



## Material Safety Data Sheet

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### SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** 3M™ Polyurethane Sealant 540, White, Gray, Black

**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:** 05/25/11

**Supersedes Date:** 03/11/11

**Document Group:** 08-9432-9

**Product Use:**

Intended Use: Sealant

### SECTION 2: INGREDIENTS

<u>Ingredient</u>	<u>C.A.S. No.</u>	<u>% by Wt</u>
Urethane Polymer - N.J.T.S. Reg. No. 04499600-6720	Trade Secret	15 - 40
Poly(Vinyl Chloride) Polymer	9002-86-2	20 - 35
Plasticizer Mixture - N.J.T.S. Reg. No. 04499600-6866	Trade Secret	10 - 30
Xylene	1330-20-7	3 - 7
Petroleum Distillate	64742-47-8	1 - 5
Titanium Dioxide	13463-67-7	< 5
Calcium Oxide	1305-78-8	1 - 5
Iron Oxide (Fe <sub>3</sub> O <sub>4</sub> )	1317-61-9	< 2
Ethylbenzene	100-41-4	< 2
Carbon Black	1333-86-4	< 0.3

### SECTION 3: HAZARDS IDENTIFICATION

#### 3.1 EMERGENCY OVERVIEW

**Specific Physical Form:** Paste

**Odor, Color, Grade:** Mild xylene odor

**General Physical Form:** Solid

**Immediate health, physical, and environmental hazards:** Contains a chemical or chemicals which can cause cancer. May cause target organ effects.

## 3.2 POTENTIAL HEALTH EFFECTS

### Eye Contact:

Moderate 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.

Prolonged or repeated exposure may cause:

Pneumoconiosis: Sign/symptoms may include persistent cough, breathlessness, chest pain, increased amounts of sputum, and changes in lung function tests.

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:

Auditory Effects: Signs/symptoms may include hearing impairment, balance dysfunction and ringing in the ears.

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

Prolonged or repeated exposure may cause:

Liver Effects: Signs/symptoms may include loss of appetite, weight loss, fatigue, weakness, abdominal tenderness and jaundice.

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.

Kidney/Bladder Effects: Signs/symptoms may include changes in urine production, abdominal or lower back pain, increased protein in urine, increased blood urea nitrogen (BUN), blood in urine, and painful urination.

### Carcinogenicity:

Contains a chemical or chemicals which can cause cancer.

#### Ingredient

Ethylbenzene

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

100-41-4

#### Class Description

Grp. 2B: Possible human carc.

#### Regulation

International Agency for Research on Cancer

## 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	$\geq 200$ °C
Flash Point	No flash point
Flammable Limits(LEL)	Not Applicable
Flammable Limits(UEL)	Not Applicable

### 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:** Wear full protective equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA).

**Unusual Fire and Explosion Hazards:** Not applicable.

**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. 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

Place in a container approved for transportation by appropriate authorities, but do not seal the container for 48 hours to avoid pressure build-up. Collect the resulting residue containing solution. Place in a closed container approved for transportation by appropriate authorities. Dispose of collected material as soon as possible.

### Clean-up methods

Pour isocyanate decontaminant solution (90% water, 8% concentrated ammonia, 2% detergent) on spill and allow to react for 10 minutes. Or pour water on spill and allow to react for more than 30 minutes. Cover with absorbent material. 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. Contain spill. Collect as much of the spilled material as possible. 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.

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

Avoid eye contact. Avoid skin contact. Avoid breathing of vapors. Keep out of the reach of children. For industrial or professional use only.

### 7.2 STORAGE

Store away from heat. Store out of direct sunlight. Keep container tightly closed. Store in a cool, dry place.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 ENGINEERING CONTROLS

Use with appropriate local exhaust ventilation. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below Occupational Exposure Limits and/or control mist, vapor, or spray. If ventilation is not adequate, use respiratory protection equipment.

### 8.2 PERSONAL PROTECTIVE EQUIPMENT (PPE)

#### 8.2.1 Eye/Face Protection

Avoid eye contact.

The following eye protection(s) are recommended: Safety Glasses with side shields

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#### 8.2.2 Skin Protection

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: Polyethylene

Polyvinyl Alcohol (PVA)

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#### 8.2.3 Respiratory Protection

Avoid breathing of vapors. Avoid breathing of dust created by cutting, sanding, grinding or machining.

