



# SAFETY DATA SHEET

in accordance with 29 CFR 1910.1200 and ANSI standard Z400.1-2010

Revision date: Aug/5/2016

Version: 2

Language: en-US

Date of print: Aug/11/2016

## Urethane Resin 45, 60, 80

Material number 105101

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### 1. Product and company identification

#### Product identifier

Trade name: Urethane Resin 45, 60, 80

#### Relevant identified uses of the substance or mixture and uses advised against

General use: Resin for 2 component adhesive  
Restricted to professional users.

#### Details of the supplier of the safety data sheet

Company name: WEICON Inc.  
Street/POB-No.: 20 Steckle Place, Unit 20  
Postal Code, city: Kitchener, Ontario N2E 2C3, CA  
WWW: www.weicon.ca  
E-mail: info@weicon.ca  
Telephone: +1-519-896-5252  
Telefax: +1-519-896-5254  
Dept. responsible for information:  
Product-Safety-Department  
Telephone: +49(0)251 / 9322 - 0, Email: msds@weicon.de

#### Emergency phone number

**EMERGENCY CONTACT – USA (24h): Tel: ++1 202 464 2554**

**Transport:**

**TRANSPORT EMERGENCY CONTACT - USA (24h): Tel: ++1 202 464 2554**

### 2. Hazards identification

#### Emergency overview

Appearance: Physical state at 68 °F and 101.3 kPa: liquid  
Color: translucent

Odor: characteristic

Classification: Acute Toxicity - inhalative - Category 4; Eye Irritation - Category 2A;  
Respiratory Sensitizer - Category 1; Sensitization - skin - Category 1;  
Carcinogenicity - Category 2;

Hazard symbols:



Signal word:

**Danger**

Hazard statements:

May cause an allergic skin reaction.  
Causes serious eye irritation.  
Harmful if inhaled.  
May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
Suspected of causing cancer.



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Precautionary statements: Obtain special instructions before use.  
 Avoid breathing dust/fume/gas/mist/vapors/spray.  
 Wear protective gloves/protective clothing/eye protection/face protection.  
 In case of inadequate ventilation wear respiratory protection.  
 IF ON SKIN: Wash with plenty of water/soap.  
 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 IF exposed or concerned: Get medical advice/attention.  
 Call a POISON CENTER/doctor if you feel unwell.  
 Specific treatment (see 'First aid' on this label).  
 If eye irritation persists: Get medical advice/attention.  
 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.  
 Store locked up.  
 Dispose of contents/container to hazardous or special waste collection point.

### Regulatory status

This material is considered hazardous by the U.S. OSHA Hazard Communication Standard (29 CFR 1910.1200) and SIMDUT in Canada.

### Hazards not otherwise classified

Special danger of slipping by leaking/spilling product. Persons with over-sensitive breath ways (e.g. asthma, chronic bronchitis) are not allowed to use the product due to safety regulations.

Respiratory symptoms may still occur several hours after overexposure.  
see section 11: Toxicological information

## 3. Composition / Information on ingredients

Chemical characterization: Urethane preparation

Relevant ingredients:

CAS No.	Designation	Content	Classification
CAS 37273-56-6	Poly(oxy(methyl-1,2-ethanediyl)), alpha-hydro-omega-hydroxy-, polymer with 2,4-diisocyanato-1-methylbenzene	50 - 99.99 %	Eye Irritation - Category 2A. Sensitization - skin - Category 1.
CAS 28182-81-2	Hexamethylene-1,6-di-isocyanate homopolymer	2.5 - 9.99 %	Acute Toxicity - inhalative - Category 4. Sensitization - skin - Category 1. Specific Target Organ Toxicity (Single Exposure) - Category 3.
CAS -	Hexamethylene-1,6-diisocyanate oligomer (type uretdione)	1 - 2.499 %	Acute Toxicity - inhalative - Category 3. Sensitization - skin - Category 1. Specific Target Organ Toxicity (Single Exposure) - Category 3.
CAS 584-84-9	Toluene-2,4-di-isocyanate	0.1 - 0.99 %	Acute Toxicity - inhalative - Category 1. Skin Irritation - Category 2. Eye Irritation - Category 2A. Respiratory Sensitizer - Category 1. Sensitization - skin - Category 1. Carcinogenicity - Category 2. Specific Target Organ Toxicity (Single Exposure) - Category 3. Aquatic toxicity - chronic - Category 3.



