

# **Safety Data Sheet**

Copyright, 2021, 3M Company.

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

 Document Group:
 40-1401-5
 Version Number:
 2.00

 Issue Date:
 10/18/21
 Supercedes Date:
 03/11/21

# **SECTION 1: Identification**

#### 1.1. Product identifier

3M<sup>™</sup> Composite Surfacing and Lightning Strike Protection Film AF 536

# **Product Identification Numbers**

### 1.2. Recommended use and restrictions on use

#### Recommended use

Industrial use

1.3. Supplier's details

MANUFACTURER: 3M

**DIVISION:** Automotive and Aerospace Solutions Division

3M Poland

ADDRESS: 3M Center, St. Paul, MN 55144-1000, USA

**Telephone:** 1-888-3M HELPS (1-888-364-3577)

#### 1.4. Emergency telephone number

1-800-364-3577 or (651) 737-6501 (24 hours)

# **SECTION 2: Hazard identification**

### 2.1. Hazard classification

Skin Corrosion/Irritation: Category 2.

Skin Sensitizer: Category 1. Carcinogenicity: Category 2.

#### 2.2. Label elements

#### Signal word

Warning

#### **Symbols**

Exclamation mark | Health Hazard |

# **Pictograms**





#### **Hazard Statements**

Causes skin irritation.

May cause an allergic skin reaction.

Suspected of causing cancer.

# **Precautionary Statements**

### **Prevention:**

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Avoid breathing dust/fume/gas/mist/vapors/spray.

Wear protective gloves.

Wash thoroughly after handling.

Contaminated work clothing must not be allowed out of the workplace.

## **Response:**

IF ON SKIN: Wash with plenty of soap and water.

If skin irritation or rash occurs: Get medical advice/attention.

Take off contaminated clothing and wash it before reuse. IF exposed or concerned: Get medical advice/attention.

### **Storage:**

Store locked up.

### Disposal:

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

64% of the mixture consists of ingredients of unknown acute inhalation toxicity.

# **SECTION 3: Composition/information on ingredients**

Ingredient	C.A.S. No.	% by Wt
COPPER SCREEN	None	30 - 55
Oxirane, 2,2'-[(1-methylethylidene)bis(4,1-	60684-77-7	5 - 20 Trade Secret *
phenyleneoxymethylene)]bis-, polymer with 1,1'-		
methylenebis[isocyanatobenzene]		
EPOXY RESIN 1	25068-38-6	2 - 15 Trade Secret *
EPOXY RESIN 2	25068-38-6	5 - 15
FIBERGLASS SCRIM	None	1 - 15
EPOXY RESIN 3	28906-96-9	2 - 10 Trade Secret *
GLASS BUBBLES	65997-17-3	1 - 10
FLEXIBLIZER	Trade Secret*	0.1 - 10
EPOXY RESIN 4	25085-99-8	1 - 6 Trade Secret *
CURATIVE 1	461-58-5	0.1 - 5
FILLER	Trade Secret*	0.1 - 5
N,N,N',N'-TETRAGLYCIDYLBIS(P-	28768-32-3	0.5 - 3.5 Trade Secret *
AMINOPHENYL)METHANE		
MIBK	108-10-1	< 0.5 Trade Secret *

\_\_\_\_\_\_

\*The specific chemical identity and/or exact percentage (concentration) of this composition 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.

#### **Eve Contact:**

Flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms persist, 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 fire fighting agent suitable for ordinary combustible material such as water or foam to extinguish.

## 5.2. Special hazards arising from the substance or mixture

None inherent in this product.

#### **Hazardous Decomposition or By-Products**

<b>Substance</b>	<u>Condition</u>
Aldehydes	During Combustion
Carbon monoxide	During Combustion
Carbon dioxide	During Combustion
Hydrogen Gas	During Combustion
Hydrogen Chloride	During Combustion
Hydrogen Cyanide	During Combustion
Ammonia	During Combustion
Oxides of Nitrogen	During Combustion
Phosgene	During Combustion

### 5.3. Special protective actions for fire-fighters

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. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

### **6.2.** Environmental precautions

Avoid release to the environment.

#### 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

Do not handle until all safety precautions have been read and understood. Avoid breathing dust/fume/gas/mist/vapors/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.

