

## **Safety Data Sheet**

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Issue Date:	2022/07/22	Supercedes Date:	2021/11/25

## **SECTION 1: Identification**

#### 1.1. Product identifier

3M(TM) SCOTCH-WELD(TM) EPOXY ADHESIVE DP420, OFF-WHITE

#### **Product Identification Numbers**

62-3280-1430-3	62-3280-1431-1	62-3280-1435-2	62-3280-1436-0	62-3280-1438-6
62-3280-1439-4	62-3280-3530-8	62-3280-3830-2	62-3280-3835-1	H0-0020-4632-6
HB-0042-5601-0	HB-0042-8919-3	HB-0045-6088-2	HB-0045-6110-4	JS-3000-4922-3
UU-0121-1719-6	XT-0007-2033-1			

#### 1.2. Recommended use and restrictions on use

#### Recommended use

Structural adhesive

#### 1.3. Supplier's details

**Company:** 3M Canada Company

**Division:** Industrial Adhesives and Tapes Division

Address: 1840 Oxford Street East, Post Office Box 5757, London, Ontario N6A 4T1

**Telephone:** (800) 364-3577

E Mail:

## 1.4. Emergency telephone number

Medical Emergency Telephone:1-800-3M HELPS / 1-800-364-3577; Transportation Emergency Telephone (CANUTEC): (613) 996-6666

This product is a kit or a multipart product which consists of multiple, independently packaged components. A Safety Data Sheet (SDS) or Article Information Sheet (AIS) for each of these components is included. Please do not separate the component documents from this cover page. The document numbers for components of this product are:

22-0528-4, 11-2409-8

Transport in accordance with applicable regulations.

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ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY IMPLIED WARRANTY OR CONDITION ARISING OUT OF A COURSE OF PERFORMANCE, COURSE OF DEALING, CUSTOM OR USAGE OF TRADE. User is responsible for determining whether the product is fit for a particular purpose and suitable for user's method of use or application. Given the variety of factors that can affect the use and application of a product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the product to determine whether it is fit for a particular purpose and suitable for user's method of use or application.

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

## **SECTION 1: Identification**

#### 1.1. Product identifier

3M(TM) SCOTCH-WELD(TM) EPOXY ADHESIVE DP420, OFF-WHITE (PART B)

**Product Identification Numbers** 

11-4002-1351-5 JS-3000-4955-3 UU-0116-6649-0 UU-0121-3265-8

#### 1.2. Recommended use and restrictions on use

#### **Intended Use**

Structural adhesive

### Restrictions on use

Not applicable

#### 1.3. Supplier's details

**Company:** 3M Canada Company

**Division:** Industrial Adhesives and Tapes Division

Address: 1840 Oxford Street East, Post Office Box 5757, London, Ontario N6A 4T1

**Telephone:** (800) 364-3577 **Website:** www.3M.ca

## 1.4. Emergency telephone number

Medical Emergency Telephone:1-800-3M HELPS / 1-800-364-3577; Transportation Emergency Telephone (CANUTEC): (613) 996-6666

## **SECTION 2: Hazard identification**

### 2.1. Classification of the substance or mixture

Serious Eye Damage/Irritation: Category 2B.

Skin Sensitizer: Category 1.

## 2.2. Label elements

Signal word

Warning

**Symbols** 

Exclamation mark

### **Pictograms**



#### Hazard statements

Causes eye irritation. May cause an allergic skin reaction.

#### **Precautionary statements**

#### **Prevention:**

Avoid breathing dust/fume/gas/mist/vapours/spray. Wear protective gloves. Wash exposed skin 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. Take off contaminated clothing and wash it before reuse.

#### Disposal:

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

#### 2.3. Other hazards

None known.

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

This material is a mixture.

Ingredient	C.A.S. No.	% by Wt	Common Name
Epoxy Resin	25068-38-6	80 - 100 Trade Secret *	Phenol, 4,4'-(1-methylethylidene)bis-,
			polymer with (chloromethyl)oxirane
Acrylic Polymer	Trade Secret	1 - 20	Not Applicable

Acrylic Polymer is a non-hazardous Trade Secret material according to WHMIS criteria.

