



## Material Safety Data Sheet

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### SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** 3M™ Scotch-Weld General Purpose Construction Mastic 4323, Gray  
**MANUFACTURER:** 3M  
**DIVISION:** Industrial Adhesives and Tapes Division  
**ADDRESS:** 3M Center, St. Paul, MN 55144-1000

**EMERGENCY PHONE: 1-800-364-3577 or (651) 737-6501 (24 hours)**

**Issue Date:** 05/14/13  
**Supersedes Date:** 06/01/10

**Document Group:** 06-3130-9

#### Product Use:

**Limitations on Use:** Sale and use severely restricted due to high VOC in CT, DE, ME, MD, NH, NJ, NY, PA, RI, VA, DC, IL, IN, OH, in CA per R-1168.  
**Specific Use:** Construction Adhesive  
**Intended Use:** Industrial use

### SECTION 2: INGREDIENTS

<u>Ingredient</u>	<u>C.A.S. No.</u>	<u>% by Wt</u>
KAOLIN	1332-58-7	30 - 40
2-METHYLPENTANE	107-83-5	10 - 20
3-METHYLPENTANE	96-14-0	5 - 10
2,3-DIMETHYLBUTANE	79-29-8	5 - 10
GLYCEROL ESTERS OF ROSIN ACIDS	8050-31-5	5 - 10
HYDROCARBON RESIN	68410-16-2	5 - 10
BUTADIENE-STYRENE-DIVINYLBENZENE POLYMER	26471-45-4	5 - 10
STYRENE-BUTADIENE POLYMER	9003-55-8	5 - 10
CALCIUM CARBONATE	471-34-1	1 - 5
2,2-DIMETHYLBUTANE	75-83-2	1 - 5

### SECTION 3: HAZARDS IDENTIFICATION

#### 3.1 EMERGENCY OVERVIEW

**Odor, Color, Grade:** viscous paste, grey, solvent odor

**General Physical Form:** Liquid

**Immediate health, physical, and environmental hazards:** Closed containers exposed to heat from fire may build pressure and explode. Extremely flammable liquid and vapor. Vapors may travel long distances along the ground or floor to an ignition source and flash back. May cause target organ effects.

### 3.2 POTENTIAL HEALTH EFFECTS

**Eye Contact:**

Mild Eye Irritation: Signs/symptoms may include redness, pain, and tearing.

Vapors from heated material may cause 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.

**Skin Contact:**

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

**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 be absorbed following inhalation and cause target organ effects.

**Ingestion:**

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

May be absorbed following ingestion and cause target organ effects.

**Target Organ Effects:**

Central Nervous System (CNS) Depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness.

## SECTION 4: FIRST AID MEASURES

### 4.1 FIRST AID PROCEDURES

The following first aid recommendations are based on an assumption that appropriate personal and industrial hygiene practices are followed.

**Eye Contact:** Flush eyes with large amounts of water. If signs/symptoms persist, get medical attention.

**Skin Contact:** Remove contaminated clothing and shoes. Immediately flush skin with large amounts of water. Get medical attention. Wash contaminated clothing and clean shoes before reuse.

**Inhalation:** Remove person to fresh air. If signs/symptoms develop, get medical attention.

**If Swallowed:** Do not induce vomiting unless instructed to do so by medical personnel. Give victim two glasses of water. Never give anything by mouth to an unconscious person. Get medical attention.

## SECTION 5: FIRE FIGHTING MEASURES

## 5.1 FLAMMABLE PROPERTIES

Autoignition temperature	<i>No Data Available</i>
Flash Point	1 °F [Test Method: SETAFLASH]
Flammable Limits(LEL)	1.2 % volume
Flammable Limits(UEL)	7.0 % volume
OSHA Flammability Classification:	Class IB Flammable Liquid

## 5.2 EXTINGUISHING MEDIA

Use fire extinguishers with class B extinguishing agents (e.g., dry chemical, carbon dioxide).

## 5.3 PROTECTION OF FIRE FIGHTERS

**Special Fire Fighting Procedures:** 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 equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA).

