Safety Data Sheet

S-240 Part A

Revision Date: January 15, 2020
Version: 3

1. Identification

Product identifier used on the label

Recommended use of the chemical and restriction on use: 2-part system recommended for the installation of vinyl and rubber sheet goods, luxury vinyl tiles, and studded rubber and vinyl tiles on all clean and dry sub-floors, above, on or below grade.

Details of the supplier of the safety data sheet

Company:
Armstrong Flooring, Inc.
2500 Columbia Ave.
Lancaster, PA 17603, USA
Telephone number: (800) 233-3823
Website: www.floorexpert.com

Emergency Telephone Number (CHEM-TEL): 1-800-255-3924 or +01-813-248-0585 (call collect)

Other Means of Identification
Chemical Family: Epoxy

2. Hazards identification


Classification of the Product:

| Skin corrosion/irritation Category 2 | H315 | Causes Skin irritation |
| Skin sensitization Category 1 | H317 | May cause an allergic skin reaction |
| Carcinogenicity Category 1A | H350 | May cause cancer |
Label Elements
Signal word (GHS-US): Danger
Hazard statements (GHS-US):
- H315 - Causes skin irritation
- H317 - May cause an allergic skin reaction
- H350 - May cause cancer
Precautionary statements (GHS-US):
- P201 - Obtain special instructions before use
- P202 - Do not handle until all safety precautions have been read and understood
- P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
- P264 - Wash thoroughly after handling
- P272 - Contaminated work clothing must not be allowed out of the workplace
- P280 - Wear protective gloves/protective clothing/eye protection/face protection
- P302+P352 - If on skin: Wash with plenty of water
- P308+P313 - If exposed or concerned: Get medical advice/attention
- P321 - Specific treatment (see...on this label)
- P332+P313 - If skin irritation occurs: Get medical advice/attention
- P362+P364 - Take off contaminated clothing and wash it before reuse
- P363 - Wash contaminated clothing before reuse

Labeling of special preparations (GHS):


Emergency Overview
Caution:
May cause skin irritation if not removed after skin contact.
Use with Use with local exhaust ventilation.
Use protective equipment for eyes, skin protection.

3. Composition / Information on Ingredients


This product does not contain any components classified as hazardous under the referenced regulation.


<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Content</th>
<th>Chemical Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>25068-38-6</td>
<td>45 - 55</td>
<td>Epoxy resin</td>
</tr>
<tr>
<td>1317-65-3</td>
<td>30 - 40</td>
<td>Calcium Carbonate</td>
</tr>
<tr>
<td>Proprietary</td>
<td>1 - 10</td>
<td>Additives</td>
</tr>
</tbody>
</table>
4. First Aid Measures

**Description of First Aid measures**

**First-aid measures general:** Remove material from contact immediately and apply recommended first-aid procedure.

**First-aid measures after inhalation:** Remove individual to fresh air. Administer oxygen if necessary. Seek medical attention.

**First-aid measures after skin contact:** Remove from skin and wash with mild soap and water. If irritation persists, seek medical attention.

**First-aid measures after eye contact:** Open eyelids and flush with running water for at least 15-20 minutes. If irritation persists, seek medical attention.

**First-aid measures after ingestion:** Seek medical attention immediately. Do not induce vomiting. This might cause chemical pneumonitis.

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

Acute: May cause headache, skin rash, and central nervous system depression.

Delayed/Chronic: May cause narcosis, unconsciousness from inhalation. May cause dermatitis from chronic skin contact.

**Indication of any immediate medical attention and special treatment needed**

**Note to physician**

**Treatment:** Symptomatic treatment

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5. Fire-Fighting Measures

**Extinguishing Media**

Carbon dioxide, foam, dry chemicals

**Special hazards arising from the substance or mixture**

Do not expose to excessive heat, open flames or sparks. Turn off all pilot lights.

**Advice for fire-fighters**

Water may spread burning liquid. Avoid direct stream of water. Use water spray only to cool containers exposed to flames. Do not enter closed or confined work area without proper protective equipment. Use self-contained breathing apparatus and turn out gear. If leak or spill has not ignited, use water fog to disperse vapors.

