



# SAFETY DATA SHEET

according to WHMIS 2015 and ANSI Z400.1-2010

## WEICON WR 2 Hardener

Material number 103502

Revision date: 2/Jan/2017

Version: 1

Language: en-CA,US

Date of print: 10/Jan/2017

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## 1. Product and company identification

### Product identifier

Trade name: WEICON WR 2 Hardener

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

General use: Two-component epoxy resins, hardener component.  
Reserved for industrial and professional use.

### 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 – Canada (24h): Tel: ++1 866 928 0789 (Toll free)**

**Transport:**

**TRANSPORT EMERGENCY CONTACT - Canada (24h): Tel: ++1 866 928 0789 (Toll free)**

## 2. Hazards identification

### Emergency overview

Appearance: Form: pasty  
Color: green  
Odor: slightly perceptible  
Classification: Skin Corrosion 1B; Sensitization - skin 1; Aquatic toxicity - chronic 3;  
Hazard symbols:



Signal word: **Danger**  
Hazard statements: Causes severe skin burns and eye damage.  
May cause an allergic skin reaction.  
Harmful to aquatic life with long lasting effects.



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Precautionary statements: Keep out of reach of children.  
Do not breathe dust/fume/gas/mist/vapors/spray.  
Wash hands and face thoroughly after handling.  
Contaminated work clothing should not be allowed out of the workplace.  
Avoid release to the environment.  
Wear protective gloves/protective clothing/eye protection/face protection.  
IF SWALLOWED: rinse mouth. Do NOT induce vomiting.  
IF ON SKIN: Wash with plenty of water/soap.  
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/or shower.  
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.  
Immediately call a POISON CENTER/doctor.  
Specific treatment (see ' First aid ' on this label).  
If skin irritation or rash occurs: Get medical advice/attention.  
Take off immediately all contaminated clothing and wash it before reuse.  
Wash contaminated clothing before reuse.  
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

Mildly corrosive to most metals  
see section 11: Toxicological information

## 3. Composition / Information on ingredients

Chemical characterisation: polyamine, modified.

Relevant ingredients:

CAS No.	Designation	Content	Classification
CAS 26950-63-0	Triethylentetramine, propoxylated	13 - 30 %	Acute Toxicity 4 (dermal). Skin Corrosion 1B. Sensitization - skin 1. Aquatic toxicity - chronic 3.
CAS 112-24-3	Triethylentetramine	7 - 13 %	Acute Toxicity 4 (oral). Acute Toxicity 4 (dermal). Skin Corrosion 1B. Eye Damage 1. Sensitization - skin 1. Aquatic toxicity - chronic 3.
CAS 90-72-2	2,4,6-tris (Dimethylaminomethyl) phenol	< 3 %	Acute Toxicity 4 (oral). Skin Corrosion 1B. Eye Damage 1. Sensitization - skin 1. Aquatic toxicity - chronic 3.

Additional information: Product contains silicon dioxide. The maximum workplace exposure limits are, where necessary, listed in section 8.  
Mechanical processing can produce particles and dust.

## 4. First aid measures

General information: First aider: Pay attention to self-protection! Take off immediately all contaminated clothing and wash it before reuse.



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- In case of inhalation: Move victim to fresh air; if necessary, provide artificial respiration or oxygen. Keep airway open.  
Seek medical aid in case of troubles.
- Following skin contact: After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water and soap.  
Take off immediately all contaminated clothing and wash it before reuse. Seek medical attention.
- 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.  
Seek the attention of an ophthalmologist immediately.
- After swallowing: Do not induce vomiting. Aspiration hazard: in case of swallowing or vomiting danger of penetration into the lungs.  
Rinse mouth immediately and drink plenty of water.  
Never give anything by mouth to an unconscious person.  
Immediately get medical attention.

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

Causes severe skin burns and eye damage. May cause an allergic skin reaction.  
Respiratory complaints, Headache, nausea, vomiting, drowsiness.

### Information to physician

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

## 5. Fire fighting measures

Flash point/flash point range:

> 100 °C (c.c.)

Auto-ignition temperature: not determined

Suitable extinguishing media::

Extinguishing is to be in accordance with the surrounding fire.

Extinguishing media which must not be used for safety reasons:

High power water jet

### Specific hazards arising from the chemical

Hazardous vapors may form during fires.

In case of fire may be liberated: Metal oxide smoke, nitrogen oxides (NO<sub>x</sub>), carbon monoxide and carbon dioxide.

Protective equipment and precautions for firefighters:

Wear self-contained positive pressure breathing apparatus and full firefighting protective clothing.

Additional information:

Cool endangered containers with water jetspray.

