



## Safety Data Sheet

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**Transportation version number:**

**Version Number:** 1.00  
**Supersedes Date:** Initial Issue

### IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

#### 1.1. Product identifier

3M™ Thermally Conductive Adhesive TC-2810

#### Product Identification Numbers

XA-0068-0025-5

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

##### Identified uses

Conductive adhesive

#### 1.3. Details of the supplier of the safety data sheet

**ADDRESS:** 3M Israel, 91 Medinat Ha'Yehudim Street, Herzeliya 46120  
**Telephone:** 09-961 5000  
**E Mail:** innovation.il@mmm.com  
**Website:** www.3M.com/il

#### 1.4. Emergency telephone number

09-961 5000

This product is a kit or a multipart product which consists of multiple, independently packaged components. An SDS for each of these components is included. Please do not separate the component SDSs from this cover page. The document numbers of the SDSs for components of this product are:

38-3989-1, 16-3330-4

### TRANSPORTATION INFORMATION

Refer to section 14 of the kit components for transport information.

### KIT LABEL

#### 2.1. Classification of the substance or mixture

CLP REGULATION (EC) No 1272/2008

##### CLASSIFICATION:

Skin Corrosion/Irritation, Category 1B - Skin Corr. 1B; H314

Serious Eye Damage/Eye Irritation, Category 1 - Eye Dam. 1; H318  
Skin Sensitization, Category 1 - Skin Sens. 1; H317  
Hazardous to the Aquatic Environment (Chronic), Category 2 - Aquatic Chronic 2; H411

For full text of H phrases, see Section 16.

## 2.2. Label elements

### CLP REGULATION (EC) No 1272/2008

#### SIGNAL WORD

Danger

#### Symbols:

GHS05 (Corrosion) | GHS07 (Exclamation mark) | GHS09 (Environment) |

#### Pictograms



#### Contains:

BIS(3-AMINOPROPYL) ETHER OF DIETHYLENE GLYCOL; Bisphenol A Diglycidyl Ether; Tris(2,4,6-dimethylaminomonomethyl)phenol.

#### HAZARD STATEMENTS:

H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H411	Toxic to aquatic life with long lasting effects.

#### PRECAUTIONARY STATEMENTS

##### Prevention:

P260A	Do not breathe vapors.
P280B	Wear protective gloves, eye protection, and face protection.

##### Response:

P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER or doctor.

For containers not exceeding 125 ml the following Hazard and Precautionary statements may be used:

#### <=125 ml Hazard statements

H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.

#### <=125 ml Precautionary statements

##### Prevention:

P260A	Do not breathe vapors.
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P280B

Wear protective gloves, eye protection, and face protection.

**Response:**

P303 + P361 + P353

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

P305 + P351 + P338

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

P310

Immediately call a POISON CENTER or doctor.

Refer to Safety Data Sheet for component % unknown values ([www.3M.com/msds](http://www.3M.com/msds)).

**Revision information:**

No revision information



## Safety Data Sheet

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**Document Group:** 16-3330-4  
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**Version Number:** 9.01  
**Supersedes Date:** 14/08/2024

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

3M™ Thermally Conductive Epoxy Adhesive TC-2810 (Part A)

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

##### Identified uses

Conductive adhesive.

#### 1.3. Details of the supplier of the safety data sheet

**ADDRESS:** 3M Israel, 91 Medinat Ha'Yehudim Street, Herzeliya 46120  
**Telephone:** 09-961 5000  
**E Mail:** innovation.il@mmm.com  
**Website:** www.3M.com/il

#### 1.4. Emergency telephone number

09-961 5000

### SECTION 2: Hazard identification

#### 2.1. Classification of the substance or mixture

**CLP REGULATION (EC) No 1272/2008**

The health and environmental classifications of this material have been derived using the calculation method, except in cases where test data are available or the physical form impacts classification. Classification(s) based on test data or physical form are noted below, if applicable.

##### CLASSIFICATION:

Skin Corrosion/Irritation, Category 1B - Skin Corr. 1B; H314  
Serious Eye Damage/Eye Irritation, Category 1 - Eye Dam. 1; H318  
Skin Sensitization, Category 1 - Skin Sens. 1; H317

For full text of H phrases, see Section 16.

#### 2.2. Label elements

**CLP REGULATION (EC) No 1272/2008**

**SIGNAL WORD**

Danger

**Symbols:**

GHS05 (Corrosion) | GHS07 (Exclamation mark) |

**Pictograms****Ingredients:**

Ingredient	C.A.S. No.	EC No.	% by Wt
BIS(3-AMINOPROPYL) ETHER OF DIETHYLENE GLYCOL	4246-51-9	224-207-2	40 - 50
Tris(2,4,6-dimethylaminomonomethyl)phenol	90-72-2	202-013-9	1 - 5

**HAZARD STATEMENTS:**

H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.

**PRECAUTIONARY STATEMENTS****Prevention:**

P260A	Do not breathe vapors.
P280D	Wear protective gloves, protective clothing, eye protection, and face protection.

