



## Material Safety Data Sheet

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### SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** 3M™ Detector Loop Sealant Black 5000

**MANUFACTURER:** 3M

**DIVISION:** Automotive Aftermarket

**ADDRESS:** 3M Center, St. Paul, MN 55144-1000

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

**Issue Date:** 09/19/12

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**Document Group:** 05-7288-3

#### Product Use:

Intended Use: Detector loop sealant (to fill saw cuts after installation of a vehicle detector loop)  
 Specific Use: Detector loop sealant for roadways

### SECTION 2: INGREDIENTS

<u>Ingredient</u>	<u>C.A.S. No.</u>	<u>% by Wt</u>
Talc	14807-96-6	15 - 40
Benzene, 1,3-diisocyanatomethyl-, polymer with .alpha...alpha.',.alpha."-1,2,3-propanetriyltris[.omega.-hydroxy[oxy(methyl-1,2-ethanediyl)]]	39279-01-1	10 - 30
Polystyrene	9003-53-6	10 - 30
1-Methoxy-2-propyl acetate	108-65-6	10 - 30
POLYPROPYLENE GLYCOL-TOLUENE DIISOCYANATE POLYMER	9057-91-4	3 - 7
GLYCEROL POLY(OXYPROPYLENE) ETHER-POLYPROPYLENE GLYCOL-TOLYLENE DIISOCYANATE POLYMER	57451-08-8	3 - 7
Synthetic amorphous silica, fumed, crystalline free	112945-52-5	1 - 5
Dimethyl siloxane, reaction product with silica	67762-90-7	1 - 5
Carbon black	1333-86-4	<= 0.65
TOLUENE 2,4-DIISOCYANATE	584-84-9	< 0.1
TOLUENE 2,6-DIISOCYANATE	91-08-7	< 0.1

### SECTION 3: HAZARDS IDENTIFICATION

#### 3.1 EMERGENCY OVERVIEW

**Odor, Color, Grade:** Black caulk with mild odor.

**General Physical Form:** Liquid

**Immediate health, physical, and environmental hazards:** Flammable liquid and vapor. Vapors may travel long distances along the ground or floor to an ignition source and flash back. Closed containers exposed to heat from fire may build pressure and explode. Reacts violently with water. May cause allergic skin reaction. May cause allergic respiratory reaction. May cause target organ effects. Contains a chemical or chemicals which can cause birth defects or other reproductive harm. Contains a chemical or chemicals which can cause cancer.

### 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:**

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

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

**Inhalation:**

May be harmful if inhaled.

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

Allergic Respiratory Reaction: Signs/symptoms may include difficulty breathing, wheezing, cough, and tightness of chest.

Prolonged or repeated exposure may cause:

Respiratory Effects: Signs/symptoms may include cough, shortness of breath, chest tightness, wheezing, increased heart rate, bluish colored skin (cyanosis), sputum production, changes in lung function tests, and/or respiratory failure.

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:**

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

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

**Carcinogenicity:**

Contains a chemical or chemicals which can cause cancer.

<u>Ingredient</u>	<u>C.A.S. No.</u>	<u>Class Description</u>	<u>Regulation</u>
Carbon black	1333-86-4	Grp. 2B: Possible human carc.	International Agency for Research on Cancer
TOLUENE 2,4-DIISOCYANATE	584-84-9	Grp. 2B: Possible human carc.	International Agency for Research on Cancer
TOLUENE 2,6-DIISOCYANATE	91-08-7	Grp. 2B: Possible human carc.	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**

*No Data Available*

**Flash Point**

114 °F [*Test Method:* Tagliabue Closed Cup]

**Flammable Limits(LEL)**

*No Data Available*

**Flammable Limits(UEL)**

*No Data Available*

**OSHA Flammability Classification:**

Class II Combustible Liquid

### 5.2 EXTINGUISHING MEDIA

Use fire extinguishers with class B extinguishing agents (e.g., dry chemical, carbon dioxide). DO NOT USE WATER

### 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:** Flammable liquid and vapor. Vapors may travel long distances along the ground or floor to an ignition source and flash back. Closed containers exposed to heat from fire may build pressure and explode.

