

Safety Data Sheet

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SECTION 1: Identification

1.1. Product identifier

3M[™] Epoxy Encapsulant 1735

Product Identification Numbers

LA-M100-1913-4, LA-M100-1913-5, 78-8117-3784-6, 78-8117-3785-3, XA-0067-3298-7, XA-0067-3299-5 7010347016, 7000056839, 7010354529, 7010403895

1.2. Recommended use and restrictions on use

Recommended use

Adhesive

This material is subject to a TSCA Section 5 Significant New Use Rule. It may only be used as an epoxy monomer, and must not be released to water.

1.3. Supplier's details

| MANUFACTURER: | 3M |
|----------------------|--|
| DIVISION: | 3M Singapore |
| | Electronics Materials 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

Serious Eye Damage/Irritation: Category 2A. Skin Sensitizer: Category 1. Reproductive Toxicity: Category 2.

2.2. Label elements Signal word Warning

Symbols Exclamation mark | Health Hazard |



Hazard Statements Causes serious eye irritation. May cause an allergic skin reaction. Suspected of damaging fertility or the unborn child.

Precautionary Statements

Prevention:

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid breathing dust/fume/gas/mist/vapors/spray. Wear protective gloves and eye/face protection. Wash thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.

Response:

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention. IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

IF exposed or concerned: Get medical advice/attention.

Disposal:

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

7% of the mixture consists of ingredients of unknown acute oral toxicity.

SECTION 3: Composition/information on ingredients

| Ingredient | C.A.S. No. | % by Wt |
|--|---------------|------------------------|
| silica fillers | 7631-86-9 | 40 - 70 |
| BISPHENOL A DIGLYCIDYL ETHER | 1675-54-3 | 15 - 40 Trade Secret * |
| flexibilizer | Trade Secret* | 5 - 10 |
| epoxy resin | 25036-25-3 | 1 - 5 Trade Secret * |
| Siloxanes and Silicones, di-Me, reaction products with | 67762-90-7 | 1 - 5 |
| silica | | |
| 1H-Imidazole-1-propanenitrile, 2-ethyl-ar-methyl- | 568591-00-4 | 1 - 3 Trade Secret * |
| 3-(trimethoxysilyl)propyl glycidyl ether | 2530-83-8 | 0.1 - 1 Trade Secret * |
| 4,4'-ISOPROPYLIDENEDIPHENOL | 80-05-7 | 0.1 - 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:

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

See Section 11.1. Information on toxicological effects.

4.3. Indication of any immediate medical attention and special treatment required Not applicable

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

In case of fire: Use a fire fighting agent suitable for 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 |

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. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions

Avoid release to the environment. For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water. No release to water.

6.3. Methods and material for containment and cleaning up

Contain spill. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially

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available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. 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/occupational use only. Not for consumer sale or use. Do not use in a confined area with minimal air exchange. 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. Avoid contact with oxidizing agents (eg. chlorine, chromic acid etc.) 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 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 |
|-------------------|------------|--------|-------------------------|---------------------|
| SILICA, AMORPHOUS | 67762-90-7 | OSHA | TWA:20 millions of | |
| | | | particles/cu. ft.;TWA | |
| | | | concentration:0.8 mg/m3 | |
| SILICA, AMORPHOUS | 7631-86-9 | 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

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

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

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|--|----------|--|--|--|
|--|----------|--|--|--|

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 | Liquid |
| Color | Cream, Tan |
| | Vier |
| Specific Physical Form: | Viscous |
| Odor | Odorless |
| Odor threshold | No Data Available |
| рН | Not Applicable |
| Melting point | Not Applicable |
| Boiling Point | No Data Available |
| Flash Point | >=155 °C [<i>Test Method</i> :Closed Cup] |
| Evaporation rate | Not Applicable |
| Flammability (solid, gas) | Not Applicable |
| Flammable Limits(LEL) | No Data Available |
| Flammable Limits(UEL) | No Data Available |
| Vapor Pressure | <=0.2 mmHg [@ 25 °C] |
| Vapor Density | Negligible |
| Density | 1.55 g/ml |
| Specific Gravity | 1.55 [<i>Ref Std</i> :WATER=1] |
| Solubility In Water | <=1 g/100 ml |
| Solubility- non-water | No Data Available |
| Partition coefficient: n-octanol/ water | No Data Available |
| Autoignition temperature | No Data Available |
| Decomposition temperature | No Data Available |
| Viscosity | Approximately 70,000 centipoise |
| Volatile Organic Compounds | Not Applicable |
| Percent volatile | 0 % |
| VOC Less H2O & Exempt Solvents | Not Applicable |
| ı | 11 |

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

10.5. Incompatible materials Strong acids Strong oxidizing agents Strong acids

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 cause additional health effects (see below).