Select one of the following NIOSH approved respirators based on airborne concentration of contaminants and in accordance with OSHA regulations: Half facepiece or fullface air-purifying respirator with organic vapor cartridges and N95 particulate prefilters

. Select and use respiratory protection to prevent an inhalation exposure based on the results of an exposure assessment. Consult with your respirator manufacturer for selection of appropriate types of respirators.

#### 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><b>Ingredient</b></u>	<u><b>Authority</b></u>	<u><b>Type</b></u>	<u><b>Limit</b></u>	<u><b>Additional Information</b></u>
Calcium Oxide	ACGIH	TWA	2 mg/m3	
Calcium Oxide	OSHA	TWA	5 mg/m3	
Carbon Black	ACGIH	TWA	3.5 mg/m3	
Carbon Black	CMRG	TWA	0.5 mg/m3	

Carbon Black	OSHA	TWA	3.5 mg/m3	
Ethylbenzene	ACGIH	TWA	100 ppm	
Ethylbenzene	ACGIH	STEL	125 ppm	
Ethylbenzene	CMRG	TWA	25 ppm	
Ethylbenzene	CMRG	STEL	75 ppm	
Ethylbenzene	OSHA	TWA	435 mg/m3	
Petroleum Distillate	CMRG	TWA	300 ppm	
Paraffin oil	OSHA	TWA, as mist	5 mg/m3	
PETROLEUM DISTILLATES	OSHA	TWA	2000 mg/m3	
Poly(Vinyl Chloride) Polymer	ACGIH	TWA, respirable fraction	1 mg/m3	
Poly(Vinyl Chloride) Polymer	OSHA	TWA, as vinyl chloride monomer	1 ppm	Skin Notation*; 29 CFR 1910.1017
Poly(Vinyl Chloride) Polymer	OSHA	STEL, as vinyl chloride monomer	5 ppm	Skin Notation*; 29 CFR 1910.1017
Titanium Dioxide	ACGIH	TWA	10 mg/m3	
Titanium Dioxide	CMRG	TWA, as respirable dust	5 mg/m3	
Titanium Dioxide	OSHA	TWA, as total dust	15 mg/m3	
Xylene	ACGIH	TWA	100 ppm	
Xylene	ACGIH	STEL	150 ppm	
Xylene	CMRG	TWA	50 ppm	
Xylene	CMRG	STEL	75 ppm	
Xylene	OSHA	TWA	435 mg/m3	

\* Substance(s) refer to the potential contribution to the overall exposure by the cutaneous route including mucous membrane and eye, either by airborne or, more particularly, by direct contact with the substance. Vehicles can alter skin absorption.

#### 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>Specific Physical Form:</b>	Paste
<b>Odor, Color, Grade:</b>	Mild xylene odor
<b>General Physical Form:</b>	Solid
<b>Autoignition temperature</b>	>=200 °C
<b>Flash Point</b>	No flash point
<b>Flammable Limits(LEL)</b>	<i>Not Applicable</i>
<b>Flammable Limits(UEL)</b>	<i>Not Applicable</i>
<b>Boiling Point</b>	>=136 °C
<b>Density</b>	1.17 g/ml
<b>Vapor Density</b>	<i>Not Applicable</i>
<b>Vapor Pressure</b>	<i>Not Applicable</i>
<b>Specific Gravity</b>	1.17 [Ref Std: WATER=1]
<b>pH</b>	<i>Not Applicable</i>
<b>Melting point</b>	<i>No Data Available</i>
<b>Solubility in Water</b>	Nil
<b>Evaporation rate</b>	<i>No Data Available</i>
<b>Hazardous Air Pollutants</b>	<=7.1 % weight [Test Method: Calculated]
<b>Volatile Organic Compounds</b>	54 g/l [Test Method: tested per EPA method 24] [Details: EU VOC

Kow - Oct/Water partition coef	content]
Percent volatile	No Data Available
VOC Less H2O & Exempt Solvents	4.6 % weight [Test Method: ACS METHOD]
Viscosity	54 g/l [Test Method: tested per EPA method 24]
	>=300000 centipoise [@ 73.4 °F]

## SECTION 10: STABILITY AND REACTIVITY

**Stability:** Stable.

### Materials and Conditions to Avoid:

#### 10.1 Conditions to avoid

Heat

#### 10.2 Materials to avoid

Amines

Alcohols

Water

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

### Hazardous Decomposition or By-Products

#### Substance

Carbon monoxide  
Carbon dioxide  
Hydrogen Cyanide  
Oxides of Nitrogen  
Oxides of Sulfur

#### Condition

During Combustion  
During Combustion  
During Combustion  
During Combustion  
During Combustion

## 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:** Dispose of completely cured (or polymerized) wastes in a sanitary landfill.  
As a disposal alternative, incinerate in an industrial or commercial facility.