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### 4. First aid measures

- General information: If medical advice is needed, have product container or label at hand.
- In case of inhalation: Move victim to fresh air; if necessary, provide artificial respiration or oxygen. If the casualty has difficulty breathing, call a doctor immediately. If victim is at risk of losing consciousness, position and transport on their side.
- Following skin contact: After contact with skin, wash immediately with soap and plenty of water. Take off immediately all contaminated clothing and wash it before reuse. Seek medical treatment in case of troubles.
- After eye contact: Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing. Subsequently seek the immediate attention of an ophthalmologist.
- After swallowing: If swallowed, seek medical advice immediately and show this container or label. Never give anything by mouth to an unconscious person. Do not induce vomiting. (unless directed to do so by medical personnel)

#### Most important symptoms/effects, acute and delayed

May cause an allergic skin reaction. Causes serious eye irritation. Toxic if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

#### Information to physician

Symptoms may develop several hours following exposure; medical observation therefore necessary for at least 48 hours.  
Treat symptomatically.

### 5. Fire fighting measures

- Flash point/flash point range: > 212 °F (c.c.)
- Auto-ignition temperature: not self-igniting
- Suitable extinguishing media: Water fog, dry chemical powder, carbon dioxide.
- Extinguishing media which must not be used for safety reasons: High power water jet

#### Specific hazards arising from the chemical

In case of fire may be liberated: Nitrogen oxides (NOx), hydrogen cyanide, carbon monoxide and carbon dioxide.  
Do not expose to high temperature. Danger of bursting and explosion.

- Protective equipment and precautions for firefighters: Wear self-contained positive pressure breathing apparatus and full firefighting protective clothing.
- Additional information: Do not allow fire water to penetrate into surface or ground water. Cool exposed containers with water spray.

### 6. Accidental release measures

- Personal precautions: Do not breathe vapors. Provide adequate ventilation. Avoid contact with the substance. Wear appropriate protective equipment. Take off immediately all contaminated clothing and wash it before reuse. Keep unprotected people away.
- Environmental precautions: Do not allow to enter into ground-water, surface water or drains. If necessary notify appropriate authorities.



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Methods for clean-up: Soak up with absorbent materials such as sand, siliceus earth, acid- or universal binder. Store in special closed containers and dispose of according to ordinance. Do not keep the container sealed.  
If possible bring to the outside to enable outgassing.

## 7. Handling and storage

### Handling

Advices on safe handling: Provide adequate ventilation, and local exhaust as needed. Avoid the formation of aerosol. Handle and open container with care.  
Do not breathe vapors. Avoid contact with the substance. Wear appropriate protective equipment. Take off immediately all contaminated clothing and wash it before reuse.

### Storage

Requirements for storerooms and containers:

Keep only in the original container in a cool, well-ventilated place away from food.  
storage temperature: 10-40 °C. Protect against heat /sun rays.

Hints on joint storage:

Keep away from food, drink and animal feedingstuffs.

Further details:

Do not expose to high temperature. Danger of bursting and explosion.

## 8. Exposure controls / personal protection

### Exposure guidelines

Occupational exposure limit values:

CAS No.	Designation	Type	Limit value
584-84-9	Toluene-2,4-di-isocyanate	OSHA: Ceiling	0.14 mg/m <sup>3</sup> ; 0.02 ppm
		USA: ACGIH: STEL	0.005 ppm inhalable fraction and vapor, May be absorbed through the skin.
		USA: ACGIH: TWA	0.001 ppm inhalable fraction and vapor, May be absorbed through the skin.

### Engineering controls

Provide good ventilation and/or an exhaust system in the work area.  
See also information in chapter 7, section storage.

