



## Safety Data Sheet

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### Product identifier

3M™ Scotch-Weld™ Structural Void Filling Compound EC-3550 B/A FST

### ID Number(s):

87-2500-0429-5, 87-2500-0430-3, 87-2500-0480-8

### Recommended use

Void Filling Compound

### Supplier's details

<b>MANUFACTURER:</b>	3M
<b>DIVISION:</b>	Automotive and Aerospace Solutions Division

<b>ADDRESS:</b>	3M Center, St. Paul, MN 55144-1000, USA
<b>Telephone:</b>	1-888-3M HELPS (1-888-364-3577)

### Emergency telephone number

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

**This product is a kit or a multipart product which consists of multiple, independently packaged components. A Safety Data Sheet (SDS), Article Information Sheet (AIS), or Article Information Letter (AIL) 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:**

29-2175-7, 29-2129-4

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<b>Issue Date:</b>	01/08/18	<b>Supersedes Date:</b>	10/04/17

### SECTION 1: Identification

#### 1.1. Product identifier

3M™ Scotch-Weld™ Structural Void Filling Compound EC-3550 B/A FST, Part A

#### Product Identification Numbers

87-2500-0455-0, 87-2500-0482-4

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

##### Recommended use

Accelerator for two component void filling compound

#### 1.3. Supplier's details

<b>MANUFACTURER:</b>	3M
<b>DIVISION:</b>	Automotive and Aerospace Solutions 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

Corrosive to metal: Category 1.  
Serious Eye Damage/Irritation: Category 1.  
Skin Corrosion/Irritation: Category 1C.  
Skin Sensitizer: Category 1.  
Reproductive Toxicity: Category 2.  
Specific Target Organ Toxicity (single exposure): Category 1.  
Specific Target Organ Toxicity (single exposure): Category 3.

#### 2.2. Label elements

##### Signal word

Danger

##### Symbols

Corrosion | Exclamation mark | Health Hazard |

### Pictograms



### Hazard Statements

May be corrosive to metals.

Causes severe skin burns and eye damage.

May cause an allergic skin reaction.

May cause respiratory irritation.

Suspected of damaging fertility or the unborn child.

Causes damage to organs:  
blood or blood-forming organs |

### Precautionary Statements

#### Prevention:

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Keep only in original container.

Do not breathe dust/fume/gas/mist/vapors/spray.

Use only outdoors or in a well-ventilated area.

Wear protective gloves, protective clothing, and eye/face protection.

Do not eat, drink or smoke when using this product.

Wash 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/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 CENTER or doctor/physician.

If skin irritation or rash occurs: Get medical advice/attention.

Wash contaminated clothing before reuse.

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

IF exposed or concerned: Get medical advice/attention.

Specific treatment (see Notes to Physician on this label).

Absorb spillage to prevent material damage.

#### Storage:

Store in a corrosive resistant container with a resistant inner liner.

Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

#### Disposal:

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

#### Notes to Physician:

Overexposure to this product may result in methemoglobinemia. Methemoglobinemia may be clinically suspected by the presence of clinical "cyanosis" in the presence of a normal PaO<sub>2</sub> (as obtained by arterial blood gases). Routine pulse oximetry may be inaccurate for monitoring oxygen saturation in the presence of methemoglobinemia, and should not be used to make the diagnosis of this disorder. If the patient is symptomatic or if the methemoglobin level is >20%, specific therapy with methylene blue should be consider as part of the medical management.

### 2.3. Hazards not otherwise classified

May cause chemical gastrointestinal burns.

1% of the mixture consists of ingredients of unknown acute dermal toxicity.

## SECTION 3: Composition/information on ingredients

Ingredient	C.A.S. No.	% by Wt
POLY(OXYPROPYLENE)DIAMINE	9046-10-0	25 - 40 Trade Secret *
ALUMINA TRIHYDRATE	21645-51-2	15 - 30
GLASS BUBBLES	65997-17-3	5 - 25
EPOXY RESIN	28064-14-4	1 - 10 Trade Secret *
TRIS(2,4,6-DIMETHYLAMINOMONOMETHYL)PHENOL	90-72-2	1 - 10 Trade Secret *
CALCIUM SALT	13477-34-4	1 - 5 Trade Secret *
EPOXY RESIN	25068-38-6	1 - 5 Trade Secret *
LIMESTONE	1317-65-3	1 - 5
ZINC BORATE	1332-07-6	1 - 5 Trade Secret *
TREATED AMORPHOUS SILICA	67762-90-7	0.5 - 3
BIS[(DIMETHYLAMINO)METHYL]PHENOL	71074-89-0	0.1 - 2 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 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

See Section 11.1. Information on toxicological effects.

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

Overexposure to this product may result in methemoglobinemia. Methemoglobinemia may be clinically suspected by the presence of clinical "cyanosis" in the presence of a normal PaO<sub>2</sub> (as obtained by arterial blood gases). Routine pulse oximetry

may be inaccurate for monitoring oxygen saturation in the presence of methemoglobinemia, and should not be used to make the diagnosis of this disorder. If the patient is symptomatic or if the methemoglobin level is >20%, specific therapy with methylene blue should be consider as part of the medical management.

## 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

<u>Substance</u>	<u>Condition</u>
Aldehydes	During Combustion
Carbon monoxide	During Combustion
Carbon dioxide	During Combustion
Hydrogen Chloride	During Combustion

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

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

## SECTION 6: Accidental release measures

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

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

### 6.2. Environmental precautions

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

### 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. Cover, but do not seal for 48 hours. 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 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. Use personal protective equipment (gloves, respirators, etc.) as required.

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

Store in a well-ventilated place. Keep container tightly closed. Store away from heat. Keep only in original container. Store in a corrosive resistant container with a resistant inner liner. Store away from acids.

## 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
LIMESTONE	1317-65-3	OSHA	TWA(as total dust):15 mg/m <sup>3</sup> ;TWA(respirable fraction):5 mg/m <sup>3</sup>	
Aluminum, insoluble compounds	21645-51-2	ACGIH	TWA(respirable fraction):1 mg/m <sup>3</sup>	A4: Not class. as human carcin
CERAMIC FIBERS	65997-17-3	ACGIH	TWA(as fiber):0.2 fiber/cc	A2: Suspected human carcin.
SILICA, AMORPHOUS	67762-90-7	OSHA	TWA concentration:0.8 mg/m <sup>3</sup> ;TWA:20 millions of particles/cu. ft.	

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:

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: 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**

<b>General Physical Form:</b>	Liquid
<b>Specific Physical Form:</b>	Viscous
<b>Odor, Color, Grade:</b>	Low odor, white paste
<b>Odor threshold</b>	<i>No Data Available</i>
<b>pH</b>	<i>Not Applicable</i>
<b>Melting point</b>	<i>Not Applicable</i>
<b>Boiling Point</b>	<i>Not Applicable</i>
<b>Flash Point</b>	≥200 °F [ <i>Test Method</i> :Closed Cup]
<b>Evaporation rate</b>	<i>No Data Available</i>
<b>Flammability (solid, gas)</b>	Not Applicable
<b>Flammable Limits(LEL)</b>	<i>Not Applicable</i>
<b>Flammable Limits(UEL)</b>	<i>Not Applicable</i>
<b>Vapor Pressure</b>	Negligible
<b>Vapor Density</b>	<i>No Data Available</i>
<b>Density</b>	0.7 g/ml
<b>Specific Gravity</b>	0.5 - 0.7 [ <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>	<i>No Data Available</i>
<b>Volatile Organic Compounds</b>	≤1.1 g/l [ <i>Test Method</i> :calculated SCAQMD rule 443.1]
<b>VOC Less H<sub>2</sub>O &amp; Exempt Solvents</b>	≤1.1 g/l [ <i>Test Method</i> :calculated SCAQMD rule 443.1]

**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

**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.

Dust from grinding, sanding or machining may cause irritation of the respiratory system. 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.

Dust created by grinding, sanding, or machining may cause eye irritation. Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy 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.

May cause additional health effects (see below).

**Additional Health Effects:****Single exposure may cause target organ effects:**

Methemoglobinemia: Signs/symptoms may include headache, dizziness, nausea, difficulty breathing, and generalized

weakness.

**Reproductive/Developmental Toxicity:**

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

**Toxicological Data**

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

**Acute Toxicity**

Name	Route	Species	Value
Overall product	Dermal		No data available; calculated ATE >5,000 mg/kg
Overall product	Ingestion		No data available; calculated ATE 2,000 - 5,000 mg/kg
POLY(OXYPROPYLENE)DIAMINE	Dermal	Rabbit	LD50 2,980 mg/kg
POLY(OXYPROPYLENE)DIAMINE	Ingestion	Rat	LD50 2,885 mg/kg
ALUMINA TRIHYDRATE	Dermal		LD50 estimated to be > 5,000 mg/kg
ALUMINA TRIHYDRATE	Ingestion	Rat	LD50 > 5,000 mg/kg
GLASS BUBBLES	Dermal		LD50 estimated to be > 5,000 mg/kg
GLASS BUBBLES	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
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
EPOXY RESIN	Dermal	Rabbit	LD50 > 6,000 mg/kg
EPOXY RESIN	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 1.7 mg/l
EPOXY RESIN	Ingestion	Rat	LD50 > 4,000 mg/kg
EPOXY RESIN	Dermal	Rat	LD50 > 1,600 mg/kg
EPOXY RESIN	Ingestion	Rat	LD50 > 1,000 mg/kg
ZINC BORATE	Dermal	Rabbit	LD50 > 5,000 mg/kg
ZINC BORATE	Inhalation-Dust/Mist	Rat	LC50 > 4.95 mg/l
ZINC BORATE	Ingestion	Rat	LD50 > 5,000 mg/kg
LIMESTONE	Dermal	Rat	LD50 > 2,000 mg/kg
LIMESTONE	Inhalation-Dust/Mist (4 hours)	Rat	LC50 3 mg/l
LIMESTONE	Ingestion	Rat	LD50 6,450 mg/kg
CALCIUM SALT	Ingestion	Rat	LD50 >300, <2000 mg/kg
CALCIUM SALT	Dermal	similar compounds	LD50 > 2,000 mg/kg
BIS[(DIMETHYLAMINO)METHYL]PHENOL	Ingestion		LD50 estimated to be 300 - 2,000 mg/kg
TREATED AMORPHOUS SILICA	Dermal	Rabbit	LD50 > 5,000 mg/kg
TREATED AMORPHOUS SILICA	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 0.691 mg/l
TREATED AMORPHOUS SILICA	Ingestion	Rat	LD50 > 5,110 mg/kg

ATE = acute toxicity estimate

**Skin Corrosion/Irritation**

Name	Species	Value
POLY(OXYPROPYLENE)DIAMINE	Rabbit	Corrosive
ALUMINA TRIHYDRATE	Rabbit	No significant irritation
GLASS BUBBLES	Professional judgement	No significant irritation
TRIS(2,4,6-DIMETHYLAMINOMONOMETHYL)PHENOL	Rabbit	Corrosive
EPOXY RESIN	Rabbit	Minimal irritation
EPOXY RESIN	Rabbit	Mild irritant