**Unusual Fire and Explosion Hazards:** Closed containers exposed to heat from fire may build pressure and explode. Extremely flammable liquid and vapor. Vapors may travel long distances along the ground or floor to an ignition source and flash back.

**Note: See STABILITY AND REACTIVITY (SECTION 10) for hazardous combustion and thermal decomposition information.**

## SECTION 6: ACCIDENTAL RELEASE MEASURES

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

Evacuate unprotected and untrained personnel from hazard area. The spill should be cleaned up by qualified personnel. Remove all ignition sources such as flames, smoking materials, and electrical spark sources. Use only non-sparking tools. 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. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. Remember, adding an absorbent material does not remove a toxic, corrosivity or flammability hazard.

### 6.2. Environmental precautions

Collect the resulting residue containing solution. Place in a metal container approved for transportation by appropriate authorities. Dispose of collected material as soon as possible.

### Clean-up methods

Refer to other sections of this MSDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment. Call 3M-HELPS line (1-800-364-3577) for more information on handling and managing the spill. Cover spill area with a fire-extinguishing foam. An aqueous film forming foam (AFFF) is recommended. 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. Collect as much of the spilled material as possible using non-sparking tools. 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 MSDS. Seal the container.

**In the event of a release of this material, the user should determine if the release qualifies as reportable according to local, state, and federal regulations.**

## SECTION 7: HANDLING AND STORAGE

### 7.1 HANDLING

Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water. Contents may be under

pressure, open carefully. Keep away from heat, sparks, open flame, pilot lights and other sources of ignition. Ground containers securely when transferring contents. Wear low static or properly grounded shoes. Avoid breathing of vapors, mists or spray. Avoid static discharge. Avoid eye contact with vapors, mists, or spray. Keep out of the reach of children. Avoid breathing of dust created by cutting, sanding, grinding or machining. Vapors may ignite explosively. May cause flash fire. Prevent build-up of vapors - open all windows and doors. Maintain vapor concentrations below recommended exposure limits. Use only with cross-ventilation. Without adequate ventilation, vapors may settle in low-lying areas. Keep away from heat, sparks, and open flame. Do not smoke or ignite matches, lighters, etc. Do not breathe vapors. Avoid contact with oxidizing agents.

## 7.2 STORAGE

Store away from acids. Store away from heat. Store out of direct sunlight. Keep container in well-ventilated area. Keep container tightly closed. Store away from oxidizing agents.

# SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

## 8.1 ENGINEERING CONTROLS

Use with appropriate local exhaust ventilation. Provide appropriate local exhaust ventilation on open containers. Use in an enclosed process area is recommended. Provide appropriate local exhaust for cutting, grinding, sanding or machining. Do not use in a confined area or areas with little or no air movement.

## 8.2 PERSONAL PROTECTIVE EQUIPMENT (PPE)

### 8.2.1 Eye/Face Protection

Avoid eye contact with vapors, mists, or spray.

The following eye protection(s) are recommended: Indirect Vented Goggles

### 8.2.2 Skin Protection

Not applicable. Avoid skin contact.

Select and use gloves and/or protective clothing to prevent skin contact based on the results of an exposure assessment. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible materials.

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

Nitrile Rubber

### 8.2.3 Respiratory Protection

Avoid breathing of vapors, mists or spray. Avoid breathing of dust created by cutting, sanding, grinding or machining. Do not breathe vapors.

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.

### 8.2.4 Prevention of Swallowing

Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water.