Skin Contact:

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

Photosensitization: Signs/symptoms may include a sunburn-like reaction such as blistering, redness, swelling, and itching from minor exposure to sunlight.

Eye Contact:

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

Ingestion:

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

May cause additional health effects (see below).

Additional Health Effects:

Reproductive/Developmental Toxicity:

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

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 |
| silica fillers | Dermal | Rabbit | LD50 > 5,000 mg/kg |
| silica fillers | Inhalation- | Rat | LC50 > 0.691 mg/l |
| | Dust/Mist | | |
| | (4 hours) | | |
| silica fillers | Ingestion | Rat | LD50 > 5,110 mg/kg |
| BISPHENOL A DIGLYCIDYL ETHER | Dermal | Rat | LD50 > 1,600 mg/kg |
| BISPHENOL A DIGLYCIDYL ETHER | 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- | Rat | LC50 > 0.691 mg/l |
| - | Dust/Mist | | |
| | (4 hours) | | |
| Siloxanes and Silicones, di-Me, reaction products with silica | Ingestion | Rat | LD50 > 5,110 mg/kg |
| epoxy resin | Dermal | Rat | LD50 > 1,600 mg/kg |
| epoxy resin | Ingestion | Rat | LD50 > 1,000 mg/kg |
| 4,4'-ISOPROPYLIDENEDIPHENOL | Dermal | Rabbit | LD50 > 2,000 mg/kg |
| 4,4'-ISOPROPYLIDENEDIPHENOL | Ingestion | Rat | LD50 3,200 mg/kg |
| 3-(trimethoxysilyl)propyl glycidyl ether | Dermal | Rabbit | LD50 4,000 mg/kg |
| 3-(trimethoxysilyl)propyl glycidyl ether | Inhalation- | Rat | LC50 > 5.3 mg/l |
| | Dust/Mist | | - |
| | (4 hours) | | |
| 3-(trimethoxysilyl)propyl glycidyl ether | Ingestion | Rat | LD50 7,010 mg/kg |

ATE = acute toxicity estimate

Skin Corrosion/Irritation

| Name | Species | Value |
|---|---------|---------------------------|
| | | |
| silica fillers | Rabbit | No significant irritation |
| BISPHENOL A DIGLYCIDYL ETHER | Rabbit | Mild irritant |
| Siloxanes and Silicones, di-Me, reaction products with silica | Rabbit | No significant irritation |
| epoxy resin | Rabbit | Mild irritant |
| 4,4'-ISOPROPYLIDENEDIPHENOL | Rabbit | No significant irritation |
| 3-(trimethoxysilyl)propyl glycidyl ether | Rabbit | Mild irritant |

Serious Eye Damage/Irritation

| Name | Species | Value |
|---|---------|---------------------------|
| | | |
| silica fillers | Rabbit | No significant irritation |
| BISPHENOL A DIGLYCIDYL ETHER | Rabbit | Moderate irritant |
| Siloxanes and Silicones, di-Me, reaction products with silica | Rabbit | No significant irritation |
| epoxy resin | Rabbit | Moderate irritant |
| 4,4'-ISOPROPYLIDENEDIPHENOL | Rabbit | Corrosive |
| 3-(trimethoxysilyl)propyl glycidyl ether | Rabbit | Corrosive |

Skin Sensitization

| Name | Species | Value |
|------------------------------|---------|----------------|
| silica fillers | Human | Not classified |
| | and | |
| | animal | |
| BISPHENOL A DIGLYCIDYL ETHER | Human | Sensitizing |
| | and | |
| | animal | |

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| Siloxanes and Silicones, di-Me, reaction products with silica | Human | Not classified |
|---|------------|----------------|
| | and | |
| | animal | |
| epoxy resin | Human | Sensitizing |
| | and | |
| | animal | |
| 4,4'-ISOPROPYLIDENEDIPHENOL | official | Sensitizing |
| | classifica | - |
| | tion | |
| 3-(trimethoxysilyl)propyl glycidyl ether | Guinea | Not classified |
| | pig | |

