



## Safety Data Sheet

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### SECTION 1: Identification

#### 1.1. Product identifier

3M™ Scotch-Weld™ Epoxy Adhesive 100FR Cream, Part B

#### Product Identification Numbers

62-3531-8530-9  
7010366123

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

##### Recommended use

Structural adhesive

#### 1.3. Supplier's details

|                      |   |
|----------------------|---|
| <b>MANUFACTURER:</b> | 3M                                      |
| <b>DIVISION:</b>     | Industrial Adhesives and Tapes Division |
| <b>ADDRESS:</b>      | 3M Center, St. Paul, MN 55144-1000, USA |
| <b>Telephone:</b>    | 1-888-3M HELPS (1-888-364-3577)         |

#### 1.4. Emergency telephone number

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

### SECTION 2: Hazard identification

#### 2.1. Hazard classification

Serious Eye Damage/Irritation: Category 2B.

Skin Sensitizer: Category 1.

Carcinogenicity: Category 1B.

#### 2.2. Label elements

##### Signal word

Danger

##### Symbols

Exclamation mark | Health Hazard |

##### Pictograms

**Hazard Statements**

Causes eye irritation.  
 May cause an allergic skin reaction.  
 May cause cancer.

**Precautionary Statements****Prevention:**

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

**Response:**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 If eye irritation persists: Get medical advice/attention.  
 IF ON SKIN: Wash with plenty of soap and water.  
 If skin irritation or rash occurs: Get medical advice/attention.  
 Wash contaminated clothing before reuse.  
 IF exposed or concerned: Get medical advice/attention.

**Storage:**

Store locked up.

**Disposal:**

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

### SECTION 3: Composition/information on ingredients

| Ingredient             | C.A.S. No. | % by Wt                |
|------------------------|------------|------------------------|
| Epoxy Resin            | 25068-38-6 | 70 - 80 Trade Secret * |
| Ammonium Polyphosphate | 68333-79-9 | 10 - 30 Trade Secret * |
| Titanium Dioxide       | 13463-67-7 | 1 - 5 Trade Secret *   |
| Melamine               | 108-78-1   | < 0.5 Trade Secret *   |

\*The specific chemical identity and/or exact percentage (concentration) of this composition has been withheld as a trade secret.

### SECTION 4: First aid measures

**4.1. Description of first aid measures****Inhalation:**

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

**Skin Contact:**

Immediately wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms develop, get medical attention.

**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**

See Section 11.1. Information on toxicological effects.

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

Not applicable

**SECTION 5: Fire-fighting measures****5.1. Suitable extinguishing media**

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

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

None inherent in this product.

**Hazardous Decomposition or By-Products****Substance**

Aldehydes  
Hydrocarbons  
Carbon monoxide  
Carbon dioxide  
Hydrogen Chloride  
Ketones  
Ammonia  
Oxides of Nitrogen  
Toxic Vapor, Gas, Particulate

**Condition**

During Combustion  
During Combustion  
During Combustion  
During Combustion  
During Combustion  
During Combustion  
During Combustion  
During Combustion  
During Combustion

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

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

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

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

**6.2. Environmental precautions**

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

**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/occupational use only. Not for consumer sale or use. Do not handle until all safety precautions have been read and understood. 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. Wash contaminated clothing before reuse. Avoid contact with oxidizing agents (eg. chlorine, chromic acid etc.) Use personal protective equipment (gloves, respirators, etc.) as required.

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

Store away from heat. Store away from acids. Store away from oxidizing agents.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Occupational exposure limits

If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

| Ingredient       | C.A.S. No. | Agency | Limit type                          | Additional Comments            |
|------------------|------------|--------|-------------------------------------|--------------------------------|
| Melamine         | 108-78-1   | AIHA   | TWA(inhalable particulates):3 mg/m3 |                                |
| Titanium Dioxide | 13463-67-7 | ACGIH  | TWA:10 mg/m3                        | A4: Not class. as human carcin |
| Titanium Dioxide | 13463-67-7 | OSHA   | TWA(as total dust):15 mg/m3         |                                |

ACGIH : American Conference of Governmental Industrial Hygienists

AIHA : American Industrial Hygiene Association

CMRG : Chemical Manufacturer's Recommended Guidelines

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

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

CEIL: Ceiling

### 8.2. Exposure controls

#### 8.2.1. Engineering controls

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

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

##### Eye/face protection

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

Indirect Vented Goggles

##### Skin/hand protection

Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the 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