ZINC BORATE	Rabbit	No significant irritation
LIMESTONE	Rabbit	No significant irritation
CALCIUM SALT	similar compounds	No significant irritation
BIS[(DIMETHYLAMINO)METHYL]PHENOL	similar compounds	Corrosive
TREATED AMORPHOUS SILICA	Rabbit	No significant irritation

**Serious Eye Damage/Irritation**

Name	Species	Value
POLY(OXYPROPYLENE)DIAMINE	Rabbit	Corrosive
ALUMINA TRIHYDRATE	Rabbit	No significant irritation
GLASS BUBBLES	Professional judgement	No significant irritation
TRIS(2,4,6-DIMETHYLAMINOMONOMETHYL)PHENOL	Rabbit	Corrosive
EPOXY RESIN	Rabbit	Mild irritant
EPOXY RESIN	Rabbit	Moderate irritant
ZINC BORATE	Rabbit	Severe irritant
LIMESTONE	Rabbit	No significant irritation
CALCIUM SALT	Rabbit	Corrosive
BIS[(DIMETHYLAMINO)METHYL]PHENOL	similar compounds	Corrosive
TREATED AMORPHOUS SILICA	Rabbit	No significant irritation

**Skin Sensitization**

Name	Species	Value
POLY(OXYPROPYLENE)DIAMINE	Guinea pig	Not classified
ALUMINA TRIHYDRATE	Guinea pig	Not classified
TRIS(2,4,6-DIMETHYLAMINOMONOMETHYL)PHENOL	Guinea pig	Not classified
EPOXY RESIN	Human and animal	Sensitizing
EPOXY RESIN	Human and animal	Sensitizing
ZINC BORATE	Guinea pig	Not classified
CALCIUM SALT	similar compounds	Not classified
TREATED AMORPHOUS SILICA	Human and animal	Not classified

**Respiratory Sensitization**

Name	Species	Value
EPOXY RESIN	Human	Not classified

**Germ Cell Mutagenicity**

Name	Route	Value
POLY(OXYPROPYLENE)DIAMINE	In Vitro	Not mutagenic
POLY(OXYPROPYLENE)DIAMINE	In vivo	Not mutagenic
GLASS BUBBLES	In Vitro	Some positive data exist, but the data are not

		sufficient for classification
TRIS(2,4,6-DIMETHYLAMINOMONOMETHYL)PHENOL	In Vitro	Not mutagenic
EPOXY RESIN	In Vitro	Some positive data exist, but the data are not sufficient for classification
EPOXY RESIN	In vivo	Not mutagenic
EPOXY RESIN	In Vitro	Some positive data exist, but the data are not sufficient for classification
ZINC BORATE	In Vitro	Some positive data exist, but the data are not sufficient for classification
CALCIUM SALT	In Vitro	Not mutagenic
TREATED AMORPHOUS SILICA	In Vitro	Not mutagenic

**Carcinogenicity**

Name	Route	Species	Value
ALUMINA TRIHYDRATE	Not Specified	Multiple animal species	Not carcinogenic
GLASS BUBBLES	Inhalation	Multiple animal species	Some positive data exist, but the data are not sufficient for classification
EPOXY RESIN	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification
TREATED AMORPHOUS SILICA	Not Specified	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
POLY(OXYPROPYLENE)DIAMINE	Dermal	Not classified for female reproduction	Rat	NOAEL 30 mg/kg/day	prematuring & during gestation
POLY(OXYPROPYLENE)DIAMINE	Dermal	Not classified for male reproduction	Rat	NOAEL 30 mg/kg/day	prematuring & during gestation
POLY(OXYPROPYLENE)DIAMINE	Dermal	Not classified for development	Rat	NOAEL 30 mg/kg/day	prematuring & during gestation
ALUMINA TRIHYDRATE	Ingestion	Not classified for development	Rat	NOAEL 768 mg/kg/day	during organogenesis
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
ZINC BORATE	Ingestion	Toxic to male reproduction	Rat	NOAEL 100 mg/kg/day	92 days
ZINC BORATE	Ingestion	Toxic to development	Rat	LOAEL 100 mg/kg/day	during gestation
LIMESTONE	Ingestion	Not classified for development	Rat	NOAEL 625 mg/kg/day	prematuring & during gestation
CALCIUM SALT	Ingestion	Not classified for female reproduction	similar compounds	NOAEL 1,500 mg/kg/day	prematuring into lactation
CALCIUM SALT	Ingestion	Not classified for male reproduction	similar compounds	NOAEL 1,500 mg/kg/day	28 days
CALCIUM SALT	Ingestion	Not classified for development	similar	NOAEL 1,500	prematuring

			compounds	mg/kg/day	into lactation
TREATED AMORPHOUS SILICA	Ingestion	Not classified for female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation
TREATED AMORPHOUS SILICA	Ingestion	Not classified for male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
TREATED AMORPHOUS SILICA	Ingestion	Not classified for development	Rat	NOAEL 1,350 mg/kg/day	during organogenesis

**Target Organ(s)**

**Specific Target Organ Toxicity - single exposure**

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
POLY(OXYPROPYLENE)DIAMINE	Inhalation	respiratory irritation	May cause respiratory irritation	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		NOAEL Not available	
ZINC BORATE	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	
LIMESTONE	Inhalation	respiratory system	Not classified	Rat	NOAEL 0.812 mg/l	90 minutes
CALCIUM SALT	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
GLASS BUBBLES	Inhalation	respiratory system	Not classified	Human	NOAEL not available	occupational exposure
TRIS(2,4,6-DIMETHYLAMINOMONOMETHYL)PHENOL	Dermal	skin   liver   nervous system   auditory system   hematopoietic system   eyes	Not classified	Rat	NOAEL 125 mg/kg/day	28 days
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
ZINC BORATE	Inhalation	immune system   respiratory system   heart   endocrine system   hematopoietic system   liver   nervous system   kidney and/or bladder	Not classified	Rat	NOAEL 0.15 mg/l	2 weeks
ZINC BORATE	Ingestion	endocrine system   liver   kidney and/or bladder   heart   skin   bone, teeth, nails,	Not classified	Rat	NOAEL 375 mg/kg/day	92 days

		and/or hair   hematopoietic system   immune system   nervous system   eyes   respiratory system   vascular system				
LIMESTONE	Inhalation	respiratory system	Not classified	Human	NOAEL Not available	occupational exposure
CALCIUM SALT	Ingestion	heart   skin   endocrine system   bone, teeth, nails, and/or hair   hematopoietic system   liver   immune system   nervous system   eyes   kidney and/or bladder   respiratory system   vascular system	Not classified	similar compounds	NOAEL 1,500 mg/kg/day	28 days
TREATED AMORPHOUS SILICA	Inhalation	respiratory system   silicosis	Not classified	Human	NOAEL Not available	occupational exposure

**Aspiration Hazard**

Name	Value
POLY(OXYPROPYLENE)DIAMINE	Some positive data exist, but 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): D002 (Corrosive)

**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

Corrosive to metal

##### Health Hazards

Hazard Not Otherwise Classified (HNOC)

Reproductive toxicity

Respiratory or Skin Sensitization

Serious eye damage or eye irritation

Skin Corrosion or Irritation

Specific target organ toxicity (single or repeated exposure)

#### Section 313 Toxic Chemicals subject to the reporting requirements of that section and 40 CFR part 372 (EPCRA):

<u>Ingredient</u>	<u>C.A.S. No</u>	<u>% by Wt</u>
ZINC BORATE (ZINC COMPOUNDS)	1332-07-6	1 - 5
CALCIUM SALT (NITRATE COMPOUNDS (WATER DISSOCIABLE; REPORTABLE ONLY WHEN IN AQUEOUS SOLUTION))	13477-34-4	1 - 5

### 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.

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: 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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<b>Issue Date:</b>	01/08/18	<b>Supersedes Date:</b>	10/04/17

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## Safety Data Sheet

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<b>Issue Date:</b>	01/08/18	<b>Supersedes Date:</b>	06/20/17

### SECTION 1: Identification

#### 1.1. Product identifier

3M™ Scotch-Weld™ Structural Void Filling Compound EC-3550 and EC-3555 B/A FST, Part B

#### Product Identification Numbers

87-2500-0456-8, 87-2500-0483-2

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

##### Recommended use

Base for two component void filling compound

#### 1.3. Supplier's details

<b>MANUFACTURER:</b>	3M
<b>DIVISION:</b>	Automotive and Aerospace Solutions 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 2A.

Skin Corrosion/Irritation: Category 2.

Skin Sensitizer: Category 1.

Reproductive Toxicity: Category 2.

Carcinogenicity: Category 2.

#### 2.2. Label elements

##### Signal word

Warning

##### Symbols

Exclamation mark | Health Hazard |

**Pictograms****Hazard Statements**

Causes serious eye irritation.  
 Causes skin irritation.  
 May cause an allergic skin reaction.  
 Suspected of damaging fertility or the unborn child.  
 Suspected of causing 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 and eye/face protection.  
 Wash thoroughly after handling.  
 Contaminated work clothing must not be allowed out of the workplace.

**Response:**

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

2% of the mixture consists of ingredients of unknown acute oral toxicity.

2% of the mixture consists of ingredients of unknown acute dermal toxicity.

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

Ingredient	C.A.S. No.	% by Wt
EPOXY RESIN	28064-14-4	25 - 35 Trade Secret *
GLASS BUBBLES	65997-17-3	10 - 30
ALUMINA TRIHYDRATE	21645-51-2	10 - 20
EPOXY RESIN	14228-73-0	10 - 20 Trade Secret *
GRAPHITE	7782-42-5	5 - 15
EPOXY RESIN	25068-38-6	1 - 10 Trade Secret *
ZINC BORATE	1332-07-6	1 - 10 Trade Secret *
LIMESTONE	1317-65-3	1 - 5
SILANE	2530-83-8	0.1 - 5 Trade Secret *

TREATED AMORPHOUS SILICA	67762-90-7	0.5 - 5
RED PHOSPHORUS	7723-14-0	<= 3 Trade Secret *
PHOSPHORIC ACID POLYESTER	Trade Secret*	0.1 - 2
SULFURIC ACID	7664-93-9	0 - 1 Trade Secret *
NICKEL	7440-02-0	< 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:

Immediately flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. Get medical attention.

#### If Swallowed:

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

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

See Section 11.1. Information on toxicological effects.

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

Not applicable

## SECTION 5: Fire-fighting measures

### 5.1. Suitable extinguishing media

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

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

None inherent in this product.

### Hazardous Decomposition or By-Products

#### Substance

Aldehydes  
Carbon monoxide  
Carbon dioxide  
Hydrogen Chloride  
Oxides of Sulfur

#### Condition

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

Do not handle until all safety precautions have been read and understood. Avoid breathing dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse. 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.