## **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:**

<sup>\*</sup>The actual concentration of this ingredient has been withheld as a trade secret.

Flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms persist, get medical attention.

#### If Swallowed:

Rinse mouth. If you feel unwell, get medical attention.

#### 4.2. Most important symptoms and effects, both acute and delayed

Allergic skin reaction (redness, swelling, blistering, and itching).

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

Not applicable

## **SECTION 5: Fire-fighting measures**

#### 5.1. Suitable extinguishing media

In case of fire: Use a fire fighting agent suitable for ordinary combustible material such as water or foam to extinguish.

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

None inherent in this product.

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

Substance	<u>Condition</u>
Aldehydes	During Combustion
Carbon monoxide	During Combustion
Carbon dioxide	During Combustion
Hydrogen Chloride	During Combustion
Irritant Vapours or Gases	During Combustion

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

Wear full protective equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA). Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

# **SECTION 6: Accidental release measures**

#### 6.1. Personal precautions, protective equipment and emergency procedures

Evacuate area. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapours, in accordance with good industrial hygiene practice. 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.

## 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 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.

# **SECTION 7: Handling and storage**

#### 7.1. Precautions for safe handling

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

#### 7.2. Conditions for safe storage including any incompatibilities

Store away from oxidizing agents.

## **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

Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapours/spray. If ventilation is not adequate, use respiratory protection equipment.

#### 8.2.2. Personal protective equipment (PPE)

## Eye/face protection

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:

Safety Glasses with side shields

**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 vapours and particulates

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

# **SECTION 9: Physical and chemical properties**

## 9.1. Information on basic physical and chemical properties

Physical state Li	iquid
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Specific Physical Form:	Paste	
Colour	White	
Odour	Very Mild Odour	
Odour threshold	No Data Available	
pH	Not Applicable	
Melting point/Freezing point	No Data Available	
Boiling point	>=260 °C	
Flash Point	248.9 °C [Test Method:Closed Cup]	
Evaporation rate	Not Applicable	
Flammability	Not Applicable	
Flammable Limits(LEL)	Not Applicable	
Flammable Limits(UEL)	Not Applicable	
Vapour Pressure	Not Applicable	
Vapour Density and/or Relative Vapour Density	Not Applicable	
Density	1.14 g/ml	
Relative density	1.14 [Ref Std:WATER=1]	
Water solubility	Nil	
Solubility- non-water	No Data Available	
Partition coefficient: n-octanol/ water	No Data Available	
Autoignition temperature	No Data Available	
Decomposition temperature	No Data Available	
Kinematic Viscosity	30,702 mm2/sec	
Volatile Organic Compounds	No Data Available	
Percent volatile	No Data Available	
VOC Less H2O & Exempt Solvents 0 g/l [Test Method:calculated SCAQMD rule 443.1]		
	[Details: when used as intended with Part A]	
VOC Less H2O & Exempt Solvents 5 g/l [Test Method: calculated SCAQMD rule 443.1]		
	supplied]	
VOC Less H2O & Exempt Solvents	0 % [Test Method:calculated SCAQMD rule 443.1]	
76.1	[Details: when used as intended with Part A]	
Molecular weight	No Data Available	

Particle Characteristics	Not Applicable

# **SECTION 10: Stability and reactivity**

## 10.1. Reactivity

This material may be reactive with certain agents under certain conditions - see the remaining headings in this section.

## 10.2. Chemical stability

Stable.

## 10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

## 10.4. Conditions to avoid

Heat 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 oxidizing agents

## 10.6. Hazardous decomposition products **Substance**

#### **Condition**

None known.

Refer to section 5.2 for hazardous decomposition products during combustion.

