



Safety Data Sheet

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Document Group:	18-4801-9	Version Number:	3.00
Issue Date:	04/16/15	Supersedes Date:	06/16/11

Product identifier

3M(TM) Scotch-Weld(TM) Control Joint Sealant Self-Leveling DP5106 Gray

ID Number(s):

62-3527-3530-2

Recommended use

Structural adhesive

Supplier's details

MANUFACTURER:	3M
DIVISION:	Industrial Adhesives and Tapes Division
ADDRESS:	3M Center, St. Paul, MN 55144-1000, USA
Telephone:	1-888-3M HELPS (1-888-364-3577)

Emergency telephone number

1-800-364-3577 or (651) 737-6501 (24 hours)

This product is a kit or a multipart product which consists of multiple, independently packaged components. A Safety Data Sheet (SDS), Article Information Sheet (AIS), or Article Information Letter (AIL) for each of these components is included. Please do not separate the component documents from this cover page. The document numbers for components of this product are:

18-4654-2, 18-4660-9

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Document Group:	18-4654-2	Version Number:	7.02
Issue Date:	03/09/18	Supersedes Date:	01/17/18

SECTION 1: Identification

1.1. Product identifier

3M(TM) Scotch-Weld(TM) Control Joint Sealant Self-Leveling DP5106 Gray and Control Joint Sealant Self-Leveling 5106 Gray, Part B

Product Identification Numbers

62-3527-8535-6

1.2. Recommended use and restrictions on use

Recommended use

Structural adhesive

1.3. Supplier's details

MANUFACTURER:	3M
DIVISION:	Industrial Adhesives and Tapes Division
ADDRESS:	3M Center, St. Paul, MN 55144-1000, USA
Telephone:	1-888-3M HELPS (1-888-364-3577)

1.4. Emergency telephone number

1-800-364-3577 or (651) 737-6501 (24 hours)

SECTION 2: Hazard identification

2.1. Hazard classification

Serious Eye Damage/Irritation: Category 2A.

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

2.2. Label elements

Signal word

Danger

Symbols

Exclamation mark | Health Hazard |

Pictograms



Hazard Statements

Causes serious eye irritation.

Causes damage to organs through prolonged or repeated exposure:
liver |

May cause damage to organs through prolonged or repeated exposure:
endocrine system |

Precautionary Statements

Prevention:

Do not breathe dust/fume/gas/mist/vapors/spray.
Wear eye/face protection.
Do not eat, drink or smoke when using this product.
Wash thoroughly after handling.

Response:

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.
If eye irritation persists: Get medical advice/attention.
Get medical advice/attention if you feel unwell.

Disposal:

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

SECTION 3: Composition/information on ingredients

Ingredient	C.A.S. No.	% by Wt
polyether polyol	9082-00-2	60 - 90 Trade Secret *
diethyltoluenediamine	68479-98-1	10 - 30 Trade Secret *
propoxylated trimethylolpropane	25723-16-4	1 - 10 Trade Secret *
amorphous silica	67762-90-7	1 - 5 Trade Secret *
titanium dioxide	13463-67-7	<= 0.5 Trade Secret *

*The specific chemical identity and/or exact percentage (concentration) of this composition has been withheld as a trade secret.

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:

Wash with soap and water. If signs/symptoms develop, get medical attention.

Eye Contact:

Immediately flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. Get 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

Substance

Aldehydes
Carbon monoxide
Carbon dioxide
Oxides of Nitrogen

Condition

During Combustion
During Combustion
During Combustion
During Combustion

5.3. Special protective actions for fire-fighters

Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

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

6.3. Methods and material for containment and cleaning up

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. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. 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 SDS. Seal the container. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

For industrial or professional use only. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid release to the environment. Avoid contact with oxidizing agents (eg. chlorine, chromic acid etc.)

7.2. Conditions for safe storage including any incompatibilities

Store away from acids. Store away from oxidizing agents.

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
titanium dioxide	13463-67-7	ACGIH	TWA:10 mg/m ³	A4: Not class. as human carcin
titanium dioxide	13463-67-7	OSHA	TWA(as total dust):15 mg/m ³	
SILICA, AMORPHOUS	67762-90-7	OSHA	TWA concentration:0.8 mg/m ³ ;TWA:20 millions of particles/cu. ft.	

