

Document Group: 29-6169-6

Version Number: 2.01

SECTION 1: Identification

I.1. Catalog Number: 1217349

I.2. Recommended use and restrictions on use

Recommended use: Adhesive

SECTION 2: Hazard identification

2.1. Hazard classification

Respiratory Sensitizer: Category 1.
Skin Sensitizer: Category 1.
Reproductive Toxicity: Category 1B.
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.
May damage fertility or the unborn child.

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

Precautionary Statements
Prevention:

- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- 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.
- IF exposed or concerned: Get medical advice/attention.

Storage:

- Store locked up.

Disposal:

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

2.3. Hazards not otherwise classified

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

12% of the mixture consists of ingredients of unknown acute inhalation toxicity.

SECTION 3: Composition/information on ingredients		
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Ingredient	C.A.S. No.	% by Wt
Urethane Polymer	Trade Secret*	30 - 60 Trade Secret *
Carbon Black	1333-86-4	10 - 30 Trade Secret *
Phenol Alkyl Sulfonate	Trade Secret*	10 - 30 Trade Secret *
Calcinated Kaolin	92704-41-1	7 - 13 Trade Secret *
Toluene	108-88-3	< 1.4 Trade Secret *
p,p'-Methylenebis (phenyl isocyanate)	101-68-8	< 0.2 Trade Secret *
p-Toluenesulfonamide	70-55-3	< 0.2 Trade Secret *
Dibutyltin Dichloride	683-18-1	< 0.04 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:

No need for first aid is anticipated.

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>
Carbon monoxide	During Combustion
Carbon dioxide	During Combustion
Irritant Vapors or Gases	During Combustion
Oxides of Nitrogen	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. 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

Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Clean up residue. Dispose of collected material as soon as possible.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

For industrial or professional use only. Do not handle until all safety precautions have been read and understood. 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. Avoid contact with oxidizing agents (eg. chlorine, chromic acid etc.) Use personal protective equipment (gloves, respirators, etc.) as required.

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 acids. Store away from oxidizing agents. 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 determined	TWA:0.005 ppm;STEL:0.02 ppm	
p,p'-Methylenebis (phenylisocyanate)	101-68-8	ACGIH	TWA:0.005 ppm	
p,p'-Methylenebis (phenylisocyanate)	101-68-8	OSHA	CEIL:0.2 mg/m ³ (0.02 ppm)	
Toluene	108-88-3	ACGIH	TWA:20 ppm	A4: Not class. as human carcin
Toluene	108-88-3	CMRG	STEL:75 ppm	Skin Notation
Toluene	108-88-3	OSHA	TWA:200 ppm;CEIL:300 ppm	
Carbon Black	1333-86-4	ACGIH	TWA(inhalable fraction):3 mg/m ³	A3: Confirmed animal carcin.
Carbon Black	1333-86-4	CMRG	TWA:0.5 mg/m ³	
Carbon Black	1333-86-4	OSHA	TWA:3.5 mg/m ³	
TIN, ORGANIC COMPOUNDS	683-18-1	ACGIH	TWA(as Sn):0.1 mg/m ³ ;STEL(as Sn):0.2 mg/m ³	A4: Not class. as human carcin, Skin Notation
TIN, ORGANIC COMPOUNDS	683-18-1	OSHA	TWA(as Sn):0.1 mg/m ³	

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:
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: Fluoroelastomer
Polymer laminate

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:	Solid
Specific Physical Form:	Paste
Odor, Color, Grade:	Black slight odor.
Odor threshold	<i>No Data Available</i>
pH	<i>Not Applicable</i>
Melting point	<i>No Data Available</i>
Boiling Point	110 °C
Flash Point	≥61 °C [<i>Test Method: Closed Cup</i>]
Evaporation rate	<i>No Data Available</i>
Flammability (solid, gas)	Not Classified
Flammable Limits(LEL)	0.6 % volume
Flammable Limits(UEL)	8 % volume
Vapor Pressure	<i>Not Applicable</i>
Density	1.2 g/cm ³ [<i>@ 20 °C</i>]
Specific Gravity	1.2 [<i>@ 20 °C</i>] [<i>Ref Std: WATER=1</i>]
Solubility in Water	Negligible
Solubility- non-water	<i>No Data Available</i>
Partition coefficient: n-octanol/ water	<i>No Data Available</i>
Decomposition temperature	<i>No Data Available</i>
Viscosity	<i>No Data Available</i>
Hazardous Air Pollutants	1.6 % weight [<i>Test Method: Calculated</i>]
VOC Less H₂O & Exempt Solvents	23 g/l [<i>Test Method: calculated SCAQMD rule 443.1</i>]
Solids Content	> 95 %

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

Alcohols

Amines

Water

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 target organ effects after inhalation.