**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

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

#### 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. 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. 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.

**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. Keep away from heat, sparks, open flame, pilot lights and other sources of ignition. No smoking while handling this material. Avoid breathing of vapors, mists or spray. For industrial or professional use only. Avoid contact with oxidizing agents.

### 7.2 STORAGE

Store away from acids. Store away from heat. Store out of direct sunlight. Store away from areas where product may come into contact with food or pharmaceuticals. Store away from oxidizing agents.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 ENGINEERING CONTROLS

Use in a well-ventilated area. 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.

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

#### 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: Nitrile Rubber

#### 8.2.3 Respiratory Protection

Avoid breathing of vapors, mists or spray.

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. When applying 3M Brand Detector Loop Sealant 5000 outdoors where air movement is unrestricted, there is little risk of user overexposure and, therefore, no need to use a respirator. Always follow product directions.

#### 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>
1-Methoxy-2-propyl acetate	AIHA	TWA	50 ppm	
1-Methoxy-2-propyl acetate	CMRG	TWA	10 mg/m <sup>3</sup>	
1-Methoxy-2-propyl acetate	CMRG	STEL	90 ppm	
Carbon black	ACGIH	TWA, inhalable fraction	3 mg/m <sup>3</sup>	
Carbon black	CMRG	TWA	0.5 mg/m <sup>3</sup>	
Carbon black	OSHA	TWA	3.5 mg/m <sup>3</sup>	
Dimethyl siloxane, reaction product with silica	CMRG	CEIL	5 mg/m <sup>3</sup>	
FREE ISOCYANATES	Manufacturer determined	TWA	0.005 ppm	
FREE ISOCYANATES	Manufacturer determined	STEL	0.02 ppm	
POLYPROPYLENE GLYCOLS	AIHA	TWA, as aerosol	10 mg/m <sup>3</sup>	
SILICA, AMORPHOUS	OSHA	TWA concentration	0.8 mg/m <sup>3</sup>	
SILICA, AMORPHOUS	OSHA	TWA	20 millions of particles/cu. ft.	
Talc	ACGIH	TWA, respirable fraction	2 mg/m <sup>3</sup>	
Talc	CMRG	TWA, as respirable dust	0.5 mg/m <sup>3</sup>	
Talc	OSHA	TWA concentration, respirable	0.1 mg/m <sup>3</sup>	
Talc	OSHA	TWA concentration, as total dust	0.3 mg/m <sup>3</sup>	
Talc	OSHA	TWA	20 millions of particles/cu. ft.	
TOLUENE 2,4-DIISOCYANATE	ACGIH	TWA	0.005 ppm	Sensitizer
TOLUENE 2,4-DIISOCYANATE	ACGIH	STEL	0.02 ppm	Sensitizer
TOLUENE 2,4-DIISOCYANATE	OSHA	CEIL	0.14 mg/m <sup>3</sup>	
TOLUENE 2,6-DIISOCYANATE	ACGIH	TWA	0.005 ppm	Sensitizer
TOLUENE 2,6-DIISOCYANATE	ACGIH	STEL	0.02 ppm	Sensitizer

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>	Black caulk with mild odor.
<b>General Physical Form:</b>	Liquid
<b>Autoignition temperature</b>	<i>No Data Available</i>
<b>Flash Point</b>	114 °F [ <i>Test Method: Tagliabue Closed Cup</i> ]
<b>Flammable Limits(LEL)</b>	<i>No Data Available</i>
<b>Flammable Limits(UEL)</b>	<i>No Data Available</i>
<b>Boiling Point</b>	>=284 °F
<b>Density</b>	0.97 g/ml [ <i>@ 20 °C</i> ]
<b>Vapor Density</b>	<i>No Data Available</i>
<b>Vapor Pressure</b>	<=3.7 mmHg [ <i>@ 68 °F</i> ]