# **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	<b>Additional Comments</b>
MIBK	108-10-1	ACGIH	TWA:20 ppm;STEL:75 ppm	A3: Confirmed animal
				carcin.
MIBK	108-10-1	OSHA	TWA:410 mg/m3(100 ppm)	
GLASS BUBBLES	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	
FILLER	Trade	OSHA	TWA:20 millions of	
	Secret		particles/cu. ft.;TWA	
			concentration: 0.8 mg/m3	

ACGIH: American Conference of Governmental Industrial Hygienists

AIHA: American Industrial Hygiene Association

CMRG: Chemical Manufacturer's Recommended Guidelines

OSHA: United States Department of Labor - Occupational Safety and Health Administration

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/vapors/spray. If ventilation is not adequate, use respiratory protection equipment.

### 8.2.2. Personal protective equipment (PPE)

### Eye/face protection

None required.

#### Skin/hand protection

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

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

## **Respiratory protection**

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

Half facepiece or full facepiece air-purifying respirator suitable for organic vapors 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

Appearance

Physical stateSolidColorBeige

Specific Physical Form: Film
Odor Low Epoxy

**Odor threshold** No Data Available pН Not Applicable **Melting point** No Data Available **Boiling Point** Not Applicable No flash point **Flash Point Evaporation rate** Not Applicable Flammability (solid, gas) Not Classified Flammable Limits(LEL) Not Applicable

Flammable Limits(UEL)

Vapor Pressure

Nil

Vapor Density

Not Applicable

Nil

Nil

DensityNot ApplicableSpecific GravityNo Data Available

Solubility in Water Nil

Solubility- non-water

Partition coefficient: n-octanol/ water

Autoignition temperature

Decomposition temperature

Viscosity

No Data Available

Molecular weightNot ApplicableVolatile Organic CompoundsNot ApplicableVOC Less H2O & Exempt SolventsNot 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

### 10.5. Incompatible materials

Amines

#### 10.6. Hazardous decomposition products

Substance

None known.

Condition

Refer to section 5.2 for hazardous decomposition products during combustion.

# **SECTION 11: Toxicological information**

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

#### 11.1. Information on Toxicological effects

Signs and Symptoms of Exposure

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

#### Inhalation

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

May cause additional health effects (see below).

### **Skin Contact:**

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:**

Contact with the eyes during product use is not expected to result in significant irritation.

## **Ingestion:**

Physical Blockage: Signs/symptoms may include cramping, abdominal pain, and constipation.

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

May cause additional health effects (see below).

## **Additional Health Effects:**

# Carcinogenicity:

Contains a chemical or chemicals which can cause cancer.

<u>Ingredient</u>	CAS No.	Class Description	Regulation
Methyl isobutyl ketone	108-10-1	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	Inhalation- Dust/Mist(4 hr)		No data available; calculated ATE5 - 12.5 mg/l
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
Oxirane, 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis-, polymer with 1,1'-methylenebis[isocyanatobenzene]	Dermal	Professio nal judgeme nt	LD50 estimated to be > 5,000 mg/kg
Oxirane, 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis-, polymer with 1,1'-methylenebis[isocyanatobenzene]	Inhalation- Dust/Mist	Professio nal judgeme nt	LC50 estimated to be > 12.5 mg/l
Oxirane, 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis-, polymer with 1,1'-methylenebis[isocyanatobenzene]	Ingestion	Professio nal judgeme nt	LD50 estimated to be > 5,000 mg/kg
EPOXY RESIN 2	Dermal	Rat	LD50 > 1,600 mg/kg
EPOXY RESIN 2	Ingestion	Rat	LD50 > 1,000 mg/kg
EPOXY RESIN 1	Dermal	Rat	LD50 > 1,600 mg/kg
EPOXY RESIN 1	Ingestion	Rat	LD50 > 1,000 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
EPOXY RESIN 3	Dermal	Rat	LD50 > 2,000 mg/kg
EPOXY RESIN 3	Ingestion	Rat	LD50 > 2,000 mg/kg
EPOXY RESIN 4	Dermal	Rat	LD50 > 1,600 mg/kg
EPOXY RESIN 4	Ingestion	Rat	LD50 > 1,000 mg/kg
FLEXIBLIZER	Dermal	Rabbit	LD50 > 5,000 mg/kg
FLEXIBLIZER	Ingestion	Rat	LD50 > 5,000  mg/kg
N,N,N',N'-TETRAGLYCIDYLBIS(P- AMINOPHENYL)METHANE	Ingestion	Mouse	LD50 > 5,000 mg/kg
N,N,N',N'-TETRAGLYCIDYLBIS(P- AMINOPHENYL)METHANE	Dermal	Rabbit	LD50 > 3,000 mg/kg
CURATIVE 1	Dermal	Rabbit	LD50 > 10,000 mg/kg
CURATIVE 1	Ingestion	Rat	LD50 > 30,000 mg/kg
FILLER	Dermal	Rabbit	LD50 > 5,000 mg/kg
FILLER	Inhalation- Dust/Mist (4 hours)	Rat	LC50 > 0.691 mg/l
FILLER	Ingestion	Rat	LD50 > 5,110 mg/kg
MIBK	Dermal	Rabbit	LD50 > 16,000 mg/kg
MIBK	Inhalation-	Rat	LC50 >8.2,<16.4 mg/l

