



Zipcrete #137 Hardener Part-B

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Date of issue: 07/9/2015 Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture
Trade name : Zipcrete #137 Hardener Part-B

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

Use of the substance/mixture : Epoxy Floor Patch Component

1.3. Details of the supplier of the safety data sheet

Midwest Industrial Products Corp.
7424 Bessemer Ave.
Cleveland, Ohio 44127
Service: 800.521.2107
Product Stewardship: +1.216.771.8555
www.midwestindustrial.net

1.4. Emergency telephone number

Emergency number : CHEMTREC (US Transportation) : 800.424.9300,
CHEMTREC (Outside USA) : +1.703.527.3887

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (GHS-US)

Acute Tox. 4 (Oral) H302
Acute Tox. 4 (Inhalation:dust,mist) H332
Skin Corr. 1B H314
Skin Sens. 1 H317

Full text of H-phrases: see section 16

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US) :



Signal word (GHS-US) :

: Danger

Hazard statements (GHS-US) :

: H302+H332 - Harmful if swallowed or if inhaled
H314 - Causes severe skin burns and eye damage
H317 - May cause an allergic skin reaction

Precautionary statements (GHS-US) :

: P260 - Do not breathe mist/vapors/spray
P264 - Wash exposed areas thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P271 - Use only outdoors or in a well-ventilated area
P272 - Contaminated work clothing must not be allowed out of the workplace
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P301 + P312 - If swallowed: Call a poison center/doctor if you feel unwell
P301 + P330 + P331 - If swallowed: rinse mouth. Do NOT induce vomiting
P302 + P352 - If on skin: Wash with plenty of water
P303 + P361 + P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
P304 + P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention
P362+P364 - Take off contaminated clothing and wash it before reuse

2.3. Other hazards

No additional information available

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2.4. Unknown acute toxicity (GHS-US)

None of the ingredients are of unknown toxicity.

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable – this product is a mixture.

3.2. Mixture

Name	Product identifier	%	Classification (GHS-US)
Isophorone diamine	(CAS No) 2855-13-2	30 – 60*	Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317
Benzyl alcohol	(CAS No) 100-51-6	30 – 60*	Flam. Liq. 4, H227 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Eye Irrit. 2A, H319
Cyclohexanemethanamine, 5-amino-1,3,3-trimethyl-, reaction products with bisphenol A diglycidyl ether homopolymer	(CAS No) 68609-08-5	15 – 40*	Skin Sens. 1, H317

*The exact concentrations are being withheld as a trade secret

Full text of H-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a poison center or doctor/physician.
First-aid measures after skin contact	: Remove/Take off immediately all contaminated clothing. Immediately call a poison center or doctor/physician. Wash with plenty of soap and water. Wash contaminated clothing before reuse.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor/physician.
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. Immediately call a poison center or doctor/physician.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries	: Causes severe skin burns and eye damage.
Symptoms/injuries after inhalation	: Danger of serious damage to health by prolonged exposure through inhalation. Harmful if inhaled. May cause an allergic skin reaction.
Symptoms/injuries after ingestion	: Swallowing a small quantity of this material will result in serious health hazard.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Reactivity	: Thermal decomposition generates : Corrosive vapors.
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5.3. Advice for firefighters

Firefighting instructions	: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures	: Evacuate unnecessary personnel.
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6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.
Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. Use only outdoors or in a well-ventilated area. Do not breathe mist/vapors/spray.
Hygiene measures : Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly after handling. Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep only in the original container in a cool, well ventilated place. Keep container closed when not in use. Store between 10-24°C.
Incompatible products : Reactive metals, organic acids, mineral acids, sodium hypochlorite, oxidizing agent. Product slowly corrodes copper, aluminum, zinc and galvanized surfaces.
Incompatible materials : Sources of ignition. Direct sunlight.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Zipcrete #137 Hardener Part-B	
ACGIH	Not applicable
OSHA	Not applicable
Isophorone diamine (2855-13-2)	
ACGIH	Not applicable
OSHA	Not applicable
Cyclohexanemethanamine, 5-amino-1,3,3-trimethyl-, reaction products with bisphenol A diglycidyl ether homopolymer (68609-08-5)	
ACGIH	Not applicable
OSHA	Not applicable
Benzyl alcohol (100-51-6)	
ACGIH	Not applicable
OSHA	Not applicable

8.2. Exposure controls

Engineering controls : Adequate ventilation should be provided in the work area as well as eye-wash station and safety shower.
Personal protective equipment : Avoid all unnecessary exposure.
Hand protection : Wear chemical resistant protective gloves.
Eye protection : Chemical goggles or face shield.
Skin and body protection : Wear impervious chemical resistant protective clothing as appropriate to prevent contact with skin.
Respiratory protection : Wear NIOSH-approved respirator, if required.