ACGIH : American Conference of Governmental Industrial Hygienists

AIHA : American Industrial Hygiene Association

CMRG : Chemical Manufacturer's Recommended Guidelines

OSHA : United States Department of Labor - Occupational Safety and Health Administration

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

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/vapors/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:

Indirect Vented Goggles

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. Note: Nitrile gloves may be worn over polymer laminate gloves to improve dexterity.

Gloves made from the following material(s) are recommended: Polymer laminate

Respiratory protection

None required.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

General Physical Form:	Liquid
Specific Physical Form:	Viscous
Odor, Color, Grade:	Slight ammonia like odor, black.
Odor threshold	<i>No Data Available</i>
pH	<i>Not Applicable</i>
Melting point	<i>No Data Available</i>
Boiling Point	>=400 °F
Flash Point	>=290 °F [<i>Test Method:</i> Tagliabue Closed Cup]
Evaporation rate	<=1 [<i>Ref Std:</i> WATER=1]
Flammability (solid, gas)	Not Applicable
Flammable Limits(LEL)	<i>Not Applicable</i>
Flammable Limits(UEL)	<i>Not Applicable</i>
Vapor Pressure	<i>Not Applicable</i>
Vapor Density	>=1 [<i>Ref Std:</i> AIR=1]
Density	1.06 g/ml
Specific Gravity	1.06
Solubility in Water	Negligible
Solubility- non-water	<i>No Data Available</i>
Partition coefficient: n-octanol/ water	<i>No Data Available</i>
Autoignition temperature	<i>Not Applicable</i>
Decomposition temperature	<i>No Data Available</i>
Viscosity	3,000 - 4,000 centipoise
Hazardous Air Pollutants	0 % weight [<i>Test Method:</i> Calculated]
Molecular weight	<i>Not Applicable</i>
VOC Less H2O & Exempt Solvents	1 g/l [<i>Test Method:</i> calculated SCAQMD rule 443.1] [<i>Details:</i> when used as intended with Part A]
VOC Less H2O & Exempt Solvents	1 g/l [<i>Test Method:</i> calculated SCAQMD rule 443.1] [<i>Details:</i> as supplied]
VOC Less H2O & Exempt Solvents	0.1 % [<i>Test Method:</i> calculated SCAQMD rule 443.1] [<i>Details:</i> when used as intended with Part A]

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

None known.

10.5. Incompatible materials

Strong acids

Strong oxidizing agents

10.6. Hazardous decomposition products

<u>Substance</u>	<u>Condition</u>
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None known.	
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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:

No health effects are expected.

Skin Contact:

Contact with the skin during product use is not expected to result in significant irritation.

Eye Contact:

Severe Eye Irritation: Signs/symptoms may include significant redness, swelling, pain, tearing, cloudy appearance of the cornea, and impaired vision.

Ingestion:

May be harmful if swallowed.

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

May cause additional health effects (see below).

Additional Health Effects:

Prolonged or repeated exposure may cause target organ effects:

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

Endocrine Effects: Signs/symptoms may include disruption of gonadal, thyroid, adrenal, or pancreatic function; changes in hormone production; alterations in circulating hormone levels; and/or changes in tissue response to hormones.

Carcinogenicity:

<u>Ingredient</u>	<u>CAS No.</u>	<u>Class Description</u>	<u>Regulation</u>
titanium dioxide	13463-67-7	Grp. 2B: Possible human carc.	International Agency for Research on Cancer

Additional Information:

Increased numbers of tumors in the liver, thyroid, and possibly the mammary glands were observed in rats given DETDA

(CAS No. 68479-98-1) in their diet for two years.

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	Dermal		No data available; calculated ATE >5,000 mg/kg
Overall product	Ingestion		No data available; calculated ATE 2,000 - 5,000 mg/kg
polyether polyol	Dermal	Rabbit	LD50 > 5,000 mg/kg
polyether polyol	Ingestion	Rat	LD50 > 10,000 mg/kg
diethyltoluenediamine	Dermal	Rat	LD50 > 2,000 mg/kg
diethyltoluenediamine	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 0.61 mg/l
diethyltoluenediamine	Ingestion	Rat	LD50 472 mg/kg
propoxylated trimethylolpropane	Dermal	Rat	LD50 > 2,000 mg/kg
propoxylated trimethylolpropane	Ingestion	Rat	LD50 > 2,500 mg/kg
amorphous silica	Dermal	Rabbit	LD50 > 5,000 mg/kg
amorphous silica	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 0.691 mg/l
amorphous silica	Ingestion	Rat	LD50 > 5,110 mg/kg
titanium dioxide	Dermal	Rabbit	LD50 > 10,000 mg/kg
titanium dioxide	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 6.82 mg/l
titanium dioxide	Ingestion	Rat	LD50 > 10,000 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
diethyltoluenediamine	Rabbit	No significant irritation
propoxylated trimethylolpropane	Rabbit	No significant irritation
amorphous silica	Rabbit	No significant irritation
titanium dioxide	Rabbit	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
diethyltoluenediamine	Rabbit	Severe irritant
propoxylated trimethylolpropane	Rabbit	Mild irritant
amorphous silica	Rabbit	No significant irritation
titanium dioxide	Rabbit	No significant irritation

