1. Product and company identification

Product identifier

Trade name: Plastic-Metal WR 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: liquid
Color: light yellow
Odor: slightly perceptible

Classification: Acute Toxicity 4 (oral); Acute Toxicity 4 (inhalative); Skin Corrosion 1B; Sensitization - skin 1; Reproductive toxicity 2; Aquatic toxicity - chronic 3;

Hazard symbols:

Signal word: **Danger**

Hazard statements:
Harmful if swallowed.
Causes severe skin burns and eye damage.
May cause an allergic skin reaction.
Harmful if inhaled.
Suspected of damaging fertility.
Harmful to aquatic life with long lasting effects.

Precautionary statements: Keep out of reach of children.
Obtain special instructions before use.
Do not breathe dust/fume/gas/mist/vapors/spray.
Wash hands and face thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
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.
IF exposed or concerned: Get medical advice/attention.
Immediately call a POISON CENTER/doctor.
Specific treatment (see ' First aid ' on this label).
If skin irritation or rash occurs: Get medical advice/attention.
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

see section 11: Toxicological information

3. Composition / Information on ingredients

Chemical characterisation: Aliphatic and cycloaliphatic amines

Relevant ingredients:

CAS No.	Designation	Content	Classification
CAS 100-51-6	Benzyl alcohol	30 - 60 %	Acute Toxicity 4 (oral). Acute Toxicity 4 (inhalative). Eye Irritation 2A.
CAS 2855-13-2	3-Aminomethyl-3,5,5-trimethylcyclohexylamine	30 - 60 %	Acute Toxicity 4 (oral). Acute Toxicity 4 (dermal). Skin Corrosion 1B. Sensitization - skin 1. Aquatic toxicity - chronic 3.
CAS 25620-58-0	Trimethylhexane-1,6-diamine	7 - 13 %	Acute Toxicity 4 (oral). Skin Corrosion 1B. Sensitization - skin 1. Aquatic toxicity - chronic 3.
CAS 80-05-7	4,4'-Isopropylidenediphenol	< 3 %	Eye Damage 1. Sensitization - skin 1. Reproductive toxicity 2. Specific Target Organ Toxicity (Single Exposure) 3. Aquatic toxicity - chronic 2.

4. First aid measures

General information: First aider: Pay attention to self-protection!
In case of allergic symptoms, especially in the breathing area, seek medical advice immediately.
Take off immediately all contaminated clothing and wash it before reuse.

In case of inhalation: Provide fresh air. Move victim to fresh air; if necessary, provide artificial respiration or oxygen. When inhaling vapors, first symptoms of poisoning may develop hours later, so always consult a doctor. Immediately get medical attention.

Following skin contact: After contact with skin, wash immediately with soap and plenty of water.
Immediately get 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. Immediate transport to an eye specialist (continue rinsing during transport)

After swallowing: Do not induce vomiting. Aspiration hazard: in case of swallowing or vomiting danger of penetration into the lungs.
If victim is at risk of losing consciousness, position and transport on their side.
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. Harmful if swallowed or if inhaled. May cause an allergic skin reaction. Respiratory complaints, vomiting, abdominal pain, headache, allergic reactions, nausea, gastrointestinal complaints, skin irritations

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:
108 °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: Nitrogen oxides (NOx), 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. Do not allow fire water to penetrate into surface or ground water. Fire residuals and contaminated extinguishing water must be disposed of in accordance with the regulations of the local authorities. Do not inhale explosion and combustion gases.

6. Accidental release measures

Personal precautions: Provide adequate ventilation. Do not breathe fume/gas/mist/vapors/spray. Take off immediately all contaminated clothing and wash it before reuse. Avoid contact with the substance. Eliminate all ignition sources if safe to do so. Wear appropriate protective equipment. Wear respiratory protection when in the presence of vapor, dust, and aerosols. Keep unprotected people away.

Environmental precautions:
Do not allow to enter into ground-water, surface water or drains. In case of release, notify competent authorities.

Methods for clean-up: Isolate leaked material using non-flammable absorption agent (e.g. sand, earth, vermiculit, diatomaceous earth) and collect it for disposal in appropriate containers in accordance with the local regulations (see section 13).

7. Handling and storage

Handling

Advices on safe handling: Provide adequate ventilation, and local exhaust as needed.
Obtain special instructions before use. Avoid contact during pregnancy/while nursing.
Avoid the formation of aerosol. Do not breathe fume/gas/mist/vapors/spray. Avoid contact with skin and eyes.
Handle and open container with care. When using do not eat, drink or smoke. Wash hands before breaks and after work.
Take off immediately all contaminated clothing and wash it before reuse.

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 container tightly closed in a cool, well-ventilated place. Keep container dry.
Protect from heat and direct sunlight. Handle and open container with care.
Keep only in original container. storage temperature: 2 °C up to 40 °C. Store containers in upright position.

Hints on joint storage: Do not store together with: Acids, alkalis, oxidizing agents, metals.
Keep away from food, drink and animal feedingstuffs.

