Safety Data Sheet

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SECTION 1: Identification

1.1. Product identifier
3M™ Composite Surfacing Film AF 536

Product Identification Numbers
70-0711-0729-9, 70-0711-0730-7

1.2. Recommended use and restrictions on use

Recommended use
Adhesive, Industrial use

1.3. Supplier's details

MANUFACTURER:	3M
DIVISION:	Automotive and Aerospace Solutions Division
	Automotive and Aerospace Solutions Division
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.

2.2. Label elements
Signal word
Warning

Symbols
Exclamation mark |

Pictograms

Hazard Statements
Causes skin irritation.
May cause an allergic skin reaction.

Precautionary Statements

Prevention:
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.

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

SECTION 3: Composition/information on ingredients

Ingredient	C.A.S. No.	% by Wt
Oxirane, 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis-, polymer with 1,1'-methylenebis[isocyanatobenzene]	60684-77-7	15 - 30 Trade Secret *
EPOXY RESIN 1	25068-38-6	10 - 25 Trade Secret *
EPOXY RESIN 2	25068-38-6	15 - 25
EPOXY RESIN 3	28906-96-9	7 - 13 Trade Secret *
EPOXY RESIN 4	25085-99-8	1 - 10 Trade Secret *
GLASS BUBBLES	65997-17-3	1 - 10
FIBERGLASS SCRIM	None	1 - 10
FLEXIBLIZER	Trade Secret*	0.1 - 10
N,N,N',N'-TETRAGLYCIDYLBIS(P-AMINOPHENYL)METHANE	28768-32-3	1 - 5 Trade Secret *
Curative 1	Trade Secret*	1 - 5
Filler	Trade Secret*	1 - 5
Curative 2	Trade Secret*	0.15 - 1.5
ADIPIC DIHYDRAZIDE	1071-93-8	< 1
Methyl Ethyl Ketone	78-93-3	<= 1 Trade Secret *
METHYL PROPYL KETONE	107-87-9	<= 1 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.

Eye 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

Substance	Condition
Aldehydes	During Combustion
Carbon monoxide	During Combustion
Carbon dioxide	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
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.

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	Additional Comments
METHYL PROPYL KETONE	107-87-9	ACGIH	STEL:150 ppm	
METHYL PROPYL KETONE	107-87-9	OSHA	TWA:700 mg/m3(200 ppm)	
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	
Methyl Ethyl Ketone	78-93-3	ACGIH	TWA:200 ppm;STEL:300 ppm	
Methyl Ethyl Ketone	78-93-3	OSHA	TWA:590 mg/m3(200 ppm)	
Filler	Trade Secret	OSHA	TWA:20 millions of 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 state	Solid
Color	Beige
Specific Physical Form:	Film
Odor	Low Epoxy
Odor threshold	*No Data Available*
pH	*Not Applicable*
Melting point	*No Data Available*
Boiling Point	*Not Applicable*
Flash Point	No flash point
Evaporation rate	*Not Applicable*
Flammability (solid, gas)	Not Classified
Flammable Limits(LEL)	*Not Applicable*
Flammable Limits(UEL)	*Not Applicable*
Vapor Pressure	*Not Applicable*
Vapor Density	*Not Applicable*
Density	*Not Applicable*
Specific Gravity	*No Data Available*
Solubility in Water	Nil
Solubility- non-water	*Not Applicable*
Partition coefficient: n-octanol/ water	*No Data Available*
Autoignition temperature	*Not Applicable*
Decomposition temperature	*No Data Available*
Viscosity	*Not Applicable*
Molecular weight	*No Data Available*
Volatile Organic Compounds	*Not Applicable*
VOC Less H2O & Exempt Solvents	*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

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.

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.

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	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	Professional judgement	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	Professional judgement	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	Professional judgement	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
METHYL PROPYL KETONE	Inhalation-Vapor (4 hours)	Rat	LC50 > 25.5 mg/l
METHYL PROPYL KETONE	Ingestion	Rat	LD50 1,600 mg/kg
Methyl Ethyl Ketone	Dermal	Rabbit	LD50 > 8,050 mg/kg
Methyl Ethyl Ketone	Inhalation-Vapor (4 hours)	Rat	LC50 34.5 mg/l
Methyl Ethyl Ketone	Ingestion	Rat	LD50 2,737 mg/kg
Curative 2	Dermal	Rat	LD50 > 2,000 mg/kg
Curative 2	Ingestion	Rat	LD50 > 2,000 mg/kg
ADIPIC DIHYDRAZIDE	Ingestion	Mouse	LD50 > 5,000 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Oxirane, 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis-, polymer with 1,1'-methylenebis[isocyanatobenzene]	Professional judgement	Irritant
EPOXY RESIN 2	Rabbit	No significant irritation
EPOXY RESIN 1	Rabbit	Mild irritant
GLASS BUBBLES	Professional judgement	No significant irritation
EPOXY RESIN 3	Professional	Irritant