## 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
LIMESTONE	1317-65-3	OSHA	TWA(as total dust):15 mg/m <sup>3</sup> ;TWA(respirable fraction):5 mg/m <sup>3</sup>	
Aluminum, insoluble compounds	21645-51-2	ACGIH	TWA(respirable fraction):1 mg/m <sup>3</sup>	A4: Not class. as human carcin
SILICA, AMORPHOUS	67762-90-7	OSHA	TWA concentration:0.8 mg/m <sup>3</sup> ;TWA:20 millions of particles/cu. ft.	
NICKEL	7440-02-0	ACGIH	TWA(inhalable fraction):1.5 mg/m <sup>3</sup>	A5: Not suspected human carcin
NICKEL	7440-02-0	OSHA	TWA(as Ni):1 mg/m <sup>3</sup>	
STRONG INORGANIC ACID MISTS CONTAINING SULFURIC ACID	7664-93-9	ACGIH	Limit value not established:	A2: Suspected human carcin.

SULFURIC ACID	7664-93-9	OSHA	TWA:1 mg/m3	
SULFURIC ACID	7664-93-9	ACGIH	TWA(thoracic fraction):0.2 mg/m3	
RED PHOSPHORUS	7723-14-0	OSHA	TWA:0.1 mg/m3	
GRAPHITE	7782-42-5	ACGIH	TWA(respirable fraction):2 mg/m3	
GRAPHITE	7782-42-5	OSHA	TWA:15 millions of particles/cu. ft.	
GRAPHITE SYNTHETIC	7782-42-5	OSHA	TWA(as total dust):15 mg/m3;TWA(respirable fraction):5 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

When only incidental contact is anticipated, alternative glove material(s) may be used. If contact with the glove does occur, remove immediately and replace with a set of new gloves. For incidental contact, gloves made of the following material(s) are recommended:Nitrile Rubber

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

<b>General Physical Form:</b>	Liquid
<b>Specific Physical Form:</b>	Viscous
<b>Odor, Color, Grade:</b>	Low odor, brown paste
<b>Odor threshold</b>	<i>No Data Available</i>
<b>pH</b>	<i>Not Applicable</i>
<b>Melting point</b>	<i>Not Applicable</i>
<b>Boiling Point</b>	<i>Not Applicable</i>
<b>Flash Point</b>	>=200 °F [ <i>Test Method:Closed Cup</i> ]
<b>Evaporation rate</b>	<i>No Data Available</i>
<b>Flammability (solid, gas)</b>	Not Applicable
<b>Flammable Limits(LEL)</b>	<i>Not Applicable</i>
<b>Flammable Limits(UEL)</b>	<i>Not Applicable</i>
<b>Vapor Pressure</b>	Negligible
<b>Vapor Density</b>	<i>No Data Available</i>
<b>Density</b>	0.7 g/ml
<b>Specific Gravity</b>	0.5 - 0.7 [ <i>Ref Std:WATER=1</i> ]
<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>	<i>No Data Available</i>
<b>Percent volatile</b>	Negligible

## 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

### 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 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.

Dust from cutting, grinding, sanding or machining may cause irritation of the respiratory system. Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

May cause additional health effects (see below).

#### Skin Contact:

Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, dryness, cracking, blistering, and pain.

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

#### Eye Contact:

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

Dust created by cutting, grinding, sanding, or machining may cause 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:

#### Reproductive/Developmental Toxicity:

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

#### Carcinogenicity:

Contains a chemical or chemicals which can cause cancer.

Ingredient	CAS No.	Class Description	Regulation
NICKEL	7440-02-0	Grp. 2B: Possible human carc.	International Agency for Research on Cancer
NICKEL	7440-02-0	Anticipated human carcinogen	National Toxicology Program Carcinogens

#### 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
EPOXY RESIN	Dermal	Rabbit	LD50 > 6,000 mg/kg
EPOXY RESIN	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 1.7 mg/l
EPOXY RESIN	Ingestion	Rat	LD50 > 4,000 mg/kg
GLASS BUBBLES	Dermal		LD50 estimated to be > 5,000 mg/kg
GLASS BUBBLES	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
EPOXY RESIN	Dermal	Rabbit	LD50 2,500 mg/kg
EPOXY RESIN	Ingestion	Rat	LD50 2,450 mg/kg
ALUMINA TRIHYDRATE	Dermal		LD50 estimated to be > 5,000 mg/kg
ALUMINA TRIHYDRATE	Ingestion	Rat	LD50 > 5,000 mg/kg
GRAPHITE	Dermal		LD50 estimated to be > 5,000 mg/kg
GRAPHITE	Ingestion	Rat	LD50 > 2,000 mg/kg
EPOXY RESIN	Dermal	Rat	LD50 > 1,600 mg/kg
EPOXY RESIN	Ingestion	Rat	LD50 > 1,000 mg/kg
ZINC BORATE	Dermal	Rabbit	LD50 > 5,000 mg/kg
ZINC BORATE	Inhalation-Dust/Mist	Rat	LC50 > 4.95 mg/l
ZINC BORATE	Ingestion	Rat	LD50 > 5,000 mg/kg
RED PHOSPHORUS	Dermal		LD50 estimated to be > 5,000 mg/kg
RED PHOSPHORUS	Inhalation-Dust/Mist (4 hours)	Rat	LC50 1.1 mg/l
RED PHOSPHORUS	Ingestion	Rat	LD50 > 15,000 mg/kg
LIMESTONE	Dermal	Rat	LD50 > 2,000 mg/kg
LIMESTONE	Inhalation-Dust/Mist (4 hours)	Rat	LC50 3 mg/l
LIMESTONE	Ingestion	Rat	LD50 6,450 mg/kg
SILANE	Dermal	Rabbit	LD50 4,000 mg/kg
TREATED AMORPHOUS SILICA	Dermal	Rabbit	LD50 > 5,000 mg/kg
SILANE	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 5.3 mg/l
SILANE	Ingestion	Rat	LD50 7,010 mg/kg
TREATED AMORPHOUS SILICA	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 0.691 mg/l
TREATED AMORPHOUS SILICA	Ingestion	Rat	LD50 > 5,110 mg/kg
NICKEL	Dermal		LD50 estimated to be > 5,000 mg/kg
NICKEL	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 2.55 mg/l
NICKEL	Ingestion	Rat	LD50 > 9,000 mg/kg

ATE = acute toxicity estimate

**Skin Corrosion/Irritation**

Name	Species	Value
EPOXY RESIN	Rabbit	Minimal irritation
GLASS BUBBLES	Professional judgement	No significant irritation
EPOXY RESIN	Professional judgement	Mild irritant
ALUMINA TRIHYDRATE	Rabbit	No significant irritation



GRAPHITE	Rabbit	No significant irritation
EPOXY RESIN	Rabbit	Mild irritant
ZINC BORATE	Rabbit	No significant irritation
LIMESTONE	Rabbit	No significant irritation
SILANE	Rabbit	Mild irritant
TREATED AMORPHOUS SILICA	Rabbit	No significant irritation
NICKEL	Rabbit	Minimal irritation

**Serious Eye Damage/Irritation**

Name	Species	Value
EPOXY RESIN	Rabbit	Mild irritant
GLASS BUBBLES	Professional judgement	No significant irritation
EPOXY RESIN	Professional judgement	Mild irritant
ALUMINA TRIHYDRATE	Rabbit	No significant irritation
GRAPHITE	Rabbit	No significant irritation
EPOXY RESIN	Rabbit	Moderate irritant
ZINC BORATE	Rabbit	Severe irritant
LIMESTONE	Rabbit	No significant irritation
SILANE	Rabbit	Corrosive
TREATED AMORPHOUS SILICA	Rabbit	No significant irritation
NICKEL	Rabbit	Mild irritant

**Skin Sensitization**

Name	Species	Value
EPOXY RESIN	Human and animal	Sensitizing
EPOXY RESIN	similar compounds	Sensitizing
ALUMINA TRIHYDRATE	Guinea pig	Not classified
EPOXY RESIN	Human and animal	Sensitizing
ZINC BORATE	Guinea pig	Not classified
SILANE	Guinea pig	Not classified
TREATED AMORPHOUS SILICA	Human and animal	Not classified
NICKEL	Human	Sensitizing

**Respiratory Sensitization**

Name	Species	Value
EPOXY RESIN	Human	Not classified

**Germ Cell Mutagenicity**

Name	Route	Value
EPOXY RESIN	In Vitro	Some positive data exist, but the data are not sufficient for classification
GLASS BUBBLES	In Vitro	Some positive data exist, but the data are not sufficient for classification

GRAPHITE	In Vitro	Some positive data exist, but the data are not sufficient for classification
EPOXY RESIN	In vivo	Not mutagenic
EPOXY RESIN	In Vitro	Some positive data exist, but the data are not sufficient for classification
ZINC BORATE	In Vitro	Some positive data exist, but the data are not sufficient for classification
SILANE	In vivo	Not mutagenic
SILANE	In Vitro	Some positive data exist, but the data are not sufficient for classification
TREATED AMORPHOUS SILICA	In Vitro	Not mutagenic

### Carcinogenicity

Name	Route	Species	Value
GLASS BUBBLES	Inhalation	Multiple animal species	Some positive data exist, but the data are not sufficient for classification
ALUMINA TRIHYDRATE	Not Specified	Multiple animal species	Not carcinogenic
EPOXY RESIN	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification
SILANE	Dermal	Mouse	Not carcinogenic
TREATED AMORPHOUS SILICA	Not Specified	Mouse	Some positive data exist, but the data are not sufficient for classification
NICKEL	Inhalation	similar compounds	Carcinogenic

### Reproductive Toxicity

#### Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test Result	Exposure Duration
ALUMINA TRIHYDRATE	Ingestion	Not classified for development	Rat	NOAEL 768 mg/kg/day	during organogenesis
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
ZINC BORATE	Ingestion	Toxic to male reproduction	Rat	NOAEL 100 mg/kg/day	92 days
ZINC BORATE	Ingestion	Toxic to development	Rat	LOAEL 100 mg/kg/day	during gestation
LIMESTONE	Ingestion	Not classified for development	Rat	NOAEL 625 mg/kg/day	prematuring & during gestation
SILANE	Ingestion	Not classified for female reproduction	Rat	NOAEL 1,000 mg/kg/day	1 generation
SILANE	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,000 mg/kg/day	1 generation
SILANE	Ingestion	Not classified for development	Rat	NOAEL 3,000 mg/kg/day	during organogenesis
TREATED AMORPHOUS SILICA	Ingestion	Not classified for female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation
TREATED AMORPHOUS SILICA	Ingestion	Not classified for male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
TREATED AMORPHOUS SILICA	Ingestion	Not classified for development	Rat	NOAEL 1,350	during

				mg/kg/day	organogenesis
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**Target Organ(s)****Specific Target Organ Toxicity - single exposure**

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
EPOXY RESIN	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		NOAEL Not available	
ZINC BORATE	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	
LIMESTONE	Inhalation	respiratory system	Not classified	Rat	NOAEL 0.812 mg/l	90 minutes