EPA Hazardous Waste Number (RCRA): Not regulated

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

## SECTION 14:TRANSPORT INFORMATION

ID Number	UPC	ID Number	UPC
62-5261-5230-1		62-5261-5235-0	
62-5263-5230-7		62-5263-5235-6	
62-5484-3530-4	000-21200-96278-3	62-5484-3930-6	000-21200-56561-8
62-5484-3936-3		62-5484-5230-9	00-21200-49054-5
62-5484-5235-8	00-00000-00000-0	62-5484-5238-2	00-00000-00000-0
62-5484-8530-9	00-21200-49058-3	62-5484-9530-8	00-21200-49055-2
62-5485-3530-1	000-21200-96277-6	62-5485-3535-0	000-00000-00000-0
62-5485-3930-3	000-21200-56562-5	62-5485-3935-2	
62-5485-5230-6	00-21200-41594-4	62-5485-5235-5	00-00000-00000-0
62-5485-8530-6	000-21200-49062-0	62-5485-9530-5	00-21200-45112-6
62-5486-3530-9	000-21200-96276-9	62-5486-3930-1	000-21200-96272-1
62-5486-5230-4	00-21200-41595-1	62-5486-5235-3	00-00000-00000-0
62-5486-8530-4	000-21200-49060-6	62-5486-9530-3	00-21200-45190-4

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

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>
Xylene	1330-20-7	3 - 7
Xylene (Benzene, 1,2-dimethyl-)	1330-20-7	3 - 7
Xylene (Benzene, 1,3-dimethyl-)	1330-20-7	3 - 7
Xylene (Benzene, 1,4-dimethyl-)	1330-20-7	3 - 7
Xylene (Benzene, dimethyl-)	1330-20-7	3 - 7
Ethylbenzene	100-41-4	< 2

This material contains a chemical which requires export notification under TSCA Section 12[b]:

<u>Ingredient (Category if applicable)</u>	<u>C.A.S. No</u>	<u>Regulation</u>	<u>Status</u>
Xylene (Benzene, 1,4-dimethyl-)	1330-20-7	Toxic Substances Control Act (TSCA) 4 Test Rule Chemicals	Applicable

### STATE REGULATIONS

Contact 3M for more information.

### CALIFORNIA PROPOSITION 65

**Ingredient**  
Ethylbenzene

**C.A.S. No.**  
100-41-4

**Classification**  
\*\*Carcinogen

\*\* WARNING: contains a chemical which can cause cancer.

## **CHEMICAL INVENTORIES**

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

All applicable chemical ingredients in this material are listed on the European Inventory of Existing Chemical Substances (EINECS), or are exempt polymers whose monomers are listed on EINECS. 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: 1 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 name was modified.  
Section 16: NFPA hazard classification for health was modified.  
Section 16: Disclaimer (second paragraph) was modified.  
Section 3: Potential effects from eye contact was modified.  
Section 3: Potential effects from skin contact information was modified.  
Section 3: Potential effects from inhalation information was modified.  
Section 13: Waste disposal method information was modified.  
Section 3: Immediate other hazard(s) was modified.  
Section 3: Other health effects information was modified.  
Page Heading: Product name was modified.  
Section 8: Respiratory protection - recommended respirators guide was modified.  
Section 14: ID Number(s) and/or UPC(s) Template 1 was modified.  
Section 2: Ingredient table was modified.  
Section 15: EPCRA 313 information was modified.  
Section 8: Exposure guidelines ingredient information was modified.  
Section 3: Carcinogenicity table was modified.  
Section 6: Personal precautions information was modified.  
Section 6: Methods for cleaning up information was modified.  
Section 13: EPA hazardous waste number (RCRA) heading was added.  
Section 13: EPA hazardous waste number (RCRA) information was added.  
Section 16: Web address was added.  
Section 1: Address was added.  
Copyright was added.  
Company logo 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 3: Immediate skin hazard(s) was deleted.

Section 1: Address line 1 was deleted.

Section 1: Address line 2 was deleted.

Section 3: Other health effects information (reproductive hazards) was deleted.

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