## 8.3 EXPOSURE GUIDELINES

<u>Ingredient</u>	<u>Authority</u>	<u>Type</u>	<u>Limit</u>	<u>Additional Information</u>
2,3-DIMETHYLBUTANE	ACGIH	TWA	500 ppm	
2,3-DIMETHYLBUTANE	ACGIH	STEL	1000 ppm	
2-METHYLPENTANE	ACGIH	TWA	500 ppm	

2-METHYLPENTANE	ACGIH	STEL	1000 ppm
3-METHYLPENTANE	ACGIH	TWA	500 ppm
3-METHYLPENTANE	ACGIH	STEL	1000 ppm
CALCIUM CARBONATE	CMRG	TWA	10 mg/m3
CALCIUM CARBONATE	CMRG	STEL	20 mg/m3
HEXANE (ISOMERS OTHER THAN N-HEXANE)	ACGIH	TWA	500 ppm
HEXANE (ISOMERS OTHER THAN N-HEXANE)	ACGIH	STEL	1000 ppm
KAOLIN	ACGIH	TWA, respirable fraction	2 mg/m3
2,2-DIMETHYLBUTANE	ACGIH	TWA	500 ppm
2,2-DIMETHYLBUTANE	ACGIH	STEL	1000 ppm
PETROLEUM DISTILLATES	OSHA	TWA	2000 mg/m3

SOURCE OF EXPOSURE LIMIT DATA:

ACGIH: American Conference of Governmental Industrial Hygienists  
 CMRG: Chemical Manufacturer Recommended Guideline  
 OSHA: Occupational Safety and Health Administration  
 AIHA: American Industrial Hygiene Association Workplace Environmental Exposure Level (WEEL)

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

<b>Odor, Color, Grade:</b>	viscous paste, grey, solvent odor
<b>General Physical Form:</b>	Liquid
<b>Autoignition temperature</b>	<i>No Data Available</i>
<b>Flash Point</b>	1 °F [ <i>Test Method: SETAFLASH</i> ]
<b>Flammable Limits(LEL)</b>	1.2 % volume
<b>Flammable Limits(UEL)</b>	7.0 % volume
<b>Boiling Point</b>	122 °F
<b>Density</b>	1.08 g/ml
<b>Vapor Density</b>	<i>No Data Available</i>
<b>Vapor Pressure</b>	<=27 psia [@ 131.0000000000 °F] [ <i>Details: MITS data</i> ]
<b>Specific Gravity</b>	1.08 [ <i>Ref Std: WATER=1</i> ]
<b>pH</b>	<i>Not Applicable</i>
<b>Melting point</b>	<i>Not Applicable</i>
<b>Solubility in Water</b>	Nil
<b>Evaporation rate</b>	<i>No Data Available</i>
<b>Hazardous Air Pollutants</b>	0 % weight [ <i>Test Method: Calculated</i> ]
<b>Volatile Organic Compounds</b>	<=486 g/l [ <i>Test Method: calculated SCAQMD rule 443.1</i> ] [ <i>Details: EU VOC content</i> ]
<b>Kow - Oct/Water partition coef</b>	<i>No Data Available</i>
<b>Percent volatile</b>	Approximately 54 % volume
<b>VOC Less H2O &amp; Exempt Solvents</b>	<=486 g/l [ <i>Test Method: calculated SCAQMD rule 443.1</i> ]
<b>Viscosity</b>	>=100000 centipoise [@ 73.4000000000 °F] [ <i>Details: MITS data</i> ]

**SECTION 10: STABILITY AND REACTIVITY**

**Stability:** Stable.

**Materials and Conditions to Avoid:**

**10.1 Conditions to avoid**

Heat  
Sparks and/or flames

**10.2 Materials to avoid**

Strong oxidizing agents

**Hazardous Polymerization:** Hazardous polymerization will not occur.

**Hazardous Decomposition or By-Products**

<u>Substance</u>	<u>Condition</u>
Hydrocarbons	Not Specified
Carbon monoxide	Not Specified
Carbon dioxide	Not Specified
Toxic Vapor, Gas, Particulate	Not Specified

**SECTION 11: TOXICOLOGICAL INFORMATION**

Please contact the address listed on the first page of the MSDS for Toxicological Information on this material and/or its components.

**SECTION 12: ECOLOGICAL INFORMATION**

**ECOTOXICOLOGICAL INFORMATION**

Not determined.

**CHEMICAL FATE INFORMATION**

Not determined.