### 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

|  |   |
|--|---|
| <b>General Physical Form:</b>                  | Liquid  |
| <b>Specific Physical Form:</b>                 | Viscous Liquid  |
| <b>Odor, Color, Grade:</b>                     | white, epoxy odor   |
| <b>Odor threshold</b>                          | <i>No Data Available</i>  |
| <b>pH</b>                                      | <i>No Data Available</i>  |
| <b>Melting point</b>                           | <i>Not Applicable</i>   |
| <b>Boiling Point</b>                           | <i>No Data Available</i>  |
| <b>Flash Point</b>                             | > 201 °F [@ 1 atm] [ <i>Test Method</i> :Closed Cup]  |
| <b>Evaporation rate</b>                        | Negligible  |
| <b>Flammability (solid, gas)</b>               | Not Applicable  |
| <b>Flammable Limits(LEL)</b>                   | <i>No Data Available</i>  |
| <b>Flammable Limits(UEL)</b>                   | <i>No Data Available</i>  |
| <b>Vapor Pressure</b>                          | <i>No Data Available</i>  |
| <b>Vapor Density</b>                           | <i>No Data Available</i>  |
| <b>Density</b>                                 | 1.2 g/ml [ <i>Ref Std</i> :WATER=1]   |
| <b>Specific Gravity</b>                        | 1.2 [ <i>Ref Std</i> :WATER=1]  |
| <b>Solubility in Water</b>                     | Negligible  |
| <b>Solubility- non-water</b>                   | <i>No Data Available</i>  |
| <b>Partition coefficient: n-octanol/ water</b> | <i>No Data Available</i>  |
| <b>Autoignition temperature</b>                | <i>No Data Available</i>  |
| <b>Decomposition temperature</b>               | <i>No Data Available</i>  |
| <b>Viscosity</b>                               | 60,000 - 80,000 centipoise [ <i>Test Method</i> :Brookfield]  |
| <b>Hazardous Air Pollutants</b>                | 0 % weight [ <i>Test Method</i> :Calculated]  |
| <b>Molecular weight</b>                        | <i>No Data Available</i>  |
| <b>VOC Less H2O &amp; Exempt Solvents</b>      | 0 g/l [ <i>Test Method</i> :calculated SCAQMD rule 443.1]<br>[ <i>Details</i> :when used as intended with Part A] |
| <b>VOC Less H2O &amp; Exempt Solvents</b>      | 0 g/l [ <i>Test Method</i> :calculated SCAQMD rule 443.1] [ <i>Details</i> :as supplied]                          |
| <b>VOC Less H2O &amp; Exempt Solvents</b>      | 0 % [ <i>Test Method</i> :calculated SCAQMD rule 443.1]<br>[ <i>Details</i> :when used as intended with Part A]   |

## 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

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 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 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.

May cause additional health effects (see below).

**Additional Health Effects:**

**Carcinogenicity:**

Contains a chemical or chemicals which can cause cancer.

| Ingredient       | CAS No.    | Class Description             | Regulation                                  |
|------------------|------------|-------------------------------|---|
| Melamine         | 108-78-1   | Grp. 2B: Possible human carc. | International Agency for Research on Cancer |
| Titanium Dioxide | 13463-67-7 | Grp. 2B: Possible human carc. | International Agency for Research on Cancer |

**Toxicological Data**

If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

**Acute Toxicity**

| Name                   | Route                          | Species | Value  |
|------------------------|--------------------------------|---------|--|
| Overall product        | 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                             |
| Ammonium Polyphosphate | Dermal                         | Rat     | LD50 > 5,000 mg/kg                             |
| Ammonium Polyphosphate | Inhalation-Dust/Mist (4 hours) | Rat     | LC50 > 5.1 mg/l                                |
| Ammonium Polyphosphate | Ingestion                      | Rat     | LD50 4,740 mg/kg                               |
| Titanium Dioxide       | Dermal                         | Rabbit  | LD50 > 10,000 mg/kg                            |
| Titanium Dioxide       | Inhalation-Dust/Mist (4 hours) | Rat     | LC50 > 6.82 mg/l                               |
| Titanium Dioxide       | Ingestion                      | Rat     | LD50 > 10,000 mg/kg                            |
| Melamine               | Dermal                         | Rabbit  | LD50 > 1,000 mg/kg                             |
| Melamine               | Ingestion                      | Rat     | LD50 3,161 mg/kg                               |

