



SAFETY DATA SHEET

according to WHMIS 2015 and ANSI Z400.1-2010

WEICON BR Hardener

Material number 104202

Revision date: 29/Jan/2018

Version: 2

Language: en-CA,US

Date of print: 1/Feb/2018

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1. Product and company identification

Product identifier

Trade name: WEICON BR 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: Physical state at 20 °C and 101.3 kPa: solid
Form: pasty
Color: brownish
Odor: No data available
Classification: Acute Toxicity 4 (oral); Acute Toxicity 4 (dermal); Skin Irritation 2; Eye Damage 1;
Sensitization - skin 1; Aquatic toxicity - chronic 2;

Hazard symbols:



Signal word:

Danger

Hazard statements:

Harmful if swallowed.
Harmful in contact with skin.
Causes skin irritation.
May cause an allergic skin reaction.
Causes serious eye damage.
Toxic to aquatic life with long lasting effects.



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Precautionary statements: Avoid breathing vapors/spray.
Wash hands and face thoroughly after handling.
Do not eat, drink or smoke when using this product.
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 ON SKIN: Wash with plenty of soap and water.
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.
Immediately call a POISON CENTER/doctor.
Specific treatment (see on this label).
Specific measures (see ' First aid ' on this label).
Rinse mouth.
If skin irritation occurs: Get medical advice/attention.
If skin irritation or rash occurs: Get medical advice/attention.
Take off contaminated clothing and wash it before reuse.
Wash contaminated clothing before reuse.
Collect spillage.
Dispose of contents/container in accordance with local/regional/national/international regulation.

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

see section 11: Toxicological information

3. Composition / Information on ingredients

Chemical characterisation: Mixture of various active substances.

Relevant ingredients:

CAS No.	Designation	Content	Classification
CAS 68131-73-7	Amines, polyethylenepoly-	< 2.2 %	Acute Toxicity 4 (oral). Acute Toxicity 4 (dermal). Skin Corrosion 1B. Sensitization - skin 1. Aquatic toxicity - acute 1. Aquatic toxicity - chronic 1.
CAS 4067-16-7	Pentaethylenehexamine	< 1.7 %	Skin Corrosion 1B. Sensitization - skin 1. Aquatic toxicity - acute 1. Aquatic toxicity - chronic 1.
CAS 112-24-3	3,6-diazaoctanethylenediamin	< 1.2 %	Acute Toxicity 4 (dermal). Skin Corrosion 1B. Sensitization - skin 1. Aquatic toxicity - chronic 3.
CAS 112-57-2	Tetraetylenpentamin	< 1 %	Acute Toxicity 4 (oral). Acute Toxicity 4 (dermal). Skin Corrosion 1B. Sensitization - skin 1. Aquatic toxicity - chronic 2.



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4. First aid measures

General information:	First aider: Pay attention to self-protection! If medical advice is needed, have product container or label at hand. Take off immediately all contaminated clothing and wash it before reuse.
In case of inhalation:	If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Seek medical attention if problems persist.
Following skin contact:	Immediately clean with water and soap followed by thorough rinsing. Take off immediately all contaminated clothing and wash it before reuse. In case of skin reactions, consult a physician.
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 consult an ophthalmologist.
After swallowing:	Rinse mouth immediately and drink plenty of water. Never give anything by mouth to an unconscious person. Do not induce vomiting. Immediately get medical attention.

Most important symptoms and effects, both acute and delayed

Harmful if swallowed. Harmful in contact with skin. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye damage. Mucous membrane irritation. Vomiting. Respiratory complaints. Nausea.

Information to physician

Symptoms of poisoning can only emerge after several hours; medical supervision is therefore essential for at least 48 hours.
Treat symptomatically.

5. Fire fighting measures

Flash point/flash point range:	Not applicable
Auto-ignition temperature:	not self-igniting
Suitable extinguishing media:	Extinguishing is to be in accordance with the surrounding fire.
Extinguishing media which must not be used for safety reasons:	Full water jet.

Specific hazards arising from the chemical

Hazardous vapors may form during fires.
Furthermore, there may develop: Metal oxide smoke, nitrogen oxides (NO_x), sulphur oxides, carbon monoxide and carbon dioxide.

Protective equipment and precautions for firefighters:	Wear a self-contained breathing apparatus and chemical protective clothing.
Additional information:	Cool exposed containers with water spray. Do not allow water used to extinguish fire to enter drains, ground or waterways. Fire residuals and contaminated extinguishing water must be disposed of in accordance with the regulations of the local authorities.

6. Accidental release measures

Personal precautions:	Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact with the substance. If possible, eliminate leakage. Provide adequate ventilation. Wear appropriate protective equipment. Keep unprotected people away. Take off immediately all contaminated clothing and wash it before reuse.
Environmental precautions:	Do not allow to penetrate into soil, waterbodies 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. Dispose of in accordance with the regulations. If necessary notify appropriate authorities. Never return spills in original containers for re-use.