**Page** 7 **of** 14

3MTM Composite	e Surfacing and	Lightning Strike	Protection Film AF 536

		/21

	Vapor (4		
	hours)		
MIBK	Ingestion	Rat	LD50 3,038 mg/kg

ATE = acute toxicity estimate

# Skin Corrosion/Irritation

Name	Species	Value
Oxirane, 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis-,	Professio	Irritant
polymer with 1,1'-methylenebis[isocyanatobenzene]	nal	IIIIuiii
polymer with 1,1 methyleneous[isocythictoothzene]	judgeme	
	nt	
EPOXY RESIN 2	Rabbit	No significant irritation
EPOXY RESIN 1	Rabbit	Mild irritant
GLASS BUBBLES	Professio	No significant irritation
	nal	
	judgeme	
	nt	
EPOXY RESIN 3	Professio	Irritant
	nal	
	judgeme	
	nt	
EPOXY RESIN 4	Rabbit	Mild irritant
FLEXIBLIZER	Professio	Minimal irritation
	nal	
	judgeme	
	nt	
N,N,N',N'-TETRAGLYCIDYLBIS(P-AMINOPHENYL)METHANE	Rabbit	No significant irritation
CURATIVE 1	Human	Minimal irritation
	and	
	animal	
FILLER	Rabbit	No significant irritation
MIBK	Rabbit	Mild irritant

**Serious Eye Damage/Irritation** 

Name	Species	Value
Oxirane, 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis-,	Professio	Severe irritant
polymer with 1,1'-methylenebis[isocyanatobenzene]	nal	
	judgeme	
	nt	
EPOXY RESIN 2	Rabbit	Mild irritant
EPOXY RESIN 1	Rabbit	Moderate irritant
GLASS BUBBLES	Professio	No significant irritation
	nal	
	judgeme	
	nt	
EPOXY RESIN 3	Professio	Severe irritant
	nal	
	judgeme	
	nt	
EPOXY RESIN 4	Rabbit	Moderate irritant
FLEXIBLIZER	Professio	Mild irritant
	nal	
	judgeme	
	nt	
N,N,N',N'-TETRAGLYCIDYLBIS(P-AMINOPHENYL)METHANE	Rabbit	Mild irritant
CURATIVE 1	Professio	Mild irritant
	nal	
	judgeme	
	nt	
FILLER	Rabbit	No significant irritation
MIBK	Rabbit	Mild irritant

# **Skin Sensitization**

Name	Species	Value
Oxirane, 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis-,	Professio	Sensitizing
polymer with 1,1'-methylenebis[isocyanatobenzene]	nal	
	judgeme	
	nt	
EPOXY RESIN 2	Guinea	Not classified
	pig	
EPOXY RESIN 1	Human	Sensitizing
	and	
	animal	
EPOXY RESIN 3	Professio	Sensitizing
	nal	
	judgeme	
	nt	
EPOXY RESIN 4	Human	Sensitizing
	and	
	animal	
N,N,N',N'-TETRAGLYCIDYLBIS(P-AMINOPHENYL)METHANE	Human	Sensitizing
	and	
	animal	
CURATIVE 1	Guinea	Not classified
	pig	
FILLER	Human	Not classified
	and	
	animal	
MIBK	Guinea	Not classified
	pig	

**Respiratory Sensitization** 

Name	Species	Value
EPOXY RESIN 2	Human	Not classified
EPOXY RESIN 1	Human	Not classified
EPOXY RESIN 4	Human	Not classified

