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Material Safety Data Sheet  
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1 Chemical Product and Company Identification  
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Tradename:

3M SCOTCH(TM) MINI-WELD MULTI-PURPOSE ADHESIVE 3481 (INACTIVE)

Product ID:

62-3481-3030-3    62-3481-3035-2    62-3481-3038-6    62-3481-8530-7

Intended Use of Product:

Adhesive;

Division:

Industrial Adhesives and Tapes

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2 Hazards Identification  
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Critical Hazards:

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

Prolonged or repeated exposure may cause:

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

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

Prolonged or repeated exposure may cause: Allergic Respiratory Reaction: Signs/symptoms can include difficulty breathing, wheezing, cough, and tightness of chest.

Harmful by inhalation.

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

See Sections 7 and 11 for further information.

### 3 Composition/Information on Ingredients

Ingredient Name	CAS Number	Percentage
POLYURETHANE RESIN	Trade Secret	60 - 100
P,P'-METHYLENEBIS(PHENYL ISOCYANATE)	101-68-8	1 - 3

NOTE:

POLYURETHANE RESIN is a non-hazardous Trade Secret material according to WHMIS criteria.  
Each percentage is expressed as the ratio of the weight of the ingredient to the weight of the controlled product.

### 4 First Aid Measures

Instructions for Eye Contact:

Immediately flush eyes with large amounts of water for at least 15 minutes. DO NOT ATTEMPT TO REMOVE MOLTEN MATERIAL. Get immediate medical attention.

Instructions for Skin Contact:

Remove contaminated clothing and shoes. Immediately flush skin with large amounts of cold water for at least 15 minutes. Get immediate medical attention. DO NOT ATTEMPT TO REMOVE MOLTEN MATERIAL. Cover affected area with a clean dressing. Wash contaminated clothing and clean shoes before reuse.

Instructions for Inhalation:

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

Instructions for Ingestion:

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.

### 5 Fire Fighting Measures

Flash point:  $\geq 198.89$  C  
Lower Explosive Limit (%): Not available  
Upper Explosive Limit (%): Not available  
Autoignition temperature: Not available

Suitable Extinguishing Media:

No data available.

Exposure Hazards during Fire:

No unusual fire or explosion hazards are anticipated. Material will not burn.

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Combustion Products from Fire:

Amine Compounds - During Combustion;  
Isocyanates - During Combustion;  
Carbon monoxide - During Combustion;  
Carbon dioxide - During Combustion;  
Hydrogen Cyanide - During Combustion;

Do not expose to temperatures or surface greater than 135 C.

Unusual Fire and Explosion Hazards

None known.

Fire Fighting Procedures:

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

NFPA: Health	2
NFPA: Fire	0
NFPA: Reactivity	1
NFPA: Unusual Reaction Hazard	none

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6 Accidental Release Measures

Personal Precautions:

No data available.

Environmental Procedures

No data available.

Methods for cleaning up

No data available.

Spill Response:

Evacuate unprotected and untrained personnel from hazard area. The spill should be cleaned up by qualified personnel. Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Dispose of collected material as soon as possible.

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7 Handling and Storage

Storage Requirements:

Store in a dry place. Keep container closed when not in use.

Incompatible Materials:

Amines; Alcohols; Water;

Reaction with water, alcohols and amines is not hazardous if container can vent to the atmosphere to prevent pressure buildup.

Do not expose to temperatures or surface greater than 135 C. Store away from heat;

Ventilation:

No data available.

Use Instructions:

Keep container tightly closed. For industrial or professional use only. Not intended for consumer sale or use. Do not expose to

temperatures or surface greater than 135 C.

## 8 Exposure Controls/Personal Protection

### Personal Protection

#### Eye Protection:

Avoid eye contact. The following should be worn alone or in combination, as appropriate, to prevent eye contact: Safety glasses with side shields Indirect vented goggles;

#### Hand Protection:

Avoid skin contact with hot material. 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.

#### Skin Protection:

Avoid skin contact.

#### Respiratory Protection:

Avoid breathing of vapours. Avoid breathing of dust created by cutting, sanding, grinding or machining. Avoid breathing of vapours, mists or spray. Select one of the following approved respirators based on airborne concentration of contaminants and in accordance with regulations: Half facepiece or fullface supplied-air respirator.

#### Ingestion (Prevention):

Do not ingest. Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water. Keep out of the reach of children. Wash hands after handling and before eating.

#### Recommended Ventilation:

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

### Ingredient Exposure Data

#### POLYURETHANE RESIN (Trade Secret)

LD50 (rat, oral)

No data available.