You have to dispose of contaminated extinguishing water according to the regulations of the authorities.

Do not inhale explosion and combustion gases.

## 6. Accidental release measures

Personal precautions:

Provide adequate ventilation. Use a breathing protection against vapors/aerosol. Do not breathe vapor or spray.

Wear appropriate protective equipment. Take off immediately all contaminated clothing and wash it before reuse.

Keep unprotected people away. Avoid contact with skin and eyes. Keep away from sources of ignition - No smoking.



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### Environmental precautions:

Do not allow to enter into ground-water, surface water or drains. Do not allow to enter into soil/subsoil. If necessary notify appropriate authorities.

### Methods for clean-up:

Take up with non-flammable, liquid binding material (e.g. sand/earth/diatomaceous earth/vermiculit) and perform disposal according to instructions. Thoroughly clean surrounding area.

Dispose of in accordance with the regulations.

### Additional information:

Use explosion-proof equipment and non-sparking tools/utensils.

## 7. Handling and storage

### Handling

#### Advices on safe handling:

Provide adequate ventilation, and local exhaust as needed. Avoid the formation of aerosol. Do not breathe vapor or spray.

Wear appropriate protective equipment. Avoid contact with skin and eyes.

Take off immediately all contaminated clothing and wash it before reuse.

When using do not eat, drink or smoke. Wash hands before breaks and after work.

Work place should be equipped with a shower and an eye rinsing apparatus.

#### Precautions against fire and explosion:

Keep away from sources of ignition - No smoking.

Usual measures for fire prevention.

### Storage

#### Requirements for storerooms and containers:

Keep only in the original container. Keep container tightly closed in a cool, well-ventilated place. Keep container dry.

Protect from heat and direct sunlight. storage temperature: 2 °C up to 40 °C. Handle and open container with care.

#### Hints on joint storage:

Keep away from metals, alkalis, strong oxidizing agents and acids.

Keep away from food, drink and animal feedingstuffs.

## 8. Exposure controls / personal protection

### Exposure guidelines

#### Occupational exposure limit values:

CAS No.	Designation	Type	Limit value
112-24-3	Triethylentetramine	Canada, Ontario: OEL TWA	3 mg/m <sup>3</sup> ; 0.5 ppm (May be absorbed through the skin.)
14808-60-7	Silicon dioxide (Quartz (SiO <sub>2</sub> ))	Canada, Alberta: OEL 8 hour	0.025 mg/m <sup>3</sup>
		Canada, BC: OEL TWA	0.025 mg/m <sup>3</sup>
		Canada, Ontario: OEL TWA	0.1 mg/m <sup>3</sup> (respirable fraction)
		Canada, Québec: VEMP	0.1 mg/m <sup>3</sup> (respirable fraction)
		USA: ACGIH: TWA	0.025 mg/m <sup>3</sup> (respirable fraction)
		USA: NIOSH: TWA	0.05 mg/m <sup>3</sup> (respirable fraction)
		USA: OSHA: TWA	10 mg/m <sup>3</sup> /% SiO <sub>2</sub> + 2 (respirable Dust)
		USA: OSHA: TWA	250 mppcf/%SiO <sub>2</sub> +5 fine dust
		USA: OSHA: TWA	30 mg/m <sup>3</sup> /% SiO <sub>2</sub> + 2 inhalable fraction

### Engineering controls

Provide good ventilation and/or an exhaust system in the work area.

See also information in chapter 7, section storage.



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### 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), ethylene vinyl alcohol laminate (EVAL)  
- 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. Use a breathing protection against vapors/aerosol.  
The filter class must be suitable for the maximum contaminant concentration (gas/vapor/aerosol/particulates) that may arise when handling the product.  
If higher concentrations occur: Wear self-contained breathing apparatus.
- General hygiene considerations:  
Avoid contact with skin and eyes.  
Take off immediately all contaminated clothing and wash it before reuse.  
When using do not eat or drink.  
Wash hands before breaks and immediately after handling the product.  
Work place should be equipped with a shower and an eye rinsing apparatus.