Photosensitization

| Name | Species | Value |
|-----------------------------|---------|-------------|
| 4,4'-ISOPROPYLIDENEDIPHENOL | Human | Sensitizing |
| | and | |
| | animal | |

Respiratory Sensitization

| Name | Species | Value |
|------------------------------|---------|----------------|
| BISPHENOL A DIGLYCIDYL ETHER | Human | Not classified |
| epoxy resin | Human | Not classified |

Germ Cell Mutagenicity

| Name | Route | Value |
|---|----------|--|
| | | |
| silica fillers | In Vitro | Not mutagenic |
| 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 |
| Siloxanes and Silicones, di-Me, reaction products with silica | In Vitro | Not mutagenic |
| epoxy resin | In vivo | Not mutagenic |
| epoxy resin | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| 4,4'-ISOPROPYLIDENEDIPHENOL | In vivo | Not mutagenic |
| 4,4'-ISOPROPYLIDENEDIPHENOL | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| 3-(trimethoxysilyl)propyl glycidyl ether | In vivo | Not mutagenic |
| 3-(trimethoxysilyl)propyl glycidyl ether | In Vitro | Some positive data exist, but the data are not sufficient for classification |

Carcinogenicity

| Name | Route | Species | Value |
|---|-----------|----------|--|
| silica fillers | Not | Mouse | Some positive data exist, but the data are not |
| | Specified | | sufficient for classification |
| 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 |
| epoxy resin | Dermal | Mouse | Some positive data exist, but the data are not |
| | | | sufficient for classification |
| 4,4'-ISOPROPYLIDENEDIPHENOL | Ingestion | Multiple | Some positive data exist, but the data are not |
| | - | animal | sufficient for classification |
| | | species | |
| 3-(trimethoxysilyl)propyl glycidyl ether | Dermal | Mouse | Not carcinogenic |

Reproductive Toxicity

Reproductive and/or Developmental Effects

| Name | Route | Value | Species | Test Result | Exposure Duration |
|------|-------|-------|---------|-------------|----------------------|
|------|-------|-------|---------|-------------|----------------------|

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| silica fillers | Ingestion | Not classified for female reproduction | Rat | NOAEL 509 mg/kg/day | 1 generation |
|---|-----------|--|-------------------------------|--------------------------|-----------------------------|
| silica fillers | Ingestion | Not classified for male reproduction | Rat | NOAEL 497 mg/kg/day | 1 generation |
| silica fillers | Ingestion | Not classified for development | Rat | NOAEL 1,350 mg/kg/day | during organogenesi s |
| BISPHENOL A DIGLYCIDYL ETHER | Ingestion | Not classified for female reproduction | Rat | NOAEL 750 mg/kg/day | 2 generation |
| BISPHENOL A DIGLYCIDYL ETHER | Ingestion | Not classified for male reproduction | Rat | NOAEL 750 mg/kg/day | 2 generation |
| BISPHENOL A DIGLYCIDYL ETHER | Dermal | Not classified for development | Rabbit | NOAEL 300 mg/kg/day | during organogenesi s |
| BISPHENOL A DIGLYCIDYL ETHER | Ingestion | Not classified for development | Rat | NOAEL 750 mg/kg/day | 2 generation |
| 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 organogenes s |
| epoxy resin | Ingestion | Not classified for female reproduction | Rat | NOAEL 750 mg/kg/day | 2 generation |
| epoxy resin | Ingestion | Not classified for male reproduction | Rat | NOAEL 750 mg/kg/day | 2 generation |
| epoxy resin | Dermal | Not classified for development | Rabbit | NOAEL 300 mg/kg/day | during organogenes s |
| epoxy resin | Ingestion | Not classified for development | Rat | NOAEL 750 mg/kg/day | 2 generation |
| 4,4'-ISOPROPYLIDENEDIPHENOL | Ingestion | Not classified for female reproduction | Multiple animal species | NOAEL 50 mg/kg/day | |
| 4,4'-ISOPROPYLIDENEDIPHENOL | Ingestion | Not classified for male reproduction | Multiple animal species | NOAEL 50 mg/kg/day | |
| 4,4'-ISOPROPYLIDENEDIPHENOL | Ingestion | Toxic to development | Multiple animal species | NOAEL 50 mg/kg/day | |
| 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 organogenes s |

