



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

Repair Stick Titanium

Material number 105350

Page: 1 of 10

1. Product and company identification

Product identifier

Trade name: Repair Stick Titanium

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

General use: Two-component epoxy resins.
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 – 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: solid
Form: pasty
Color: brown
Odor: characteristic
Classification: Sensitization - skin - Category 1;
Hazard symbols:



Signal word: **Warning**
Hazard statements: May cause an allergic skin reaction.
Precautionary statements: Avoid breathing dust/fume/gas/mist/vapors/spray.
Contaminated work clothing should not be allowed out of the workplace.
Wear protective gloves/protective clothing/eye protection/face protection.
IF ON SKIN: Wash with plenty of water/soap.
Specific treatment (see 'First aid' on this label).
If skin irritation or rash occurs: Get medical advice/attention.
Wash contaminated clothing before reuse.
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.



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Hazards not otherwise classified

see section 11: Toxicological information

3. Composition / Information on ingredients

Chemical characterization: Two-component epoxy resins

Relevant ingredients:

| CAS No. | Designation | Content | Classification |
|----------------|--|-----------|---|
| CAS 14807-96-6 | Talcum | 20 - 50 % | not applicable |
| CAS 112-24-3 | Triethylentetramine | < 1 % | Acute Toxicity - dermal - Category 4. Skin Corrosion - Category 1B. Sensitization - skin - Category 1. Aquatic toxicity - chronic - Category 3. |
| CAS 25068-38-6 | Reaction product: Bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight <=700) | < 1 % | Skin Irritation - Category 2. Eye Irritation - Category 2A. Sensitization - skin - Category 1. Aquatic toxicity - chronic - Category 2. |
| CAS 108-95-2 | Phenol | < 1 % | Acute Toxicity - oral - Category 3. Acute Toxicity - dermal - Category 3. Acute Toxicity - inhalative - Category 3. Skin Corrosion - Category 1B. Germ cell mutagenicity - Category 2. Specific Target Organ Toxicity (Repeated Exposure) - Category 2. |
| CAS 140-31-8 | 2-Piperazin-1-ylethylamine | < 1 % | Acute Toxicity - oral - Category 4. Acute Toxicity - dermal - Category 3. Skin Corrosion - Category 1B. Sensitization - skin - Category 1. Aquatic toxicity - chronic - Category 3. |

4. First aid measures

| | |
|-------------------------|--|
| General information: | Remove all contaminated clothes and footwear immediately unless stuck to skin. Take off immediately all contaminated clothing and wash it before reuse. |
| In case of inhalation: | Provide fresh air. Seek medical treatment in case of troubles. |
| Following skin contact: | After contact with skin, wash immediately with soap and plenty of water. 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: | Do not induce vomiting. Rinse mouth with water. Immediately get medical attention. Never give anything by mouth to an unconscious person. |

Most important symptoms/effects, acute and delayed

May cause an allergic skin reaction.
Irritating to eyes and skin. Vomiting.

Information to physician

Treat symptomatically.



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5. Fire fighting measures

Flash point/flash point range:

> 212 °F

Auto-ignition temperature: not determined

Suitable extinguishing media:

Alcohol resistant foam, dry extinguishing powder, carbon dioxide.

Extinguishing media which must not be used for safety reasons:

Water

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. In case of fire and/or explosion do not breathe fumes.

Additional information:

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

6. Accidental release measures

Personal precautions:

Provide adequate ventilation. Wear appropriate protective equipment. Take off contaminated clothing and wash it before reuse.

Keep unprotected people away. Avoid contact with skin and eyes.

Environmental precautions:

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

If necessary notify appropriate authorities.

Methods for clean-up:

Take up mechanically, placing in appropriate containers for disposal.

7. Handling and storage

Handling

Advices on safe handling:

Provide adequate ventilation, and local exhaust as needed. Avoid contact with skin and eyes.