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Other information : Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Color	: Clear
Odor	: Ammonia odor
Odor threshold	: No data available
pH	: > 7
Melting point	: No data available
Freezing point	: No data available
Boiling point	: > 200 °C
Flash point	: 113 °C
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Vapor pressure	: 0.02 mm Hg
Relative density	: 1
Relative vapor density at 20 °C	: No data available
Density	: 1 g/cm ³
Solubility	: Soluble in water
Log Pow	: No data available
Log Kow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available

9.2. Other information

VOC content : < 0.01 g/l estimated for this component only. Consult the manufacturer or product data sheet for final mixed product VOC content.

SECTION 10: Stability and reactivity

10.1. Reactivity

Thermal decomposition generates : Corrosive vapors.

10.2. Chemical stability

This product is stable under normal conditions of use.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Extremely high or low temperatures.

10.5. Incompatible materials

Reactive metals, organic acids, mineral acids, sodium hypochlorite, oxidizing agent. Product slowly corrodes copper, aluminum, zinc and galvanized surfaces.

10.6. Hazardous decomposition products

Fume. Carbon monoxide. Carbon dioxide. Thermal decomposition generates : Corrosive vapors.

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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Oral: Harmful if swallowed. Inhalation:dust/mist: Harmful if inhaled.

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ATE US (oral)	1030.000 mg/kg body weight
ATE US (dust, mist)	2.500 mg/l/4h
Isophorone diamine (2855-13-2)	
LD50 oral rat	1030 mg/kg
ATE US (oral)	1030.000 mg/kg body weight

Benzyl alcohol (100-51-6)	
LD50 oral rat	1230 mg/kg
LD50 dermal rabbit	2 g/kg
LC50 inhalation rat (mg/l)	8.8 mg/l/4h
ATE US (oral)	1230.000 mg/kg body weight
ATE US (dermal)	2000.000 mg/kg body weight
ATE US (gases)	4500.000 ppmV/4h
ATE US (vapors)	8.800 mg/l/4h
ATE US (dust, mist)	1.500 mg/l/4h

Skin corrosion/irritation : Causes severe skin burns and eye damage.
pH: > 7

Serious eye damage/irritation : Not classified
pH: > 7

Respiratory or skin sensitization : May cause an allergic skin reaction.

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

Potential Adverse human health effects and symptoms : Harmful if swallowed. Harmful if inhaled.

Symptoms/injuries after inhalation : Danger of serious damage to health by prolonged exposure through inhalation. May cause an allergic skin reaction.

Symptoms/injuries after ingestion : Swallowing a small quantity of this material will result in serious health hazard.

SECTION 12: Ecological information

12.1. Toxicity

Isophorone diamine (2855-13-2)	
EC50 Daphnia 1	14.6 - 21.5 mg/l (Exposure time: 48 h - Species: Daphnia magna [semi-static])
Benzyl alcohol (100-51-6)	
LC50 fish 1	460 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 Daphnia 1	23 mg/l (Exposure time: 48 h - Species: water flea)
LC50 fish 2	10 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])

12.2. Persistence and degradability

Zipcrete #137 Hardener Part-B	
Persistence and degradability	Not established.
Isophorone diamine (2855-13-2)	
Persistence and degradability	Not established.

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Cyclohexanemethanamine, 5-amino-1,3,3-trimethyl-, reaction products with bisphenol A diglycidyl ether homopolymer (68609-08-5)	
Persistence and degradability	Not established.
Benzyl alcohol (100-51-6)	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

Zipcrete #137 Hardener Part-B	
Bioaccumulative potential	Not established.
Isophorone diamine (2855-13-2)	
Log Pow	0.79 (at 23 °C)
Bioaccumulative potential	Not established.
Cyclohexanemethanamine, 5-amino-1,3,3-trimethyl-, reaction products with bisphenol A diglycidyl ether homopolymer (68609-08-5)	
Bioaccumulative potential	Not established.
Benzyl alcohol (100-51-6)	
Log Pow	1.1
Bioaccumulative potential	Not established.

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local, state and federal regulations.
Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

Department of Transportation (DOT)

Transport document description : UN3066 Paint, 8, III
UN-No.(DOT) : UN3066
Proper Shipping Name (DOT) : Paint
Department of Transportation (DOT) Hazard Classes : 8 - Class 8 - Corrosive material 49 CFR 173.136
Hazard labels (DOT) : 8 - Corrosive



Packing group (DOT) : III - Minor Danger
DOT Packaging Non Bulk (49 CFR 173.xxx) : 173
DOT Packaging Bulk (49 CFR 173.xxx) : 241
DOT Special Provisions (49 CFR 172.102) : B52 - Notwithstanding the provisions of 173.24b of this subchapter, non-reclosing pressure relief devices are authorized on DOT 57 portable tanks.
IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672).
T4 - 2.65 178.274(d)(2) Normal..... 178.275(d)(3)
TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = $97 / 1 + a (tr - tf)$ Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.
TP29 - A portable tank having a minimum test pressure of 1.5 bar (150.0 kPa) may be used provided the calculated test pressure is 1.5 bar or less based on the MAWP of the hazardous materials, as defined in 178.275 of this subchapter, where the test pressure is 1.5 times the MAWP.