**Response:**

P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER or doctor.
P333 + P313	If skin irritation or rash occurs: Get medical attention.

For containers not exceeding 125 ml the following Hazard and Precautionary statements may be used:

**<=125 ml Hazard statements**

H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.

**<=125 ml Precautionary statements****Prevention:**

P260A	Do not breathe vapors.
P280D	Wear protective gloves, protective clothing, eye protection, and face protection.

**Response:**

P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER or doctor.

P333 + P313

If skin irritation or rash occurs: Get medical attention.

30% of the mixture consists of components of unknown acute oral toxicity.

Contains 30% of components with unknown hazards to the aquatic environment.

**2.3. Other hazards**

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

This material does not contain any substances that are assessed to be a PBT or vPvB

**SECTION 3: Composition/information on ingredients****3.1. Substances**

Not applicable

**3.2. Mixtures**

<b>Ingredient</b>	<b>Identifier(s)</b>	<b>%</b>	<b>Classification according to Regulation (EC) No. 1272/2008 [CLP]</b>
BIS(3-AMINOPROPYL) ETHER OF DIETHYLENE GLYCOL	(CAS-No.) 4246-51-9 (EC-No.) 224-207-2	40 - 50	Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317
adduct	Trade Secret	20 - 40	Substance not classified as hazardous
Boron Nitride (BN)	(CAS-No.) 10043-11-5 (EC-No.) 233-136-6	15 - 30	Substance not classified as hazardous
SILANE, TRIMETHOXYOCTYL-, HYDROLYSIS PRODUCTS WITH SILICA	(CAS-No.) 92797-60-9 (EC-No.) 296-597-2	1 - 5	Substance not classified as hazardous
Tris(2,4,6-dimethylaminomonomethyl)phenol	(CAS-No.) 90-72-2 (EC-No.) 202-013-9	1 - 5	Acute Tox. 4, H302 Skin Corr. 1C, H314 Eye Dam. 1, H318

Please see section 16 for the full text of any H statements referred to in this section

For information on ingredient occupational exposure limits or PBT or vPvB status, see sections 8 and 12 of this SDS

**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**

The most important symptoms and effects based on the CLP classification include:

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).

**4.3. Indication of any immediate medical attention and special treatment required**

Not applicable

**SECTION 5: Fire-fighting measures****5.1. 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**

Aldehydes  
Carbon monoxide  
Carbon dioxide  
Hydrogen Chloride  
Oxides of Nitrogen

**Condition**

During Combustion  
During Combustion  
During Combustion  
During Combustion  
During Combustion

**5.3. Advice for fire-fighters**

When fire fighting conditions are severe and total thermal decomposition of the product is possible, 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 vapors, 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**

Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible. Place in a metal container approved for use in transportation by appropriate authorities. The container must be lined with polyethylene plastic or contain a plastic drum liner made of polyethylene. Clean up residue with an appropriate solvent selected by a

qualified and authorized person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and SDS. Seal the container. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

#### **6.4. Reference to other sections**

Refer to Section 8 and Section 13 for more information

## **SECTION 7: Handling and storage**

### **7.1. Precautions for safe handling**

Do not breathe 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. 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.

### **7.3. Specific end use(s)**

See information in Section 7.1 and 7.2 for handling and storage recommendations. See Section 8 for exposure controls and personal protection recommendations.

## **SECTION 8: Exposure controls/personal protection**

### **8.1. Control parameters**

#### **Occupational exposure limits**

No occupational exposure limit values exist for any of the components listed in Section 3 of this SDS.

### **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**

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.

Gloves made from the following material(s) are recommended: Butyl Rubber  
Fluoroelastomer

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 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

Physical state	Liquid
Specific Physical Form:	Paste
Color	White
Odor	Very Mild Amine
Odor threshold	No Data Available
Melting point/freezing point	No Data Available
Boiling point/boiling range	>=120 °C
Flammability	Not Applicable
Flammable Limits(LEL)	No Data Available
Flammable Limits(UEL)	No Data Available
Flash Point	>=120 °C [Test Method: Estimated]
Autoignition temperature	No Data Available
Decomposition temperature	No Data Available
pH	substance/mixture is non-soluble (in water)
Kinematic Viscosity	111,940 mm <sup>2</sup> /sec
Water solubility	Negligible
Solubility- non-water	No Data Available
Partition coefficient: n-octanol/ water	No Data Available
Vapor Pressure	<=0.3 Pa [ @ 20 °C ]
Density	1.34 g/ml
Relative Density	1.34 [Ref Std: WATER=1]
Relative Vapor Density	Negligible
Particle Characteristics	Not Applicable

### 9.2. Other information

#### 9.2.2 Other safety characteristics

EU Volatile Organic Compounds  
Evaporation rate  
Molecular weight  
Percent volatile

No Data Available  
Not Applicable  
Not Applicable  
0 % weight

## 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 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

<u>Substance</u>	<u>Condition</u>
None known.	