**Further Information:**
Dispose fire debris and contaminated clothing in accordance with official regulations.

6. Accidental release measures

Further accidental release measures:

Fire and slippage hazard. Eliminate sources of ignition including electrical switches and motors, pilot lights, etc. Evacuate area and report incident immediately.

Personal precautions, protective equipment and emergency procedures

Use protective equipment when handling spills. Avoid contact with skin, eyes, inhalation or vapors.

Environmental Precautions

Dike and contain the area. Block all natural waterways entry during spill.

Methods and material for containment and cleaning up

Use absorbents (clay, sand) to remove large volume of material. Scrape residual amount and place in closed DOT approved containers for disposal.

7. Handling and Storage

Precautions for Safe Handling

Always use protective equipment when handling material to avoid direct contact. Keep out of reach of children.

Conditions for safe storage, including any incompatibilities

Product is flammable. Keep away from sources of ignition. Protect against physical damage. Store in a cool, dry place.

8. Exposure Control/ Personal Protection

Advice on system design: Maintain proper ventilation. Keep away from sources of ignition. Avoid skin and eye contact. Use local exhaust. Do not use closed air circulating system. Open doors and windows if necessary.

Personal protective equipment:

Respiratory protection: NIOSH respirator

Skin protection: Chemical resistant gloves

Eye protection: Safety glasses, goggles, or face shield if needed
General safety and hygiene safety measures:

Always wash hands after use. Remove contaminated clothing to avoid constant contact with skin. Launder contaminate clothing before re-use.

9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>Semi solid paste</td>
</tr>
<tr>
<td>Odor</td>
<td>Epoxy</td>
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<tr>
<td>Odor threshold</td>
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<tr>
<td>Color</td>
<td>Off white</td>
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<tr>
<td>pH value</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Melting point</td>
<td>Not applicable</td>
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<td>Boiling point</td>
<td>&gt; 392 degree F</td>
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<tr>
<td>Flash point</td>
<td>200 – 437 degrees F</td>
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<tr>
<td>Flammability</td>
<td>Material will burn</td>
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<tr>
<td>Lower explosion</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Upper explosion</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapor pressure</td>
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</tr>
<tr>
<td>Density</td>
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<td>Relative density</td>
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<tr>
<td>Vapor density</td>
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<td>Partition Coefficient n-octanol/water (log Pow):</td>
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<tr>
<td>Self-ignition temperature</td>
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<tr>
<td>Viscosity, dynamic</td>
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<td>Solubility in water</td>
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<tr>
<td>Miscibility in water</td>
<td>Not miscible</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not determined</td>
</tr>
</tbody>
</table>
10. Stability and Reactivity

Reactivity:
Stable

Chemical stability:
None known

Possibility of hazardous reactions:
Stable

Conditions to avoid:
Strong acids and bases in bulk at elevated temperatures

Incompatible materials:
Strong oxidizing agents

Hazardous decomposition products:
Oxides of carbon, water and organic compounds of unknown structures. Do not breathe smoke or fumes.

11. Toxicological Information

Primary routes of exposure:
Respiratory, eyes, skin. Ingestion is not likely but might cause gastric disturbances.

Acute Toxicity / Effects

Acute toxicity: (compiled based on the data supplied by supplier)
May cause headache, skin rash, central nervous system depression.

Acute oral effects: > 2000 mg / kg, rat+
Acute dermal toxicity: (LD50): > 2000 mg / kg, rabbit

Sensitization: Moderate sensitizer
Skin: Moderate irritant
Eyes: Slight irritant
Reproduction: No effects when tested on rats
Teratogenicity: No adverse effects when tested on rabbits

Mutagenicity: No mutagenic effects in vivo test. In vitro test showed mutagenic effects.

Sub Chronic: No apparent system effect when tested on rats for 13 weeks except decreased body weight and gain weight.