7. Handling and storage

Handling

Advices on safe handling: Provide adequate ventilation, and local exhaust as needed. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Wear appropriate protective equipment. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Take off immediately all contaminated clothing and wash it before reuse. Have eye wash bottle or eye rinse ready at work place.

Storage

Requirements for storerooms and containers:

Keep container tightly closed in a cool, well-ventilated place. Keep container dry. Protect from heat and direct sunlight. storage temperature: < 35 °C. Handle and open container with care. Store only in original container.

Hints on joint storage: 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	3,6-diazaoctanethylenediamin	Canada, Ontario: OEL TWA	3 mg/m ³ ; 0.5 ppm (may be absorbed through the skin)

Engineering controls

Provide for good ventilation or exhaust system or work with completely self-contained equipment.

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: Nitrile rubber. Layer thickness: >=0.4 mm. Breakthrough time: 60 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. When vapors form, use respiratory protection.

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.



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General hygiene considerations:

Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing.

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

Do not eat, drink or smoke when using this product.

Wash hands thoroughly after handling.

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 20 °C and 101.3 kPa: solid Form: pasty Color: brownish
Odor:	No data available
Odor threshold:	Not determined
pH value:	Not applicable
Melting point/freezing point:	Not determined
Initial boiling point and boiling range:	Not determined
Flash point/flash point range:	Not applicable
Evaporation rate:	Not determined
Flammability:	Not determined
Explosion limits:	No data available
Vapor pressure:	Not determined
Vapor density:	No data available
Density:	at 20 °C: 1.9 g/cm ³
Solubility:	Not determined
Water solubility:	insoluble
Partition coefficient: n-octanol/water:	Not determined
Auto-ignition temperature:	not self-igniting
Thermal decomposition:	>200 °C
Viscosity, kinematic:	Not applicable

10. Stability and reactivity

Reactivity:	Refer to subsection "Possibility of hazardous reactions".
Chemical stability:	Stable under recommended storage conditions.
Possibility of hazardous reactions	No hazardous reaction when handled and stored according to provisions.
Conditions to avoid:	Keep away from heat sources, sparks and open flames. Protect against direct sunlight.
Incompatible materials:	No data available
Hazardous decomposition products:	Toxic gases/vapours. Metal oxide smoke, nitrogen oxides (NO _x), sulphur oxides, carbon monoxide and carbon dioxide.
Thermal decomposition:	>200 °C



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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): Acute Toxicity 4 (oral) = Harmful if swallowed.
ATEmix (calculated): $500 \text{ mg/kg} < \text{ATE} \leq 2000 \text{ mg/kg}$.
Acute toxicity (dermal): Acute Toxicity 4 (dermal) = Harmful in contact with skin.
ATEmix (calculated): $500 \text{ mg/kg} < \text{ATE} \leq 2000 \text{ mg/kg}$.
Acute toxicity (inhalative): Lack of data.
Skin corrosion/irritation: Skin Irritation 2 = Causes skin irritation.
Serious eye damage/irritation: Eye Damage 1 = Causes serious 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.

Other information: Information about Amines, polyethylenepoly-:
LD50, oral, Rat: 1716.2 mg/kg
LD50, dermal, Rabbit: 1465.4 mg/kg

Symptoms

Prolonged or repeated contact with the preparation can lead to irritations of mucous membranes and of skin such as redness, formation of blebs, dermatitis, etc..
In case of ingestion:
Burns in the mouth, pharynx, oesophagus, and gastrointestinal tract.

General remarks

Further hazardous properties cannot be excluded.



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12. Ecological information

Ecotoxicity

Aquatic toxicity:

Toxic to aquatic life with long lasting effects.

Information about Amines, polyethylenepoly-

Algae toxicity:

EC50 Pseudokirchneriella subcapitata (green algae): 0.5 mg/L/72h
(OECD 201; read across)

Acute Daphnia toxicity:

EC50 Daphnia magna (Big water flea): 2.2 mg/L/48h (EU C.2; read across)

Acute fish toxicity:

LC50 Poecilia reticulata: 100 mg/L/96h (EU C.1; read across)

Information about Pentaethylenehexamine

Algae toxicity:

EC50 Selenastrum capricornutum: 0.7 mg/L/72h.

Daphnia toxicity:

EC50 Daphnia magna (Big water flea) 17.5 mg/L/48h.

Fish toxicity:

LC50 Poecilia reticulata: 0.18 mg/L/96 h. (EU Method C.1)

Mobility in soil

No data available

Persistence and degradability

Further details:

Biodegradation:

Information about Pentaethylenehexamine

DOC reduction: < 60 %/28 d (OECD 301 D); not easily bio-degradable

Information about Amines, polyethylenepoly-

DOC reduction: 16 % (84d); not easily bio-degradable

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:

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

Do not dispose of with household waste.