## 9. Physical and chemical properties

### Information on basic physical and chemical properties

- Appearance: Form: pasty  
Color: green
- Odor: slightly perceptible  
Odor threshold: not determined
- pH value: at 50%: 11 - 12
- Melting point/freezing point: not determined  
Initial boiling point and boiling range: > 200 °C  
Flash point/flash point range: > 100 °C (c.c.)  
Evaporation rate: No data available
- Flammability: not determined  
Explosion limits: LEL (Lower Explosive Limit): not determined  
UEL (Upper Explosive Limit): not determined
- Vapor pressure: No data available  
Vapor density: not determined  
Density: No data available
- Solubility: not determined  
Water solubility: at 20 °C: soluble
- Partition coefficient: n-octanol/water: not determined
- Auto-ignition temperature: not determined  
Thermal decomposition: No decomposition when used properly.
- Viscosity, dynamic: not determined  
Viscosity, kinematic: not determined  
Ignition temperature: not applicable



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### 10. Stability and reactivity

- Reactivity: Mildly corrosive to most metals
- Chemical stability: Stable under recommended storage conditions.
- Possibility of hazardous reactions  
Reacts violently with acids.
- Conditions to avoid: Protect from heat and direct sunlight.
- Incompatible materials: Acids, alkalis, copper, copper alloys and strong oxidizing agents.
- Hazardous decomposition products:  
Toxic gases/vapours.  
carbon monoxide and carbon dioxide.
- Thermal decomposition: No decomposition when used properly.

### 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.  
ATEmix (calculated): 8802.9 mg/kg.
- Acute toxicity (dermal): Based on available data, the classification criteria are not met.  
ATEmix (calculated): > 3229.2 mg/kg.
- Acute toxicity (inhalative): Lack of data.
- Skin corrosion/irritation, eye damage/irritation: Skin Corrosion 1B = Causes severe skin burns and eye damage.
- Sensitisation to the respiratory tract: Lack of data.
- Skin sensitisation: Sensitization - skin 1 = May cause an allergic skin reaction.
- Germ cell mutagenicity/Genotoxicity: Lack of data.
- Carcinogenicity: Lack of data.
- Reproductive toxicity: Lack of data.
- Effects on or via lactation: Lack of data.
- Specific target organ toxicity (single exposure): Lack of data.
- Specific target organ toxicity (repeated exposure): Lack of data.
- Aspiration hazard: Lack of data.



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Other information: Information about Triethylentetramine, propoxylated:  
LD50 Rat, oral: > 2000 mg/kg (OECD 401)  
LD50, Rabbit, dermal: > 1000 mg/L (OECD 402)  
Information about Triethylentetramine:  
LD50 Rat, oral: 1716.2 mg/L (OECD 401)  
LD50, Rabbit, dermal: 1465.4 mg/L (OECD 402)  
Information about 2,4,6-tris(Dimethylaminomethyl)phenol:  
LD50 Rat, oral: 2169 mg/L (OECD 401)  
LD50, Rabbit, dermal: > 971 mg/L (OECD 402)  
For carcinogenic effects:  
Information about silicon dioxide:  
IARC Rating: Group 1  
OSHA Carcinogen: not listed  
NTP Rating: not listed  
Further hazardous properties cannot be excluded. Handle in accordance with good industrial hygiene and safety practice.

### General remarks

Handle in accordance with good industrial hygiene and safety practice.

## 12. Ecological information

### Ecotoxicity

Aquatic toxicity: Harmful to aquatic life with long lasting effects.  
Information about triethylentetramine:  
Algae toxicity: ErC50: 20 mg/L/72 h (OECD 201)  
Algae toxicity: NOECr: <2,5 mg/L/72 h (OECD 201)  
Bacterial toxicity: EC50: 800 mg/L/30 min.  
Bacterial toxicity: EC10: 42,5 mg/L/30 min.  
Bacterial toxicity: EC0 Pseudomonas fluorescens: 500 mg/L  
Daphnia toxicity: EC50 Daphnia: 31 mg/L/48 h  
Daphnia toxicity: EC10 Daphnia: 1,9 mg/L/21 d (OECD 202)  
Fish toxicity: LC50: 330 mg/L /96 h  
Fish toxicity: LC 0 Leuciscus idus: 200 mg/L /48 h

### Mobility in soil

No data available

### Persistence and degradability

Further details: Biodegradation:  
Information about triethylentetramine: 0% /162 d (OECD 301D). Product is not biodegradable.  
Information about 2,4,6-tris(Dimethylaminomethyl)phenol: 4% /28 d (OECD 301D). Product is biodegradable with difficulty.

### Additional ecological information

Volatile organic compounds (VOC):

0 % by weight = 0 g/L

General information:

Do not allow to enter into ground-water, surface water or drains. Do not allow uncontrolled discharge of product into the environment.



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### 13. Disposal considerations

#### Product

Recommendation: Dispose of as hazardous waste in compliance with local and national regulations.

#### Contaminated packaging

Recommendation: Dispose of waste according to applicable legislation. Handle contaminated packages in the same way as the substance itself. Non-contaminated packages may be recycled.