### Personal protection equipment (PPE)

Eye/face protection: Tightly sealed goggles according to OSHA Standard - 29 CFR: 1910.133 or ANSI Z87.1-2010.

Skin protection: Wear suitable protective clothing.  
protective gloves according to OSHA Standard - 29 CFR: 1910.138.  
Glove material: Butyl caoutchouc (butyl rubber) - layer thickness: 0.7 mm  
Breakthrough time: >480 min  
Observe glove manufacturer's instructions concerning penetrability and breakthrough time.

Respiratory protection: Respiratory protection must be worn whenever the TLV (WEL) levels have been exceeded.  
The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used.



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### General hygiene considerations:

Provide adequate ventilation, and local exhaust as needed. Avoid the formation of aerosol. Handle and open container with care.

Do not breathe vapors. Avoid contact with the substance. Take off immediately all contaminated clothing and wash it before reuse.

Have eye wash bottle or eye rinse ready at work place.

## 9. Physical and chemical properties

### Information on basic physical and chemical properties

Appearance:	Physical state at 68 °F and 101.3 kPa: liquid Color: translucent
Odor:	characteristic
Odor threshold:	No data available
pH value:	No data available
Melting point/freezing point:	No data available
Initial boiling point and boiling range:	> 572 °F (DIN 53171)
Flash point/flash point range:	> 212 °F (c.c.)
Evaporation rate:	No data available
Flammability:	No data available
Explosion limits:	No data available
Vapor pressure:	No data available
Vapor density:	No data available
Density:	at 68 °F: 1.1 g/mL (ISO 2811)
Water solubility:	at 68 °F: not resp. slightly miscible
Partition coefficient: n-octanol/water:	No data available
Auto-ignition temperature:	not self-igniting
Thermal decomposition:	No data available
Viscosity, dynamic:	at 77 °F: 6750 mPa*s (ISO 9371)
Explosive properties:	Product is not explosive.

## 10. Stability and reactivity

Reactivity:	No data available
Chemical stability:	Stable under recommended storage conditions.
Possibility of hazardous reactions	Do not expose to high temperature. Danger of bursting and explosion.
Conditions to avoid:	Protect against heat /sun rays.
Incompatible materials:	No data available
Hazardous decomposition products:	In case of fire may be liberated: Nitrogen oxides (NOx), hydrogen cyanide, carbon monoxide and carbon dioxide.
Thermal decomposition:	No data available



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### 11. Toxicological information

#### Toxicological tests

Toxicological effects: The statements are derived from the properties of the single components. No toxicological data is available for the product as such.

Acute toxicity (oral): Based on available data, the classification criteria are not met.

Acute toxicity (dermal): Based on available data, the classification criteria are not met.

Acute toxicity (inhalative): Acute Toxicity - inhalative - Category 4 = Harmful if inhaled.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Eye damage/irritation: Eye Irritation - Category 2A = Causes serious eye irritation.

Sensitisation to the respiratory tract: Respiratory Sensitizer - Category 1 = May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Skin sensitisation: Sensitization - skin - Category 1 = May cause an allergic skin reaction.

Germ cell mutagenicity/Genotoxicity: Based on available data, the classification criteria are not met.

Carcinogenicity: Carcinogenicity - Category 2 = Suspected of causing cancer.

Reproductive toxicity: Based on available data, the classification criteria are not met.

Effects on or via lactation: Lack of data.

Specific target organ toxicity (single exposure): Based on available data, the classification criteria are not met.

Specific target organ toxicity (repeated exposure): Based on available data, the classification criteria are not met.

Aspiration hazard: Based on available data, the classification criteria are not met.

#### Symptoms

Persons with over-sensitive breath ways (e.g. asthma, chronic bronchitis) are not allowed to use the product due to safety regulations.

Respiratory symptoms may still occur several hours after overexposure.

In case of inhalation:  
Mucous membrane irritation, cough, shortage of breath, bronchitis, allergic reactions.

After contact with skin:  
In case of a prolonged contact tanning and irritating effects may occur.

