

Safety Data Sheet

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This Safety Data Sheet has been prepared in accordance with the Canadian Hazardous Products Regulations.

SECTION 1: Identification

1.1. Product identifier

3M(TM) Scotch-Weld(TM) Polyurethane Reactive Adhesive EZ250120

Product Identification	Numbers		
62-3853-5230-7	62-3853-5235-6	62-3853-6839-4	62-3853-8530-7

1.2. Recommended use and restrictions on use

Recommended use Structural adhesive

1.3. Supplier's details

Company:	3M Canada Company
Division:	Industrial Adhesives and Tapes Division
Address:	1840 Oxford Street East, Post Office Box 5757, London, Ontario N6A 4T1
Telephone:	(800) 364-3577
Website:	www.3M.ca

1.4. Emergency telephone number

Medical Emergency Telephone: (519) 451-2500, Ext. 2222; Transportation Emergency Telephone (CANUTEC): (613) 996-6666

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

Respiratory Sensitizer: Category 1. Skin Sensitizer: Category 1. Specific Target Organ Toxicity (repeated exposure): Category 1.

2.2. Label elements Signal word Danger

Symbols Health Hazard |

Pictograms



Hazard statements

May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.

Causes damage to organs through prolonged or repeated exposure: respiratory system |

Precautionary statements

Prevention:

Do not breathe dust/fume/gas/mist/vapours/spray. In case of inadequate ventilation wear respiratory protection. Wear protective gloves. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.

Response:

IF INHALED: If breathing is difficult, remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTRE or doctor/physician. IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse. Get medical advice/attention if you feel unwell.

Disposal:

Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

2.3. Other hazards

May cause thermal burns.

SECTION 3: Composition/information on ingredients

This material is a mixture.

Ingredient	C.A.S. No.	% by Wt
POLYURETHANE RESIN	31075-20-4	> 97
P,P'-DIPHENYLMETHANE DIISOCYANATE (MDI)	101-68-8	< 3

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:

Remove person to fresh air. If you feel unwell, get medical attention.

Skin Contact:

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

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.

If Swallowed:

Rinse mouth. If you feel unwell, get medical attention.

4.2. Most important symptoms and effects, both acute and delayed

See Section 11.1. Information on toxicological effects.

4.3. Indication of any immediate medical attention and special treatment required

Not applicable

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

In case of fire: Use a fire fighting agent suitable for ordinary combustible material such as water or foam to extinguish.

5.2. Special hazards arising from the substance or mixture

None inherent in this product.

Hazardous Decomposition or By-Products

<u>Substance</u>	<u>Condition</u>
Amine Compounds	During Combusti
Isocyanates	During Combusti
Carbon monoxide	During Combusti
Carbon dioxide	During Combusti
Hydrogen Cyanide	During Combusti

5.3. Special protective actions for fire-fighters

No special protective actions for fire-fighters are anticipated.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate area. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapours, in accordance with good industrial hygiene practice. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

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

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid skin contact with hot material. Avoid breathing of dust created by cutting, sanding, grinding or machining. For industrial or professional use only. Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eves, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

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7.2. Conditions for safe storage including any incompatibilities

Keep container tightly closed to prevent contamination with water or air. If contamination is suspected, do not reseal container. Store away from heat. Store away from amines.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

Ingredient	C.A.S. No.	Agency	Limit type	Additional Comments
FREE ISOCYANATES	101-68-8	Manufacturer	TWA:0.005 ppm;STEL:0.02	
		determined	ppm	
P,P'-DIPHENYLMETHANE	101-68-8	ACGIH	TWA:0.005 ppm	
DIISOCYANATE (MDI)				

ACGIH : American Conference of Governmental Industrial Hygienists

AIHA : American Industrial Hygiene Association

CMRG : Chemical Manufacturer's Recommended Guidelines

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit CEIL: Ceiling

CEIL. Ceiling

8.2. Exposure controls

8.2.1. Engineering controls

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

8.2.2. Personal protective equipment (PPE)

Eye/face protection

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended: Safety Glasses with side shields

Skin/hand protection

Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing.

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

Respiratory protection

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 vapours and particulates

For questions about suitability for a specific application, consult with your respirator manufacturer.

Thermal hazards

Wear heat insulating gloves when handling hot material to prevent thermal burns.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Solid	
Specific Physical Form:	Waxy Solid	
Appearance/Odour	White. Mild odour.	
Odour threshold	No Data Available	
рН	Not Applicable	
Melting point/Freezing point	No Data Available	
Boiling point/Initial boiling point/Boiling range	150 °C [Details: CONDITIONS: @ 5mm Hg (MDI)]	
Flash Point	>=198.9 °C	
Evaporation rate	No Data Available	
Flammability (solid, gas)	Not Classified	
Flammable Limits(LEL)	Not Applicable	
Flammable Limits(UEL)	Not Applicable	
Vapour Pressure	0 Pa [@ 25 °C] [Details: CONDITIONS: 3x10-4 (MDI)]	
Vapuor Density	8.6 [<i>Ref Std</i> :AIR=1]	
Density	1.15 g/cm3	
Relative density	1.15 [@ 135 °C] [<i>Ref Std</i> :WATER=1]	
Water solubility	Nil	
Solubility- non-water	No Data Available	
Partition coefficient: n-octanol/ water	No Data Available	
Autoignition temperature	No Data Available	
Decomposition temperature	No Data Available	
Viscosity	4,500 mPa-s [@ 135 °C]	
Molecular weight	No Data Available	
VOC Less H2O & Exempt Solvents	0 g/l [Test Method:calculated SCAQMD rule 443.1]	
VOC Less H2O & Exempt Solvents	0 % [Test Method:calculated SCAQMD rule 443.1]	

SECTION 10: Stability and reactivity

10.1. Reactivity

This material may be reactive with certain agents under certain conditions - see the remaining headings in this section.