**Chronic Toxicity Effects**

**Repeated dose toxicity:** May cause narcosis, unconsciousness from inhalation. May cause dermatitis from chronic skin contact.

**Genetic toxicity:** No data available

**Carcinogenicity:** No data available

**Reproductive toxicity:** No data available

**Teratogenicity:** No data available

**Other Information**

12. Ecological Information

Biodegradability: 8 – 27%

Fish Toxicity: Rainbow trout (96 hr) LC50 1.5 mg / l

Zebra Fish (96 hr) LC50 2.4 mg / l

Invertebrate Toxicity: Daphnia Toxicity (24 hr) EC50 3.6 mg / l

13. Disposal Considerations

Abide by all State, federal and local regulations

14. Transport Information

Proper Shipping name: None
D.O.T. Hazard Classification: none
D.O.T. Identification no.: none
D.O.T Packaging Group: none
D.O.T Labels required: none
D.O.T. Placards required (CFR 172.504) : None

Bill of Lading Description: **Adhesive, cement, NOI**
15. Regulatory Information:

**Federal Regulations**

Registration status:

TSCA: Chemicals contained in the product are either listed or exempt in the U.S. EPA TSCA inventory list.

SARA Title III, Section 312 Hazard Class: None

EPA SARA Title III Section 313: None

**State regulations:**

CA Prop 65: none

16. Other Information

**SDS prepared by:** Armstrong Flooring, Inc.

**SDS prepared on:** May 22, 2015

**SDS revised on:** January 15, 2020

Armstrong Flooring, Inc. believes the data set forth herein are accurate as of the date hereof. Armstrong Flooring, Inc. makes no warranty with respect thereto and expressly disclaims all liability for reliance thereon. Such data are offered solely for your consideration, investigation and verification.
Safety Data Sheet

S-240 Part B

Revision Date: January 15, 2020
Version: 3

1. Identification

Product identifier used on the label

Recommended use of the chemical and restriction on use: 2-part system recommended for the installation of vinyl and rubber sheet goods, luxury vinyl tiles, and studded rubber and vinyl tiles on all clean and dry sub-floors, above, on or below grade.

Details of the supplier of the safety data sheet

Company:
Armstrong Flooring, Inc.
2500 Columbia Ave.
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Telephone number: (800) 233-3823
Website: www.floorexpert.com

Emergency Telephone Number (CHEM-TEL): 1-800-255-3924 or +01-813-248-0585 (call collect)

Other Means of Identification
Chemical Family: Amines

2. Hazards identification


Classification of the Product:

Skin corrosion/irritation Category 1B H314 Causes severe skin burns and eye damage
Skin sensitization Category 1 H317 May cause an allergic skin reaction
### Germ cell mutagenicity Category 2
- **H341** Suspected of causing genetic defects

### Carcinogenicity Category 1A
- **H350** May cause cancer

### Specific target organ toxicity (repeated exposure) Category 2
- **H373** May cause damage to organs through prolonged or repeated exposure

### Label Elements

#### Signal Word (GHS-US):
- Danger

#### Hazard statements (GHS-US):
- **H314** Causes severe skin burns and eye damage
- **H317** May cause an allergic skin reaction
- **H341** Suspected of causing genetic defects
- **H350** May cause cancer
- **H373** May cause damage to organs through prolonged or repeated exposure

#### Precautionary statements (GHS-US):
- **P201** Obtain special instructions before use
- **P202** Do not handle until all safety precautions have been read and understood
- **P260** Do not breathe dust/fume/gas/mist/vapors/spray
- **P261** Avoid breathing dust/fume/gas/mist/vapors/spray
- **P264** Wash thoroughly after handling
- **P272** Contaminated work clothing must not be allowed out of the workplace
- **P280** Wear protective gloves/protective clothing/eye protection/face protection
- **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.

### Labeling of special preparations (GHS):

![Label symbols]


#### Emergency Overview
- Use proper ventilation. Do not mix with Part A until ready for use. Produces exothermic reaction. Do not mix in large quantities.