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.



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14. Transport information

USA: Department of Transportation (DOT)

Identification number: NA3077
Proper shipping name: NA 3077, hazardous waste, solid, n.o.s. or Other regulated substances, solid, n.o.s. (Amines, polyethylenepoly-; 3,6-diazaoctanethylenediamin), mixture
Hazard class or Division: 9
Packing Group: III
Labels: 9
Symbols: D G
Special provisions: B54, IB8, IP2, T1, TP33
Packaging – Exceptions: 155
Packaging – Non-bulk: 213
Packaging – Bulk: 240
Quantity limitations – Passenger aircraft / rail: No limit
Quantity limitations – Cargo only: No limit
Vessel stowage – Location: A



Canada: Transportation of Dangerous Goods (TDG)

UN Number: UN3077
Shipping name: UN 3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Amines, polyethylenepoly-; 3,6-diazaoctanethylenediamin), mixture
TDG class: 9
Packing group: III
Special provisions: 16, 99
Explosive limit and limited quantity index: 5 kg

Sea transport (IMDG)

UN number: UN 3077
Proper shipping name: UN 3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Amines, polyethylenepoly-; 3,6-diazaoctanethylenediamin), mixture
Class or division, Subsidiary risk: Class 9, Subrisk -
Packing Group: III
EmS: F-A, S-F
Special provisions: 274, 335, 966, 967, 969
Limited quantities: 5 kg
Excepted quantities: E1
Contaminated packaging - Instructions: P002, LP02
Contaminated packaging - Provisions: PP12
IBC - Instructions: IBC08
IBC - Provisions: B3
Tank instructions - IMO: -
Tank instructions - UN: T1, BK2, BK2, BK3
Tank instructions - Provisions: TP33
Stowage and handling: Category A. SW23
Properties and observations: -
Marine pollutant: yes
Segregation group: none



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Air transport (IATA)

UN/ID number: UN 3077
 Proper shipping name: UN 3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Amines, polyethylenepoly-; 3,6-diazaoctanethylenediamin), mixture
 Class or division, Subsidiary risk: Class 9
 Packing Group: III
 Hazard label: Miscellaneous
 Excepted Quantity Code: E1
 Passenger and Cargo Aircraft: Ltd.Qty.: Pack.Instr. Y956 - Max. Net Qty/Pkg. 30 kg G
 Passenger and Cargo Aircraft: Pack.Instr. 956 - Max. Net Qty/Pkg. 400 kg
 Cargo Aircraft only: Pack.Instr. 956 - Max. Net Qty/Pkg. 400 kg
 Special provisions: A97 A158 A179 A197
 Emergency Response Guide-Code (ERG): 9L

15. Regulatory information

National regulations - Canada

No data available

National regulations - U.S. Federal Regulations

Amines, polyethylenepoly-: TSCA Inventory: listed; UVCB; EPA flags XU
 TSCA HPVC: not listed
 Pentaethylenehexamine: TSCA Inventory: listed
 TSCA HPVC: not listed
 3,6-diazaoctanethylenediamin: TSCA Inventory: listed
 TSCA HPVC: not listed
 Tetraetylenpentamin: TSCA Inventory: listed
 TSCA HPVC: not listed
 Clean Air Act:
 SOCM1 Chemical: yes

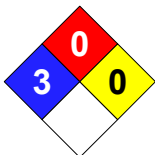
National regulations - U.S. State Regulations

3,6-diazaoctanethylenediamin: California Proposition 65 code: -
 Massachusetts Haz. Substance codes:
 6
 Pennsylvania Haz. Substance code: -
 Tetraetylenpentamin: Massachusetts Haz. Substance codes:
 6
 Pennsylvania Haz. Substance code: -

16. Other information

Text for labeling: Contains < 2.2 % Amines, polyethylenepoly-, < 1.7 % Pentaethylenehexamine, < 1.2 % 3,6-diazaoctanethylenediamin, < 1 % Tetraetylenpentamin. Safety data sheet available on request.

Hazard rating systems:



NFPA Hazard Rating:

Health: 3 (Serious)
 Fire: 0 (Minimal)
 Reactivity: 0 (Minimal)

HMIS Version III Rating:

Health: 3 (Serious) - Chronic effects
 Flammability: 0 (Minimal)
 Physical Hazard: 0 (Minimal)
 Personal Protection: X = Consult your supervisor

HEALTH	*	3
FLAMMABILITY		0
PHYSICAL HAZARD		0
		X



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Reason of change: Changes in section 2: Classification, labeling
Changes in section 4: First aid measures
Changes in section 11: Toxicological information
Changes in section 14: Transport information
General revision

Date of first version: 8/May/2017

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.