Refer to section 5.2 for hazardous decomposition products during combustion.

## SECTION 11: Toxicological information

The information below may not agree with the EU material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 11 are based on UN GHS calculation rules and classifications derived from internal hazard assessments.

#### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

##### 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:

May be harmful in contact with skin.

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.

**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 >2,000 - =5,000 mg/kg
Overall product	Ingestion		No data available; calculated ATE >2,000 - =5,000 mg/kg
BIS(3-AMINOPROPYL) ETHER OF DIETHYLENE GLYCOL	Dermal	Rabbit	LD50 2,525 mg/kg
BIS(3-AMINOPROPYL) ETHER OF DIETHYLENE GLYCOL	Ingestion	Rat	LD50 2,850 mg/kg
Boron Nitride (BN)	Dermal	Rabbit	LD50 > 20,000 mg/kg
Boron Nitride (BN)	Ingestion	Rat	LD50 > 5,000 mg/kg
SILANE, TRIMETHOXYOCTYL-, HYDROLYSIS PRODUCTS WITH SILICA	Dermal		LD50 estimated to be > 5,000 mg/kg
SILANE, TRIMETHOXYOCTYL-, HYDROLYSIS PRODUCTS WITH SILICA	Ingestion	Rat	LD50 > 5,340 mg/kg
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

ATE = acute toxicity estimate

**Skin Corrosion/Irritation**

Name	Species	Value
BIS(3-AMINOPROPYL) ETHER OF DIETHYLENE GLYCOL	Rabbit	Corrosive
Boron Nitride (BN)	Human and animal	Minimal irritation
Tris(2,4,6-dimethylaminomonomethyl)phenol	Rabbit	Corrosive

**Serious Eye Damage/Irritation**

Name	Species	Value
BIS(3-AMINOPROPYL) ETHER OF DIETHYLENE GLYCOL	Rabbit	Corrosive
Boron Nitride (BN)	Rabbit	No significant irritation
Tris(2,4,6-dimethylaminomonomethyl)phenol	Rabbit	Corrosive

**Skin Sensitization**

Name	Species	Value
BIS(3-AMINOPROPYL) ETHER OF DIETHYLENE GLYCOL	Professional judgement	Sensitizing
Boron Nitride (BN)	Guinea pig	Not classified
Tris(2,4,6-dimethylaminomonomethyl)phenol	Guinea pig	Not classified

**Respiratory Sensitization**

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

**Germ Cell Mutagenicity**

Name	Route	Value
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BIS(3-AMINOPROPYL) ETHER OF DIETHYLENE GLYCOL	In Vitro	Not mutagenic
Tris(2,4,6-dimethylaminomonomethyl)phenol	In Vitro	Not mutagenic

### Carcinogenicity

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

### Reproductive Toxicity

#### Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test Result	Exposure Duration
BIS(3-AMINOPROPYL) ETHER OF DIETHYLENE GLYCOL	Ingestion	Not classified for female reproduction	Rat	NOAEL 600 mg/kg/day	premating into lactation
BIS(3-AMINOPROPYL) ETHER OF DIETHYLENE GLYCOL	Ingestion	Not classified for male reproduction	Rat	NOAEL 600 mg/kg/day	59 days
BIS(3-AMINOPROPYL) ETHER OF DIETHYLENE GLYCOL	Ingestion	Not classified for development	Rat	NOAEL 600 mg/kg/day	premating into lactation
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

### Target Organ(s)

#### Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
BIS(3-AMINOPROPYL) ETHER OF DIETHYLENE GLYCOL	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	
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	

#### Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
BIS(3-AMINOPROPYL) ETHER OF DIETHYLENE GLYCOL	Ingestion	gastrointestinal tract   heart   endocrine system   bone, teeth, nails, and/or hair   hematopoietic system   liver   immune system   muscles   nervous system   eyes   kidney and/or bladder   respiratory system   vascular system	Not classified	Rat	NOAEL 600 mg/kg/day	59 days
Tris(2,4,6-dimethylaminomonomethyl)phenol	Dermal	skin	Not classified	Rat	NOAEL 25 mg/kg/day	4 weeks
Tris(2,4,6-dimethylaminomonomethyl)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	Not classified	Rat	NOAEL 150 mg/kg/day	90 days

		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				
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### 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.**

### 11.2. Information on other hazards

This material does not contain any substances that are assessed to be an endocrine disruptor for human health.