**Specific Target Organ Toxicity - repeated exposure**

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
GLASS BUBBLES	Inhalation	respiratory system	Not classified	Human	NOAEL not available	occupational exposure
GRAPHITE	Inhalation	pneumoconiosis	Not classified	Human	NOAEL Not available	occupational exposure
EPOXY RESIN	Dermal	liver	Not classified	Rat	NOAEL 1,000 mg/kg/day	2 years
EPOXY RESIN	Dermal	nervous system	Not classified	Rat	NOAEL 1,000 mg/kg/day	13 weeks
EPOXY RESIN	Ingestion	auditory system   heart   endocrine system   hematopoietic system   liver   eyes   kidney and/or bladder	Not classified	Rat	NOAEL 1,000 mg/kg/day	28 days
ZINC BORATE	Inhalation	immune system   respiratory system   heart   endocrine system   hematopoietic system   liver   nervous system   kidney and/or bladder	Not classified	Rat	NOAEL 0.15 mg/l	2 weeks
ZINC BORATE	Ingestion	endocrine system   liver   kidney and/or bladder   heart   skin   bone, teeth, nails, and/or hair   hematopoietic system   immune system   nervous system   eyes   respiratory system   vascular system	Not classified	Rat	NOAEL 375 mg/kg/day	92 days
LIMESTONE	Inhalation	respiratory system	Not classified	Human	NOAEL Not available	occupational exposure
SILANE	Ingestion	heart   endocrine system   bone, teeth, nails, and/or hair   hematopoietic system   liver   immune system   nervous system	Not classified	Rat	NOAEL 1,000 mg/kg/day	28 days

		kidney and/or bladder   respiratory system				
TREATED AMORPHOUS SILICA	Inhalation	respiratory system   silicosis	Not classified	Human	NOAEL Not available	occupational exposure
NICKEL	Inhalation	respiratory system	Causes damage to organs through prolonged or repeated exposure	Rat	LOAEL 0.001 mg/l	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

Reproductive toxicity

Respiratory or Skin Sensitization

Serious eye damage or eye irritation

Skin Corrosion or Irritation

**Section 313 Toxic Chemicals subject to the reporting requirements of that section and 40 CFR part 372 (EPCRA):**

<u>Ingredient</u>	<u>C.A.S. No</u>	<u>% by Wt</u>
ZINC BORATE (ZINC COMPOUNDS)	1332-07-6	1 - 10
RED PHOSPHORUS	7723-14-0	Trade Secret <= 3
SULFURIC ACID (Sulfuric acid)	7664-93-9	0 - 1
NICKEL	7440-02-0	Trade Secret < 0.5

**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.

Contact 3M for more information.

**15.4. International Regulations**

Contact 3M for more information.

<b>This SDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.</b>
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**SECTION 16: Other information****NFPA Hazard Classification****Health:** 2 **Flammability:** 1 **Instability:** 0 **Special Hazards:** None

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

<b>Document Group:</b>	29-2175-7	<b>Version Number:</b>	5.01
<b>Issue Date:</b>	01/08/18	<b>Supersedes Date:</b>	06/20/17

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<b>Document Group:</b>	11-3183-8	<b>Version Number:</b>	12.01
<b>Issue Date:</b>	08/07/19	<b>Supersedes Date:</b>	05/31/18

### Product identifier

3M™ Scotch-Weld™ EC-3524 B/A Void Filling Compound

### ID Number(s):

62-3524-6701-3, 87-3300-0181-6, 87-3300-0661-7, 87-3300-0662-5

7000000862, 7010304413

### Recommended use

Adhesive, Void Filling Compound

### Supplier's details

<b>MANUFACTURER:</b>	3M
<b>DIVISION:</b>	Automotive and Aerospace Solutions Division International Operations
<b>ADDRESS:</b>	3M Center, St. Paul, MN 55144-1000, USA
<b>Telephone:</b>	1-888-3M HELPS (1-888-364-3577)

### Emergency telephone number

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

**This product is a kit or a multipart product which consists of multiple, independently packaged components. A Safety Data Sheet (SDS), Article Information Sheet (AIS), or Article Information Letter (AIL) 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:**

10-4959-2, 10-4960-0

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<b>Document Group:</b>	10-4959-2	<b>Version Number:</b>	27.01
<b>Issue Date:</b>	07/15/19	<b>Supersedes Date:</b>	05/21/18

### SECTION 1: Identification

#### 1.1. Product identifier

3M™ Scotch-Weld™ Void Filling Compound EC-3524 B/A Blue, Part B

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

##### Recommended use

Base of 2-Part Void Filling Adhesive

#### 1.3. Supplier's details

<b>MANUFACTURER:</b>	3M
<b>DIVISION:</b>	Automotive and Aerospace Solutions 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 2.

Specific Target Organ Toxicity (repeated exposure): Category 1.

#### 2.2. Label elements

##### Signal word

Danger

##### Symbols

Exclamation mark | Health Hazard |

##### Pictograms

**Hazard Statements**

Causes eye irritation.  
 May cause an allergic skin reaction.  
 Suspected of causing cancer.

Causes damage to organs through prolonged or repeated exposure:  
 skin |

May cause damage to organs through prolonged or repeated exposure:  
 respiratory system |

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

Obtain special instructions before use.  
 Do not handle until all safety precautions have been read and understood.  
 Do not breathe dust/fume/gas/mist/vapors/spray.  
 Wear protective gloves.  
 Do not eat, drink or smoke when using this product.  
 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	25085-99-8	40 - 70 Trade Secret *
Glass Bubbles	65997-17-3	10 - 30
Brominated Aliphatic Polyol Polyepoxy Resin	31452-80-9	10 - 30 Trade Secret *
Antimony Trioxide	1309-64-4	1 - 5 Trade Secret *
Blue Dye	14233-37-5	< 0.1

\*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 flammable liquids such as dry chemical or carbon dioxide to extinguish.

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

None inherent in this product.

### Hazardous Decomposition or By-Products

**Substance**

Carbon monoxide  
Carbon dioxide  
Hydrogen Bromide  
Oxides of Antimony

**Condition**

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

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 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
ANTIMONY COMPOUNDS	1309-64-4	ACGIH	TWA(as Sb):0.5 mg/m <sup>3</sup>	
ANTIMONY COMPOUNDS	1309-64-4	OSHA	TWA(as Sb):0.5 mg/m <sup>3</sup>	
Glass Bubbles	65997-17-3	Manufacturer determined	TWA(as non-fibrous, inhalable fraction)(8 hours):10 mg/m <sup>3</sup> ;TWA(as non-fibrous, respirable)(8 hours):3 mg/m <sup>3</sup>	

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

When only incidental contact is anticipated, alternative glove material(s) may be used. If contact with the glove does occur, remove immediately and replace with a set of new gloves. For incidental contact, gloves made of the following material(s) may be used: Nitrile Rubber

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

<b>General Physical Form:</b>	Liquid
<b>Specific Physical Form:</b>	Paste
<b>Odor, Color, Grade:</b>	Blue, characteristic epoxy odor.
<b>Odor threshold</b>	<i>No Data Available</i>
<b>pH</b>	<i>Not Applicable</i>
<b>Melting point</b>	<i>Not Applicable</i>
<b>Boiling Point</b>	>=200 °F
<b>Flash Point</b>	>=200 °F [ <i>Test Method</i> :Closed Cup]
<b>Evaporation rate</b>	<i>Not Applicable</i>
<b>Flammability (solid, gas)</b>	Not Applicable
<b>Flammable Limits(LEL)</b>	<i>Not Applicable</i>
<b>Flammable Limits(UEL)</b>	<i>Not Applicable</i>
<b>Vapor Pressure</b>	<i>Not Applicable</i>
<b>Vapor Density</b>	<i>Not Applicable</i>
<b>Density</b>	0.54 g/ml
<b>Specific Gravity</b>	0.54 [ <i>Ref Std</i> :WATER=1]
<b>Solubility in Water</b>	Nil
<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>	>=100,000 centipoise [ <i>@</i> 73.4 °F ]
<b>Molecular weight</b>	<i>Not Applicable</i>

<b>Volatile Organic Compounds</b>	<i>Not Applicable</i>
<b>Percent volatile</b>	0.0 % weight
<b>VOC Less H2O &amp; Exempt Solvents</b>	<i>Not Applicable</i>

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

This material is considered to be non reactive under normal use conditions.

### 10.2. Chemical stability

Stable.

### 10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

### 10.4. Conditions to avoid

Not determined

### 10.5. Incompatible materials

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 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.

Dust from cutting, grinding, sanding or machining may cause irritation of the respiratory system. Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

May cause additional health effects (see below).

#### Skin Contact:

Mild Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, and dryness. Allergic Skin Reaction

(non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

May cause additional health effects (see below).

**Eye Contact:**

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

Dust created by cutting, grinding, sanding, or machining may cause 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.

**Additional Health Effects:**

**Prolonged or repeated exposure may cause target organ effects:**

Fibrosis: Signs/symptoms may include breathlessness, chronic dry cough, phlegm production, wheezing, and changes in lung function tests.

Dermal Effects: Signs/symptoms may include redness, itching, acne, or bumps on the skin.

**Carcinogenicity:**

Contains a chemical or chemicals which can cause cancer.

Ingredient	CAS No.	Class Description	Regulation
Antimony Trioxide	1309-64-4	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
Brominated Aliphatic Polyol Polyepoxy Resin	Dermal		LD50 estimated to be > 5,000 mg/kg
Brominated Aliphatic Polyol Polyepoxy Resin	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
Glass Bubbles	Dermal		LD50 estimated to be > 5,000 mg/kg
Glass Bubbles	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
Antimony Trioxide	Dermal	Rabbit	LD50 > 6,685 mg/kg
Antimony Trioxide	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 2.76 mg/l
Antimony Trioxide	Ingestion	Rat	LD50 > 34,600 mg/kg

ATE = acute toxicity estimate

**Skin Corrosion/Irritation**

Name	Species	Value
Epoxy Resin	Rabbit	Mild irritant
Brominated Aliphatic Polyol Polyepoxy Resin	Professional judgement	Mild irritant
Glass Bubbles	Professional judgement	No significant irritation

Antimony Trioxide	nt Human and animal	Minimal irritation
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**Serious Eye Damage/Irritation**

Name	Species	Value
Epoxy Resin	Rabbit	Moderate irritant
Brominated Aliphatic Polyol Polyepoxy Resin	Professional judgement	Moderate irritant
Glass Bubbles	Professional judgement	No significant irritation
Antimony Trioxide	Rabbit	Mild irritant

**Skin Sensitization**

Name	Species	Value
Epoxy Resin	Human and animal	Sensitizing
Brominated Aliphatic Polyol Polyepoxy Resin	similar compounds	Sensitizing
Antimony Trioxide	Human	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
Glass Bubbles	In Vitro	Some positive data exist, but the data are not sufficient for classification
Antimony Trioxide	In Vitro	Some positive data exist, but the data are not sufficient for classification
Antimony Trioxide	In vivo	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
Glass Bubbles	Inhalation	Multiple animal species	Some positive data exist, but the data are not sufficient for classification
Antimony Trioxide	Inhalation	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
Antimony Trioxide	Inhalation	Not classified for female reproduction	Rat	LOAEL 0.25 mg/l	prematuring & during gestation