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

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

Precautions against fire and explosion:

Take care of general rules for industrial preventive fire protection.

Storage

Requirements for storerooms and containers:

Keep only in the original container. Protect from heat and direct sunlight.

Keep container tightly closed in a cool, well-ventilated place.

Keep container dry.

Hints on joint storage:

Avoid contact with oxidizing agents, acids and amines.



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8. Exposure controls / personal protection

Exposure guidelines

Occupational exposure limit values:

| CAS No. | Designation | Type | Limit value |
|------------|-------------|--|---|
| 14807-96-6 | Talcum | USA: ACGIH: TWA USA: NIOSH: TWA USA: OSHA: TWA | 2 mg/m ³ respirable fraction 2 mg/m ³ 20 mppcf Containing less than 1% quartz |
| 108-95-2 | Phenol | NIOSH: Ceiling USA: ACGIH: TWA USA: NIOSH: TWA USA: OSHA: TWA | 60 mg/m ³ ; 15.6 ppm (May be absorbed through the skin.) 19 mg/m ³ ; 5 ppm (May be absorbed through the skin.) 19 mg/m ³ ; 5 ppm (May be absorbed through the skin.) 19 mg/m ³ ; 5 ppm (May be absorbed through the skin.) |

Biological limit values:

| CAS No. | Designation | Type | Limit value | Parameter | Sampling |
|----------|-------------|--------------------------|---------------------|-----------|---------------------------------|
| 108-95-2 | Phenol | USA: ACGIH-BEI, urine | 250 mg/g creatinine | phenol | end of exposure or end of shift |

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: Nitrile rubber - Layer thickness: 0.4 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/vapor/aerosol/particulates) that may arise when handling the product.
- 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, drink or smoke. Wash hands before breaks and after work.

9. Physical and chemical properties

Information on basic physical and chemical properties

- Appearance: Physical state at 68 °F and 101.3 kPa: solid
Form: pasty
Color: brown
- Odor: characteristic
- Odor threshold: not determined
- pH value: not applicable



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| | |
|--|---|
| Melting point/freezing point: | not applicable |
| Initial boiling point and boiling range: | > 95 °F (approx. 1010 hPa) |
| Flash point/flash point range: | > 212 °F |
| Evaporation rate: | not applicable |
| Flammability: | not determined |
| Explosion limits: | LEL (Lower Explosion Limit): not determined UEL (Upper Explosive Limit): not determined |
| Vapor pressure: | at 68 °F: <= 5 hPa |
| Vapor density: | No data available |
| Density: | at 68 °F: 1.9 g/cm ³ |
| Water solubility: | insoluble |
| Partition coefficient: n-octanol/water: | (estimated) 3.242 log P(o/w) (Reaction product: Bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight <=700)) Based on the n-octanol/water partition coefficient significant accumulation in organisms is not expected. |
| Auto-ignition temperature: | not determined |
| Thermal decomposition: | No decomposition when used properly. |
| Viscosity, dynamic: | not applicable |
| Explosive properties: | not applicable |

10. Stability and reactivity

| | |
|------------------------------------|---|
| Reactivity: | No data available |
| Chemical stability: | Stable under recommended storage conditions. |
| Possibility of hazardous reactions | Reacts with acids and amines. |
| Conditions to avoid: | Protect from heat and direct sunlight. Protect from moisture contamination. |
| Incompatible materials: | Avoid contact with oxidizing agents, acids and amines. |
| Hazardous decomposition products: | In case of fire may be liberated: nitrogen oxides (NO _x), carbon monoxide and carbon dioxide. |
| Thermal decomposition: | No decomposition when used properly. |