## SECTION 12: Ecological information

**The information below may not agree with the EU material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 12 are based on UN GHS calculation rules and classifications derived from 3M assessments.**

### 12.1. Toxicity

No product test data available

Material	CAS #	Organism	Type	Exposure	Test Endpoint	Test Result
BIS(3-AMINOPROPYL) ETHER OF DIETHYLENE GLYCOL	4246-51-9	Bacteria	Experimental	17 hours	EC50	4,000 mg/l
BIS(3-AMINOPROPYL) ETHER OF DIETHYLENE GLYCOL	4246-51-9	Golden Orfe	Experimental	96 hours	LC50	>1,000 mg/l
BIS(3-AMINOPROPYL) ETHER OF DIETHYLENE GLYCOL	4246-51-9	Green algae	Experimental	72 hours	EC50	>500 mg/l
BIS(3-AMINOPROPYL) ETHER OF DIETHYLENE GLYCOL	4246-51-9	Water flea	Experimental	48 hours	EC50	218.16 mg/l
BIS(3-AMINOPROPYL) ETHER OF DIETHYLENE GLYCOL	4246-51-9	Green algae	Experimental	72 hours	EC10	5.4 mg/l
adduct	Trade Secret	N/A	Data not available or insufficient for	N/A	N/A	N/A

			classification			
Boron Nitride (BN)	10043-11-5	Rainbow Trout	Experimental	N/A	LC50	>100 mg/l
Boron Nitride (BN)	10043-11-5	Water flea	Experimental	N/A	EC50	>100 mg/l
SILANE, TRIMETHOXYOCTYL-, HYDROLYSIS PRODUCTS WITH SILICA	92797-60-9	Algae or other aquatic plants	Experimental	72 hours	EC50	>=10,000 mg/l
SILANE, TRIMETHOXYOCTYL-, HYDROLYSIS PRODUCTS WITH SILICA	92797-60-9	Water flea	Experimental	24 hours	EL50	>10,000 mg/l
SILANE, TRIMETHOXYOCTYL-, HYDROLYSIS PRODUCTS WITH SILICA	92797-60-9	Zebra Fish	Experimental	96 hours	LC50	>10,000 mg/l
Tris(2,4,6-dimethylaminomonomethyl)phenol	90-72-2	N/A	Experimental	96 hours	LC50	718 mg/l
Tris(2,4,6-dimethylaminomonomethyl)phenol	90-72-2	Common Carp	Experimental	96 hours	LC50	>100 mg/l
Tris(2,4,6-dimethylaminomonomethyl)phenol	90-72-2	Green algae	Experimental	72 hours	EC50	46.7 mg/l
Tris(2,4,6-dimethylaminomonomethyl)phenol	90-72-2	Water flea	Experimental	48 hours	EC50	>100 mg/l
Tris(2,4,6-dimethylaminomonomethyl)phenol	90-72-2	Green algae	Experimental	72 hours	NOEC	6.44 mg/l

## 12.2. Persistence and degradability

Material	CAS No.	Test Type	Duration	Study Type	Test Result	Protocol
BIS(3-AMINOPROPYL) ETHER OF DIETHYLENE GLYCOL	4246-51-9	Experimental Biodegradation	25 days	Carbon dioxide evolution	-8 %CO2 evolution/THC O2 evolution	OECD 301B - Mod. Sturm or CO2
BIS(3-AMINOPROPYL) ETHER OF DIETHYLENE GLYCOL	4246-51-9	Estimated Photolysis		Photolytic half-life (in air)	2.96 hours (t 1/2)	
adduct	Trade Secret	Data not available - insufficient	N/A	N/A	N/A	N/A
Boron Nitride (BN)	10043-11-5	Data not available - insufficient	N/A	N/A	N/A	N/A
SILANE, TRIMETHOXYOCTYL-, HYDROLYSIS PRODUCTS WITH SILICA	92797-60-9	Data not available - insufficient	N/A	N/A	N/A	N/A
Tris(2,4,6-dimethylaminomonomethyl)phenol	90-72-2	Experimental Biodegradation	28 days	Biological Oxygen Demand	4 %BOD/ThO D	OECD 301D - Closed Bottle Test

## 12.3. Bioaccumulative potential

Material	Cas No.	Test Type	Duration	Study Type	Test Result	Protocol
BIS(3-AMINOPROPYL) ETHER OF DIETHYLENE GLYCOL	4246-51-9	Experimental Bioconcentration		Log of Octanol/H2O part. coeff	-1.25	
adduct	Trade Secret	Data not available	N/A	N/A	N/A	N/A

**3M™ Thermally Conductive Epoxy Adhesive TC-2810 (Part A)**

		or insufficient for classification				
Boron Nitride (BN)	10043-11-5	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
SILANE, TRIMETHOXYOCTYL-, HYDROLYSIS PRODUCTS WITH SILICA	92797-60-9	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Tris(2,4,6-dimethylaminomonomethyl)phenol	90-72-2	Experimental Bioconcentration		Log of Octanol/H2O part. coeff	-0.66	830.7550 Part.Coeff Shake Flask

**12.4. Mobility in soil**

Material	Cas No.	Test Type	Study Type	Test Result	Protocol
BIS(3-AMINOPROPYL) ETHER OF DIETHYLENE GLYCOL	4246-51-9	Modeled Mobility in Soil	Koc	1 l/kg	ACD/Labs ChemSketch™

**12.5. Results of the PBT and vPvB assessment**

This material does not contain any substances that are assessed to be a PBT or vPvB

**12.6. Endocrine disrupting properties**

This material does not contain any substances that are assessed to be an endocrine disruptor for environmental effects