**Target Organ(s)**

**Specific Target Organ Toxicity - single exposure**

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Antimony Trioxide	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		NOAEL Not available	

**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
Glass Bubbles	Inhalation	respiratory system	Not classified	Human	NOAEL not available	occupational exposure
Antimony Trioxide	Dermal	skin	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	occupational exposure
Antimony Trioxide	Inhalation	pulmonary fibrosis	May cause damage to organs through prolonged or repeated exposure	Rat	NOAEL 0.002 mg/l	1 years
Antimony Trioxide	Inhalation	liver	Not classified	Rat	NOAEL 0.043 mg/l	1 years
Antimony Trioxide	Inhalation	blood	Not classified	Rat	NOAEL 0.004 mg/l	not available
Antimony Trioxide	Inhalation	pneumoconiosis	Not classified	Human	LOAEL 0.01 mg/l	occupational exposure
Antimony Trioxide	Inhalation	heart	Not classified	Rat	NOAEL 0.02 mg/l	1 years
Antimony Trioxide	Ingestion	blood   liver	Not classified	Rat	NOAEL 418 mg/kg/day	not available
Antimony Trioxide	Ingestion	heart	Not classified	Rat	NOAEL Not available	not available

**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

Specific target organ toxicity (single or repeated exposure)

**Section 313 Toxic Chemicals subject to the reporting requirements of that section and 40 CFR part 372 (EPCRA):**

<u>Ingredient</u>	<u>C.A.S. No</u>	<u>% by Wt</u>
Antimony Trioxide (ANTIMONY COMPOUNDS)	1309-64-4	1 - 5

## 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: 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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## Safety Data Sheet

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<b>Issue Date:</b>	07/15/19	<b>Supersedes Date:</b>	05/31/18

### SECTION 1: Identification

#### 1.1. Product identifier

3M™ Scotch-Weld™ Void Filling Compound EC-3524 B/A Blue, Part A

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

##### Recommended use

Part A of 2-Part Void Filling Compound, Industrial use

#### 1.3. Supplier's details

<b>MANUFACTURER:</b>	3M
<b>DIVISION:</b>	Automotive and Aerospace Solutions 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 1.  
Skin Corrosion/Irritation: Category 2.  
Skin Sensitizer: Category 1A.  
Reproductive Toxicity: Category 1B.  
Specific Target Organ Toxicity (repeated exposure): Category 2.

#### 2.2. Label elements

##### Signal word

Danger

##### Symbols

Corrosion | Exclamation mark | Health Hazard |

##### Pictograms

**Hazard Statements**

Causes serious eye damage.

Causes skin irritation.

May cause an allergic skin reaction.

May damage fertility or the unborn child.

May cause damage to organs through prolonged or repeated exposure:  
nervous system |

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

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Do not breathe dust/fume/gas/mist/vapors/spray.

Wear protective gloves and eye/face protection.

Wash thoroughly after handling.

Contaminated work clothing must not be allowed out of the workplace.

**Response:**

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

IF ON SKIN: Wash with plenty of soap and water.

Immediately call a POISON CENTER or doctor/physician.

If skin irritation or rash occurs: Get medical advice/attention.

Take off contaminated clothing and wash it 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.

**Supplemental Information:**

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

47% of the mixture consists of ingredients of unknown acute oral toxicity.

47% of the mixture consists of ingredients of unknown acute dermal toxicity.

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

Ingredient	C.A.S. No.	% by Wt
Aliphatic Polymer Diamine	68911-25-1	30 - 60 Trade Secret *
Flame Retardant	13560-89-9	10 - 30
Glass Bubbles	65997-17-3	10 - 30
2,4,6-tris(Dimethylamino)Methyl Phenol	90-72-2	5 - 10 Trade Secret *
bis(3-Aminopropyl) Ether of Diethylene Glycol	4246-51-9	5 - 10 Trade Secret *

Triphenyl Phosphite	101-02-0	1 - 5 Trade Secret *
Toluene	108-88-3	< 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:**

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. 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

Closed containers exposed to heat from fire may build pressure and explode.

### Hazardous Decomposition or By-Products

Substance

Carbon monoxide  
Carbon dioxide  
Hydrogen Chloride

Condition

During Combustion  
During Combustion  
During Combustion

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

Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture. 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.

### 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.

## 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 acids. Store away from strong bases. Store away from oxidizing agents. Store away from amines.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Occupational exposure limits

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

Ingredient	C.A.S. No.	Agency	Limit type	Additional Comments
Toluene	108-88-3	ACGIH	TWA:20 ppm	A4: Not class. as human carcin
Toluene	108-88-3	OSHA	TWA:200 ppm;CEIL:300 ppm	
Glass Bubbles	65997-17-3	Manufacturer determined	TWA(as non-fibrous, inhalable fraction)(8 hours):10 mg/m <sup>3</sup> ;TWA(as non-fibrous, respirable)(8 hours):3 mg/m <sup>3</sup>	

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:

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: Fluoroelastomer  
Polymer laminate

When only incidental contact is anticipated, alternative glove material(s) may be used. If contact with the glove does occur, remove immediately and replace with a set of new gloves. For incidental contact, gloves made of the following material(s) may be used: Nitrile Rubber

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

<b>General Physical Form:</b>	Liquid
<b>Specific Physical Form:</b>	Paste
<b>Odor, Color, Grade:</b>	White, characteristic amine odor.
<b>Odor threshold</b>	<i>No Data Available</i>
<b>pH</b>	<i>Not Applicable</i>
<b>Melting point</b>	<i>No Data Available</i>
<b>Boiling Point</b>	>=200 °F
<b>Flash Point</b>	>=200 °F [ <i>Test Method: Closed Cup</i> ]
<b>Evaporation rate</b>	<i>Not Applicable</i>
<b>Flammability (solid, gas)</b>	Not Applicable
<b>Flammable Limits(LEL)</b>	<i>Not Applicable</i>
<b>Flammable Limits(UEL)</b>	<i>Not Applicable</i>
<b>Vapor Pressure</b>	<i>Not Applicable</i>
<b>Vapor Density</b>	<i>Not Applicable</i>
<b>Density</b>	0.5 g/ml



Specific Gravity	0.5 [Ref Std: WATER=1]
Solubility in Water	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
Viscosity	>=100,000 centipoise [@ 73.4 °F ]
Molecular weight	Not Applicable
Volatile Organic Compounds	Not Applicable
Percent volatile	Negligible
VOC Less H2O & Exempt Solvents	Not Applicable

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

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

### 10.2. Chemical stability

Stable.

### 10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

### 10.4. Conditions to avoid

Not determined

### 10.5. Incompatible materials

Amines  
Strong acids  
Strong bases  
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 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.

Dust from cutting, grinding, sanding or machining may cause irritation of the respiratory system. Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

May cause additional health effects (see below).

**Skin Contact:**

Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, dryness, cracking, blistering, and pain.

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

**Eye Contact:**

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.

Dust created by cutting, grinding, sanding, or machining may cause eye irritation. Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

**Ingestion:**

May be harmful if swallowed.

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

May cause additional health effects (see below).

**Additional Health Effects:****Prolonged or repeated exposure may cause target organ effects:**

Neurological Effects: Signs/symptoms may include personality changes, lack of coordination, sensory loss, tingling or numbness of the extremities, weakness, tremors, and/or changes in blood pressure and heart rate.

**Reproductive/Developmental Toxicity:**

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

**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 >5,000 mg/kg
Overall product	Ingestion		No data available; calculated ATE 2,000 - 5,000 mg/kg
Glass Bubbles	Dermal		LD50 estimated to be > 5,000 mg/kg
Glass Bubbles	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
Flame Retardant	Dermal	Rabbit	LD50 > 8,000 mg/kg
Flame Retardant	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 2.25 mg/l
Flame Retardant	Ingestion	Rat	LD50 > 25,000 mg/kg
bis(3-Aminopropyl) Ether of Diethylene Glycol	Dermal	Rabbit	LD50 2,500 mg/kg
bis(3-Aminopropyl) Ether of Diethylene Glycol	Ingestion	Rat	LD50 3,160 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

Triphenyl Phosphite	Dermal	Rabbit	LD50 > 2,000 mg/kg
Triphenyl Phosphite	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 1.7 mg/l
Triphenyl Phosphite	Ingestion	Rat	LD50 1,590 mg/kg
Toluene	Dermal	Rat	LD50 12,000 mg/kg
Toluene	Inhalation-Vapor (4 hours)	Rat	LC50 30 mg/l
Toluene	Ingestion	Rat	LD50 5,550 mg/kg

ATE = acute toxicity estimate

**Skin Corrosion/Irritation**

Name	Species	Value
Overall product	In vitro data	Irritant
Aliphatic Polymer Diamine	Rabbit	Irritant
Glass Bubbles	Professional judgement	No significant irritation
bis(3-Aminopropyl) Ether of Diethylene Glycol	Rabbit	Corrosive
2,4,6-tris(Dimethylamino)Methyl Phenol	Rabbit	Corrosive
Triphenyl Phosphite	Rabbit	Irritant
Toluene	Rabbit	Irritant

**Serious Eye Damage/Irritation**

Name	Species	Value
Aliphatic Polymer Diamine	similar health hazards	Corrosive
Glass Bubbles	Professional judgement	No significant irritation
bis(3-Aminopropyl) Ether of Diethylene Glycol	similar health hazards	Corrosive
2,4,6-tris(Dimethylamino)Methyl Phenol	Rabbit	Corrosive
Triphenyl Phosphite	Rabbit	Moderate irritant
Toluene	Rabbit	Moderate irritant

**Skin Sensitization**

Name	Species	Value
Aliphatic Polymer Diamine	Guinea pig	Sensitizing
2,4,6-tris(Dimethylamino)Methyl Phenol	Guinea pig	Not classified
Triphenyl Phosphite	Mouse	Sensitizing
Toluene	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
Glass Bubbles	In Vitro	Some positive data exist, but the data are not sufficient for classification
2,4,6-tris(Dimethylamino)Methyl Phenol	In Vitro	Not mutagenic

Toluene	In Vitro	Not mutagenic
Toluene	In vivo	Not mutagenic

**Carcinogenicity**

Name	Route	Species	Value
Glass Bubbles	Inhalation	Multiple animal species	Some positive data exist, but the data are not sufficient for classification
Toluene	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification
Toluene	Ingestion	Rat	Some positive data exist, but the data are not sufficient for classification
Toluene	Inhalation	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
Toluene	Inhalation	Not classified for female reproduction	Human	NOAEL Not available	occupational exposure
Toluene	Inhalation	Not classified for male reproduction	Rat	NOAEL 2.3 mg/l	1 generation
Toluene	Ingestion	Toxic to development	Rat	LOAEL 520 mg/kg/day	during gestation
Toluene	Inhalation	Toxic to development	Human	NOAEL Not available	poisoning and/or abuse