Skin Sensitization

Name	Species	Value
diethyltoluenediamine	Human	Not classified
amorphous silica	Human and animal	Not classified
titanium dioxide	Human and animal	Not classified

Respiratory Sensitization

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

Germ Cell Mutagenicity

Name	Route	Value
diethyltoluenediamine	In Vitro	Some positive data exist, but the data are not sufficient for classification
diethyltoluenediamine	In vivo	Some positive data exist, but the data are not sufficient for classification
amorphous silica	In Vitro	Not mutagenic
titanium dioxide	In Vitro	Not mutagenic
titanium dioxide	In vivo	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
diethyltoluenediamine	Ingestion	Rat	Some positive data exist, but the data are not sufficient for classification
amorphous silica	Not Specified	Mouse	Some positive data exist, but the data are not sufficient for classification
titanium dioxide	Ingestion	Multiple animal species	Not carcinogenic
titanium dioxide	Inhalation	Rat	Carcinogenic

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test Result	Exposure Duration
amorphous silica	Ingestion	Not classified for female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation
amorphous silica	Ingestion	Not classified for male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
amorphous silica	Ingestion	Not classified for development	Rat	NOAEL 1,350 mg/kg/day	during organogenesis

Target Organ(s)

Specific Target Organ Toxicity - single exposure

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

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
diethyltoluenediamine	Ingestion	liver	Causes damage to organs through prolonged or repeated exposure	Rat	LOAEL 0.4 mg/kg/day	24 months
diethyltoluenediamine	Ingestion	endocrine system	May cause damage to organs through prolonged or repeated exposure	Rat	NOAEL 1.4 mg/kg/day	24 months
diethyltoluenediamine	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 2.8 mg/kg/day	24 months
diethyltoluenediamine	Ingestion	eyes	Not classified	Rat	NOAEL 1.4 mg/kg/day	24 months
diethyltoluenediamine	Ingestion	heart skin bone, teeth, nails, and/or hair hematopoietic system immune system muscles nervous system respiratory system	Not classified	Rat	NOAEL 3.5 mg/kg/day	24 months
amorphous silica	Inhalation	respiratory system silicosis	Not classified	Human	NOAEL Not available	occupational exposure
titanium dioxide	Inhalation	respiratory system	Some positive data exist, but the	Rat	LOAEL 0.01	2 years

			data are not sufficient for classification		mg/l	
titanium dioxide	Inhalation	pulmonary fibrosis	Not classified	Human	NOAEL Not available	occupational exposure

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

Ecotoxicological information

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

Chemical fate information

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

SECTION 13: Disposal considerations

13.1. Disposal methods

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

Dispose of completely cured (or polymerized) material in a permitted industrial waste facility. As a disposal alternative, incinerate uncured product in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

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. US Federal Regulations

Contact 3M for more information.

EPCRA 311/312 Hazard Classifications:

Physical Hazards

Not applicable

Health Hazards

Serious eye damage or eye irritation

Specific target organ toxicity (single or repeated exposure)

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>
diethyltoluenediamine (Benzenediamine, ar,ar-diethyl-ar-methyl-)	68479-98-1	Toxic Substances Control Act (TSCA) 4 Test Rule Chemicals	Applicable
diethyltoluenediamine	68479-98-1	Toxic Substances Control Act (TSCA) 4 Test Rule Chemicals	Applicable

15.2. State Regulations

Contact 3M for more information.

15.3. Chemical Inventories

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

Contact 3M for more information.

15.4. International Regulations

Contact 3M for more information.