**12.7. Other adverse effects**

No information available

**SECTION 13: Disposal considerations****13.1 Waste treatment 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.

The coding of a waste stream is based on the application of the product by the consumer. Since this is out of the control of 3M, no waste code(s) for products after use will be provided. Please refer to the European Waste Code (EWC - 2000/532/CE and amendments) to assign the correct waste code to your waste stream. Ensure national and/or regional regulations are complied with and always use a licensed waste contractor

**EU waste code (product as sold)**

080409\* Waste adhesives and sealants containing organic solvents or other dangerous substances  
200127\* Paint, inks, adhesives and resins containing dangerous substances

**SECTION 14: Transportation information**

	Ground Transport (ADR)	Air Transport (IATA)	Marine Transport (IMDG)
<b>14.1 UN number or ID number</b>	UN2735	UN2735	UN2735
<b>14.2 UN proper shipping name</b>	AMINES, LIQUID, CORROSIVE, N.O.S.(4,7,10-TRIOXATRIDECANE-1,13-DIAMINE)	AMINES, LIQUID, CORROSIVE, N.O.S.(4,7,10-TRIOXATRIDECANE-1,13-DIAMINE)	AMINES, LIQUID, CORROSIVE, N.O.S.(4,7,10-TRIOXATRIDECANE-1,13-DIAMINE)
<b>14.3 Transport hazard class(es)</b>	8	8	8
<b>14.4 Packing group</b>	II	II	II
<b>14.5 Environmental hazards</b>	Not Environmentally Hazardous	Not applicable	Not a Marine Pollutant
<b>14.6 Special precautions for user</b>	Please refer to the other sections of the SDS for further information.	Please refer to the other sections of the SDS for further information.	Please refer to the other sections of the SDS for further information.
<b>14.7 Marine Transport in bulk according to IMO instruments</b>	No Data Available	No Data Available	No Data Available
<b>Control Temperature</b>	No Data Available	No Data Available	No Data Available
<b>Emergency Temperature</b>	No Data Available	No Data Available	No Data Available
<b>ADR Classification Code</b>	C7	Not Applicable	Not Applicable
<b>IMDG Segregation Code</b>	Not Applicable	Not Applicable	18 - ALKALIS

Please contact the address or phone number listed on the first page of the SDS for additional information on the transport/shipment of the material by rail (RID) or inland waterways (ADN).

## 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 material are in compliance with the provisions of the Korea Chemical Control Act. Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Australia National Industrial Chemical Notification and Assessment Scheme (NICNAS). Certain restrictions may apply. Contact the selling division for additional information. The



components of this material are in compliance with the provisions of Philippines RA 6969 requirements. Certain restrictions may apply. Contact the selling division for additional information. The components of this product are in compliance with the new substance notification requirements of CEPA. This product complies with Measures on Environmental Management of New Chemical Substances. All ingredients are listed on or exempt from on China IECSC inventory. 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.

**DIRECTIVE 2012/18/EU**

Seveso hazard categories, Annex 1, Part 1

None

Seveso named dangerous substances, Annex 1, Part 2

None

**Regulation (EU) No 649/2012**

No chemicals listed

**SECTION 16: Other information****List of relevant H statements**

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.

**Revision information:**

Section 02: <125ml Precautionary - Prevention information was modified.

Section 02: <125ml Precautionary - Response information was modified.

Section 02: Label Elements: CLP Precautionary - Prevention information was modified.

Section 02: Label Elements: CLP Precautionary - Response information was modified.

Section 06: Accidental release personal information information was modified.

Section 07: Conditions safe storage information was modified.

Section 11: Acute Toxicity table information was modified.

Section 11: Serious Eye Damage/Irritation Table information was modified.

Section 11: Skin Corrosion/Irritation Table information was modified.

Section 11: Skin Sensitization Table information was modified.

DISCLAIMER: The information on this Safety Data Sheet is based on our experience and is correct to the best of our knowledge at the date of publication, but we do not accept any liability for any loss, damage or injury resulting from its use (except as required by law). The information may not be valid for any use not referred to in this Data Sheet or use of the product in combination with other materials. For these reasons, it is important that customers carry out their own test to satisfy themselves as to the suitability of the product for their own intended applications.

**3M Israel SDSs are available at [www.3M.com/il](http://www.3M.com/il)**



## Safety Data Sheet

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**Document Group:** 38-3989-1  
**Revision Date:** 04/03/2025  
**Transportation version number:**

**Version Number:** 1.00  
**Supersedes Date:** Initial Issue

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

3M™ Thermally Conductive Epoxy Adhesive TC-2810 (Part B)

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

##### Identified uses

Conductive adhesive

#### 1.3. Details of the supplier of the safety data sheet

**ADDRESS:** 3M Israel, 91 Medinat Ha'Yehudim Street, Herzeliya 46120  
**Telephone:** 09-961 5000  
**E Mail:** innovation.il@mmm.com  
**Website:** www.3M.com/il

#### 1.4. Emergency telephone number

09-961 5000

### SECTION 2: Hazard identification

#### 2.1. Classification of the substance or mixture

CLP REGULATION (EC) No 1272/2008

The health and environmental classifications of this material have been derived using the calculation method, except in cases where test data are available or the physical form impacts classification. Classification(s) based on test data or physical form are noted below, if applicable.