	judgement	
EPOXY RESIN 4	Rabbit	Mild irritant
FLEXIBLIZER	Professional judgement	Minimal irritation
N,N,N',N'-TETRAGLYCIDYLBIS(P-AMINOPHENYL)METHANE	Rabbit	No significant irritation
Curative 1	Human and animal	Minimal irritation
Filler	Rabbit	No significant irritation
METHYL PROPYL KETONE	Guinea pig	Minimal irritation
Methyl Ethyl Ketone	Rabbit	Minimal irritation
Curative 2	Rabbit	No significant irritation
ADIPIC DIHYDRAZIDE	Rabbit	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
Oxirane, 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis-, polymer with 1,1'-methylenebis[isocyanatobenzene]	Professional judgement	Severe irritant
EPOXY RESIN 2	Rabbit	Mild irritant
EPOXY RESIN 1	Rabbit	Moderate irritant
GLASS BUBBLES	Professional judgement	No significant irritation
EPOXY RESIN 3	Professional judgement	Severe irritant
EPOXY RESIN 4	Rabbit	Moderate irritant
FLEXIBLIZER	Professional judgement	Mild irritant
N,N,N',N'-TETRAGLYCIDYLBIS(P-AMINOPHENYL)METHANE	Rabbit	Mild irritant
Curative 1	Professional judgement	Mild irritant
Filler	Rabbit	No significant irritation
METHYL PROPYL KETONE	Rabbit	Moderate irritant
Methyl Ethyl Ketone	Rabbit	Severe irritant
Curative 2	Rabbit	No significant irritation

Skin Sensitization

Name	Species	Value
Oxirane, 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis-, polymer with 1,1'-methylenebis[isocyanatobenzene]	Professional judgement	Sensitizing
EPOXY RESIN 2	Guinea pig	Not classified
EPOXY RESIN 1	Human and animal	Sensitizing
EPOXY RESIN 3	Professional judgement	Sensitizing
EPOXY RESIN 4	Human	Sensitizing

	and animal	
N,N,N',N'-TETRAGLYCIDYLBIS(P-AMINOPHENYL)METHANE	Human and animal	Sensitizing
Curative 1	Guinea pig	Not classified
Filler	Human and animal	Not classified
ADIPIC DIHYDRAZIDE	Guinea pig	Sensitizing

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
METHYL PROPYL KETONE	In Vitro	Not mutagenic
Methyl Ethyl Ketone	In Vitro	Not mutagenic
ADIPIC DIHYDRAZIDE	In vivo	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 animal species	Some positive data exist, but the data are not sufficient for classification
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 Specified	Mouse	Some positive data exist, but the data are not sufficient for classification
Methyl Ethyl Ketone	Inhalation	Human	Not carcinogenic

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 organogenesis
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 organogenesis
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 organogenesis
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 organogenesis
METHYL PROPYL KETONE	Inhalation	Not classified for female reproduction	Rat	NOAEL 5 mg/l	premating & during gestation
METHYL PROPYL KETONE	Inhalation	Not classified for male reproduction	Rat	NOAEL 5 mg/l	51 days
METHYL PROPYL KETONE	Inhalation	Not classified for development	Rat	NOAEL 5 mg/l	premating & during gestation
Methyl Ethyl Ketone	Inhalation	Not classified for development	Rat	LOAEL 8.8 mg/l	during gestation

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	Professional judgement	NOAEL not available	

METHYL PROPYL KETONE	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
Methyl Ethyl Ketone	Inhalation	central nervous system depression	May cause drowsiness or dizziness	official classification	NOAEL Not available	
Methyl Ethyl Ketone	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
Methyl Ethyl Ketone	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Professional judgement	NOAEL Not available	
Methyl Ethyl Ketone	Ingestion	liver	Not classified	Rat	NOAEL Not available	not applicable
Methyl Ethyl Ketone	Ingestion	kidney and/or bladder	Not classified	Rat	LOAEL 1,080 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 bladder	Not classified	Rat	NOAEL 1,000 mg/kg/day	28 days
N,N,N',N'-TETRAGLYCIDYLBIS(P-AMINOPHENYL)METHANE	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)METHANE	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
METHYL PROPYL KETONE	Inhalation	endocrine system | liver | respiratory system | hematopoietic system | nervous system | eyes | kidney and/or bladder	Not classified	Rat	NOAEL 5.3 mg/l	13 weeks
Methyl Ethyl Ketone	Dermal	nervous system	Not classified	Guinea pig	NOAEL Not available	31 weeks
Methyl Ethyl Ketone	Inhalation	liver | kidney and/or bladder | heart | endocrine system | gastrointestinal tract | bone, teeth, nails, and/or hair | hematopoietic system | immune system | muscles	Not classified	Rat	NOAEL 14.7 mg/l	90 days
Methyl Ethyl Ketone	Ingestion	liver	Not classified	Rat	NOAEL Not available	7 days
Methyl Ethyl Ketone	Ingestion	nervous system	Not classified	Rat	NOAEL 173 mg/kg/day	90 days

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

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

SECTION 12: Ecological information

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 waste product in a permitted industrial waste facility. As a disposal alternative, incinerate in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. 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.

EPA Hazardous Waste Number (RCRA): D035 (Methyl ethyl ketone)

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
Respiratory or Skin Sensitization
Skin Corrosion or Irritation

15.2. State Regulations

Contact 3M for more information.

California Proposition 65

Ingredient	C.A.S. No.	Listing
Glycidol	556-52-5	Carcinogen
Epichlorohydrin	106-89-8	Male reproductive toxin
Epichlorohydrin	106-89-8	Carcinogen
Methyl isobutyl ketone (MIBK)	108-10-1	Carcinogen
Methyl isobutyl ketone (MIBK)	108-10-1	Developmental Toxin

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

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.

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