ATE = acute toxicity estimate

**Skin Corrosion/Irritation**

| Name             | Species    | Value                     |
|------------------|------------|---------------------------|
| Epoxy Resin      | Rabbit     | Mild irritant             |
| Titanium Dioxide | Rabbit     | No significant irritation |
| Melamine         | Guinea pig | No significant irritation |

**Serious Eye Damage/Irritation**

| Name             | Species | Value                     |
|------------------|---------|---------------------------|
| Epoxy Resin      | Rabbit  | Moderate irritant         |
| Titanium Dioxide | Rabbit  | No significant irritation |
| Melamine         | Rabbit  | No significant irritation |

**Skin Sensitization**

| Name             | Species          | Value          |
|------------------|------------------|----------------|
| Epoxy Resin      | Human and animal | Sensitizing    |
| Titanium Dioxide | Human and animal | Not classified |
| Melamine         | Guinea pig       | Not classified |

**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 |
| Titanium Dioxide | In Vitro | Not mutagenic  |
| Titanium Dioxide | In vivo  | Not mutagenic  |
| Melamine         | In Vitro | Not mutagenic  |
| Melamine         | In vivo  | Not mutagenic  |

**Carcinogenicity**

| Name             | Route      | Species                 | Value  |
|------------------|------------|-------------------------|--|
| Epoxy Resin      | Dermal     | Mouse                   | Some positive data exist, but the data are not sufficient for classification |
| Titanium Dioxide | Ingestion  | Multiple animal species | Not carcinogenic   |
| Titanium Dioxide | Inhalation | Rat                     | Carcinogenic   |
| Melamine         | Ingestion  | Multiple animal species | Carcinogenic   |

**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 organogenesis |
| Epoxy Resin | Ingestion | Not classified for development         | Rat     | NOAEL 750 mg/kg/day   | 2 generation         |
| Melamine    | Ingestion | Not classified for development         | Rat     | NOAEL 1,060 mg/kg/day | during organogenesis |

**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   heart   endocrine system   hematopoietic system   liver   eyes   kidney and/or bladder | Not classified                    | Rat     | NOAEL 1,000 mg/kg/day | 28 days           |
| Titanium Dioxide | Inhalation | respiratory system   | Some positive data exist, but the | Rat     | LOAEL 0.01            | 2 years           |



|                  |            |                       |  |       |                     |                       |
|------------------|------------|-----------------------|--|-------|---------------------|-----------------------|
|                  |            |                       | data are not sufficient for classification                       |       | mg/l                |                       |
| Titanium Dioxide | Inhalation | pulmonary fibrosis    | Not classified   | Human | NOAEL Not available | occupational exposure |
| Melamine         | Ingestion  | kidney and/or bladder | May cause damage to organs though prolonged or repeated exposure | Rat   | LOAEL 63 mg/kg/day  | 13 weeks              |

**Aspiration Hazard**

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

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

**SECTION 12: Ecological information****Ecotoxicological information**

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

**Chemical fate information**

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

**SECTION 13: Disposal considerations****13.1. Disposal methods**

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

Dispose of 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.

**EPA Hazardous Waste Number (RCRA):** Not regulated

**SECTION 14: Transport Information**

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

**SECTION 15: Regulatory information****15.1. US Federal Regulations**

Contact 3M for more information.

**EPCRA 311/312 Hazard Classifications:****Physical Hazards**

Not applicable

**Health Hazards**

Carcinogenicity  
 Respiratory or Skin Sensitization  
 Serious eye damage or eye irritation

**15.2. State Regulations**

Contact 3M for more information.

**15.3. Chemical Inventories**

The components of this product are in compliance with the chemical notification requirements of TSCA. All required components of this product are listed on the active portion of the TSCA Inventory.

Contact 3M for more information.

**15.4. International Regulations**

Contact 3M for more information.

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

**SECTION 16: Other information**

**NFPA Hazard Classification**

**Health: 2 Flammability: 1 Instability: 1 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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