##### CLASSIFICATION:

Skin Corrosion/Irritation, Category 2 - Skin Irrit. 2; H315  
Serious Eye Damage/Eye Irritation, Category 2 - Eye Irrit. 2; H319  
Skin Sensitization, Category 1 - Skin Sens. 1; H317  
Hazardous to the Aquatic Environment (Chronic), Category 2 - Aquatic Chronic 2; H411

For full text of H phrases, see Section 16.

#### 2.2. Label elements

CLP REGULATION (EC) No 1272/2008

**SIGNAL WORD**

Warning

**Symbols:**

GHS07 (Exclamation mark) | GHS09 (Environment) |

**Pictograms****Ingredients:**

Ingredient	C.A.S. No.	EC No.	% by Wt
Bisphenol A Diglycidyl Ether	1675-54-3	216-823-5	40 - 80

**HAZARD STATEMENTS:**

H315	Causes skin irritation.
H319	Causes serious eye irritation.
H317	May cause an allergic skin reaction.
H411	Toxic to aquatic life with long lasting effects.

**PRECAUTIONARY STATEMENTS****Prevention:**

P280E	Wear protective gloves.
-------	-------------------------

For containers not exceeding 125 ml the following Hazard and Precautionary statements may be used:

**<=125 ml Hazard statements**

H317	May cause an allergic skin reaction.
------	--------------------------------------

**<=125 ml Precautionary statements****Prevention:**

P280E	Wear protective gloves.
-------	-------------------------

**2.3. Other hazards**

None known

This material does not contain any substances that are assessed to be a PBT or vPvB

**SECTION 3: Composition/information on ingredients****3.1. Substances**

Not applicable

**3.2. Mixtures**

Ingredient	Identifier(s)	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
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Bisphenol A Diglycidyl Ether	(CAS-No.) 1675-54-3 (EC-No.) 216-823-5	40 - 80	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 2, H411
Boron Nitride (BN)	(CAS-No.) 10043-11-5 (EC-No.) 233-136-6	10 - 30	Substance not classified as hazardous
MBS POLYMERS	Trade Secret	1 - 20	Substance not classified as hazardous

Please see section 16 for the full text of any H statements referred to in this section

#### Specific Concentration Limits

Ingredient	Identifier(s)	Specific Concentration Limits
Bisphenol A Diglycidyl Ether	(CAS-No.) 1675-54-3 (EC-No.) 216-823-5	(C >= 5%) Skin Irrit. 2, H315 (C >= 5%) Eye Irrit. 2, H319

For information on ingredient occupational exposure limits or PBT or vPvB status, see sections 8 and 12 of this SDS

## 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

No critical symptoms or effects. 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. 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  
Carbon monoxide  
Carbon dioxide  
Hydrogen Chloride  
Oxides of Nitrogen

During Combustion  
During Combustion  
During Combustion  
During Combustion  
During Combustion

### **5.3. Advice 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**

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 vapors, in accordance with good industrial hygiene practice.

### **6.2. Environmental precautions**

Avoid release to the environment. For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water.

### **6.3. Methods and material for containment and cleaning up**

Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Clean up residue with an appropriate solvent selected by a qualified and authorized person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and SDS. Seal the container. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

### **6.4. Reference to other sections**

Refer to Section 8 and Section 13 for more information

## **SECTION 7: Handling and storage**

### **7.1. Precautions for safe handling**

Avoid breathing of vapors created during cure cycle. 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. 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.

### **7.3. Specific end use(s)**

See information in Section 7.1 and 7.2 for handling and storage recommendations. See Section 8 for exposure controls and personal protection recommendations.

## **SECTION 8: Exposure controls/personal protection**

## 8.1. Control parameters

### Occupational exposure limits

No occupational exposure limit values exist for any of the components listed in Section 3 of this SDS.

## 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

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: 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

Physical state	Liquid
Specific Physical Form:	Paste
Color	Milky Yellow
Odor	Very Mild Epoxy
Odor threshold	<i>No Data Available</i>
Melting point/freezing point	<i>Not Applicable</i>
Boiling point/boiling range	> 170 °C
Flammability	Not Applicable

Flammable Limits(LEL)	No Data Available
Flammable Limits(UEL)	No Data Available
Flash Point	>=170 °C [Test Method: Estimated]
Autoignition temperature	No Data Available
Decomposition temperature	No Data Available
pH	substance/mixture is non-soluble (in water)
Kinematic Viscosity	104,167 mm <sup>2</sup> /sec
Water solubility	Negligible
Solubility- non-water	No Data Available
Partition coefficient: n-octanol/ water	No Data Available
Vapor Pressure	<=2.7 Pa [ @ 20 °C ]
Density	1.44 g/ml
Relative Density	1.44 [Ref Std: WATER=1]
Relative Vapor Density	Nil
Particle Characteristics	Not Applicable

## 9.2. Other information

### 9.2.2 Other safety characteristics

EU Volatile Organic Compounds

No Data Available

Evaporation rate

Not Applicable

Molecular weight

Not Applicable

Percent volatile

0 % weight

## 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 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 agree with the EU material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 11 are based on UN GHS calculation rules and classifications derived from internal hazard assessments.

