black Structural Adhesive Part A

Product Identification Numbers

FJ-SPM0-4967-7 FS-9100-4394-2 UU-0096-8327-5 UU-0115-9463-5

1.2. Recommended use and restrictions on use

Intended Use

Structural adhesive

Specific Use

Part A of 2-Part Epoxy Adhesive

Restrictions on use

Not applicable

1.3. Supplier's details

Company: 3M Canada Company

Division: Industrial Adhesives and Tapes 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 1B. Serious Eye Damage/Irritation: Category 1.

Skin Sensitizer: Category 1A. Reproductive Toxicity: Category 2.

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

Health Hazards Not Otherwise Classified - Category 1

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2.2. Label elements

Signal word

Danger

Symbols

Corrosion | Exclamation mark | Health Hazard |





Hazard Statements

Causes severe skin burns and eye damage. May cause an allergic skin reaction. Suspected of damaging fertility or the unborn child. May cause drowsiness or dizziness. May cause chemical gastrointestinal burns.

Precautionary statements

Prevention:

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Obtain, read and follow all safety instructions before use. Do not breathe vapours. Wash exposed skin thoroughly after handling. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves, protective clothing, eye protection, and face protection.

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. If skin irritation or rash occurs: Get medical attention. Take off contaminated clothing and wash it before reuse.

Storage:

Store in a well-ventilated place. Keep container tightly closed. 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.

2% 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
FATTY ACIDS, C18-	68911-25-1	45 - 70 Trade Secret *	Fatty acids, C18-unsatd., dimers, polymers
UNSATD., DIMERS,			with 3,3'-[oxybis(2,1-ethanediyloxy)]bis[1-
POLYMERS WITH 3,3'-			propanamine]
[OXYBIS(2,1-			

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ETHANEDIYLOXY)]BIS[1-			
PROPANAMINE]			
2-PROPENENITRILE,	68683-29-4	10 - 30 Trade Secret *	2-Propenenitrile, polymer with 1,3-
POLYMER WITH 1,3-			butadiene, 1-cyano-1-methyl-4-oxo-4-[[2-
BUTADIENE, 1-CYANO-1-			(1-piperazinyl)ethyl]a mino]butyl-
METHYL-4-OXO-4-[[2-(1-			terminated
PIPERAZINYL)ETHYL]AMIN			
O]BUTYL-TERMINATED			
Tris(2,4,6-	90-72-2	7 - 13 Trade Secret *	Phenol, 2,4,6-tris[(dimethylamino)methyl]-
dimethylaminomonomethyl)phe			
nol			
Siloxanes and Silicones, di-Me,	67762-90-7	< 10	Siloxanes and Silicones, di-Me, reaction
reaction products with silica			products with silica
Bis(3-Aminopropyl) Ether Of	4246-51-9	< 8	1-Propanamine, 3,3'-[oxybis(2,1-
Diethylene Glycol			ethanediyloxy)]bis-
Bis[(Dimethylamino)Methyl]Ph	71074-89-0	1 - 5 Trade Secret *	Phenol, bis[(dimethylamino)methyl]-
enol			
Titanium Dioxide	13463-67-7	1 - 5 Trade Secret *	Titanium oxide (TiO2)
N-aminoethylpiperazine	140-31-8	0.1 - 1 Trade Secret *	1-Piperazineethanamine

^{*}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 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

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). Central nervous system depression (headache, dizziness, drowsiness, incoordination, nausea, slurred speech, giddiness, and unconsciousness).

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

<u>Substance</u>	<u>Condition</u>
Amine Compounds	During Combustion
Carbon monoxide	During Combustion
Carbon dioxide	During Combustion
Oxides of Nitrogen	During Combustion
Toxic Vapor, Gas, Particulate	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

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. 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.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Collect as much of the spilled material as possible. 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

For industrial or professional use only. Not for consumer sale or use. Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse. 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. Store away from heat. 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
Titanium Dioxide	13463-67-7		TWA(Respirable nanoscale particles):0.2 mg/m3;TWA(Respirable finescale particles):2.5 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 ventilated enclosure for curing. Curing enclosures must be exhausted to outdoors or to a suitable emission control device. 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: Butyl Rubber