**Germ Cell Mutagenicity** 

Name	Route	Value
EPOXY RESIN 2	In vivo	Not mutagenic
EPOXY RESIN 2	In Vitro	Some positive data exist, but the data are not sufficient for classification
EPOXY RESIN 1	In vivo	Not mutagenic
EPOXY RESIN 1	In Vitro	Some positive data exist, but the data are not sufficient for classification
GLASS BUBBLES	In Vitro	Some positive data exist, but the data are not sufficient for classification
EPOXY RESIN 4	In vivo	Not mutagenic
EPOXY RESIN 4	In Vitro	Some positive data exist, but the data are not sufficient for classification
N,N,N',N'-TETRAGLYCIDYLBIS(P-AMINOPHENYL)METHANE	In Vitro	Some positive data exist, but the data are not sufficient for classification
N,N,N',N'-TETRAGLYCIDYLBIS(P-AMINOPHENYL)METHANE	In vivo	Some positive data exist, but the data are not sufficient for classification
CURATIVE 1	In Vitro	Not mutagenic
FILLER	In Vitro	Not mutagenic
MIBK	In Vitro	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
EPOXY RESIN 2	Dermal	Mouse	Some positive data exist, but the data are not
			sufficient for classification
EPOXY RESIN 1	Dermal	Mouse	Some positive data exist, but the data are not
			sufficient for classification
GLASS BUBBLES	Inhalation	Multiple	Some positive data exist, but the data are not
		animal	sufficient for classification

Page 9 of 14

		species	
EPOXY RESIN 4	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification
CURATIVE 1	Ingestion	Rat	Not carcinogenic
FILLER	Not	Mouse	Some positive data exist, but the data are not
	Specified		sufficient for classification
MIBK	Inhalation	Multiple	Carcinogenic
		animal	
		species	

# **Reproductive Toxicity**

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test Result	Exposure Duration
EPOXY RESIN 2	Ingestion	Not classified for female reproduction	Rat	NOAEL 750 mg/kg/day	2 generation
EPOXY RESIN 2	Ingestion	Not classified for male reproduction	Rat	NOAEL 750 mg/kg/day	2 generation
EPOXY RESIN 2	Dermal	Not classified for development	Rabbit	NOAEL 300 mg/kg/day	during organogenesi s
EPOXY RESIN 2	Ingestion	Not classified for development	Rat	NOAEL 750 mg/kg/day	2 generation
EPOXY RESIN 1	Ingestion	Not classified for female reproduction	Rat	NOAEL 750 mg/kg/day	2 generation
EPOXY RESIN 1	Ingestion	Not classified for male reproduction	Rat	NOAEL 750 mg/kg/day	2 generation
EPOXY RESIN 1	Dermal	Not classified for development	Rabbit	NOAEL 300 mg/kg/day	during organogenesi s
EPOXY RESIN 1	Ingestion	Not classified for development	Rat	NOAEL 750 mg/kg/day	2 generation
EPOXY RESIN 4	Ingestion	Not classified for female reproduction	Rat	NOAEL 750 mg/kg/day	2 generation
EPOXY RESIN 4	Ingestion	Not classified for male reproduction	Rat	NOAEL 750 mg/kg/day	2 generation
EPOXY RESIN 4	Dermal	Not classified for development	Rabbit	NOAEL 300 mg/kg/day	during organogenesi s
EPOXY RESIN 4	Ingestion	Not classified for development	Rat	NOAEL 750 mg/kg/day	2 generation
N,N,N',N'-TETRAGLYCIDYLBIS(P- AMINOPHENYL)METHANE	Ingestion	Not classified for development	Rat	NOAEL 90 mg/kg/day	during gestation
CURATIVE 1	Ingestion	Not classified for female reproduction	Rat	NOAEL 1,000 mg/kg/day	premating & during gestation
CURATIVE 1	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,000 mg/kg/day	44 days
CURATIVE 1	Ingestion	Not classified for development	Rat	NOAEL 1,000 mg/kg/day	premating & during gestation
FILLER	Ingestion	Not classified for female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation
FILLER	Ingestion	Not classified for male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
FILLER	Ingestion	Not classified for development	Rat	NOAEL 1,350 mg/kg/day	during organogenesi s
MIBK	Inhalation	Not classified for female reproduction	Multiple animal species	NOAEL 8.2 mg/l	2 generation
MIBK	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,000 mg/kg/day	13 weeks
MIBK	Inhalation	Not classified for male reproduction	Multiple animal	NOAEL 8.2 mg/l	2 generation

**Page** 10 **of** 14

			species		
MIBK	Inhalation	Not classified for development	Mouse	NOAEL 12.3 mg/l	during organogenesi

# Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
EPOXY RESIN 3	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Professio nal judgeme nt	NOAEL not available	
MIBK	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	LOAEL 0.1 mg/l	2 hours
MIBK	Inhalation	respiratory irritation	May cause respiratory irritation	Human	NOAEL 0.9 mg/l	7 minutes
MIBK	Inhalation	vascular system	Not classified	Dog	NOAEL Not available	not available
MIBK	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Rat	LOAEL 900 mg/kg	not applicable