### 14. Transport information

#### USA: Department of Transportation (DOT)

Identification number: UN2735  
Proper shipping name: UN 2735, AMINES, LIQUID, CORROSIVE, N.O.S.  
(Triethylenetetramine, propoxylated)  
Hazard class or Division: 8  
Packing Group: II  
Labels: 8  
Symbols: G  
Special provisions: B2, IB2, T11, TP1, TP27  
Packaging – Exceptions: 154  
Packaging – Non-bulk: 202  
Packaging – Bulk: 242  
Quantity limitations – Passenger aircraft / rail: 1 L  
Quantity limitations – Cargo only: 30 L  
Vessel stowage – Location: A  
Vessel stowage – Other: 52



#### Canada: Transportation of Dangerous Goods (TDG)

UN Number: UN2735  
Shipping name: UN 2735, AMINES, LIQUID, CORROSIVE, N.O.S.  
(Triethylenetetramine, propoxylated)  
TDG class: 8  
Packing group: II  
Special provisions: 16  
Explosive limit and limited quantity index: 1 L  
Passenger carrying road or rail index: 1 L





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### Sea transport (IMDG)

UN number: UN 2735  
Proper shipping name: UN 2735, AMINES, LIQUID, CORROSIVE, N.O.S.  
(Triethylentetramine, propoxylated)  
Class or division, Subsidiary risk: Class 8, Subrisk-  
Packing Group: II  
EmS: F-A, S-B  
Special provisions: 274  
Limited quantities: 1 L  
Excepted quantities: E2  
Contaminated packaging - Instructions: P001  
Contaminated packaging - Provisions: -  
IBC - Instructions: IBC02  
IBC - Provisions: -  
Tank instructions - IMO: -  
Tank instructions - UN: T11  
Tank instructions - Provisions: TP1, TP27  
Stowage and handling: Category A.  
Segregation: SG35  
Properties and observations: Colourless to yellowish liquids or solutions with a pungent odour. Miscible with or soluble in water. When involved in a fire, evolve toxic gases. Corrosive to most metals, especially to copper and its alloys. React violently with acids. Cause burns to skin, eyes and mucous membranes.  
Marine pollutant: no  
Segregation group: 18

### Air transport (IATA)

UN/ID number: UN 2735  
Proper shipping name: UN 2735, AMINES, LIQUID, CORROSIVE, N.O.S.  
(Triethylentetramine, propoxylated)  
Class or division, Subsidiary risk: Class 8  
Packing Group: II  
Hazard label: Corrosive  
Excepted Quantity Code: E2  
Passenger and Cargo Aircraft: Ltd.Qty.: Pack.Instr. Y840 - Max. Net Qty/Pkg. 0.5 L  
Passenger and Cargo Aircraft: Pack.Instr. 851 - Max. Net Qty/Pkg. 1 L  
Cargo Aircraft only: Pack.Instr. 855 - Max. Net Qty/Pkg. 30 L  
Special provisions: A3 A803  
Emergency Response Guide-Code (ERG): 8L

## 15. Regulatory information

### National regulations - Canada

No data available



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

Triethylentetramine, propoxylated:	TSCA Inventory: listed; EPA flags XU TSCA HPVC: not listed
Triethylentetramine:	TSCA Inventory: listed TSCA HPVC: not listed
2,4,6-tris(Dimethylaminomethyl)phenol:	TSCA Inventory: listed TSCA HPVC: not listed
Silicon dioxide (Quartz (SiO <sub>2</sub> )):	TSCA Inventory: listed TSCA HPVC: not listed Carcinogen Status: IARC Rating: Group 1 OSHA Carcinogen: not listed NTP Rating: listed NIOSH Recommendations: Occupational Health Guideline: 0553

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

Triethylentetramine:	California Proposition 65 code: - Massachusetts Haz. Substance codes: 6 Pennsylvania Haz. Substance code: -
Silicon dioxide (Quartz (SiO <sub>2</sub> )):	California Proposition 65: cancer Rhode Island HSL: listed

## 16. Other information

Text for labeling: Contains 13 - 30 % Triethylentetramine, propoxylated, 7 - 13 % Triethylentetramine, < 3 % 2,4,6-tris(Dimethylaminomethyl)phenol. Safety data sheet available on request.

Hazard rating systems:



NFPA Hazard Rating:  
Health: 3 (Serious)  
Fire: 1 (Slight)  
Reactivity: 0 (Minimal)

HMIS Version III Rating:  
Health: 3 (Serious)  
Flammability: 1 (Slight)  
Physical Hazard: 0 (Minimal)  
Personal Protection: X = Consult your supervisor

HEALTH	3
FLAMMABILITY	1
PHYSICAL HAZARD	0
	X

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### 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.