**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		NOAEL Not available	
2,4,6-tris(Dimethylamino)Methyl Phenol	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		NOAEL Not available	
Toluene	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
Toluene	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
Toluene	Inhalation	immune system	Not classified	Mouse	NOAEL 0.004 mg/l	3 hours
Toluene	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	poisoning and/or abuse

**Specific Target Organ Toxicity - repeated exposure**

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Glass Bubbles	Inhalation	respiratory system	Not classified	Human	NOAEL not available	occupational exposure
2,4,6-tris(Dimethylamino)Methyl Phenol	Dermal	skin   liver   nervous system   auditory system   hematopoietic system   eyes	Not classified	Rat	NOAEL 125 mg/kg/day	28 days
Triphenyl Phosphite	Ingestion	nervous system	May cause damage to organs though prolonged or repeated exposure	Rat	NOAEL 15 mg/kg/day	28 days
Toluene	Inhalation	auditory system	Causes damage to organs through	Human	NOAEL Not	poisoning

		eyes   olfactory system	prolonged or repeated exposure		available	and/or abuse
Toluene	Inhalation	nervous system	May cause damage to organs though prolonged or repeated exposure	Human	NOAEL Not available	poisoning and/or abuse
Toluene	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 2.3 mg/l	15 months
Toluene	Inhalation	heart   liver   kidney and/or bladder	Not classified	Rat	NOAEL 11.3 mg/l	15 weeks
Toluene	Inhalation	endocrine system	Not classified	Rat	NOAEL 1.1 mg/l	4 weeks
Toluene	Inhalation	immune system	Not classified	Mouse	NOAEL Not available	20 days
Toluene	Inhalation	bone, teeth, nails, and/or hair	Not classified	Mouse	NOAEL 1.1 mg/l	8 weeks
Toluene	Inhalation	hematopoietic system   vascular system	Not classified	Human	NOAEL Not available	occupational exposure
Toluene	Inhalation	gastrointestinal tract	Not classified	Multiple animal species	NOAEL 11.3 mg/l	15 weeks
Toluene	Ingestion	heart	Not classified	Rat	NOAEL 2,500 mg/kg/day	13 weeks
Toluene	Ingestion	liver   kidney and/or bladder	Not classified	Multiple animal species	NOAEL 2,500 mg/kg/day	13 weeks
Toluene	Ingestion	hematopoietic system	Not classified	Mouse	NOAEL 600 mg/kg/day	14 days
Toluene	Ingestion	endocrine system	Not classified	Mouse	NOAEL 105 mg/kg/day	28 days
Toluene	Ingestion	immune system	Not classified	Mouse	NOAEL 105 mg/kg/day	4 weeks

**Aspiration Hazard**

Name	Value
Toluene	Aspiration hazard

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.

## SECTION 14: Transport Information

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

## SECTION 15: Regulatory information

### 15.1. US Federal Regulations

Contact 3M for more information.

#### EPCRA 311/312 Hazard Classifications:

##### Physical Hazards

Not applicable

##### Health Hazards

Reproductive toxicity

Respiratory or Skin Sensitization

Serious eye damage or eye irritation

Skin Corrosion or Irritation

Specific target organ toxicity (single or repeated exposure)

### 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:** 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.

**Document Group:** 10-4960-0 **Version Number:** 30.01  
**Issue Date:** 07/15/19 **Supersedes Date:** 05/31/18

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# Scotch-Weld™

## Structural Void Filling Compound

### 3550 B/A FST

Technical Datasheet

March 2009

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#### Product Description

3M™ Scotch-Weld™ Structural Void Filling Compound 3550 B/A FST (Fire Smoke Toxicity) is a two-part, low-density, flame-retardant epoxy compound that can be stored, applied, and cured at room temperature. Scotch-Weld 3550 B/A FST Compound can be used for void-filling, edge-sealing, and complex gap-filling. The cured material has meets FAR 25.853 (a) (d) and offers excellent water and chemical resistance. It is designed for both metal and non metal honeycomb sandwich constructions which are typically found in aircraft interior structures such as galley structures, luggage bins, partition walls, lavatory structures, crew rest compartments, seating structures, ceiling panels, doghouses, sidewall panels, cargo bay panels, bar units, coatrooms and passenger doors. In these applications the Scotch-Weld 3550 B/A FST Compound is used for honeycomb sandwich structures as edge close-out, corner reinforcement, and local reinforcement for mechanical fixation or complex gap-filling.

Material is available in 15L and 60L kits for use with bulk pumping equipment, and also comes in cartridge form for gap-filling.

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#### Features

- 100% solids
- Base is brown with black spots; accelerator is off-white
- Meets the flammability requirements of J.A.R./F.A.R. 25.853 (a) (d)
- Meets stand alone FST requirement
- Availability in duo-pack cartridges with static mixing nozzle or in bulk pumpable kits
- Thixotropic properties for ease of application
- Good sag resistance
- Sandable & machinable within twelve hours at 75°F (23°C) of mixing or 1/2 hour at 175°F (80°C)
- Cures to a strong, low-density material within 48 hours at 75°F (24°C) or one hour at 175°F (80°C)
- Service temperature of -65°F to 212°F (-55°C to 100°C)
- Seals honeycomb panel edges and provides impact resistance to panel
- Paintable



**3M™ Scotch-Weld™**  
**Structural Void Filling Compound 3550 B/A FST**  
 Technical Datasheet

**Product Description & Properties**

	<b>Scotch-Weld 3550 B/A FST Part B or Brown with black spots Part B (Base)</b>	<b>Scotch-Weld 3550 B/A FST Part A or Off-white Part A (Accelerator)</b>
<b>Chemistry</b>	epoxy	modified amine
<b>Color</b>	brown with black spots	off- white
<b>Typical Uncured Density</b>	0.57 ± 0.03 g/cc	0.59 ± 0.03 g/cc
<b>Consistency</b>	thixotropic paste	
<b>Mix Ratio</b>	100:50cc by volume; 100:52g by weight	
<b>Solid Content</b>	100%	
<b>Application Method</b>	automatic / manual	
<b>Typical Mixed Pot Life</b>	120 min @ 73°F (23°C)	
<b>Curing Process</b>	Room temperature 73°F (23°C); max. 176°F (80°C)	
<b>Form Stability (10g mixture)</b>	9h @ 73°F (23°C), or 0.5h @ 176°F (80°C)	
<b>Final Strength (10g mixture)</b>	48h @ 73°F (23°C), or 1h @ 176°F (80°C)	
<b>Volatile Loss on Cure</b>	less than 0.1%	
<b>Slump/Sag (AITM 2-0033)</b>	less than 0.02" (0.5mm)	
<b>Service Temperature Range</b>	-67°F to 212°F (-55°C to 100°C)	
<b>Ejection Test (MSRR9903 n°6) @ 73°F (23°C)</b>	940 PSI (6.5 MPa)	
<b>Packaging Units</b>	400 ml duopack cartridge, 15l Kit, 60l Kit	

# 3M™ Scotch-Weld™ Structural Void Filling Compound 3550 B/A FST Technical Datasheet

## Typical Product Performance

**Note:** The following technical information and data should be considered representative or typical only and should not be used for specification purposes. The following mechanical and physical data is based on Scotch-Weld 3550 B/A FST Compound.

## Physical Properties

### Thermal expansion:

The low-density void-filler was manually mixed and carefully filled into mold with inner dimensions of approximately 2" x 2" x 8" (50 x 50 x 200 mm). Filler block was cured 14 days at 74°F (23 ± 2°C). The block was machine milled into 20 individual specimens of dimensions 0.3" x 0.3" x 0.6" (7 x 7 x 15 mm) with a tolerance of ± 0.004" (± 0.1 mm). The coefficient of thermal expansion (C.T.E.) was then determined per ASTM E-831 test method using a PerkinElmer® thermo-mechanical analyzer (PerkinElmer, Waltham, MA)\* After cold stabilization at -40°F (-40°C), three specimens of each lot were scanned at a rate of 2°C/min from -40°F to 392°F (-40°C to 200°C). The coefficient of thermal expansion was determined on the two linear portions of the curve below and above the glass transition temperature of the product.

### Exothermicity:

Round cups were filled with approximately 3.5 oz (100 grams) of the void-filler. A thermocouple was placed in the center of the void-filler. Cure cycle is 74°F (23 ± 2°C) during 14 hours.

### Cured density:

The cured density was determined on individual specimens cut from a cured block of void-filler with a band saw. The density was calculated by dividing the mass of the specimen by its measured volume. The density was expressed in g/cc.

### Volatiles test:

Approximately 1 oz (30 grams) of the void-filler was spread onto a circular surface of a metal pan having a diameter of about 3.3" or 85 mm. After weighing the specimens, they were cured 48h @ 74°F (23 ± 2°C) and then reweighed.

Properties	Test Method	Average
Thermal Expansion	ASTM E-831	1.1E-04 /°C @ 14 to 176°F (-10 to 80°C)
		1.4E-04 /°C @ 176 to 410°F (80 to 210°C)
Extrudability	AITM 7-0003 (B) (see 4.3.8.6)	3.0 oz/min (85 g/min)
Exothermicity	AIMS 10-03-000 (4.2.8.3) ΔT	7.5°F (4.5°C)
Cured Density	ISO 1183	0.57 ± 0.05 g/cc
Volatile Content	AIMS 10-03-000 (4.2.8.1)	0.03 %

### DSC Scan:

#### Tooling

- DSC Q2000 from TA Instruments with auto sampler and RCS cooling system.
- Two point calibration with Indium and water.
- The sample head was flushed with nitrogen gas, 25ml/min purge rate.

#### Sample Preparation

For the measurement of the fresh mixed sample: part of the fresh mixed paste was weighed into a hermetic Al pan. The rest of the mixed paste was stored at RT in the lab and used for the measurement after 2 days & 7 days. For these samples: parts of the hard brittle material was cut out and weighed on an Al pan with holes in the lid.