10.2. Chemical stability Stable.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Heat

10.5. 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.

10.6. Hazardous decomposition products

Substance

Condition

None known.

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labeling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

11.1. Information on Toxicological effects

Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

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. 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. May cause additional health effects (see below).

Skin Contact:

During heating:

Thermal Burns: Signs/symptoms may include intense pain, redness and swelling, and tissue destruction. Mild Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, and dryness. Allergic Skin Reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

Eye Contact:

During heating:

Thermal Burns: Signs/symptoms may include severe pain, redness and swelling, and tissue destruction. Contact with the eyes during product use is not expected to result in significant irritation. vapours from heated material may cause eye irritation. Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

Ingestion:

May be harmful if swallowed. Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

Additional Health Effects:

Prolonged or repeated exposure may cause target organ effects:

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

Additional Information:

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

Toxicological Data

If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

Acute Toxicity

Name	Route	Species	Value
Overall product	Inhalation-		No data available; calculated ATE >50 mg/l
	Vapor(4 hr)		
Overall product	Ingestion		No data available; calculated ATE2,000 - 5,000 mg/kg
POLYURETHANE RESIN	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
P,P'-DIPHENYLMETHANE DIISOCYANATE (MDI)	Inhalation-		LC50 estimated to be 10 - 20 mg/l
	Vapor		
P,P'-DIPHENYLMETHANE DIISOCYANATE (MDI)	Dermal	Rabbit	LD50 > 5,000 mg/kg
P,P'-DIPHENYLMETHANE DIISOCYANATE (MDI)	Inhalation-	Rat	LC50 0.369 mg/l
	Dust/Mist		
	(4 hours)		
P,P'-DIPHENYLMETHANE DIISOCYANATE (MDI)	Ingestion	Rat	LD50 31,600 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
P,P'-DIPHENYLMETHANE DIISOCYANATE (MDI)	official classifica tion	Irritant

Serious Eye Damage/Irritation

Name	Species	Value
P,P'-DIPHENYLMETHANE DIISOCYANATE (MDI)	official classifica tion	Severe irritant

Skin Sensitization

Name	Species	Value
P,P'-DIPHENYLMETHANE DIISOCYANATE (MDI)	official	Sensitizing
	classifica	
	tion	

Respiratory Sensitization

Name	Species	Value
P,P'-DIPHENYLMETHANE DIISOCYANATE (MDI)	Human	Sensitizing

Germ Cell Mutagenicity

Name	Route	Value
P,P'-DIPHENYLMETHANE DIISOCYANATE (MDI)	In Vitro	Some positive data exist, but the data are not sufficient for classification

Carcinogenicity

Name	Route	Species	Value
P,P'-DIPHENYLMETHANE DIISOCYANATE (MDI)	Inhalation	Rat	Some positive data exist, but the data are not
			sufficient for classification

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
P,P'-DIPHENYLMETHANE DIISOCYANATE (MDI)	Inhalation	Some positive developmental data exist, but the data are not sufficient for classification	Rat	NOAEL 0.004 mg/l	during organogenesi s

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
P,P'- DIPHENYLMETHANE DIISOCYANATE (MDI)	Inhalation	respiratory irritation	May cause respiratory irritation	official classifica tion	NOAEL Not available	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
P,P'- DIPHENYLMETHANE DIISOCYANATE (MDI)	Inhalation	respiratory system	Causes damage to organs through prolonged or repeated exposure	Rat	LOAEL 0.004 mg/l	13 weeks

Aspiration Hazard

For the component/components, either no data are currently available or the data are not sufficient for classification.

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

SECTION 12: Ecological information

No data available.

SECTION 13: Disposal considerations

Dispose of contents/ container in accordance with the local/regional/national/international regulations.

SECTION 14: Transport Information

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

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Global inventory status

Contact 3M for more information. The components of this material are in compliance with the China "Measures on Environmental Management of New Chemical Substance". Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of the Korean Toxic Chemical Control Law. Certain restrictions may apply. Contact the selling division for additional information. The components of Australia National Industrial Chemical Notification and Assessment Scheme (NICNAS). Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Japan Chemical Substance Control Law. Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Japan Chemical Substance Control Law. Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Japan Chemical Substance Control Law. Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Japan Chemical Substance Control Law. Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Philippines RA 6969 requirements. Certain restrictions may apply. Contact the selling division for additional information. The components of this product are in compliance with the new substance notification requirements of CEPA. The components of this product are in compliance with the chemical notification requirements of TSCA.

SECTION 16: Other information

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. Health: 2 Flammability: 1 Instability: 1 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.

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