**Specific Target Organ Toxicity - repeated exposure** 

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
EPOXY RESIN 2	Dermal	liver	Not classified	Rat	NOAEL 1,000 mg/kg/day	2 years
EPOXY RESIN 2	Dermal	nervous system	Not classified	Rat	NOAEL 1,000 mg/kg/day	13 weeks
EPOXY RESIN 2	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
EPOXY RESIN 1	Dermal	liver	Not classified	Rat	NOAEL 1,000 mg/kg/day	2 years
EPOXY RESIN 1	Dermal	nervous system	Not classified	Rat	NOAEL 1,000 mg/kg/day	13 weeks
EPOXY RESIN 1	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
GLASS BUBBLES	Inhalation	respiratory system	Not classified	Human	NOAEL not available	occupational exposure
EPOXY RESIN 4	Dermal	liver	Not classified	Rat	NOAEL 1,000 mg/kg/day	2 years
EPOXY RESIN 4	Dermal	nervous system	Not classified	Rat	NOAEL 1,000 mg/kg/day	13 weeks
EPOXY RESIN 4	Ingestion	auditory system   heart   endocrine system   hematopoietic system   liver   eyes   kidney and/or	Not classified	Rat	NOAEL 1,000 mg/kg/day	28 days

**Page** 11 **of** 14

		bladder				
N,N,N',N'- TETRAGLYCIDYLBIS(P - AMINOPHENYL)METH ANE	Ingestion	hematopoietic system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 50 mg/kg/day	13 weeks
N,N,N',N'- TETRAGLYCIDYLBIS(P - AMINOPHENYL)METH ANE	Ingestion	gastrointestinal tract  liver immune system nervous system eyes  kidney and/or bladder	Not classified	Rat	NOAEL 200 mg/kg/day	13 weeks
CURATIVE 1	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 6,822 mg/kg/day	13 weeks
FILLER	Inhalation	respiratory system   silicosis	Not classified	Human	NOAEL Not available	occupational exposure
MIBK	Inhalation	liver	Not classified	Rat	NOAEL 0.41 mg/l	13 weeks
MIBK	Inhalation	heart	Not classified	Multiple animal species	NOAEL 0.8 mg/l	2 weeks
MIBK	Inhalation	kidney and/or bladder	Not classified	Multiple animal species	NOAEL 0.4 mg/l	90 days
MIBK	Inhalation	respiratory system	Not classified	Multiple animal species	NOAEL 4.1 mg/l	14 weeks
MIBK	Inhalation	endocrine system   hematopoietic system	Not classified	Multiple animal species	NOAEL 0.41 mg/l	90 days
MIBK	Inhalation	nervous system	Not classified	Multiple animal species	NOAEL 0.41 mg/l	13 weeks
MIBK	Ingestion	endocrine system   hematopoietic system   liver   kidney and/or bladder	Not classified	Rat	NOAEL 1,000 mg/kg/day	13 weeks
MIBK	Ingestion	heart   immune system   muscles   nervous system   respiratory system	Not classified	Rat	NOAEL 1,040 mg/kg/day	120 days

#### **Aspiration Hazard**

Name	Value
MIBK	Some positive data exist, but 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**

# **Ecotoxicological information**

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

# Chemical fate information

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

# **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. 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. US Federal Regulations

Contact 3M for more information.

#### **EPCRA 311/312 Hazard Classifications:**

Physical Hazards

Not applicable

### **Health Hazards**

Carcinogenicity

Respiratory or Skin Sensitization

Skin Corrosion or Irritation

# Section 313 Toxic Chemicals subject to the reporting requirements of that section and 40 CFR part 372 (EPCRA):

 Ingredient
 C.A.S. No
 % by Wt

 MIBK
 108-10-1
 Trade Secret < 0.5</td>

# 15.2. State Regulations

Contact 3M for more information.

# 15.3. Chemical Inventories

This product is an article as defined by TSCA regulations, and is exempt from TSCA Inventory listing requirements.

Contact 3M for more information.

### 15.4. International Regulations

Contact 3M for more information.

This SDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

# **SECTION 16: Other information**

Page 13 of 14

NFPA Hazard Classification

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:
 40-1401-5
 Version Number:
 2.00

 Issue Date:
 10/18/21
 Supercedes Date:
 03/11/21

DISCLAIMER: The information in this Safety Data Sheet (SDS) is believed to be correct as of the date issued. 3M MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE. User is responsible for determining whether the 3M product is fit for a particular purpose and suitable for user's method of use or application. Given the variety of factors that can affect the use and application of a 3M product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for user's method of use or application.

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

3M USA SDSs are available at www.3M.com