Specific Gravity	0.97 [Ref Std: WATER=1]
pH	Not Applicable
Melting point	Not Applicable
Solubility in Water	Nil
Evaporation rate	0.21 [Ref Std: BUOAC=1]
Hazardous Air Pollutants	0.11 lb HAPS/lb solids [Test Method: Calculated]
Volatile Organic Compounds	181 g/l [Test Method: calculated SCAQMD rule 443.1]
Volatile Organic Compounds	18.6 % weight [Test Method: calculated per CARB title 2]
Kow - Oct/Water partition coef	No Data Available
Percent volatile	18.6 %
VOC Less H2O & Exempt Solvents	181 g/l [Test Method: calculated SCAQMD rule 443.1]
Viscosity	25000 centipoise

## SECTION 10: STABILITY AND REACTIVITY

**Stability:** Stable.

**Materials and Conditions to Avoid:**

### 10.1 Conditions to avoid

Sparks and/or flames

### 10.2 Materials to avoid

Amines

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

## Hazardous Decomposition or By-Products

<u>Substance</u>	<u>Condition</u>
Aldehydes	During Combustion
Isocyanates	During Combustion
Carbon monoxide	During Combustion
Carbon dioxide	During Combustion
Hydrogen Cyanide	During Combustion
Oxides of Nitrogen	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:** 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(s):**

41-3706-1403-8, 78-8072-0724-2, 78-8095-4061-6, 78-8095-4063-2, 78-8118-6302-2

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 - 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>
TOLUENE 2,4-DIISOCYANATE	584-84-9	< 0.1
TOLUENE 2,4-DIISOCYANATE (Benzene, 1,3-diisocyanatomethyl-)	584-84-9	< 0.1
TOLUENE 2,6-DIISOCYANATE	91-08-7	< 0.1
TOLUENE 2,6-DIISOCYANATE (Benzene, 1,3-diisocyanatomethyl-)	91-08-7	< 0.1

### STATE REGULATIONS

Contact 3M for more information.

#### CALIFORNIA PROPOSITION 65

<u>Ingredient</u>	<u>C.A.S. No.</u>	<u>Classification</u>
Carbon black	1333-86-4	**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:** 2 **Flammability:** 2 **Reactivity:** 1 **Special Hazards:** Reacts with Water

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.

**Reason for Reissue:** The MSDS has been revised because 3M has adopted the 16-section ANSI/ISO format. The potential hazards of the product have not changed. We encourage you to reread the MSDS and review the information.

### Revision Changes:

Section 1: Product use information was modified.  
Section 1: Division name was modified.  
Section 16: Disclaimer (second paragraph) was modified.  
Section 3: Immediate physical hazard(s) was modified.  
Section 3: Potential effects from inhalation information was modified.  
Section 3: Potential effects from ingestion information was modified.  
Section 5: Unusual fire and explosion hazard information was modified.  
Section 7: Handling information was modified.  
Section 7: Storage information was modified.  
Section 10: Hazardous decomposition or by-products table was modified.  
Section 8: Eye/face protection information was modified.  
Section 8: Skin protection - recommended gloves information was modified.  
Section 8: Respiratory protection - recommended respirators information was modified.  
Section 8: Respiratory protection - recommended respirators was modified.  
Section 3: Immediate other hazard(s) was modified.  
Section 14: Transportation legal text was modified.  
Section 15: Inventories information 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 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 10: Materials to avoid physical property was modified.  
Section 10: Conditions to avoid physical property was modified.  
Section 3: Other health effects information (reproductive hazards) was added.  
Section 15: California proposition 65 ingredient information was added.  
Section 15: California proposition 65 heading was added.  
Section 15: California proposition 65 cancer warning was added.  
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 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.  
Section 8: Exposure guidelines legend was deleted.

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