#### Caution:
- Will cause skin irritation if not removed after skin contact.
- Use with local exhaust ventilation.
- Use protective equipment for eyes, skin protection.
3. Composition / Information on Ingredients


This product does not contain any components classified as hazardous under the referenced regulation.


<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Content</th>
<th>Chemical Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade Secret</td>
<td>60-65</td>
<td>Modified polyamide mixture</td>
</tr>
<tr>
<td>1317-85-3</td>
<td>35 - 45</td>
<td>Calcium Carbonate</td>
</tr>
</tbody>
</table>

4. First Aid Measures

Description of First Aid measures

First-aid measures general: Remove material from contact immediately and apply recommended first-aid procedure.

First-aid measures after inhalation: Remove individual to fresh air. Administer oxygen if necessary. Seek medical attention.

First-aid measures after skin contact: Remove from skin and wash with mild soap and water. If irritation persists, seek medical attention.

First-aid measures after eye contact: Open eyelids and flush with running water for at least 15-20 minutes. If irritation persists, seek medical attention.

First-aid measures after ingestion: Seek medical attention immediately. Do not induce vomiting. This might cause chemical pneumonitis.

Most important symptoms and effects, both acute and delayed

Acute: May cause headache, skin rash, and central nervous system depression.

Delayed/Chronic: May cause narcosis, unconsciousness from inhalation. May cause dermatitis from chronic skin contact.

Indication of any immediate medical attention and special treatment needed

Note to physician

Treatment: Symptomatic treatment

5. Fire-Fighting Measures
Extinguishing Media

Carbon dioxide, foam, dry chemicals, water spray

Special hazards arising from the substance or mixture

Do not expose to excessive heat, open flames or sparks. Turn off all pilot lights.

Advice for fire-fighters

Water may spread burning liquid. Avoid direct stream of water. Use water spray only to cool containers exposed to flames. Do not enter closed or confined work area without proper protective equipment. Use self-contained breathing apparatus and turn out gear. If leak or spill has not ignited, use water fog to disperse vapors.

Further Information:

Dispose fire debris and contaminated clothing in accordance with official regulations.

6. Accidental release measures

Further accidental release measures:

Fire and slippage hazard. Eliminate sources of ignition including electrical switches and motors, pilot lights, etc. Evacuate area and report incident immediately. Keep Parts A and B separated.

Personal precautions, protective equipment and emergency procedures

Use protective equipment when handling spills. Avoid contact with skin, eyes, inhalation or vapors.

Environmental Precautions

Dike and contain the area. Block all natural waterways entry during spill.

Methods and material for containment and cleaning up

Use absorbents (clay, sand) to remove large volume of material. Scrape residual amount and place in closed DOT approved containers for disposal.

7. Handling and Storage

Precautions for Safe Handling

Always use protective equipment when handling material to avoid direct contact. Keep out of reach of children.

Conditions for safe storage, including any incompatibilities

Product is flammable. Keep away from sources of ignition. Protect against physical damage. Store in a cool, dry place.
### 8. Exposure Control/ Personal Protection

**Advice on system design:**
Maintain proper ventilation. Keep away from sources of ignition. Avoid skin and eye contact. Use local exhaust. Do not use closed air circulating system. Open doors and windows if necessary.

**Personal protective equipment:**

- **Respiratory protection:** NIOSH respirator
- **Skin protection:** Chemical resistant gloves
- **Eye protection:** Safety glasses, goggles, or face shield if needed
- **General safety and hygiene safety measures:** Always wash hands after use. Remove contaminated clothing to avoid constant contact with skin. Launder contaminate clothing before re-use.