This SDS 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 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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SECTION 1: Identification

1.1. Product identifier

3M(TM) Scotch-Weld(TM) Control Joint Sealant Self-Leveling DP5106 Gray and Control Joint Sealant Self-Leveling 5106 Gray, Part A

Product Identification Numbers

62-3627-8535-4

1.2. Recommended use and restrictions on use

Recommended use

Structural adhesive

1.3. Supplier's details

MANUFACTURER:	3M
DIVISION:	Industrial Adhesives and Tapes Division
ADDRESS:	3M Center, St. Paul, MN 55144-1000, USA
Telephone:	1-888-3M HELPS (1-888-364-3577)

1.4. Emergency telephone number

1-800-364-3577 or (651) 737-6501 (24 hours)

SECTION 2: Hazard identification

2.1. Hazard classification

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/vapors/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 CENTER 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% of the mixture consists of ingredients of unknown acute oral toxicity.

SECTION 3: Composition/information on ingredients

Ingredient	C.A.S. No.	% by Wt
polyurethane prepolymer	9042-82-4	50 - 80 Trade Secret *
dicyclohexylmethane-4,4'-diisocyanate (HMDI)	5124-30-1	15 - 40 Trade Secret *
1,1'-methylenebis(isocyanatobenzene)	26447-40-5	1 - 10 Trade Secret *
benzene, 1,1'-methylenebis[isocyanato-, homopolymer	39310-05-9	<= 2 Trade Secret *
amorphous silica	68909-20-6	<= 2 Trade Secret *

*The specific chemical identity and/or exact percentage (concentration) of this composition has been withheld as a trade secret.

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 wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms develop, get medical attention.

Eye Contact:

Flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms persist, get 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

Substance

Carbon monoxide

Carbon dioxide

Oxides of Nitrogen

Toxic Vapor, Gas, Particulate

Condition

During Combustion

During Combustion

During Combustion

During Combustion

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

6.3. Methods and material for containment and cleaning up

Contain spill. 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. 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. Remember, adding an absorbent material

does not remove a physical, health, or environmental hazard. 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 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 SDS. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, 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. Avoid release to the environment. Wash contaminated clothing before reuse.

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 acids. Store away from strong bases.

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
dicyclohexylmethane-4,4'-diisocyanate (HMDI)	5124-30-1	ACGIH	TWA:0.005 ppm	

ACGIH : American Conference of Governmental Industrial Hygienists

AIHA : American Industrial Hygiene Association

CMRG : Chemical Manufacturer's Recommended Guidelines

OSHA : United States Department of Labor - Occupational Safety and Health Administration

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

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/vapors/spray. If ventilation is not adequate, use respiratory protection equipment.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

None required.

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

Fluoroelastomer

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 vapors and particulates

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

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

General Physical Form:	Liquid
Specific Physical Form:	Viscous
Odor, Color, Grade:	Low or no detectable odor, clear.
Odor threshold	<i>No Data Available</i>
pH	<i>Not Applicable</i>
Melting point	<i>No Data Available</i>
Boiling Point	>=400 °F
Flash Point	>=290 °F [<i>Test Method:</i> Tagliabue Closed Cup]
Evaporation rate	<=1 [<i>Details:</i> Gels with exposure to humidity.]
Flammability (solid, gas)	Not Applicable
Flammable Limits(LEL)	<i>Not Applicable</i>
Flammable Limits(UEL)	<i>Not Applicable</i>
Vapor Pressure	<=0.000004 mmHg [@ 68 °F]
Vapor Density	>=1 [<i>Ref Std:</i> AIR=1]
Density	1.04 g/ml
Specific Gravity	1.04 [<i>Ref Std:</i> WATER=1]
Solubility in Water	Negligible
Solubility- non-water	<i>No Data Available</i>
Partition coefficient: n-octanol/ water	<i>No Data Available</i>
Autoignition temperature	<i>Not Applicable</i>
Decomposition temperature	<i>No Data Available</i>
Viscosity	1,300 - 2,000 centipoise
Hazardous Air Pollutants	<= 10 % weight [<i>Test Method:</i> Calculated]
Molecular weight	<i>No Data Available</i>
VOC Less H2O & Exempt Solvents	1 g/l [<i>Test Method:</i> calculated SCAQMD rule 443.1] [<i>Details:</i> when used as intended with Part B]
VOC Less H2O & Exempt Solvents	1 g/l [<i>Test Method:</i> calculated SCAQMD rule 443.1] [<i>Details:</i> as supplied]
VOC Less H2O & Exempt Solvents	0.1 % [<i>Test Method:</i> calculated SCAQMD rule 443.1] [<i>Details:</i> when used as intended with Part B]

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

None known.