Further details: Store locked up.

8. Exposure controls / personal protection

Engineering controls

Provide adequate ventilation.
If necessary: Execute works under fume hood.
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: 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.

General hygiene considerations:

Avoid contact with skin and eyes.
Take off immediately all contaminated clothing.
Do not breathe vapors.
Keep away from sources of ignition - No smoking.
Avoid contact during pregnancy/while nursing. Obtain special instructions before use.
Wash hands before breaks and after work. When using do not eat, drink or smoke.
Safety shower and eye wash station should be easily accessible to the work area.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance:	Physical state at 20 °C and 101.3 kPa: liquid Color: light yellow
Odor:	slightly perceptible
Odor threshold:	not determined
pH value:	at 20 °C, 50%: approx. 11
Melting point/freezing point:	not determined
Initial boiling point and boiling range:	> 200 °C
Flash point/flash point range:	108 °C (c.c.)
Evaporation rate:	not determined
Flammability:	not determined
Explosion limits:	LEL (Lower Explosion Limit): not determined UEL (Upper Explosive Limit): not determined
Vapor pressure:	at 20 °C: approx. 6 Pa
Vapor density:	No data available
Density:	at 25 °C: 1 g/mL
Water solubility:	at 20 °C: partially miscible
Partition coefficient: n-octanol/water:	not determined
Auto-ignition temperature:	not determined
Thermal decomposition:	> 200 °C
Viscosity, dynamic:	at 25 °C: 30 - 70 mPa*s
Viscosity, kinematic:	not determined
Ignition temperature:	not determined

10. Stability and reactivity

Reactivity: Corrosive to most metals.

Chemical stability: Stable under recommended storage conditions.

Possibility of hazardous reactions

Reactions with acids, alkalies and strong oxidation agents

Conditions to avoid: Keep away from heat sources, sparks and open flames.
Protect against direct sunlight.
Protect from moisture contamination.

Incompatible materials: Strong oxidizing agents, strong acids, strong alkalis, metals.

Hazardous decomposition products:
Hazardous vapors may form during fires.
In case of fire may be liberated:
Nitrogen oxides (NOx), carbon monoxide and carbon dioxide.

Thermal decomposition: > 200 °C

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 (estimated): 1421 mg/kg

Acute toxicity (dermal): Based on available data, the classification criteria are not met.
ATEmix (estimated): 2933.9 mg/kg.

Acute toxicity (inhalative): Acute Toxicity 4 (inhalative) = Harmful if inhaled.
ATEmix (estimated): 3.605 mg/L. (Aerosol)

Skin corrosion/irritation, eye damage/irritation: Skin Corrosion 1B = Causes severe skin burns and eye damage.
Specific symptoms in animal studies (Rabbit): corrosive (OECD 404)
Specific symptoms in animal studies (rabbit eye): corrosive (OECD 405)

Sensitisation to the respiratory tract: Lack of data.

Skin sensitisation: Sensitization - skin 1 = May cause an allergic skin reaction.
Specific symptoms in animal studies (Rabbit): sensitising (OECD 406)

Germ cell mutagenicity/Genotoxicity: Lack of data.

Carcinogenicity: Lack of data.

Reproductive toxicity: Reproductive toxicity 2 = Suspected of damaging fertility.

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: 3-Aminomethyl-3,5,5-trimethylcyclohexylamine:
LD50 Rat, oral: 1030 mg/kg (OECD 401).

Benzyl alcohol:
LD50 Rat, oral: 1620 mg/kg (OECD 401).

Trimethylhexane-1,6-diamine:
LD50 Rat, oral: 910 mg/kg (OECD 401).

4,4'-Isopropylidenediphenol:
LD50 Rat, oral: 2000 - 5000 mg/kg (OECD 401).
LC50 Rat, inhalative: > 170 mg/L/6h Aerosol (OECD 403)
LD50 Rat, dermal, (male): 6400 mg/kg (OECD 402)

Further hazardous properties cannot be excluded.

Symptoms

In case of inhalation:
Mucous membrane irritation, cough, shortage of breath, damage of respiratory tract.
In case of ingestion:
If swallowed, severe burns in the oral cavity and throat as well as danger of perforation of the digestive tract and stomach.
After contact with skin: burns, redness, pain.
After eye contact: Irritant and corrosive effects. May cause blindness.

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 3-Aminomethyl-3,5,5-trimethylcyclohexylamine:
Algae toxicity:
EC50 Desmodesmus subspicatus (green algae): 37 mg/L/72h (EU C.3).
Daphnia toxicity:
EC50 Daphnia magna (Big water flea): 23 mg/L/48h (OECD 202).
Fish toxicity:
LC50 Leuciscus idus: 110 mg/L/96 h (EU C.1).

Further details: Biodegradation:
Information about 3-Aminomethyl-3,5,5-trimethylcyclohexylamine:
< 10 %/28 d (EU Methode C.4). Product is biodegradable with difficulty.