Polymer laminate

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

information on basic physical and chemical prope		
Physical state	Solid	
Specific Physical Form:	Thixotropic paste	
Colour	Off-White	
Odour	Light Amine	
Odour threshold	No Data Available	
pH	Not Applicable	
Melting point/Freezing point	Not Applicable	
Boiling point	Not Applicable	
Flash Point	>=100 °C [Test Method:Closed Cup]	
Evaporation rate	Negligible	
Flammability	Not Applicable	
Flammable Limits(LEL)	Not Applicable	
Flammable Limits(UEL)	Not Applicable	
Vapour Pressure	86,659.3 Pa	
Relative Vapour Density	Not Applicable	
Density	No Data Available	
Relative density	0.97 - 1.1 [<i>Ref Std</i> :WATER=1]	
Water solubility	No Data Available	
Solubility- non-water	No Data Available	
Partition coefficient: n-octanol/ water	Not Applicable	
Autoignition temperature	Not Applicable	
Decomposition temperature	No Data Available	
Kinematic Viscosity	No Data Available	
Volatile Organic Compounds	Not Applicable	
Percent volatile	<= 1 % weight [Test Method: Estimated]	
VOC Less H2O & Exempt Solvents	Not Applicable	
Molecular weight	Not Applicable	

Particle Characteristics	Not Applicable
--------------------------	----------------

SECTION 10: Stability and reactivity

10.1. Reactivity

This material is considered to be non reactive under normal use conditions.

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

Strong acids

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:

No health effects are expected.

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:

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

Reproductive/Developmental Toxicity:

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

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 >2,000 - =5,000 mg/kg
FATTY ACIDS, C18-UNSATD., DIMERS, POLYMERS WITH 3,3'-[OXYBIS(2,1-ETHANEDIYLOXY)]BIS[1-PROPANAMINE]	Dermal	Rat	LD50 > 2,000 mg/kg
FATTY ACIDS, C18-UNSATD., DIMERS, POLYMERS WITH 3,3'-[OXYBIS(2,1-ETHANEDIYLOXY)]BIS[1-PROPANAMINE]	Ingestion	Rat	LD50 > 2,000 mg/kg
2-PROPENENITRILE, POLYMER WITH 1,3-BUTADIENE, 1- CYANO-1-METHYL-4-OXO-4-[[2-(1- PIPERAZINYL)ETHYL]AMINO]BUTYL-TERMINATED	Dermal	Rabbit	LD50 > 3,000 mg/kg
2-PROPENENITRILE, POLYMER WITH 1,3-BUTADIENE, 1- CYANO-1-METHYL-4-OXO-4-[[2-(1- PIPERAZINYL)ETHYL]AMINO]BUTYL-TERMINATED	Ingestion	Rat	LD50 > 15,300 mg/kg
Tris(2,4,6-dimethylaminomonomethyl)phenol	Dermal	Rat	LD50 1,280 mg/kg
Tris(2,4,6-dimethylaminomonomethyl)phenol	Ingestion	Rat	LD50 1,000 mg/kg
Siloxanes and Silicones, di-Me, reaction products with silica	Dermal	Rabbit	LD50 > 5,000 mg/kg
Siloxanes and Silicones, di-Me, reaction products with silica	Inhalation- Dust/Mist (4 hours)	Rat	LC50 > 0.691 mg/l
Siloxanes and Silicones, di-Me, reaction products with silica	Ingestion	Rat	LD50 > 5,110 mg/kg
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
Bis[(Dimethylamino)Methyl]Phenol	Ingestion		LD50 estimated to be 300 - 2,000 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
N-aminoethylpiperazine	Dermal	Rabbit	LD50 865 mg/kg
N-aminoethylpiperazine	Ingestion	Rat	LD50 1,470 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
FATTY ACIDS, C18-UNSATD., DIMERS, POLYMERS WITH 3,3'- [OXYBIS(2,1-ETHANEDIYLOXY)]BIS[1-PROPANAMINE]	Rat	Irritant
2-PROPENENITRILE, POLYMER WITH 1,3-BUTADIENE, 1-CYANO-1-METHYL-4-OXO-4-[[2-(1-PIPERAZINYL)ETHYL]AMINO]BUTYL-TERMINATED	Rabbit	Irritant
Tris(2,4,6-dimethylaminomonomethyl)phenol	Rabbit	Corrosive
Siloxanes and Silicones, di-Me, reaction products with silica	Rabbit	No significant irritation
Bis(3-Aminopropyl) Ether Of Diethylene Glycol	Rabbit	Corrosive
Bis[(Dimethylamino)Methyl]Phenol	similar	Corrosive
	compoun	
	ds	
Titanium Dioxide	Rabbit	No significant irritation
N-aminoethylpiperazine	Rabbit	Corrosive