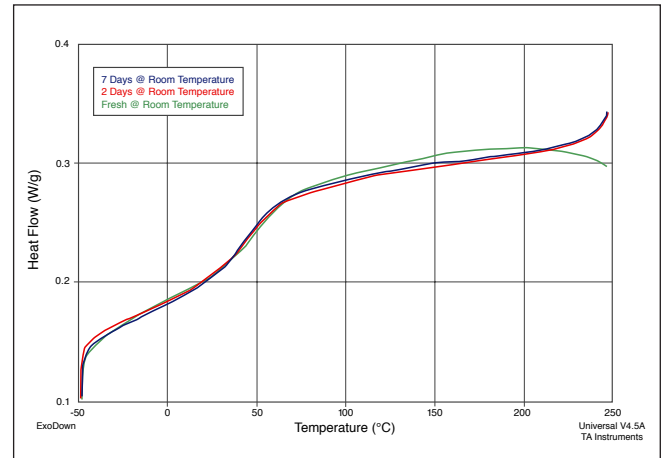
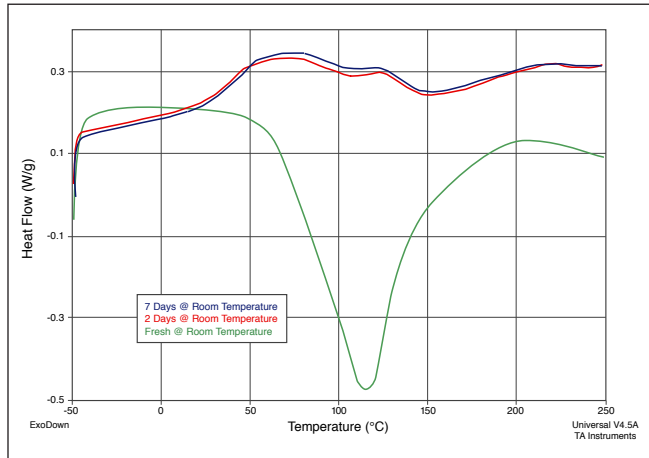
#### Program Steps

- (1) Equilibrate at -50°C
- (2) Ramp 10°C/min to 250°C
- (3) Mark end of cycle 0
- (4) Ramp 20°C/min to -50°C
- (5) Isothermal for 10 min
- (6) Mark end of cycle 1
- (7) Ramp 10°C/min to 250°C
- (8) Mark end of cycle 2

# 3M™ Scotch-Weld™ Structural Void Filling Compound 3550 B/A FST Technical Datasheet

## Typical Product Performance *(continued)*

**Note:** The following technical information and data should be considered representative or typical only and should not be used for specification purposes. The following mechanical and physical data is based on Scotch-Weld 3550 B/A FST Compound.



Sample	Weight (mg)	Enthalpy $\Delta H$	Onset	Peak max	1st glass Transition (half height)	1st glass Transition (onset)	2nd glass Transition (half height)	2nd glass Transition (onset)
Fresh	6.548	218 J/g	69°C	116°C	126°F (52°C)	97°F (36°C)	–	–
2 days @ RT	12.367	18 - 36 J/g	n.a.	n.a.	113°F (45°C)	86°F (30°C)	232°F (111°C)	228°F (109°C)
7 days @ RT	13.643	19 - 32 J/g	n.a.	n.a.	113°F (45°C)	84°F (29°C)	257°F (125°C)	255°F (124°C)

# 3M™ Scotch-Weld™ Structural Void Filling Compound 3550 B/A FST Technical Datasheet

## Typical Product Performance (*continued*)

**Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes. The following mechanical and physical data is based on Scotch-Weld 3550 B/A FST Compound.**

### Mechanical Properties

#### *Compressive strength - General*

A block was prepared from approximately 7 oz (200 grams) of manually mixed low density void-filler, which was carefully introduced into a mold with inner dimensions of approximately 2" x 2" x 8" (50 x 50 x 200 mm). Filler block was cured 14 days at 73°F (23 ± 2°C). Individual specimens of the dimensions of 0.5" x 0.5" x 1.0" (12.5 x 12.5 x 25.0 mm) were cut from a cured block of void-filler with an accuracy of + 0.008" (+ 0.2 mm) on each dimension. Compression strength tests were performed. See data below.

All test temperatures were measured with a thermocouple on compression plate close to specimen (not in direct contact on specimen due to the low thermal conductivity of the void-filler material) with an accuracy of ± 2°C. For all test temperatures except for ambient, a minimum soak time of 10 minutes was employed before compression testing was initiated. All compression strength tests were performed using a crosshead displacement rate of 0.02 inch/min (0.5 mm/min). All specimens were loaded with force applied to the 0.5" (12.5 mm) square surface.

Properties	Test Method	Test Temperature	Cure Cycle of 15 days @ Room Temperature
Typical Compressive Strength	ISO 604	-67°F (-55 ± 2°C)	6,200 psi (42.9 Mpa)
		73°F (23 ± 2°C)	3,500 psi (24.3 Mpa)
		176°F (80 ± 2°C)	780 psi (5.4 Mpa)
		223°F (106 ± 2°C)	725 psi (5.28 Mpa)
Typical Compressive Modulus	ISO 604	-67°F (-55 ± 2°C)	180,000 psi (1,228 Mpa)
		73°F (23 ± 2°C)	125,000 psi (862 Mpa)
		176°F (80 ± 2°C)	13,100psi (91 Mpa)
		223°F (106 ± 2°C)	13,800 psi (95 Mpa)
Filler Strength / Shear Strength	AITM 1-00046	73°F (23 ± 2°C)	480 lbf (2,145 N)

### Aged Mechanical Properties Definitions:

#### *Compressive strength after humidity and fluid immersion aging*

Specimens were wiped with a paper cloth after removal from the hot wet chamber/fluid and loaded within 30 minutes.

#### *Compressive modulus - Wet*

See above for modulus calculation. Specimens were wiped with a paper cloth after removal from the hot wet chamber/fluid and loaded within 30 minutes.

#### *Compressive strength*

Specimens were exposed to each of the required environments for a period of 48, 1000 and 2000 hours for the "hot wet" conditioned at 158°F (70°C), 85% relative humidity. The specimens were then removed from the aging environments, and wiped with a paper cloth prior to loading within the next 30 minutes.

# 3M™ Scotch-Weld™

## Structural Void Filling Compound 3550 B/A FST

### Technical Datasheet

#### Aged Mechanical Properties Definitions: *(continued)*

**Note:** The following technical information and data should be considered representative or typical only and should not be used for specification purposes. The following mechanical and physical data is based on Scotch-Weld 3550 B/A FST Compound.

#### *Shear strength by ejection*

The test was performed according to test method AITM 1-00046. Specimens were tested at 73°F (23 ± 2°C) with a crosshead displacement rate of 0.02 inch/ min (0.5 mm/min).

#### *Fluid absorption*

Specimens were exposed for a period of 48 hours and 1000 hours under the conditions shown in the table below and also 200 hours for humidity exposure. The mass uptakes were followed measuring the total mass of each specimen before and after exposures.

Weighing was performed 15+/-5 minutes @ 73°F (23 ± 2°C) after removal from the environment.

#### Data:

Properties	Environmental Condition	Test Method	Test Temperature	Average
Compressive strength after 2000h	158°F (70°C), 85% RH	ISO 604	73°F (23 ± 2°C)	2,760 PSI (19.1 Mpa)
			176°F (80 ± 2°C)	790 PSI (5.4 Mpa)
Compressive modulus after 2000h	158°F (70°C), 85% RH	ISO 604	73°F (23 ± 2°C)	88,470 PSI (610 Mpa)
			176°F (80 ± 2°C)	13,490 PSI (93 Mpa)
Fluid absorption after 2000h	158°F (70°C), 85% RH	EN 3615	73°F (23 ± 2°C)	210 PSI (1.4 Mpa)
Compressive strength after 48h at condition	176°F (80°C) dry	ISO 604	73°F (23 ± 2°C)	3,700 PSI (25.5 Mpa)
	223°F (106°C) dry			4,000 PSI (27.6 Mpa)
	158°F (70°C), 85% RH			2,690 PSI (18.5 Mpa)
	73°F (23°C) Water			2,550 PSI (17.5 Mpa)
	73°F (23°C) Fuel F34			3,660 PSI (25.3 Mpa)
	73°F (23°C) Hydraulic Fluid			3,570 PSI (24.6 Mpa)
Fluid absorption after 48h @ RT	Water via 85% RH @ 73°F (23°C)	EN 3615	73°F (23 ± 2°C)	1%
	Water @ 73°F (23°C)	EN 2489		4%
	F34 @ 73°F (23°C)			2%
	Hydraulic Fluid @ 73°F (23°C)			3%
Compressive strength after 1000h at condition	176°F (80°C) dry	ISO 604	73°F (23 ± 2°C)	3,830 PSI (26.4 Mpa)
	158°F (70°C), Water via 85% RH			2,390 PSI (16.5 Mpa)
	73°F (23°C) Water			720 PSI (4.95 Mpa)
	73°F (23°C) Fuel F34			3,350 PSI (23.1 Mpa)
	73°F (23°C) hydraulic Fluid			3,460 PSI (23.8 Mpa)
Fluid absorption	Water 85% RH @ 73°F (23°C)	EN 3615	73°F (23 ± 2°C)	2%
	Water @ 73°F (23°C)	EN 2489		17%
	Fuel F34 @73°F (23°C)			1.5%
	Hydraulic Fluid @ 73°F (23°C)			2.7%

# 3M™ Scotch-Weld™

## Structural Void Filling Compound 3550 B/A FST

### Technical Datasheet

#### Typical Product Performance (*continued*)

**Note:** The following technical information and data should be considered representative or typical only and should not be used for specification purposes. The following mechanical and physical data is based on Scotch-Weld 3550 B/A FST Compound.

#### Flammability Properties

Tested according to vertical mode to F.A.R. 25.853 (a) and (d).

Properties	Test Method	Condition	Average	Target Maximum (JAR /FAR 25.853(a)(d) App. F Part I, V)
Flammability 12sec vertical	FAR/JAR/CS 25.853(a) App F, part I(a)(1)(ii)	burn length	0.93" (23.5 mm)	6 inches
		after flame	0 sec	15 sec
		drips time	0 sec	3 sec
Flammability 60sec vertical	FAR/JAR/CS 25.853(a) App F, part I(a)(1)(ii)	burn length	2.5" (63.4 mm)	6 inches
		after flame	0 sec	15 sec
		drips time	0 sec	3 sec
Optical smoke density Ds (4 min flaming mode)	FAR/JAR/CS 25.853(d) App F, part V(b)		102.4 Ds max	200 Ds
Toxic gases emission (flaming mode)	Airbus ABD0031 Boeing D6-51377	HF	< 1 ppm	100 ppm
		HCl	< 1 ppm	150 ppm
		HCN	13.0 ppm	1,000 ppm
		SO <sub>2</sub> +H <sub>2</sub> S	< 10 ppm	100 ppm
		CO	213.3 ppm	1,000 ppm
		NO+NO <sub>2</sub>	8.3 ppm	100 ppm

#### Product Application

##### *Surface Preparation:*

A cleaned, dry, grease free surface is essential for maximum performance. For repeatable results the void-filler and the surfaces should have a temperature between 68-77°F (20-25°C).

##### *Mixing*

Scotch-Weld 3550 B/A FST Compound can be mixed manually or automatically (using static mixer, minimum 18 elements, 13mm id). For repeatable performance keep mixing ratio in a range of ± 5% (100:50cc/100:52g). Dual Cartridge application provides maximum accuracy and easy handling. Scrap the first 2 cc when using a new mixer. For manual mixing, mix the compound until visually homogenous. From the start of mixing the work life is 120 min (3.5 oz or 100g mixture) at 73°F (23°C). For ease of extrudability the product can be raised to a temperature of 75°F (25°C) but not greater than 110°F (43°C). Bulk pumping & mixing equipment recommendations are available upon request.