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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.
ATEmix calculated: > 5000 mg/kg
Acute toxicity (dermal): Based on available data, the classification criteria are not met.
ATEmix calculated: > 5000 mg/kg
Acute toxicity (inhalative): Based on available data, the classification criteria are not met.
ATEmix calculated: > 50 mg/L (Vapors)
Skin corrosion/irritation: Lack of data.
Eye damage/irritation: Lack of data.
Sensitisation to the respiratory tract: Lack of data.
Skin sensitisation: Sensitization - skin -
Category 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 Reaction product: Bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight <=700):
LD50, oral, Rat (OECD 420): >2000 mg/kg
LD50, dermal, Rabbit (OECD 402): >2000 mg/kg
Information about triethylentetramine:
LD50, oral, Rat: >5000 mg/kg
LD50, dermal, Rabbit: 1465 mg/kg
Information about phenol:
LD50, oral, Rat: 650 mg/kg
LD50, dermal, Rat: 0.625mg/kg
For carcinogenic effects:
IARC Rating: Group 3
OSHA Carcinogen: not listed
NTP Rating: not listed
Information about 2-Piperazin-1-ylethylamine:
LD50 Rat, oral: 2097 mg/kg
LD50 Rabbit, dermal: 866 mg/kg.
Information about Talkum:
For carcinogenic effects:
IARC Rating: Group 3
OSHA Carcinogen: not listed
NTP Rating: not listed

Symptoms

Irritating to eyes and skin. Vomiting.



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12. Ecological information

Ecotoxicity

Aquatic toxicity: Information about Reaction product: Bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700):
Fish toxicity: LC50 Oncorhynchus mykiss: 2 mg/L/96h.
Daphnia toxicity: EC50 Daphnia magna (Big water flea): 1.8 mg/L/48h (OECD 202).
NOEC Daphnia magna (Big water flea): 0.3 mg/L/21d (OECD 211).
Algae toxicity: EC50 Scenedesmus capricornutum: 220 mg/L/72h.
Information about triethylentetramine:
Bacterial toxicity: EC50 activated sludge 800 mg/L
Daphnia toxicity: EC50 Daphnia magna (Big water flea): 31 mg/L/48h
Fish toxicity: LC50 Pimephales promelas (fathead minnow): 330 mg/L/96h
Algae toxicity: EC50 Scenedesmus capricornutum: 20 mg/L/72h.
Information about 2-Piperazin-1-ylethylamine:
EC50 Pseudokirchneriella subcapitata (green algae): >1000 mg/L/72h (OECD 201).
Daphnia toxicity: EC50 Daphnia magna (Big water flea): 58 mg/L/48 h (OECD 202).
Fish toxicity: LC50 Pimephales promelas (fathead minnow): 2190 mg/L/96 h (OECD 203).
Information about phenol:
Fish toxicity: LC50 Pimephales promelas (fathead minnow): 67.5 mg/L/96 h

Mobility in soil

The product is insoluble in water and is deposited on the water surface.

Persistence and degradability

Further details: Product is not biodegradable.

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.

13. Disposal considerations

Product

Recommendation: Dispose of waste according to applicable legislation.

Contaminated packaging

Recommendation: Dispose of waste according to applicable legislation. Handle contaminated packages in the same way as the substance itself. Uncontaminated packaging may be treated as household waste.

14. Transport information

USA: Department of Transportation (DOT)

Proper shipping name: No dangerous good in sense of this transport regulation.

Sea transport (IMDG)

Proper shipping name: No dangerous good in sense of this transport regulation.

Marine pollutant: no



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Air transport (IATA)

Proper shipping name: No dangerous good in sense of this transport regulation.

Further information

No dangerous good in sense of these transport regulations.