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DOT Packaging Exceptions (49 CFR 173.xxx)	: 154
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	: 5 L
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	: 60 L
DOT Vessel Stowage Location	: A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.
DOT Vessel Stowage Other	: 40 - Stow "clear of living quarters"

ADR

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

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SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard
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Isophorone diamine (2855-13-2)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Cyclohexanemethanamine, 5-amino-1,3,3-trimethyl-, reaction products with bisphenol A diglycidyl ether homopolymer (68609-08-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Benzyl alcohol (100-51-6)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

Isophorone diamine (2855-13-2)

Listed on the Canadian DSL (Domestic Substances List)

WHMIS Classification	Class D Division 2 Subdivision B - Toxic material causing other toxic effects Class E - Corrosive Material
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Cyclohexanemethanamine, 5-amino-1,3,3-trimethyl-, reaction products with bisphenol A diglycidyl ether homopolymer (68609-08-5)

Listed on the Canadian DSL (Domestic Substances List)

Benzyl alcohol (100-51-6)

Listed on the Canadian DSL (Domestic Substances List)

WHMIS Classification	Class B Division 3 - Combustible Liquid Class D Division 2 Subdivision B - Toxic material causing other toxic effects
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EU-Regulations

Isophorone diamine (2855-13-2)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Benzyl alcohol (100-51-6)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Classification according to Regulation (EC) No. 1272/2008 [CLP]

No additional information available

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

No additional information available

National regulations

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Isophorone diamine (2855-13-2)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Poisonous and Deleterious Substances Control Law
Listed on the Canadian IDL (Ingredient Disclosure List)
Listed on INSQ (Mexican national Inventory of Chemical Substances)
Listed on Turkish inventory of chemical

Cyclohexanemethanamine, 5-amino-1,3,3-trimethyl-, reaction products with bisphenol A diglycidyl ether homopolymer (68609-08-5)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

Benzyl alcohol (100-51-6)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the Canadian IDL (Ingredient Disclosure List)
Listed on INSQ (Mexican national Inventory of Chemical Substances)
Listed on Turkish inventory of chemical

15.3. US State regulations

No additional information available

SECTION 16: Other information

Full text of H-phrases:

Acute Tox. 4 (Dermal)	Acute toxicity (dermal) Category 4
Acute Tox. 4 (Inhalation)	Acute toxicity (inhalation) Category 4
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Flam. Liq. 4	Flammable liquids Category 4
Skin Corr. 1B	Skin corrosion/irritation Category 1B
Skin Sens. 1	Skin sensitization Category 1
H227	Combustible liquid
H302	Harmful if swallowed
H312	Harmful in contact with skin
H314	Causes severe skin burns and eye damage
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H319	Causes serious eye irritation
H332	Harmful if inhaled

SDS US (GHS HazCom 2012)

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This SDS to the best of our knowledge conforms to the requirements of OSHA 29 CFR 1910.1200, 91/155/EEC and summarizes the health and safety hazard information and general guidance on how to safely handle the material at the date of issue. Each user must review the SDS in the context of how the product will be handled and used in the workplace. If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company. Responsibility for the product sold is subject to our standard terms and conditions, a copy of which is available upon request. This company warrants only that its products meet the specifications stated in the sales contract. Typical properties, where stated, are to be considered as representative of current production and should not be treated as specifications. While all the information presented in this document is believed to be reliable and to represent the best available data on these products, NO GUARANTY, WARRANTY, OR REPRESENTATION IS MADE, INTENDED, OR IMPLIED AS TO THE CORRECTNESS, OR SUFFICIENCY OF ANY INFORMATION, OR AS TO THE MERCHANTABILITY OR SUITABILITY OR FITNESS OF ANY CHEMICAL COMPOUNDS OR OTHER PRODUCTS FOR ANY PARTICULAR USE OR PURPOSE, OR THAT ANY CHEMICAL COMPOUNDS OR OTHER PRODUCTS OR THE USE THEREOF ARE NOT SUBJECT TO A CLAIM BY A THIRD PARTY FOR INFRINGEMENT OF ANY PATENT OR OTHER INTELLECTUAL PROPERTY RIGHT. Some of the information presented and conclusions drawn herein are from sources other than direct test data on the product itself. Liability by this company for all claims, whether arising out of breach of warranty, negligence, strict liability, or otherwise, is limited to the purchase price of the material. Products may be toxic and require special precautions in handling. For all products listed, the user should obtain detailed information on toxicity, together with the proper shipping, handling and storage procedures, and comply with all applicable safety and environmental standards. Toxicity and risk characteristics of chemical compounds and other products may differ when used with other materials or in a manufacturing or other process. Those risk characteristics should be determined by the user and made known to handlers, processors, and end users.