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, upset stomach, nausea, vomiting and diarrhea.

Target Organ Effects:
Prolonged or repeated exposure may cause:

Ocular Effects: Signs/symptoms may include blurred or significantly impaired vision.

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

Olfactory Effects: Signs/symptoms may include decreased ability to detect odors and/or complete loss of smell.

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.

Reproductive/Developmental Toxicity:

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

Carcinogenicity:

Ingredient	C.A.S. No.	Class Description	Regulation
Carbon Black	1333-86-4	Grp. 2B: Possible human carc.	International Agency for Research on Cancer

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 is available for that endpoint or the data is not sufficient for classification.

Acute Toxicity

Name	Route	Species	Value
Overall product	Inhalation-Vapor (4 hrs)		No data available; calculated ATE > 50 mg/l
Overall product	Ingestion		No data available; calculated ATE > 5,000 mg/kg
Urethane Polymer	Ingestion	Rat	LD50 > 5,000 mg/kg
Phenol Alkyl Sulfonate	Dermal	Rat	LD50 > 1,000 mg/kg
Phenol Alkyl Sulfonate	Ingestion	Rat	LD50 > 5,000 mg/kg
Carbon Black	Dermal	Rabbit	LD50 > 3,000 mg/kg
Carbon Black	Ingestion	Rat	LD50 > 8,000 mg/kg
Calcinated Kaolin	Ingestion	Rat	LD50 > 2,000 mg/kg
Toluene	Dermal	Rat	LD50 12,000 mg/kg
Toluene	Inhalation-Vapor (4 hours)	Rat	LC50 30 mg/l
Toluene	Ingestion	Rat	LD50 5,550 mg/kg
p,p'-Methylenebis (phenyl isocyanate)	Inhalation-Vapor		LC50 estimated to be 10 - 20 mg/l
p,p'-Methylenebis (phenyl isocyanate)	Dermal	Rabbit	LD50 > 5,000 mg/kg
p,p'-Methylenebis (phenyl isocyanate)	Inhalation-Dust/Mist (4 hours)	Rat	LC50 0.369 mg/l
p,p'-Methylenebis (phenyl isocyanate)	Ingestion	Rat	LD50 31,600 mg/kg
p-Toluenesulfonamide	Ingestion	Rat	LD50 > 2,000 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Carbon Black	Rabbit	No significant irritation
Toluene	Rabbit	Irritant
p,p'-Methylenebis (phenyl isocyanate)	official classification	Irritant
p-Toluenesulfonamide	Rabbit	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
Carbon Black	Rabbit	No significant irritation
Toluene	Rabbit	Moderate irritant
p,p'-Methylenebis (phenyl isocyanate)	official classification	Severe irritant
p-Toluenesulfonamide	Rabbit	No significant irritation

Skin Sensitization

Name	Species	Value
Toluene	Guinea pig	Not sensitizing
p,p'-Methylenebis (phenyl isocyanate)	official classification	Sensitizing

Respiratory Sensitization

Name	Species	Value
p,p'-Methylenebis (phenyl isocyanate)	Human	Sensitizing

Germ Cell Mutagenicity

Name	Route	Value
Carbon Black	In Vitro	Not mutagenic
Carbon Black	In Vitro	Some positive data exists, but the data is not sufficient for classification
Toluene	In Vitro	Not mutagenic
Toluene	In Vitro	Not mutagenic
p,p'-Methylenebis (phenyl isocyanate)	In Vitro	Some positive data exists, but the data is not sufficient for classification

Carcinogenicity

Name	Route	Species	Value
Carbon Black	Dermal	Mouse	Not carcinogenic
Carbon Black	Ingestion	Mouse	Not carcinogenic
Carbon Black	Inhalation	Rat	Carcinogenic
Toluene	Dermal	Mouse	Some positive data exists, but the data is not sufficient for classification
Toluene	Ingestion	Rat	Some positive data exists, but the data is not sufficient for classification
Toluene	Inhalation	Mouse	Some positive data exists, but the data is not sufficient for classification
p,p'-Methylenebis (phenyl isocyanate)	Inhalation	Rat	Some positive data exists, but the data is not sufficient for classification

Reproductive Toxicity
Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test Result	Exposure Duration
Toluene	Inhalation	Some positive female reproductive data exists, but the data is not sufficient for classification	Human	NOAEL Not available	occupational exposure
Toluene	Inhalation	Some positive male reproductive data exists, but the data is not sufficient for classification	Rat	NOAEL 2.3 mg/l	1 generation