## **SECTION 11: Toxicological information**

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

## 11.1. Information on Toxicological effects

#### Signs and Symptoms of Exposure

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

#### Inhalation:

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 Eve 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	Ingestion		No data available; calculated ATE >5,000 mg/kg
Epoxy Resin	Dermal	Rat	LD50 > 1,600 mg/kg
Epoxy Resin	Ingestion	Rat	LD50 > 1,000 mg/kg
Acrylic Polymer	Dermal	Rabbit	LD50 > 5,000 mg/kg
Acrylic Polymer	Ingestion	Rat	LD50 > 5,000 mg/kg

ATE = acute toxicity estimate

#### Skin Corrosion/Irritation

Name	Species	Value
Epoxy Resin	Rabbit	Mild irritant
Acrylic Polymer	Professio nal judgeme nt	Minimal irritation

**Serious Eye Damage/Irritation** 

Name	Species	Value
Epoxy Resin	Rabbit	Moderate irritant
Acrylic Polymer	Professio	Mild irritant
	nal	
	judgeme	
	nt	

#### **Skin Sensitization**

Name	Species	Value
Epoxy Resin	Human	Sensitizing
	and	
	animal	

**Respiratory Sensitization** 

Name	Species	Value
Epoxy Resin	Human	Not classified

Germ Cell Mutagenicity

Name	Route	Value
Epoxy Resin	In vivo	Not mutagenic
Epoxy Resin	In Vitro	Some positive data exist, but the data are not sufficient for classification

Carcinogenicity

Name	Route	Species	Value
Epoxy Resin	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
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 organogenesi s
Epoxy Resin	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
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	Not classified	Rat	NOAEL	28 days

heart   endocrine		1,000	
system		mg/kg/day	
hematopoietic			
system   liver   eyes			
kidney and/or			
bladder			

#### **Aspiration Hazard**

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

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

## **SECTION 12: Ecological information**

No data available.

## **SECTION 13: Disposal considerations**

#### 13.1. Disposal methods

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

Dispose of completely cured (or polymerized) material in a permitted industrial waste facility. As a disposal alternative, incinerate uncured product in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. Combustion products will include halogen acid (HCl/HF/HBr). Facility must be capable of handling halogenated materials. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

# **SECTION 14: Transport Information**

For Transport Information, please visit http://3M.com/Transportinfo or call 1-800-364-3577 or 651-737-6501.

# **SECTION 15: Regulatory information**

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

### Global inventory status

Contact 3M for more information. The components of this 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.

## **SECTION 16: Other information**

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

Health: 2 Flammability: 1 Instability: 0 Special Hazards: None

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

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 22-0528-4
 Version number:
 4.01

 Issue Date:
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 2022/07/21

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

## **SECTION 1: Identification**

#### 1.1. Product identifier

3M<sup>TM</sup> Scotch-Weld<sup>TM</sup> Epoxy Adhesive DP420 Off-White, Part A

#### **Product Identification Numbers**

JS-3000-4954-6 UU-0128-3683-7

#### 1.2. Recommended use and restrictions on use

#### **Intended Use**

Structural adhesive

### Restrictions on use

Not applicable

#### 1.3. Supplier's details

**Company:** 3M Canada Company

**Division:** Industrial Adhesives and Tapes Division

Address: 1840 Oxford Street East, Post Office Box 5757, London, Ontario N6A 4T1

**Telephone:** (800) 364-3577 **Website:** www.3M.ca

## 1.4. Emergency telephone number

Medical Emergency Telephone:1-800-3M HELPS / 1800 364 3577

## **SECTION 2: Hazard identification**

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

Serious Eye Damage/Irritation: Category 1. Skin Corrosion/Irritation: Category 1B. Skin Sensitizer: Category 1.

## 2.2. Label elements

#### Signal word

Danger

**Symbols** 

Corrosion | Exclamation mark |

**Pictograms** 



#### Hazard statements

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

#### **Precautionary statements**

#### **Prevention:**

Do not breathe dust/fume/gas/mist/vapours/spray. Wear protective gloves, protective clothing, and eye/face protection. Wash exposed skin thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.

## **Response:**

IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTRE or doctor/physician. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

#### **Storage:**

Store locked up.

#### Disposal:

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

#### 2.3. Other hazards

May cause chemical gastrointestinal burns.

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

This material is a mixture.

