



Material Safety Data Sheet

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SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: 3M™ Polyurethane Adhesive Sealant 550 Fast Cure (Various Colors)

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)

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Document Group: 25-8775-6

Product Use:

Specific Use: Fast curing.
Intended Use: Sealant

SECTION 2: INGREDIENTS

| <u>Ingredient</u> | <u>C.A.S. No.</u> | <u>% by Wt</u> |
|------------------------------------------------------|-------------------|----------------|
| Urethane Polymer* | Trade Secret | 25 - 35 |
| Poly(Vinyl Chloride) Polymer | 9002-86-2 | 20 - 35 |
| Plasticizer Mixture** | Trade Secret | 10 - 30 |
| Xylene | 1330-20-7 | < 5.5 |
| Calcium Oxide | 1305-78-8 | 1 - 5 |
| Titanium Dioxide | 13463-67-7 | < 3 |
| Petroleum Distillate | 64742-47-8 | < 2 |
| Ethylbenzene | 100-41-4 | < 2 |
| Iron II Oxide | 1309-37-1 | < 2 |
| P,P'-Methylenebis(phenyl isocyanate) | 101-68-8 | < 0.2 |
| Carbon Black | 1333-86-4 | < 0.1 |
| Bis(1,2,2,6,6-pentamethyl-4-piperidiny)l sebacate | 41556-26-7 | 0.01 - 0.1 |
| Methyl 1,2,2,6,6-pentamethyl-4-piperidiny)l sebacate | 82919-37-7 | 0.01 - 0.1 |

*N.J.T.S. Reg. No. 04499600-6719

**N.J.T.S. Reg. No. 04499600-6866

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: May cause allergic skin reaction. May cause allergic respiratory reaction. 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:

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

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.

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

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:

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

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

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

Prolonged or repeated exposure may cause:

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.

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

Carcinogenicity:

Contains a chemical or chemicals which can cause cancer.

Ingredient

C.A.S. No.

Class Description

Regulation

Ethylbenzene

100-41-4

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 | ≥ 200 °C |
| Flash Point | No flash point |
| Flammable Limits(LEL) | <i>Not Applicable</i> |
| Flammable Limits(UEL) | <i>Not Applicable</i> |

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: No unusual fire or explosion hazards are anticipated.

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. Avoid contact with water.

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. 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. Observe precautions from other sections. Call 3M- HELPS line (1-800-364-3577) for more information on handling and managing the spill. Refer to other sections of this MSDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment. 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 breathing of vapors. Keep out of the reach of children. Avoid eye contact. Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water.

7.2 STORAGE

Store away from heat. Store out of direct sunlight. Keep container tightly closed. Store away from areas where product may come into contact with food or pharmaceuticals. 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)

.

8.2.3 Respiratory Protection

Avoid breathing of 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> |
|-----------------------------------------------------|-------------------------|---------------------------------|--------------|----------------------------------|
| Benzene, 1,1'-methylenebis[4-isocyanato- | ACGIH | TWA | 0.005 ppm | |
| Benzene, 1,1'-methylenebis[4-isocyanato- | OSHA | CEIL | 0.2 mg/m3 | |
| Benzene, 1,3-dimethyl- | ACGIH | TWA | 100 ppm | |
| Benzene, 1,3-dimethyl- | ACGIH | STEL | 150 ppm | |
| Benzene, 1,4-dimethyl- | ACGIH | TWA | 100 ppm | |
| Benzene, 1,4-dimethyl- | ACGIH | STEL | 150 ppm | |
| Bis(1,2,2,6,6-pentamethyl-4-piperidinyl) sebacate | CMRG | TWA | 1 mg/m3 | |
| Calcium Oxide | ACGIH | TWA | 2 mg/m3 | |
| Calcium Oxide | OSHA | TWA | 5 mg/m3 | |
| Carbon Black | ACGIH | TWA, inhalable fraction | 3 mg/m3 | |
| Carbon Black | CMRG | TWA | 0.5 mg/m3 | |
| Carbon Black | OSHA | TWA | 3.5 mg/m3 | |
| Ethylbenzene | ACGIH | TWA | 20 ppm | |
| Ethylbenzene | CMRG | TWA | 25 ppm | |
| Ethylbenzene | CMRG | STEL | 75 ppm | |
| Ethylbenzene | OSHA | TWA | 435 mg/m3 | |
| FREE ISOCYANATES | Manufacturer determined | TWA | 0.005 ppm | |
| FREE ISOCYANATES | Manufacturer determined | STEL | 0.02 ppm | |
| Petroleum Distillate | CMRG | TWA | 165 ppm | |
| Iron II Oxide | ACGIH | TWA, respirable fraction | 5 mg/m3 | |
| Iron II Oxide | OSHA | TWA, as fume | 10 mg/m3 | |
| Methyl 1,2,2,6,6-pentamethyl-4-piperidinyl sebacate | CMRG | TWA | 1 mg/m3 | |
| P,P'-Methylenebis(phenyl isocyanate) | ACGIH | TWA | 0.005 ppm | |
| P,P'-Methylenebis(phenyl isocyanate) | OSHA | CEIL | 0.2 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