15. Regulatory information

National regulations - U.S. Federal Regulations

| | |
|--|---|
| Talcum: | TSCA Inventory: listed TSCA HPVC: not listed Carcinogen Status: IARC Rating: Group 3 OSHA Carcinogen: not listed NTP Rating: not listed NIOSH Recommendations: Occupational Health Guideline: 0584 |
| Triethyltetramine: | TSCA Inventory: listed TSCA HPVC: not listed |
| Reaction product: Bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight <=700): | TSCA Inventory: listed; EPA flags XU TSCA HPVC: not listed |
| Phenol: | TSCA Inventory: listed TSCA HPVC: not listed Carcinogen Status: IARC Rating: Group 3 OSHA Carcinogen: not listed NTP Rating: not listed Clean Air Act: Hazardous Air Pollutants: Code XO SOCMI Chemical: yes Clean Water Act: Hazardous Substances: RQ 1000 lbs. Priority Pollutant: yes Other Environmental Laws: CERCLA: RQ 1000 lbs. RCRA Hazardous Wastes: Code U188 RCRA Groundwater Monitoring: Methods 8040, 8270 / PQL 1, 10 SARA Title III Section 302, EHS: TPQ 500/10000 lbs. / RQ 1000 lbs. SARA Title III Section 313, Toxic Release: Conc. 1.0% / Threshold Standard NIOSH Recommendations: Occupational Health Guideline: 0493 |
| 2-Piperazin-1-ylethylamine: | TSCA Inventory: listed TSCA HPVC: not listed |



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National regulations - U.S. State Regulations

Talcum: California Proposition 65 code: not listed
 Massachusetts Haz. Substance codes: 2,4 F5
 Minnesota Haz. Substance:
 Codes: AO - Ratings: --
 Pennsylvania Haz. Substance code: -
 Washington Air Contaminant:
 TWA: 2mg
 Wisconsin Hazardous Air Contaminant List (Appears on Table): A

Triethylenetetramine: California Proposition 65 code: -
 Massachusetts Haz. Substance codes: 6
 Pennsylvania Haz. Substance code: -

Phenol: California Proposition 65 code: not listed
 Delaware Air Quality Management List:
 DRQ: 1000 - RQ State: Federal Regulations Apply
 Idaho Air Pollutant List:
 Title 585: AAC: 0.95 - EL: 1.27 - OEL: 19 - Title 586: -
 Maine Hazardous Air Pollutants:
 Me 2005: HAP - Hap Rpt: 2000
 Massachusetts Haz. Substance codes: 2,4,5,6 *E* F6 F8 F9
 Minnesota Haz. Substance:
 Codes: ANO - Ratings: 8.45
 - Status: Air Pollutant. Title III. TRI. Water Pollutant
 New Jersey RTK Hazardous Substance:
 DOT: 1671 - Sub No.: 1487 - TPQ: - EHS: Yes
 New York List of Hazardous Substances:
 RQ-Air: 1000 - RQ-Land: 1 - Note: No Note Associated with this chemical.
 Pennsylvania Haz. Substance code: E
 Washington Air Contaminant:
 TWA: 5 ppm - 19 mg
 Skin: Protective measures should be taken to prevent or reduce skin absorption.

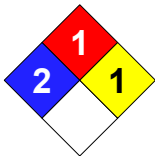
National regulations - Great Britain

Hazchem-Code: -

16. Other information

Text for labeling: Contains 20 - 50 % Talcum, < 1 % Triethylenetetramine, < 1 % Reaction product: Bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight <=700), < 1 % Phenol, < 1 % 2-Piperazin-1-ylethylamine. Safety data sheet available on request.

Hazard rating systems:



NFPA Hazard Rating:
 Health: 2 (Moderate)
 Fire: 1 (Slight)
 Reactivity: 1 (Slight)

HMIS Version III Rating:
 Health: 2 (Moderate)
 Flammability: 1 (Slight)
 Physical Hazard: 1 (Slight)
 Personal Protection: X = Consult your supervisor

| | |
|-----------------|---|
| HEALTH | 2 |
| FLAMMABILITY | 1 |
| PHYSICAL HAZARD | 1 |
| | X |

Reason of change: Changes in section 1: General revision

Date of first version: Feb/25/2016

Department issuing data sheet

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



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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.