### 9. Physical and Chemical Properties

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<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>Semi solid paste</td>
</tr>
<tr>
<td>Odor</td>
<td>Amine</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No Data</td>
</tr>
<tr>
<td>Color</td>
<td>Yellow to amber</td>
</tr>
<tr>
<td>pH value</td>
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<tr>
<td>Melting point</td>
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<tr>
<td>Boiling point</td>
<td>&gt; 400 degrees F</td>
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<td>Flash point</td>
<td>383 degrees F</td>
</tr>
<tr>
<td>Flammability</td>
<td>Material will burn</td>
</tr>
<tr>
<td>Lower explosion</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Upper explosion</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>Not determined</td>
</tr>
<tr>
<td>Density</td>
<td>11.11 lbs. per gallon</td>
</tr>
</tbody>
</table>
Relative density: 1.33 grams / cm³

Vapor density: Not applicable

Partition Coefficient n-octanol/water (log Pow): No data

Self-ignition temperature: Not determined

Viscosity, dynamic: 25,000 – 50,000 cps

Solubility in water: Not soluble

Miscibility in water: Not miscible

Evaporation rate: Not determined

10. Stability and Reactivity

Reactivity:

Stable

Chemical stability:

N- nitros amine (a potent carcinogen) may be formed when material comes in contact with nitrous acid, nitrites or atmosphere with high nitrous oxide concentrations.

Possibility of hazardous reactions:

Stable

Conditions to avoid:

Strong acids and bases in bulk at elevated temperatures

Incompatible materials:

Strong oxidizing agents

Hazardous decomposition products:

Oxides of carbon, water and organic compounds of unknown structures. Do not breathe smoke or fumes.

11. Toxicological Information

Primary routes of exposure:
Respiratory, eyes, skin. Ingestion is not likely but might cause gastric disturbances.

**Acute Toxicity / Effects**

**Acute toxicity:** (compiled based on the data supplied by supplier) Actual product was not tested. May cause headache, skin rash, central nervous system depression.

Acute oral effects: > 2000 mg / kg, rat

Acute dermal toxicity: Components

- Phenol (LD50): 630 mg / kg, rabbit
- Triethylenetetramine (LD50): 550 mg / kg, rabbit

Inhalation: LC50 (1hr): > 20 mg/l, rat

Sensitization: May cause sensitization upon skin contact. Sensitization has occurred in laboratory animals after repeated exposures.

Skin: irritant

Eyes: irritant

**Chronic Toxicity Effects** _Actual product was not tested._

**Repeated dose toxicity:** Absorption of phenol solution through skin could damage liver, kidney, spleen and pancreas and edema of the lungs.

**Genetic toxicity:** Showed mutagenic activity on repeated short term tests.

**Carcinogenicity:** No data available

**Reproductive toxicity:** No data available

**Teratogenicity:** No data available

**Mutagenicity** Showed mutagenic activity on repeated short term tests.

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**12. Ecological Information**

Aquatic Toxicity: No data available

Toxicity to other organisms: No data available

Toxicity to *Daphnia* (components)

Phenol EC50 (48hr) : 4.2 – 6.6 mg /l
Bioaccumulation: No data available

Bioaccumulation: Components (phenol) Low bioaccumulation potential

Mobility: No data available

13. Disposal Considerations

Abide by all State, federal and local regulations

14. Transport Information

Proper Shipping name: None
D.O.T. Hazard Classification: None
D.O.T. Identification no.: None
D.O.T Packaging Group: None
D.O.T Labels required: None
D.O.T. Placards required (CFR 172.504) : None
Bill of Lading Description: Adhesive, cement, NOI

15. Regulatory Information:

Federal Regulations

Registration status:

TSCA: Chemicals contained in the product are either listed or exempt in the U.S. EPA TSCA inventory list.

SARA Title III, Section 312 Hazard Class: Acute Health Hazard

EPA SARA Title III Section 313: None

State regulations:

CA Prop 65: none

16. Other Information

SDS prepared by: Armstrong Flooring, Inc.
SDS prepared on: May 22, 2015
SDS revised on: January 15, 2020

Armstrong Flooring, Inc. believes the data set forth herein are accurate as of the date hereof. Armstrong Flooring, Inc. makes no warranty with respect thereto and expressly disclaims all liability for reliance thereon. Such data are offered solely for your consideration, investigation and verification.