Target Organ(s)

Specific Target Organ Toxicity - single exposure

| Name | Route | Target Organ(s) | Value | Species | Test Result | Exposure Duration |
|-------------------------------------|------------|------------------------|----------------------------------|-------------------------------|---------------------|----------------------|
| 4,4'- ISOPROPYLIDENEDIPH ENOL | Inhalation | respiratory irritation | May cause respiratory irritation | Multiple animal species | LOAEL 0.152 mg/l | 15 minutes |

Specific Target Organ Toxicity - repeated exposure

| Name | Route | Target Organ(s) | Value | Species | Test Result | Exposure |
|------------------|------------|--------------------|----------------|---------|-------------|--------------|
| | | | | | | Duration |
| silica fillers | Inhalation | respiratory system | Not classified | Human | NOAEL Not | occupational |
| | | silicosis | | | available | exposure |
| BISPHENOL A | Dermal | liver | Not classified | Rat | NOAEL | 2 years |
| DIGLYCIDYL ETHER | | | | | 1,000 | - |
| | | | | | mg/kg/day | |

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| 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 |
| Siloxanes and Silicones, di-Me, reaction products with silica | Inhalation | respiratory system silicosis | Not classified | Human | NOAEL Not available | occupational exposure |
| epoxy resin | Dermal | liver | Not classified | Rat | NOAEL 1,000 mg/kg/day | 2 years |
| epoxy resin | Dermal | nervous system | Not classified | Rat | NOAEL 1,000 mg/kg/day | 13 weeks |
| epoxy resin | 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 |
| 4,4'- ISOPROPYLIDENEDIPH ENOL | Inhalation | liver kidney and/or bladder hematopoietic system | Not classified | Rat | NOAEL 0.15 mg/l | 13 weeks |
| 4,4'- ISOPROPYLIDENEDIPH ENOL | Ingestion | kidney and/or bladder | Some positive data exist, but the data are not sufficient for classification | Rat | NOAEL 50 mg/kg/day | 3 generation |
| 4,4'- ISOPROPYLIDENEDIPH ENOL | Ingestion | liver | Some positive data exist, but the data are not sufficient for classification | Mouse | NOAEL 370 mg/kg/day | 13 weeks |
| 4,4'- ISOPROPYLIDENEDIPH ENOL | Ingestion | endocrine system hematopoietic system | Not classified | Rat | NOAEL 500 mg/kg/day | 3 generation |
| 4,4'- ISOPROPYLIDENEDIPH ENOL | Ingestion | nervous system | Not classified | Rat | NOAEL 185 mg/kg/day | 90 days |
| 4,4'- ISOPROPYLIDENEDIPH ENOL | Ingestion | heart bone, teeth, nails, and/or hair | Not classified | Mouse | NOAEL 2,400 mg/kg/day | 13 weeks |
| 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 |

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.

No release to water. 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 |
| Reproductive toxicity |
| Respiratory or Skin Sensitization |
| Serious eye damage or eye irritation |

This material contains a chemical which requires export notification under TSCA Section 12[b]:

| Ingredient (Category if applicable) | <u>C.A.S. No</u> | Regulation | <u>Status</u> |
|---|------------------|---------------------------------------|---------------|
| 1H-Imidazole-1-propanenitrile, 2-ethyl-ar-methyl- | 568591-00-4 | Toxic Substances Control Act (TSCA) 5 | Applicable |
| | | SNUR or Consent Order Chemicals | |
| flexibilizer | Trade Secret | Toxic Substances Control Act (TSCA) 5 | Applicable |
| | | SNUR or Consent Order Chemicals | |
| | | | |

This material contains a chemical regulated by an EPA Significant New Use Rule (TSCA Section 5)

Ingredient (Category if applicable)

C.A.S. No Reference

| 3М [™] Epoxy Encapsulant 1735 08 | 8/19/20 |
|---|---------|
|---|---------|

| 1H-Imidazole-1-propanenitrile, 2-ethyl-ar-methyl- | 568591-00-4 | 40 CFR 721.11378 |
|---|--------------|------------------|
| flexibilizer | Trade Secret | 40 CFR 721.10113 |

15.2. State Regulations

Contact 3M for more information.

15.3. Chemical Inventories

The components of this material are in compliance with the China "Measures on Environmental Management of New Chemical Substance". Certain restrictions may apply. Contact the selling division for additional 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.

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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