Ingredient	C.A.S. No.	% by Wt	Common Name
Modified Epoxy Resin	Trade Secret	40 - 80	Not Applicable
4,7,10-Trioxatridecane-1,13-	4246-51-9	15 - 40 Trade Secret *	1-Propanamine, 3,3'-[oxybis(2,1-
Diamine			ethanediyloxy)]bis-
2,4,6-	90-72-2	1 - 5 Trade Secret *	Phenol, 2,4,6-tris[(dimethylamino)methyl]-
tris((Dimethylamino)Methyl)Phe			
nol			
Amorphous Silica	67762-90-7	1 - 5	Siloxanes and Silicones, di-Me, reaction
			products with silica
Calcium Salt	55120-75-7	1 - 5 Trade Secret *	Methanesulfonic acid, trifluoro-, calcium
			salt

Modified Epoxy Resin is a non-hazardous Trade Secret material according to WHMIS criteria.

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<sup>\*</sup>The actual concentration of this ingredient has been withheld as a trade secret.

## **SECTION 4: First aid measures**

#### 4.1. Description of first aid measures

#### Inhalation:

Remove person to fresh air. If you feel unwell, get medical attention.

#### **Skin Contact:**

Immediately flush with large amounts of water for at least 15 minutes. Remove contaminated clothing. Get immediate medical attention. Wash clothing before reuse.

#### **Eve Contact:**

Immediately flush with large amounts of water for at least 15 minutes. Remove contact lenses if easy to do. Continue rinsing. Immediately get medical attention.

#### If Swallowed:

Rinse mouth. Do not induce vomiting. Get immediate medical attention.

#### 4.2. Most important symptoms and effects, both acute and delayed

Skin burns (localized redness, swelling, itching, intense pain, blistering, and tissue destruction). Allergic skin reaction (redness, swelling, blistering, and itching). Serious damage to the eyes (corneal cloudiness, severe pain, tearing, ulcerations, and significantly impaired or loss of vision).

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

Not applicable

## **SECTION 5: Fire-fighting measures**

### 5.1. Suitable extinguishing media

In case of fire: Use a fire fighting agent suitable for ordinary combustible material such as water or foam to extinguish.

## 5.2. Unsuitable extinguishing media

None Determined

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

Exposure to extreme heat can give rise to thermal decomposition.

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

<u>Substance</u>	<u>Condition</u>
Aldehydes	During Combustion
Carbon monoxide	During Combustion
Carbon dioxide	During Combustion
Hydrogen Fluoride	During Combustion
Irritant Vapours or Gases	During Combustion
Oxides of Nitrogen	During Combustion

#### 5.4. Special protection 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 vapours, 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.

#### 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 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.

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

#### 7.1. Precautions for safe handling

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

#### 7.2. Conditions for safe storage including any incompatibilities

Store away from acids. Store away from oxidizing agents.

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

#### 8.1. Control parameters

### Occupational exposure limits

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

For those situations where the material might be exposed to extreme overheating due to misuse or equipment failure, use with appropriate local exhaust ventilation sufficient to maintain levels of thermal decomposition products below their exposure guidelines. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapours/spray. If ventilation is not adequate, use respiratory protection equipment.

### 8.2.2. Personal protective equipment (PPE)

#### Eye/face protection

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:

Full Face Shield

**Indirect Vented Goggles** 

### Skin/hand protection

Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective

clothing. Note: Nitrile gloves may be worn over polymer laminate gloves to improve dexterity.

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

Nitrile Rubber Polymer laminate

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

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:

For those situations where the material might be exposed to extreme overheating due to misuse or equipment failure, use a positive pressure supplied-air respirator.

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

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

## **SECTION 9: Physical and chemical properties**

## 9.1. Information on basic physical and chemical properties

information on basic physical and chemical propertie		
Physical state	Liquid	
Specific Physical Form:	Paste	
Colour	Amber	
Odour	Mild Amine, Pungent Odour	
Odour threshold	No Data Available	
pH	Not Applicable	
Melting point/Freezing point	No Data Available	
Boiling point	>=175 °C	
Flash Point	>=171.1 °C [Test Method:Closed Cup]	
Evaporation rate	Not Applicable	
Flammability	Not Applicable	
Flammable Limits(LEL)	Not Applicable	
Flammable Limits(UEL)	Not Applicable	
Vapour Pressure	Not Applicable	
Vapour Density and/or Relative Vapour Density	Not Applicable	
Density	1.12 g/ml	
Relative density	1.12 [ <i>Ref Std</i> :WATER=1]	
Water solubility	Slight (less than 10%)	
Solubility- non-water	No Data Available	
Partition coefficient: n-octanol/ water	No Data Available	
Autoignition temperature	No Data Available	
Decomposition temperature	No Data Available	
Kinematic Viscosity	8,929 mm2/sec	
Volatile Organic Compounds	No Data Available	
Percent volatile	No Data Available	
VOC Less H2O & Exempt Solvents	0 g/l [Test Method:calculated SCAQMD rule 443.1]	
	[Details: when used as intended with Part B]	