10.5. Incompatible materials

Water

Strong acids

Strong bases

10.6. Hazardous decomposition products

<u>Substance</u>	<u>Condition</u>
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.

May cause additional health effects (see below).

Skin Contact:

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:

Contact with the eyes during product use is not expected to result in significant irritation.

Ingestion:

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 colored 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	Ingestion		No data available; calculated ATE >5,000 mg/kg
dicyclohexylmethane-4,4'-diisocyanate (HMDI)	Dermal	Rabbit	LD50 > 10,000 mg/kg
dicyclohexylmethane-4,4'-diisocyanate (HMDI)	Inhalation-Dust/Mist (4 hours)	Rat	LC50 0.434 mg/l
dicyclohexylmethane-4,4'-diisocyanate (HMDI)	Ingestion	Rat	LD50 9,900 mg/kg
1,1'-methylenebis(isocyanatobenzene)	Dermal	Rabbit	LD50 > 5,000 mg/kg
1,1'-methylenebis(isocyanatobenzene)	Inhalation-Dust/Mist (4 hours)	Rat	LC50 0.368 mg/l
1,1'-methylenebis(isocyanatobenzene)	Ingestion	Rat	LD50 31,600 mg/kg
amorphous silica	Dermal	Rabbit	LD50 > 5,000 mg/kg
amorphous silica	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 0.691 mg/l
amorphous silica	Ingestion	Rat	LD50 > 5,110 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
1,1'-methylenebis(isocyanatobenzene)	official classification	Irritant
amorphous silica	Rabbit	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
1,1'-methylenebis(isocyanatobenzene)	official classification	Severe irritant
amorphous silica	Rabbit	No significant irritation

Skin Sensitization

Name	Species	Value
1,1'-methylenebis(isocyanatobenzene)	official classification	Sensitizing
amorphous silica	Human and animal	Not classified

Respiratory Sensitization

Name	Species	Value
1,1'-methylenebis(isocyanatobenzene)	Human	Sensitizing

Germ Cell Mutagenicity

Name	Route	Value
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1,1'-methylenebis(isocyanatobenzene)	In Vitro	Some positive data exist, but the data are not sufficient for classification
amorphous silica	In Vitro	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
1,1'-methylenebis(isocyanatobenzene)	Inhalation	Rat	Some positive data exist, but the data are not sufficient for classification
amorphous silica	Not Specified	Mouse	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
1,1'-methylenebis(isocyanatobenzene)	Inhalation	Not classified for development	Rat	NOAEL 0.004 mg/l	during organogenesis
amorphous silica	Ingestion	Not classified for female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation
amorphous silica	Ingestion	Not classified for male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
amorphous silica	Ingestion	Not classified for development	Rat	NOAEL 1,350 mg/kg/day	during organogenesis

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
1,1'-methylenebis(isocyanatobenzene)	Inhalation	respiratory irritation	May cause respiratory irritation	official classification	NOAEL Not available	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
1,1'-methylenebis(isocyanatobenzene)	Inhalation	respiratory system	Causes damage to organs through prolonged or repeated exposure	Rat	LOAEL 0.004 mg/l	13 weeks
amorphous silica	Inhalation	respiratory system silicosis	Not classified	Human	NOAEL Not available	occupational exposure

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

Ecotoxicological information

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

Chemical fate information

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

SECTION 13: Disposal considerations

13.1. Disposal methods

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

Dispose of completely cured (or polymerized) material in a permitted industrial waste facility. As a disposal alternative, incinerate uncured product in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

EPA Hazardous Waste Number (RCRA): Not regulated

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. US Federal Regulations

Contact 3M for more information.

EPCRA 311/312 Hazard Classifications:

Physical Hazards

Not applicable

Health Hazards

Specific target organ toxicity (single or repeated exposure)

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>
dicyclohexylmethane-4,4'-diisocyanate (HMDI)	5124-30-1	Trade Secret 15 - 40
dicyclohexylmethane-4,4'-diisocyanate (HMDI) (DIISOCYANATES (CERTAIN CHEMICALS ONLY))	5124-30-1	15 - 40

15.2. State Regulations

Contact 3M for more information.

15.3. Chemical Inventories

The components of this product are in compliance with the chemical notification requirements of TSCA. All required components of this product are listed on the active portion of the TSCA Inventory.

Contact 3M for more information.

15.4. International Regulations

Contact 3M for more information.

This SDS 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 **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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