Toluene	Ingestion	Toxic to development	Rat	LOAEL 520 mg/kg/day	during gestation
Toluene	Inhalation	Toxic to development	Human	NOAEL Not available	poisoning and/or abuse
p,p'-Methylenebis (phenyl isocyanate)	Inhalation	Some positive developmental data exists, but the data is not sufficient for classification	Rat	NOAEL 0.004 mg/l	during organogenesis
p-Toluenesulfonamide	Ingestion	Some positive reproductive/developmental data exists, but the data is not sufficient for classification	Rat	NOAEL 300 mg/kg/day	premating & during gestation

Target Organ(s)
Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Toluene	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
Toluene	Inhalation	respiratory irritation	Some positive data exists, but the data is not sufficient for classification	Human	NOAEL Not available	
Toluene	Inhalation	immune system	Some positive data exists, but the data is not sufficient for classification	Mouse	NOAEL 0.004 mg/l	3 hours
Toluene	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	poisoning and/or abuse
p,p'-Methylenebis (phenyl isocyanate)	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
Carbon Black	Inhalation	pneumoconiosis	Some positive data exists, but the data is not sufficient for classification	Human	NOAEL Not available	occupational exposure
Toluene	Inhalation	auditory system nervous system eyes olfactory system	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	poisoning and/or abuse
Toluene	Inhalation	respiratory system	Some positive data exists, but the data is not sufficient for classification	Rat	LOAEL 2.3 mg/l	15 months
Toluene	Inhalation	heart liver kidney and/or bladder	Some positive data exists, but the data is not sufficient for classification	Rat	NOAEL 11.3 mg/l	15 weeks
Toluene	Inhalation	endocrine system	Some positive data exists, but the data is not sufficient for classification	Rat	NOAEL 1.1 mg/l	4 weeks
Toluene	Inhalation	immune system	Some positive data exists, but the data is not sufficient for classification	Mouse	NOAEL Not available	20 days
Toluene	Inhalation	bone, teeth, nails, and/or hair	Some positive data exists, but the data is not sufficient for classification	Mouse	NOAEL 1.1 mg/l	8 weeks
Toluene	Inhalation	hematopoietic system vascular system	Some positive data exists, but the data is not sufficient for classification	Human	NOAEL Not available	occupational exposure
Toluene	Ingestion	nervous system	Some positive data exists, but the data is not sufficient for classification	Rat	NOAEL 625 mg/kg/day	13 weeks
Toluene	Ingestion	heart	Some positive data exists, but the data is not sufficient for classification	Rat	NOAEL 2,500 mg/kg/day	13 weeks

Toluene	Ingestion	liver kidney and/or bladder	Some positive data exists, but the data is not sufficient for classification	Multiple animal species	NOAEL 2,500 mg/kg/day	13 weeks
Toluene	Ingestion	hematopoietic system	Some positive data exists, but the data is not sufficient for classification	Mouse	NOAEL 600 mg/kg/day	14 days
Toluene	Ingestion	endocrine system	Some positive data exists, but the data is not sufficient for classification	Mouse	NOAEL 105 mg/kg/day	28 days
Toluene	Ingestion	immune system	Some positive data exists, but the data is not sufficient for classification	Mouse	NOAEL 105 mg/kg/day	4 weeks
p,p'-Methylenebis (phenyl isocyanate)	Inhalation	respiratory system	Causes damage to organs through prolonged or repeated exposure	Rat	LOAEL 0.004 mg/l	13 weeks

Aspiration Hazard

Name	Value
Toluene	Aspiration hazard

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.

Incinerate uncured product in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. As a disposal alternative, utilize an acceptable permitted waste disposal facility. 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

Please contact the emergency numbers listed on the first page of the MSDS for Transportation Information for this material.

SECTION 15: Regulatory information

15.1. US Federal Regulations

Contact manufacturer for more information

311/312 Hazard Categories:

Fire Hazard - Yes Pressure Hazard - No Reactivity Hazard - No Immediate Hazard - Yes Delayed Hazard - Yes

Section 313 Toxic Chemicals subject to the reporting requirements of that section and 40 CFR part 372 (EPCRA):

<u>Ingredient</u>	<u>C.A.S. No</u>	<u>% by Wt</u>
Toluene	108-88-3	< 1.4

15.2. State Regulations

Contact manufacturer for more information

California Proposition 65

<u>Ingredient</u>	<u>C.A.S. No.</u>	<u>Classification</u>
Toluene	108-88-3	Female reproductive toxin
Toluene	108-88-3	Developmental Toxin

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

15.3. Chemical Inventories

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

Contact manufacturer for more information

15.4. International Regulations

Contact manufacturer for more information

This SDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.
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