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-	0 g/l [ <i>Test Method</i> :calculated SCAQMD rule 443.1] [ <i>Details</i> :as supplied]
VOC Less H2O & Exempt Solvents	0 % [Test Method:calculated SCAQMD rule 443.1]
	[Details: when used as intended with Part B]
Molecular weight	No Data Available

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

## **SECTION 10: Stability and reactivity**

## 10.1. Reactivity

This material may be reactive with certain agents under certain conditions - see the remaining headings in this section.

#### 10.2. Chemical stability

Stable.

#### 10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

#### 10.4. Conditions to avoid

Heat 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 oxidizing agents

#### 10.6. Hazardous decomposition products

Substance

Condition

None known.

Refer to section 5.2 for hazardous decomposition products during combustion.

Extreme heat arising from situations such as misuse or equipment failure can generate hydrogen fluoride as a decomposition product.

# **SECTION 11: Toxicological information**

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

## 11.1. Information on Toxicological effects

Signs and Symptoms of Exposure

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

#### **Inhalation:**

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

#### **Skin Contact:**

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:**

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.

### **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
4,7,10-Trioxatridecane-1,13-Diamine	Dermal	Rabbit	LD50 2,525 mg/kg
4,7,10-Trioxatridecane-1,13-Diamine	Ingestion	Rat	LD50 2,850 mg/kg
Amorphous Silica	Dermal	Rabbit	LD50 > 5,000 mg/kg
Amorphous Silica	Inhalation- Dust/Mist (4 hours)	Rat	LC50 > 0.691 mg/l
Amorphous Silica	Ingestion	Rat	LD50 > 5,110 mg/kg
2,4,6-tris((Dimethylamino)Methyl)Phenol	Dermal	Rat	LD50 1,280 mg/kg
2,4,6-tris((Dimethylamino)Methyl)Phenol	Ingestion	Rat	LD50 1,000 mg/kg
Calcium Salt	Dermal	Professio nal judgeme nt	LD50 estimated to be 2,000 - 5,000 mg/kg
Calcium Salt	Ingestion	Rat	LD50 > 2,000 mg/kg

ATE = acute toxicity estimate

#### Skin Corrosion/Irritation

3 0011000m/111100000					
Name	Species	Value			
4,7,10-Trioxatridecane-1,13-Diamine	Rabbit	Corrosive			
Amorphous Silica	Rabbit	No significant irritation			
2,4,6-tris((Dimethylamino)Methyl)Phenol	Rabbit	Corrosive			
Calcium Salt	Rabbit	Minimal irritation			

**Serious Eye Damage/Irritation** 

Name	Species	Value
4,7,10-Trioxatridecane-1,13-Diamine	Rabbit	Corrosive
Amorphous Silica	Rabbit	No significant irritation
2,4,6-tris((Dimethylamino)Methyl)Phenol	Rabbit	Corrosive
Calcium Salt	Rabbit	Corrosive

## **Skin Sensitization**

Name	Species	Value
4,7,10-Trioxatridecane-1,13-Diamine	Professio nal judgeme nt	Sensitizing
Amorphous Silica	Human and animal	Not classified

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## 3M<sup>TM</sup> Scotch-Weld<sup>TM</sup> Epoxy Adhesive DP420 Off-White, Part A

2,4,6-tris((Dimethylamino)Methyl)Phenol	Guinea	Not classified
	pig	
Calcium Salt	Guinea	Not classified
	pig	

## **Respiratory Sensitization**

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

Germ Cell Mutagenicity

Serin Cent Mutagement						
Name	Route	Value				
4,7,10-Trioxatridecane-1,13-Diamine	In Vitro	Not mutagenic				
Amorphous Silica	In Vitro	Not mutagenic				
2,4,6-tris((Dimethylamino)Methyl)Phenol	In Vitro	Not mutagenic				
Calcium Salt	In Vitro	Not mutagenic				