Serious Eye Damage/Irritation

Name	Species	Value
FATTY ACIDS, C18-UNSATD., DIMERS, POLYMERS WITH 3,3'-	In vitro	Severe irritant
[OXYBIS(2,1-ETHANEDIYLOXY)]BIS[1-PROPANAMINE]	data	
2-PROPENENITRILE, POLYMER WITH 1,3-BUTADIENE, 1-CYANO-1-	Rabbit	Mild irritant
METHYL-4-OXO-4-[[2-(1-PIPERAZINYL)ETHYL]AMINO]BUTYL-		
TERMINATED		
Tris(2,4,6-dimethylaminomonomethyl)phenol	Rabbit	Corrosive
Siloxanes and Silicones, di-Me, reaction products with silica	Rabbit	No significant irritation

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Bis(3-Aminopropyl) Ether Of Diethylene Glycol	Rabbit	Corrosive
Bis[(Dimethylamino)Methyl]Phenol	similar	Corrosive
	compoun	
	ds	
Titanium Dioxide	Rabbit	No significant irritation
N-aminoethylpiperazine	Rabbit	Corrosive

Skin Sensitization

Name	Species	Value
FATTY ACIDS, C18-UNSATD., DIMERS, POLYMERS WITH 3,3'-	Guinea	Sensitizing
[OXYBIS(2,1-ETHANEDIYLOXY)]BIS[1-PROPANAMINE]	pig	
2-PROPENENITRILE, POLYMER WITH 1,3-BUTADIENE, 1-CYANO-1-	Guinea	Sensitizing
METHYL-4-OXO-4-[[2-(1-PIPERAZINYL)ETHYL]AMINO]BUTYL- TERMINATED	pig	
Tris(2,4,6-dimethylaminomonomethyl)phenol	Guinea	Not classified
	pig	
Siloxanes and Silicones, di-Me, reaction products with silica	Human	Not classified
	and	
	animal	
Bis(3-Aminopropyl) Ether Of Diethylene Glycol	Professio	Sensitizing
	nal	
	judgeme	
	nt	
Titanium Dioxide	Human	Not classified
	and	
	animal	
N-aminoethylpiperazine	Guinea	Sensitizing
	pig	

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
FATTY ACIDS, C18-UNSATD., DIMERS, POLYMERS WITH 3,3'- [OXYBIS(2,1-ETHANEDIYLOXY)]BIS[1-PROPANAMINE]	In Vitro	Not mutagenic
Tris(2,4,6-dimethylaminomonomethyl)phenol	In Vitro	Not mutagenic
Siloxanes and Silicones, di-Me, reaction products with silica	In Vitro	Not mutagenic
Bis(3-Aminopropyl) Ether Of Diethylene Glycol	In Vitro	Not mutagenic
Titanium Dioxide	In Vitro	Not mutagenic
Titanium Dioxide	In vivo	Not mutagenic
N-aminoethylpiperazine	In vivo	Not mutagenic
N-aminoethylpiperazine	In Vitro	Some positive data exist, but the data are not sufficient for classification

Carcinogenicity

Name	Route	Species	Value
Siloxanes and Silicones, di-Me, reaction products with silica	Not Specified	Mouse	Some positive data exist, but the data are not sufficient for classification
Titanium Dioxide	Ingestion	Multiple animal species	Not carcinogenic
Titanium Dioxide	Inhalation	Rat	Carcinogenic

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
FATTY ACIDS, C18-UNSATD., DIMERS, POLYMERS WITH 3,3'-[OXYBIS(2,1- ETHANEDIYLOXY)]BIS[1- PROPANAMINE]	Ingestion	Not classified for female reproduction	Rat	NOAEL 1,000 mg/kg/day	premating into lactation