| | |
|-------------------------------------------|--------------------------------------------------------------|
| Specific Physical Form: | Paste |
| Odor, Color, Grade: | Mild xylene odor |
| General Physical Form: | Solid |
| Autoignition temperature | >=200 °C |
| Flash Point | No flash point |
| Flammable Limits(LEL) | <i>Not Applicable</i> |
| Flammable Limits(UEL) | <i>Not Applicable</i> |
| Boiling Point | >=137 °C |
| Density | 1.2 g/ml |
| Vapor Density | <i>Not Applicable</i> |
| Vapor Pressure | <i>Not Applicable</i> |
| Specific Gravity | 1.2 [<i>Ref Std: WATER=1</i>] |
| pH | <i>Not Applicable</i> |
| Melting point | <i>No Data Available</i> |
| Solubility in Water | Nil |
| Evaporation rate | <i>No Data Available</i> |
| Hazardous Air Pollutants | < 7.5 % weight [<i>Test Method: Calculated</i>] |
| Kow - Oct/Water partition coef | <i>No Data Available</i> |
| VOC Less H2O & Exempt Solvents | 79 g/l [<i>Test Method: tested per EPA method 24</i>] |
| VOC Less H2O & Exempt Solvents | 4.8 % [<i>Test Method: tested per EPA method 24</i>] |
| VOC Less H2O & Exempt Solvents | 0.66 lb/gal [<i>Test Method: tested per EPA method 24</i>] |
| Viscosity | >=300000 centipoise [<i>@ 73.4 °F</i>] |
| Solids Content | > 90 % |

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

| <u>Substance</u> | <u>Condition</u> |
|------------------|-------------------|
| Carbon monoxide | During Combustion |
| Carbon dioxide | During Combustion |
| Hydrogen Cyanide | During Combustion |

Oxides of Nitrogen
Oxides of Sulfur

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 in the presence of a combustible material. Combustion products will include HCl. Facility must be capable of handling halogenated materials.

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 |
|----------------|-----|----------------|-----|
| 62-5265-3430-0 | | 62-5265-3435-9 | |
| 62-5265-3530-7 | | 62-5265-3531-5 | |
| 62-5265-3930-9 | | 62-5265-3931-7 | |
| 62-5265-3936-6 | | 62-5265-5230-2 | |
| 62-5265-5231-0 | | 62-5265-5235-1 | |
| 62-5265-5236-9 | | 62-5265-5238-5 | |
| 62-5265-8530-2 | | 62-5265-8531-0 | |
| 62-5265-9530-1 | | 62-5266-3430-8 | |
| 62-5266-3435-7 | | 62-5266-3530-5 | |
| 62-5266-3531-3 | | 62-5266-3930-7 | |
| 62-5266-3931-5 | | 62-5266-5230-0 | |
| 62-5266-5231-8 | | 62-5266-5235-9 | |
| 62-5266-5236-7 | | 62-5266-9530-9 | |
| 62-5266-9531-7 | | 62-5267-3430-6 | |
| 62-5267-3435-5 | | 62-5267-3530-3 | |
| 62-5267-3531-1 | | 62-5267-3930-5 | |

| | |
|----------------|----------------|
| 62-5267-3931-3 | 62-5267-3936-2 |
| 62-5267-5230-8 | 62-5267-5231-6 |
| 62-5267-5235-7 | 62-5267-5236-5 |
| 62-5267-5238-1 | 62-5267-8530-8 |
| 62-5267-8531-6 | 62-5267-9530-7 |
| 62-5267-9531-5 | |

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 manufacturer 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 | < 5.5 |
| Xylene (Benzene, 1,2-dimethyl-) | 1330-20-7 | < 5.5 |
| Xylene (Benzene, 1,3-dimethyl-) | 1330-20-7 | < 5.5 |
| Xylene (Benzene, 1,4-dimethyl-) | 1330-20-7 | < 5.5 |
| Xylene (Benzene, dimethyl-) | 1330-20-7 | < 5.5 |
| Ethylbenzene | 100-41-4 | < 2 |

STATE REGULATIONS

Contact manufacturer for more information

CALIFORNIA PROPOSITION 65

| <u>Ingredient</u> | <u>C.A.S. No.</u> | <u>Classification</u> |
|-------------------|-------------------|-----------------------|
| Ethylbenzene | 100-41-4 | **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 manufacturer for more information

INTERNATIONAL REGULATIONS

Contact manufacturer 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: 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 use information was modified.

Section 7: Handling information was modified.

Section 9: Property description for optional properties was modified.

Section 2: Ingredient table was modified.

Section 15: EPCRA 313 information was modified.

Section 8: Exposure guidelines ingredient information was modified.

Copyright was modified.

Section 9: Property description for required properties was added.

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