##### *Curing Conditions*

A minimum cure time of 48 hours at room temperature is recommended to obtain the optimum mechanical properties of the product. Heat application accelerates the curing cycle.

##### *Clean up of Void-Filler:*

Uncured void-filler can be wiped with solvent e.g. Methyl-ethyl-ketone (M.E.K). Cured material can be cleanly removed mechanically.

# 3M™ Scotch-Weld™

## Structural Void Filling Compound 3550 B/A FST

### Technical Datasheet

**Storage** Storage Stability - Store product at 77°F (25°C) or below. Rotate stock on “first in - first out” basis.

**Shelf Life** Standard shelf life for 3M™ Scotch-Weld™ Void Filling and Edge Sealing Compound SW-3550 B/A FST is 12 months from date of manufacture when stored @ 77°F (25°C) or below.

**Precautionary Information** Refer to Product Label and Material Safety Data Sheet for health and safety information before using this product. For additional health and safety information, please visit [www.3M.com/msds](http://www.3M.com/msds) or call 1-800-364-3577 or (651) 737-6501.

**For Additional Information** In the U.S., call toll free 1-800-235-2376, or fax 1-800-435-3082 or 651-737-2171. For U.S. Military, call 1-866-556-5714. If you are outside of the U.S., please contact your nearest 3M office or one of the following branches:

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#### Aerospace and Aircraft Maintenance Division

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78-6900- -



# Scotch-Weld™

## Void Filling and Edge Sealing Compound

### EC-3524 B/A and EC-3524 Off-White B/A

Technical Data

June 2007

#### Product Description

3M™ Scotch-Weld™ Void Filling and Edge Sealing Compound EC-3524 B/A is a two-part flame retardant epoxy. Scotch-Weld EC-3524 B/A Compound can be used for void filling, edge sealing, and as an abradable compound in aircraft engines. It is available in blue or off-white when mixed.

#### Features

- Sandable within three hours of mixing.
- Cures to a strong, low-density material within 48 hours at 75°F (24°C).
- Meets the flammability requirements of F.A.R. 25.853 (a) and (b).
- The compound has thixotropic properties for ease of application.
- Base comes in blue or pale blue, accelerator is white to ensure complete and uniform mixing.
- Can be used as a fairing compound for aerodynamic flushness.
- Reinforces honeycomb.
- Can be used for bonding inserts.
- Service temperature of 250°F (121°C).
- 100% solids.
- Seals and provides impact resistance to honeycomb panels edges.
- Paintable

#### Product Description

	Scotch-Weld EC-3524 Part B or Off-White Part B	Scotch-Weld EC-3524 Part A or Off-White Part A
<b>Component:</b>	Base	Accelerator
<b>Color:</b>	Blue or pale blue	White
<b>Base:</b>	Epoxy	Modified Amine
<b>Viscosity:</b>	Low density dough	Low density dough
<b>Mixing Ratio (by Weight):</b>	100	94
<b>Mixing Ratio (by Volume):</b>	1	1



# 3M™ Scotch-Weld™ Void Filling and Edge Sealing Compound

EC-3524 B/A and EC-3524 Off-White B/A

## Typical Product Performance

**Note:** The following technical information and data should be considered representative or typical only and should not be used for specification purposes. The following mechanical and physical data is based on EC-3524 Blue B/A.

100 grams of 3M™ Scotch-Weld™ Void Filling and Edge Sealing Compound EC-3524 Part B and 94 grams of Part A were hand (spatula) mixed for 2-3 minutes then cast into a block 2 in. x 3 in. x 6 in. and cured 48 hours at ambient laboratory conditions. The following typical data were obtained on specimens cut from the cured block.

**Density** 29.3 - 31.2 lbs./ft.<sup>3</sup> (0.47 - 0.50 grams/cc)

**Tg** = 137°F (54°C)

**Compressive Strength** (75°F [24°C] cure only; no postcure)

Test Temperature	Average
75°F (24°C)	2200 psi
250°F (121°C)	290 psi
300°F (149°C)	200 psi
350°F (177°C)	190 psi

**Compressive Modulus** at 75°F (24°C) 62,000 psi

**Shore D Hardness** at 75°F (24°C) 55 psi

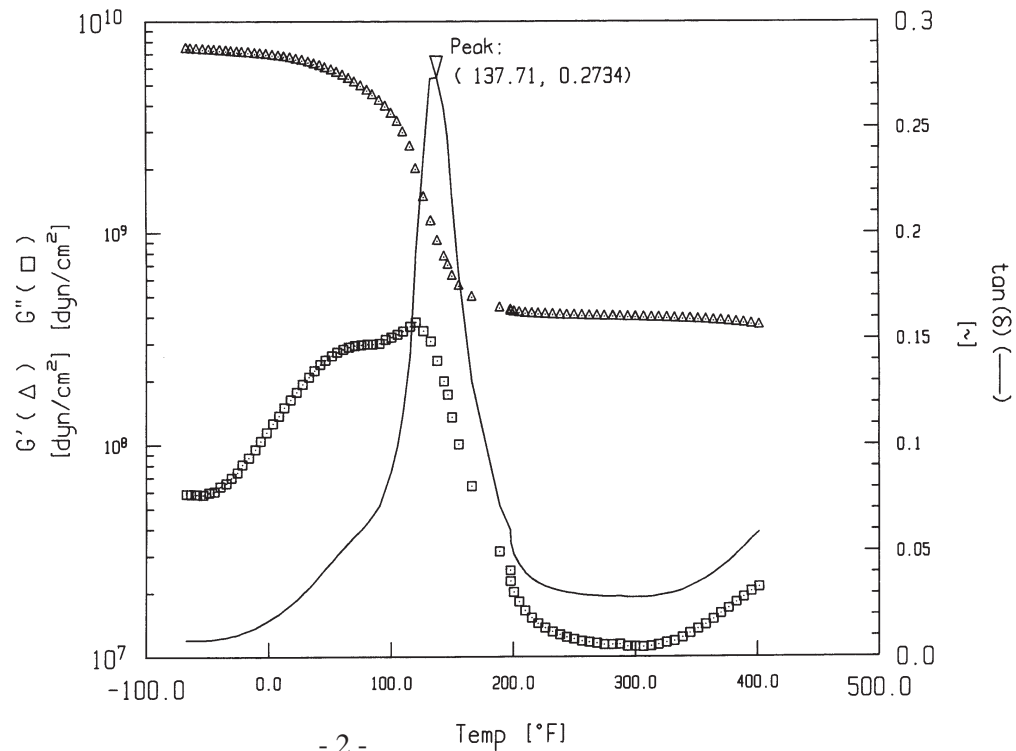
### Scotch-Weld EC-3524 B/A Compound RDA

#### Rheometrics RDA II - Rectangular Torsion

**Frequency** 1 rad/second

**Sample =** 1/8 in. x 1/2 in. x 2 in.

**Cured for 1 hour @ 250°F (121°C)**



**3M™ Scotch-Weld™**  
**Void Filling and Edge Sealing Compound**  
 EC-3524 B/A and EC-3524 Off-White B/A

**Typical Product Performance** *(continued)*

**Note:** The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

**Aging Characteristics**

Control Values

Test Temperature	Average Compressive Strength
75°F (24°C)	2290 psi
250°F (121°C)	290 psi
300°F (149°C)	210 psi

Aging Temperature	Test Temperature	Average Compressive Strength
75°F [24°C] (100 hours)	75°F (24°C)	2000 psi
250°F [121°C] (100 hours)	75°F (24°C)	2300 psi
	250°F (121°C)	220 psi
300°F [149°C] (100 hours)	75°F (24°C)	2500 psi
	300°F (149°C)	280 psi

**Flammability:**

Self extinguishing in less than 5 seconds as defined by Federal Test Method Standard No. 406 Method 2021.

When tested according to vertical mode to F.A.R. 25.853 (a) and (b), it extinguished immediately upon removal of the flame, versus a requirement of 15 seconds maximum. The burn length averaged 4.5 inches versus a requirement of 6 inches maximum.

**Product Application**

**Surface Preparation** – A clean dry grease free surface is essential for maximum performance.

**Mixing** – 3M™ Scotch-Weld™ Void Filling and Edge Sealing Compound EC-3524 B/A or Off-White B/A may be mixed by hand or machine until a uniform color is obtained. Do not mix any more than can be used within the work life of the material. Work life of 200g of Scotch-Weld EC-3524 B/A is approximately 1.5 hours. Work life of larger quantities will be shorter.

For industrial mixing applications, use a mixer that will not crush the glass microspheres contained in the compound.

**Application** – Scotch-Weld EC-3524 B/A compound may be applied by spatula or trowel. Apply by working the material in place to reduce internal voids, and allow to set for two hours before finishing the surface. Large masses of material should be avoided until user performs suitable tests to determine the possibility of an exothermic reaction.

Scotch-Weld EC-3524 B/A compound will stick to rubber gloves. Cover rubber gloves with lint free cotton gloves for best handling.

**Note:** When using solvents for cleanup, follow the manufacturer’s precautions and directions for use for handling such materials.

# 3M™ Scotch-Weld™ Void Filling and Edge Sealing Compound EC-3524 B/A and EC-3524 Off-White B/A

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**Storage** Storage Stability – Store product at 80°F (27°C) or below. Rotate stock on first in - first out basis.

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**Shelf Life** Standard shelf life for 3M™ Scotch-Weld™ Void Filling and Edge Sealing Compound EC-3524 B/A and Off-White B/A is 6 months from date of shipment when stored @ 80°F (27°C) or below.

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**Precautionary Information** Refer to Product Label and Material Safety Data Sheet for health and safety information before using this product. For additional health and safety information, visit [www.3M.com/msds](http://www.3M.com/msds) or call 1-800-364-3577 or (651) 737-6501.

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**For Additional Information** In the U.S., call toll free 1-800-235-2376, or fax 1-800-435-3082 or 651-737-2171. For U.S. Military, call 1-866-556-5714. If you are outside of the U.S., please contact your nearest 3M office or one of the following branches:

<b>Australia</b> 61-2-498-9711 tel 61-2-498-9710 fax	<b>Austria</b> 01-86686-298 tel 01-86686-229 fax	<b>Brazil</b> 55 19 3838-7876 tel 55 19 3838-6892 fax	<b>Canada</b> 800-410-6880 ext. 6018 tel 800-263-3489 fax
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<b>South Africa</b> 11-922-9111 tel 11-922-2116 fax	<b>Spain</b> 34-91-321-6000 tel 34-91-321-6002 fax	<b>Switzerland</b> 01-724-9114 tel 01-724-9068 fax	<b>United Kingdom</b> (0) 161-237-6174 tel (0) 161-237-3371 fax

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This product was manufactured under a 3M quality standard registered under ISO9001 standards.



## Aerospace and Aircraft Maintenance Division

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