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FATTY ACIDS, C18-UNSATD., DIMERS, POLYMERS WITH 3,3'-[OXYBIS(2,1- ETHANEDIYLOXY)]BIS[1- PROPANAMINE]	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,000 mg/kg/day	29 days
FATTY ACIDS, C18-UNSATD., DIMERS, POLYMERS WITH 3,3'-[OXYBIS(2,1- ETHANEDIYLOXY)]BIS[1- PROPANAMINE]	Ingestion	Not classified for development	Rat	NOAEL 1,000 mg/kg/day	premating into lactation
Tris(2,4,6-dimethylaminomonomethyl)phenol	Ingestion	Not classified for male reproduction	Rat	NOAEL 150 mg/kg/day	2 generation
Tris(2,4,6-dimethylaminomonomethyl)phenol	Ingestion	Not classified for female reproduction	Rat	NOAEL 50 mg/kg/day	2 generation
Tris(2,4,6-dimethylaminomonomethyl)phenol	Ingestion	Not classified for development	Rabbit	NOAEL 15 mg/kg/day	during gestation
Siloxanes and Silicones, di-Me, reaction products with silica	Ingestion	Not classified for female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation
Siloxanes and Silicones, di-Me, reaction products with silica	Ingestion	Not classified for male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
Siloxanes and Silicones, di-Me, reaction products with silica	Ingestion	Not classified for development	Rat	NOAEL 1,350 mg/kg/day	during organogenesi s
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
N-aminoethylpiperazine	Ingestion	Not classified for female reproduction	Rat	NOAEL 598 mg/kg/day	premating & during gestation
N-aminoethylpiperazine	Ingestion	Not classified for male reproduction	Rat	NOAEL 409 mg/kg/day	32 days
N-aminoethylpiperazine	Ingestion	Toxic to development	Rabbit	NOAEL 75 mg/kg/day	during gestation

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
FATTY ACIDS, C18- UNSATD., DIMERS, POLYMERS WITH 3,3'- [OXYBIS(2,1- ETHANEDIYLOXY)]BIS[1-PROPANAMINE]	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	Irritation Positive	
FATTY ACIDS, C18- UNSATD., DIMERS, POLYMERS WITH 3,3'- [OXYBIS(2,1- ETHANEDIYLOXY)]BIS[1-PROPANAMINE]	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Rat	NOAEL Not available	
2-PROPENENITRILE, POLYMER WITH 1,3- BUTADIENE, 1-CYANO- 1-METHYL-4-OXO-4-[[2- (1- PIPERAZINYL)ETHYL]A MINO]BUTYL- TERMINATED	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL not available	
Tris(2,4,6- dimethylaminomonomethyl)phenol	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	
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	
N-aminoethylpiperazine	Inhalation	respiratory irritation	Some positive data exist, but the		NOAEL Not	

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	data are not sufficient for	available	
	classification		

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
FATTY ACIDS, C18- UNSATD., DIMERS, POLYMERS WITH 3,3'- [OXYBIS(2,1- ETHANEDIYLOXY)]BIS [1-PROPANAMINE]	Ingestion	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 respiratory system vascular system	Not classified	Rat	NOAEL 1,000 mg/kg/day	29 days
Tris(2,4,6-dimethylaminomonomethy l)phenol	Dermal	skin	Not classified	Rat	NOAEL 25 mg/kg/day	4 weeks
Tris(2,4,6-dimethylaminomonomethy l)phenol	Dermal	liver nervous system auditory system hematopoietic system eyes	Not classified	Rat	NOAEL 125 mg/kg/day	4 weeks
Tris(2,4,6-dimethylaminomonomethyl)phenol	Ingestion	heart endocrine system hematopoietic system liver muscles nervous system kidney and/or bladder respiratory system vascular system auditory system skin gastrointestinal tract bone, teeth, nails, and/or hair immune system eyes	Not classified	Rat	NOAEL 150 mg/kg/day	90 days
Siloxanes and Silicones, di-Me, reaction products with silica	Inhalation	respiratory system silicosis	Not classified	Human	NOAEL Not available	occupational exposure
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
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
N-aminoethylpiperazine	Dermal	skin	Not classified	Rat	NOAEL 100 mg/kg/day	29 days
N-aminoethylpiperazine	Dermal	hematopoietic	Not classified	Rat	NOAEL	29 days

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		system nervous system kidney and/or bladder			1,000 mg/kg/day	
N-aminoethylpiperazine	Inhalation	respiratory system	Causes damage to organs through prolonged or repeated exposure	Rat	NOAEL 0.2 mg/m3	13 weeks
N-aminoethylpiperazine	Inhalation	hematopoietic system eyes kidney and/or bladder	Not classified	Rat	NOAEL 53.8 mg/m3	13 weeks
N-aminoethylpiperazine	Ingestion	heart endocrine system hematopoietic system liver nervous system kidney and/or bladder	Not classified	Rat	NOAEL 598 mg/kg/day	28 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 uncured product in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

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

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