#### General remarks

Acute toxicity:  
Information about Poly(oxy(methyl-1,2-ethanediyl)), alpha-hydro-omega-hydroxy-, polymer with 2,4-diisocyanato-1-methylbenzene:  
LD50 Rat, oral: > 5000 mg/kg

Information about Toluene-2,4-di-isocyanate:  
LD50 Rat, oral: > 5000 mg/kg  
LD50 Rabbit, dermal: > 5000 mg/kg  
LC50 Rat, inhalative (vapor): 0.47 mg/kg/1h (OECD 403)  
LC50 Rat, inhalative (mist): 0.107 mg/kg/4h (OECD 403)

### 12. Ecological information

#### Ecotoxicity

Aquatic toxicity: Information about Toluene-2,4-di-isocyanate:  
Daphnia toxicity:  
NOEC Daphnia magna (Big water flea): 1.1 mg/L/21d



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### Mobility in soil

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

### Persistence and degradability

Further details: No data available

### Additional ecological information

Volatile organic compounds (VOC):

0 % by weight

General information: Do not allow to enter into ground-water, surface water or drains.

## 13. Disposal considerations

### Product

Recommendation: Incinerate as hazardous waste according to applicable local, state, and federal regulations.

### Contaminated packaging

Recommendation: Dispose of waste according to applicable legislation.

## 14. Transport information

### USA: Department of Transportation (DOT)

Proper shipping name: Not restricted

### Sea transport (IMDG)

Proper shipping name: Not restricted

Marine pollutant: no

### Air transport (IATA)

Proper shipping name: Not restricted

### Further information

Protect from humidity. Sensitive to heat and warmth + 40°C.

Sensitive to cold from + 10 °C

Keep away from food, drink and animal feedingstuffs.

Keep away from acids and alkalis.



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### 15. Regulatory information

#### National regulations - U.S. Federal Regulations

Product: All ingredients of this product are listed on the TSCA inventory.

Toluene-2,4-di-isocyanate: Carcinogen Status:  
 IARC Rating: not listed  
 OSHA Carcinogen: not listed  
 NTP Rating: listed  
 Clean Air Act:  
 Hazardous Air Pollutants: Code XOY  
 SOCM Chemical: yes  
 Other Environmental Laws:  
 CERCLA: RQ 100 lbs.  
 SARA Title III Section 302, EHS: TPQ 500 lbs. / RQ 100 lbs.  
 SARA Title III Section 313, Toxic Release: Conc. 0.1% / Threshold Standard  
 NIOSH Recommendations:  
 Occupational Health Guideline: 0621

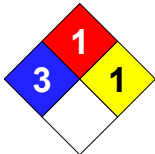
#### National regulations - Great Britain

Hazchem-Code: -

### 16. Other information

Text for labeling: Contains 50 - 99.99 % Poly(oxy(methyl-1,2-ethanediyl)), alpha-hydro-omega-hydroxy-, polymer with 2,4-diisocyanato-1-methylbenzene, 2.5 - 9.99 %  
 Hexamethylene-1,6-di-isocyanate homopolymer, 1 - 2.499 %  
 Hexamethylene-1,6-diisocyanate oligomer (type uretdione), 0.1 - 0.99 %  
 Toluene-2,4-di-isocyanate. Safety data sheet available on request.

Hazard rating systems:



NFPA Hazard Rating:  
 Health: 3 (Serious)  
 Fire: 1 (Slight)  
 Reactivity: 1 (Slight)

HMIS Version III Rating:  
 Health: 3 (Serious) - Chronic effects  
 Flammability: 1 (Slight)  
 Physical Hazard: 1 (Slight)  
 Personal Protection: X = Consult your supervisor

HEALTH	*	3
FLAMMABILITY		1
PHYSICAL HAZARD		1
		X

Reason of change: Changes in section 1: General revision

Date of first version: Feb/26/2016

#### Department issuing data sheet

Contact person: see section 1: Dept. responsible for information

The information in this data sheet has been established to our best knowledge and was up-to-date at time of revision. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.