Carcinogenicity

Name	Route	Species	Value
Amorphous Silica	Not	Mouse Some positive data exist, but the data a	
	Specified sufficient for classification		sufficient for classification

## Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
4,7,10-Trioxatridecane-1,13-Diamine	Ingestion	Not classified for female reproduction	Rat	NOAEL 600 mg/kg/day	premating into lactation
4,7,10-Trioxatridecane-1,13-Diamine	Ingestion	Not classified for male reproduction	Rat	NOAEL 600 mg/kg/day	59 days
4,7,10-Trioxatridecane-1,13-Diamine	Ingestion	Not classified for development	Rat	NOAEL 600 mg/kg/day	premating into lactation
Amorphous Silica	Ingestion	Not classified for female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation
Amorphous Silica	Ingestion	Not classified for male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
Amorphous Silica	Ingestion	Not classified for development	Rat	NOAEL 1,350 mg/kg/day	during organogenesi s
2,4,6-tris((Dimethylamino)Methyl)Phenol	Ingestion	Not classified for male reproduction	Rat	NOAEL 150 mg/kg/day	2 generation
2,4,6-tris((Dimethylamino)Methyl)Phenol	Ingestion	Not classified for female reproduction	Rat	NOAEL 50 mg/kg/day	2 generation
2,4,6-tris((Dimethylamino)Methyl)Phenol	Ingestion	Not classified for development	Rabbit	NOAEL 15 mg/kg/day	during gestation

## Target Organ(s)

Specific Target Organ Toxicity - single exposure

specific Target Organ Toxicity - single exposure						
Name	Route	Target Organ(s)	Value	Species	Test result	Exposure
						Duration
4,7,10-Trioxatridecane-	Inhalation	respiratory irritation	Some positive data exist, but the	similar	NOAEL Not	
1,13-Diamine			data are not sufficient for	health	available	
			classification	hazards		
2,4,6-	Inhalation	respiratory irritation	Some positive data exist, but the	similar	NOAEL Not	
tris((Dimethylamino)Meth			data are not sufficient for	health	available	
yl)Phenol			classification	hazards		
Calcium Salt	Inhalation	respiratory irritation	Some positive data exist, but the	similar	NOAEL not	
			data are not sufficient for	health	available	
			classification	hazards		

Specific Target Organ Toxicity - repeated exposure

Γ	Name	Route	Target Organ(s)	Value	Species	Test result	Exposure

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						Duration
4,7,10-Trioxatridecane- 1,13-Diamine	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
Amorphous Silica	Inhalation	respiratory system   silicosis	Not classified	Human	NOAEL Not available	occupational exposure
2,4,6- tris((Dimethylamino)Meth yl)Phenol	Dermal	skin	Not classified	Rat	NOAEL 25 mg/kg/day	4 weeks
2,4,6- tris((Dimethylamino)Meth yl)Phenol	Dermal	liver   nervous system   auditory system   hematopoietic system   eyes	Not classified	Rat	NOAEL 125 mg/kg/day	4 weeks
2,4,6- tris((Dimethylamino)Meth yl)Phenol	Ingestion	heart   endocrine system   hematopoietic system   liver   muscles   nervous system   kidney and/or bladder   respiratory system   vascular system   auditory system   skin   gastrointestinal tract   bone, teeth, nails, and/or hair   immune system   eyes	Not classified	Rat	NOAEL 150 mg/kg/day	90 days

### **Aspiration Hazard**

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

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

# **SECTION 12: Ecological information**

No data available.

# **SECTION 13: Disposal considerations**

#### 13.1. Disposal methods

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

Dispose of completely cured (or polymerized) material in a permitted industrial waste facility. As a disposal alternative, incinerate uncured product in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. Combustion products will include HF. 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. 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 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 chemical notification requirements of TSCA. All required components of this product are listed on the active portion of the TSCA Inventory.

## **SECTION 16: Other information**

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

Health: 3 Flammability: 1 Instability: 0 Special Hazards: None

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

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

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