LC50 (rat, inhalation/4 hours)

No data available.

Exposure Limits

No data available.

P,P'-METHYLENEBIS(PHENYL ISOCYANATE) (101-68-8)

LD50 (rat, oral) 9200 mg/kg

LC50 (rat, inhalation/4 hours) 178 mg/m3

Exposure Limits

ACGIH: TWA 0.005 ppm

9 Physical and Chemical Properties

Physical form,Color,Odour: Waxy solid; off-white; mild odour;  
Odour Threshold: No data available.  
pH: Not applicable  
Boiling point/boiling range: Not applicable  
Melting point/melting range: Approximately 55 C  
Vapour pressure: <= 0.0003 mmHg (MDI) @ 25 C  
Water Solubility: Not available  
Specific gravity: Approximately 1.07 Water=1  
Vapour density: Approximately 8.9 Air=1  
Volatile organic compounds: Not available  
Evaporation rate: Not available  
Viscosity: Approximately 7400 centipoise @ 93.3 C  
Percent Volatile: <= 3 % by weight

10 Stability and Reactivity

Conditions to Avoid:

Do not expose to temperatures or surface greater than 135 C. Store away from heat;

Materials to Avoid:

Amines; Alcohols; Water; Reaction with water, alcohols and amines is not hazardous if container can vent to the atmosphere to prevent pressure buildup.

Hazardous Decomposition:

Amine Compounds - During Combustion;  
Isocyanates - During Combustion;  
Carbon monoxide - During Combustion;  
Carbon dioxide - During Combustion;  
Hydrogen Cyanide - During Combustion;

Do not expose to temperatures or surface greater than 135 C.

Stability and Reactivity:

Stable. Hazardous polymerization will not occur.

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11 Toxicological Information  
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Effects from Eye Contact:

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

Thermal Burns: Signs/symptoms may include severe pain, redness and swelling, and tissue destruction.

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

Effects from Skin Contact:

Thermal Burns: Signs/symptoms can include intense pain, redness and swelling, and tissue destruction.

Prolonged or repeated exposure may cause:

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

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

Effects from Inhalation:

Vapours from heated material may cause irritation of the respiratory system. 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.

Prolonged or repeated exposure may cause: Allergic Respiratory Reaction: Signs/symptoms can include difficulty breathing, wheezing, cough, and tightness of chest.

Harmful by inhalation.

Effects from Ingestion:

Physical Blockage: Signs/symptoms include cramping, abdominal pain, and constipation.

Sensitization Information:

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

Prolonged or repeated exposure may cause: Allergic Respiratory Reaction: Signs/symptoms can include difficulty breathing, wheezing, cough, and tightness of chest.

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

Carcinogenicity:

No data available.

Mutagenicity:

No data available.

Reproductive Effects:

No data available.

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Component Based Information:

No data available.

Product Based Information:

No data available.

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12 Ecological Information

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Environmental Data:

Ecotoxicity Data:

Not determined.

Ecofate Data:

Not determined.

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13 Disposal Considerations

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Product as Sold:

Dispose of completely cured (or polymerized) wastes in a sanitary landfill. As a disposal alternative, incinerate uncured product in an industrial or commercial incinerator in the presence of a combustible material.

Product Packaging:

No data available.

Special Instructions:

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

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14 Transport Information

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Transportation of Dangerous Goods

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TDG Classification:

Non-Regulated Material

Special Information:: Contact 3M for more information.

These transportation classifications are provided as a customer service. As the shipper YOU remain responsible for complying with all applicable laws and regulations, including proper transportation classification and packaging. 3M's transportation classifications are based on product formulation, packaging, 3M policies and 3M's understanding of applicable current regulations. 3M does not guarantee the accuracy of this classification information. This information applies only to transportation classification and not the packaging, labeling, or marking requirements. The original 3M package is certified for Canadian ground shipment only. If you are shipping by air or ocean, the package may not meet applicable regulatory requirements.

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International Dangerous Goods Classification  
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15 Regulatory Information  
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WHMIS Classification: D1A, D2A, D2B

NOTE:

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

Product Certifications:

The product on this MSDS, or all its components, is included on the following countries' chemical inventories, as noted:

EINECS - European Inventory of Existing Commercial Chemical Substances

MITI - Ministry of International Trade and Industry (JAPAN)

TSCA - Toxic Substances Control Act (USA)

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16 Other Information  
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Reason for Reissue:

The following Sections and topics have been updated or revised:  
Update Tradename (Obsolete product)

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