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

#### 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:

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.

#### Eye Contact:

Moderate Eye Irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

#### Ingestion:

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	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
Boron Nitride (BN)	Dermal	Rabbit	LD50 > 20,000 mg/kg
Boron Nitride (BN)	Ingestion	Rat	LD50 > 5,000 mg/kg
MBS POLYMERS	Dermal	Rabbit	LD50 > 5,000 mg/kg
MBS POLYMERS	Ingestion	Rat	LD50 > 5,000 mg/kg

ATE = acute toxicity estimate

#### Skin Corrosion/Irritation

Name	Species	Value
Bisphenol A Diglycidyl Ether	Rabbit	Mild irritant
Boron Nitride (BN)	Human and animal	Minimal irritation
MBS POLYMERS	Professional judgement	Minimal irritation

#### Serious Eye Damage/Irritation

Name	Species	Value



**3M™ Thermally Conductive Epoxy Adhesive TC-2810 (Part B)**

Bisphenol A Diglycidyl Ether	Rabbit	Moderate irritant
Boron Nitride (BN)	Rabbit	No significant irritation
MBS POLYMERS	Professional judgement	Mild irritant

**Skin Sensitization**

Name	Species	Value
Bisphenol A Diglycidyl Ether	Human and animal	Sensitizing
Boron Nitride (BN)	Guinea pig	Not classified

**Respiratory Sensitization**

Name	Species	Value
Bisphenol A Diglycidyl Ether	Human	Not classified

**Germ Cell Mutagenicity**

Name	Route	Value
Bisphenol A Diglycidyl Ether	In vivo	Not mutagenic
Bisphenol A Diglycidyl Ether	In Vitro	Some positive data exist, but the data are not sufficient for classification

**Carcinogenicity**

Name	Route	Species	Value
Bisphenol A Diglycidyl Ether	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification

**Reproductive Toxicity****Reproductive and/or Developmental Effects**

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

**Target Organ(s)****Specific Target Organ Toxicity - single exposure**

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

**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
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### 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.**

### 11.2. Information on other hazards

This material does not contain any substances that are assessed to be an endocrine disruptor for human health.

## SECTION 12: Ecological information

The information below may not agree with the EU material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 12 are based on UN GHS calculation rules and classifications derived from 3M assessments.

### 12.1. Toxicity

No product test data available

Material	CAS #	Organism	Type	Exposure	Test Endpoint	Test Result
Bisphenol A Diglycidyl Ether	1675-54-3	Activated sludge	Analogous Compound	3 hours	IC50	>100 mg/l
Bisphenol A Diglycidyl Ether	1675-54-3	Rainbow Trout	Estimated	96 hours	LC50	2 mg/l
Bisphenol A Diglycidyl Ether	1675-54-3	Water flea	Estimated	48 hours	EC50	1.8 mg/l
Bisphenol A Diglycidyl Ether	1675-54-3	Green algae	Experimental	72 hours	ErC50	>11 mg/l
Bisphenol A Diglycidyl Ether	1675-54-3	Green algae	Experimental	72 hours	NOEC	4.2 mg/l
Bisphenol A Diglycidyl Ether	1675-54-3	Water flea	Experimental	21 days	NOEC	0.3 mg/l
Boron Nitride (BN)	10043-11-5	Rainbow Trout	Experimental	N/A	LC50	>100 mg/l
Boron Nitride (BN)	10043-11-5	Water flea	Experimental	N/A	EC50	>100 mg/l
MBS POLYMERS	Trade Secret	N/A	Data not available or insufficient for classification	N/A	N/A	N/A

### 12.2. Persistence and degradability

Material	CAS No.	Test Type	Duration	Study Type	Test Result	Protocol
Bisphenol A Diglycidyl Ether	1675-54-3	Experimental Biodegradation	28 days	Biological Oxygen Demand	5 %BOD/COD	OECD 301F - Manometric Respiro
Bisphenol A Diglycidyl Ether	1675-54-3	Experimental Hydrolysis		Hydrolytic half-life (pH 7)	117 hours (t 1/2)	OECD 111 Hydrolysis func of pH
Boron Nitride (BN)	10043-11-5	Data not availbl-insufficient	N/A	N/A	N/A	N/A
MBS POLYMERS	Trade Secret	Data not availbl-insufficient	N/A	N/A	N/A	N/A