**SECTION 13: DISPOSAL CONSIDERATIONS**

**Waste Disposal Method:** Incinerate in a permitted hazardous waste incinerator. As a disposal alternative, dispose of waste product in a permitted hazardous waste facility.

**EPA Hazardous Waste Number (RCRA):** D001 (Ignitable)

Since regulations vary, consult applicable regulations or authorities before disposal.

**SECTION 14: TRANSPORT INFORMATION**

ID Number	UPC	ID Number	UPC
62-4392-5230-5	00-21200-87987-6	62-4392-5232-1	
62-4392-5235-4		62-4392-6330-2	00-21200-87988-3
62-4392-7530-6	00-21200-87989-0	62-4392-7535-5	

62-4392-8530-5

00-21200-87990-6

62-4392-8532-1

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

## SECTION 15: REGULATORY INFORMATION

### US FEDERAL REGULATIONS

Contact 3M for more information.

#### 311/312 Hazard Categories:

Fire Hazard - Yes Pressure Hazard - No Reactivity Hazard - No Immediate Hazard - Yes Delayed Hazard - No

### STATE REGULATIONS

Contact 3M for more information.

### CHEMICAL INVENTORIES

The components of this product are in compliance with the chemical notification requirements of TSCA.

Contact 3M for more information.

### INTERNATIONAL REGULATIONS

Contact 3M for more information.

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

## SECTION 16: OTHER INFORMATION

### NFPA Hazard Classification

Health: 1 Flammability: 3 Reactivity: 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.

#### Revision Changes:

Section 1: Product use information was modified.

Section 16: Disclaimer (second paragraph) was modified.

Section 7: Handling information was modified.

Section 8: Engineering controls information was modified.

Section 8: Skin protection phrase was modified.

Section 8: Respiratory protection information was modified.

Section 8: Prevention of swallowing information was modified.

Section 10: Hazardous decomposition or by-products table was modified.

Section 8: Respiratory protection - recommended respirators information was modified.

Section 8: Respiratory protection - recommended respirators was modified.

Section 14: Transportation legal text was modified.

Section 9: Density information was modified.

Section 9: Vapor density value was modified.

Section 9: Vapor pressure value was modified.

Section 9: Boiling point information was modified.

Section 5: Flammable limits (UE) information was modified.  
Section 5: Flammable limits (LEL) information was modified.  
Section 5: Autoignition temperature information was modified.  
Section 5: Flash point information was modified.  
Section 9: Property description for optional properties was modified.  
Section 9: Specific gravity information was modified.  
Section 9: pH information was modified.  
Section 9: Melting point information was modified.  
Section 9: Solubility in water text was modified.  
Section 8: Respiratory protection - recommended respirators guide was modified.  
Section 9: Flash point information was modified.  
Section 9: Flammable limits (LEL) information was modified.  
Section 9: Flammable limits (UEL) information was modified.  
Section 9: Autoignition temperature information was modified.  
Section 14: ID Number(s) and/or UPC(s) Template 1 was modified.  
Section 2: Ingredient table was modified.  
Section 8: Exposure guidelines ingredient information was modified.  
Section 6: Environmental procedures information was modified.  
Section 6: Methods for cleaning up information was modified.  
Section 6: 6.2. Environmental precautions heading was added.  
Section 6: 6.1. Personal precautions, protective equipment and emergency procedures heading was added.  
Section 16: Web address was added.  
Section 6: Personal precautions information was added.  
Section 1: Address was added.  
Copyright was added.  
Company logo was added.  
Section 6: Clean-up methods heading was added.  
Telephone header was added.  
Company Telephone was added.  
Section 1: Emergency phone information was added.  
Section 1: Emergency phone information was deleted.  
Company Logo was deleted.  
Copyright was deleted.  
Section 16: Web address heading was deleted.  
Section 6: Release measures heading was deleted.  
Section 1: Address line 1 was deleted.  
Section 1: Address line 2 was deleted.  
Section 8: Respiratory protection - recommended respirators punctuation was deleted.

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