Information about Benzyl alcohol:
9 - 97 %/21 d (301A). Product is readily biodegradable.

Mobility in soil

No data available

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. (Including sewage plant)
Do not allow uncontrolled discharge of product into the environment.

13. Disposal considerations

Product

Recommendation: Do not dispose of with household waste. Dispose of waste according to applicable legislation.
Incinerate as hazardous waste according to applicable local, state, and federal regulations. Do not mix with other wastes.

Contaminated packaging

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

14. Transport information

USA: Department of Transportation (DOT)

Identification number:	UN2735
Proper shipping name:	UN 2735, AMINES, LIQUID, CORROSIVE, N.O.S. (3-Aminomethyl-3,5,5-trimethylcyclohexylamine, Trimethylhexane-1,6-diamine)
Hazard class or Division:	8
Packing Group:	III
Labels:	8
Symbols:	G
Special provisions:	IB3, T7, TP1, TP28
Packaging – Exceptions:	154
Packaging – Non-bulk:	203
Packaging – Bulk:	241
Quantity limitations – Passenger aircraft / rail:	5 L
Quantity limitations – Cargo only:	60 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. (3-Aminomethyl-3,5,5-trimethylcyclohexylamine, Trimethylhexane-1,6-diamine)
TDG class:	8
Packing group:	III
Special provisions:	16
Explosive limit and limited quantity index:	5 L
Passenger carrying road or rail index:	5 L

Sea transport (IMDG)

UN number:	UN 2735
Proper shipping name:	UN 2735, AMINES, LIQUID, CORROSIVE, N.O.S. (3-Aminomethyl-3,5,5-trimethylcyclohexylamine, Trimethylhexane-1,6-diamine)
Class or division, Subsidary risk:	Class 8, Subrisk-
Packing Group:	III
EmS:	F-A, S-B
Special provisions:	223, 274
Limited quantities:	5 L
Excepted quantities:	E1
Contaminated packaging - Instructions:	P001, LP01
Contaminated packaging - Provisions:	-
IBC - Instructions:	IBC03
IBC - Provisions:	-
Tank instructions - IMO:	-
Tank instructions - UN:	T7
Tank instructions - Provisions:	TP1, TP28
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. (3-Aminomethyl-3,5,5-trimethylcyclohexylamine, Trimethylhexane-1,6-diamine)
Class or division, Subsidary risk:	Class 8
Packing Group:	III
Hazard label:	Corrosive
Excepted Quantity Code:	E1
Passenger and Cargo Aircraft: Ltd.Qty.:	Pack.Instr. Y841 - Max. Net Qty/Pkg. 1 L
Passenger and Cargo Aircraft:	Pack.Instr. 852 - Max. Net Qty/Pkg. 5 L
Cargo Aircraft only:	Pack.Instr. 856 - Max. Net Qty/Pkg. 60 L
Special provisions:	A3 A803
Emergency Response Guide-Code (ERG):	8L

15. Regulatory information

National regulations - Canada

No data available

National regulations - U.S. Federal Regulations

Benzyl alcohol:
TSCA Inventory: listed
TSCA HPVC: not listed
Clean Air Act:
SOCMI Chemical: yes
Other Environmental Laws:
RCRA Groundwater Monitoring: Methods 8270 / PQL 20

3-Aminomethyl-3,5,5-trimethylcyclohexylamine:
TSCA Inventory: listed
TSCA HPVC: not listed

Trimethylhexane-1,6-diamine:
TSCA Inventory: listed
TSCA HPVC: not listed

4,4'-Isopropylidenediphenol:
TSCA Inventory: listed
TSCA HPVC: not listed
Clean Air Act:
Hazardous Air Pollutants: yes
SOCMI Chemical: yes
Other Environmental Laws:
SARA Title III Section 313, Toxic Release: Conc. 1.0% / Threshold Standard

National regulations - U.S. State Regulations

Benzyl alcohol:
Massachusetts Haz. Substance codes: 6
Pennsylvania Haz. Substance code: -

4,4'-Isopropylidenediphenol:
California Proposition 65 code: -
Delaware Air Quality Management List:
DRQ: 100 - RQ State: State requirement differs from Federal
Massachusetts Haz. Substance codes: F9
New Jersey RTK Hazardous Substance:
DOT: -- - Sub No.: 2388 - TPQ: -
Pennsylvania Haz. Substance code: E
California Proposition 65: female
Rhode Island HSL: listed

16. Other information

Text for labeling: Contains 30 - 60 % Benzyl alcohol, 30 - 60 % 3-Aminomethyl-3,5,5-trimethylcyclohexylamine, 7 - 13 % Trimethylhexane-1,6-diamine, < 3 % 4,4'-Isopropylidenediphenol. Safety data sheet available on request.

Hazard rating systems:

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

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

HEALTH	*	3
FLAMMABILITY		0
PHYSICAL HAZARD		1
		X

Date of first version: 26/Apr/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.