### 12.3. Bioaccumulative potential

Material	Cas No.	Test Type	Duration	Study Type	Test Result	Protocol
Bisphenol A Diglycidyl Ether	1675-54-3	Experimental Bioconcentration		Log of Octanol/H <sub>2</sub> O part. coeff	3.242	OECD 117 log Kow HPLC method
Boron Nitride (BN)	10043-11-5	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
MBS POLYMERS	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A

### 12.4. Mobility in soil

Material	Cas No.	Test Type	Study Type	Test Result	Protocol
Bisphenol A Diglycidyl Ether	1675-54-3	Modeled Mobility in Soil	Koc	450 l/kg	Episuite™

### 12.5. Results of the PBT and vPvB assessment

This material does not contain any substances that are assessed to be a PBT or vPvB

### 12.6. Endocrine disrupting properties

This material does not contain any substances that are assessed to be an endocrine disruptor for environmental effects

### 12.7. Other adverse effects

No information available

## SECTION 13: Disposal considerations

### 13.1 Waste treatment 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. 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. As a disposal alternative, utilize an acceptable permitted waste disposal facility. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

The coding of a waste stream is based on the application of the product by the consumer. Since this is out of the control of 3M, no waste code(s) for products after use will be provided. Please refer to the European Waste Code (EWC - 2000/532/CE and amendments) to assign the correct waste code to your waste stream. Ensure national and/or regional regulations are complied with and always use a licensed waste contractor

### EU waste code (product as sold)

080409\* Waste adhesives and sealants containing organic solvents or other dangerous substances

## SECTION 14: Transportation information

	Ground Transport (ADR)	Air Transport (IATA)	Marine Transport (IMDG)
<b>14.1 UN number or ID number</b>	UN3082	UN3082	UN3082
<b>14.2 UN proper shipping name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(EPOXY RESIN)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(EPOXY RESIN)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(EPOXY RESIN)
<b>14.3 Transport hazard class(es)</b>	9	9	9
<b>14.4 Packing group</b>	III	III	III
<b>14.5 Environmental hazards</b>	Environmentally Hazardous	Not applicable	Marine Pollutant
<b>14.6 Special precautions for user</b>	Please refer to the other sections of the SDS for further information.	Please refer to the other sections of the SDS for further information.	Please refer to the other sections of the SDS for further information.
<b>14.7 Marine Transport in bulk according to IMO instruments</b>	No Data Available	No Data Available	No Data Available
<b>Control Temperature</b>	No Data Available	No Data Available	No Data Available
<b>Emergency Temperature</b>	No Data Available	No Data Available	No Data Available
<b>ADR Classification Code</b>	M6	Not Applicable	Not Applicable
<b>IMDG Segregation Code</b>	Not Applicable	Not Applicable	NONE

Please contact the address or phone number listed on the first page of the SDS for additional information on the transport/shipment of the material by rail (RID) or inland waterways (ADN).

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### Carcinogenicity

##### Ingredient

Bisphenol A Diglycidyl Ether

##### C.A.S. No.

1675-54-3

##### Classification

Gr. 3: Not classifiable

##### Regulation

International Agency  
for Research on Cancer

#### Restrictions on the manufacture, placing on the market and use:

The following substance(s) contained in this product is/are subject through Annex XVII of REACH regulation to restrictions on the manufacture, placing on the market and use when present in certain dangerous substances, mixtures and articles. Users

of this product are required to comply with the restrictions placed upon it by the aforementioned provision.

**Ingredient**

Bisphenol A Diglycidyl Ether

**C.A.S. No.**

1675-54-3

Restriction status: listed in REACH Annex XVII

Restricted uses: See Annex XVII to Regulation (EC) No 1907/2006 for Conditions of Restriction

**Global inventory status**

Contact 3M for more information. The components of this material are in compliance with the provisions of the Korea Chemical Control Act. Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Australia National Industrial Chemical Notification and Assessment Scheme (NICNAS). Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Japan Chemical Substance Control Law. Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Philippines RA 6969 requirements. Certain restrictions may apply. Contact the selling division for additional information. The components of this product are in compliance with the new substance notification requirements of CEPA. This product complies with Measures on Environmental Management of New Chemical Substances. All ingredients are listed on or exempt from on China IECSC inventory. 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.

**DIRECTIVE 2012/18/EU**

Seveso hazard categories, Annex 1, Part 1

None

Seveso named dangerous substances, Annex 1, Part 2

None

**Regulation (EU) No 649/2012**

No chemicals listed

**SECTION 16: Other information****List of relevant H statements**

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H411	Toxic to aquatic life with long lasting effects.

**Revision information:**

No revision information

DISCLAIMER: The information on this Safety Data Sheet is based on our experience and is correct to the best of our knowledge at the date of publication, but we do not accept any liability for any loss, damage or injury resulting from its use (except as required by law). The information may not be valid for any use not referred to in this Data Sheet or use of the product in combination with other materials. For these reasons, it is important that customers carry out their own test to satisfy themselves as to the suitability of the product for their own intended applications.

3M Israel SDSs are available at [www.3M.com/il](http://www.3M.com/il)