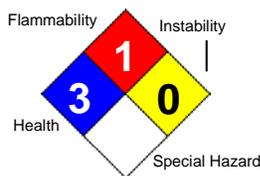


224 Tile Grout Regular Cure Hardener - Part B



HEALTH	3
FLAMMABILITY	1
PHYSICAL	0
PPE	X



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1. Product and Company Identification

Product Code:	224B		
Product Name:	224 Tile Grout - Part B		
Trade Name:	224 Tile Grout - Part B		
Manufacturer Information			
Company Name:	Epoxy Systems, Inc. 20774 W Pennsylvania Ave. Dunnellon, Florida 34421		
Phone Number:	+1 (352) 489-1666		
Emergency Contact:	PERS (USA)	(800) 633-8253	
Alternate Emergency Contact:	PERSE (International)	+1 (801) 629-0667	

2. Hazards Identification

GHS Classification	Placard	Key word	GHS hazard phrase
Acute Toxicity: Inhalation, Category 4	Exclamation point	Warning	Harmful if inhaled Harmful if
Acute Toxicity: Oral, Category 4	Exclamation point	Warning	swallowed Harmful in
Acute Toxicity: Skin, Category 4	Exclamation point	Warning	contact with skin
Skin Corrosion/Irritation, Category 1A	Corrosive	Danger	Causes severe skin burns and eye damage
Serious Eye Damage/Eye Irritation, Category 1	Corrosive	Danger	Causes serious eye damage
Target Organ Systemic Toxicity (single exposure), Category 3	Exclamation point	Warning	May cause respiratory irritation, or may cause drowsiness and dizziness

GHS Hazard Phrases

- H314 - Causes severe skin burns and eye damage.
- H317 - May cause an allergic skin reaction.
- H335 - May cause respiratory irritation.
- H302+332 - Harmful if swallowed or if inhaled.

GHS Precaution Phrases

- P281 - Use personal protective equipment as required.
- P262 - Do not get in eyes, on skin, or on clothing.
- P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.
- P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- P285 - In case of inadequate ventilation wear respiratory protection.
- P273 - Avoid release to the environment.

GHS Response Phrases

- P302+352 - IF ON SKIN: Wash with plenty of soap and water. P333+313 - If skin irritation or rash occurs, seek medical advice/attention. P363 - Wash contaminated clothing before reuse.
- P304+341 - IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. P342+311 - If experiencing respiratory symptoms call a POISON CENTER or doctor/physician.
- P305+351+338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P313 - Get medical advice/attention.
- P301+330+331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P310 - Immediately call a POISON CENTER or doctor/physician.

GHS Storage and Disposal Phrases

P501 - Dispose of contents/container to local, state, and federal authority requirements.
P405 - Store locked up.

Potential Health Effects (Acute and Chronic)

May cause skin irritation or burns. May cause respiratory tract irritation. Can cause severe eye irritation.

Inhalation

Can cause severe respiratory irritation.

Skin Contact

Causes skin burns, irritation and possible allergic reaction.

Eye Contact

Corrosive/irritation to eyes. Causes eye burns.

Ingestion

Harmful if swallowed. This product may produce corrosive damage to the gastrointestinal tract if it is swallowed. Ingestion may produce burns to the lips, oral cavity, upper airway, esophagus and possibly the digestive tract. Aspiration hazard if swallowed. Can enter lungs and cause damage.

Recommended Exposure Limits

Not established.

Medical Conditions Generally Aggravated By Exposure

Skin disorders, Respiratory disorders, Eye disorders, Skin Allergies.

OSHA Regulatory Status:

This material is classified as hazardous under OSHA regulations.

3. Composition/Information on Ingredients

Hazardous Components (Chemical Name)	CAS #	Concentration
1. Modified Polyamine	NA	40 - 55 %
2. Fatty acids, tall-oil, reaction products with diethylenetriamine, di-Me sulfate and propyleneoxide	68953-36-6	30 - 40 %
3. Diethylenetriamine	111-40-0	5.0 - 15 %
4. 4,4'-Isopropylidenediphenol	80-05-7	1.0 - 5.0 %
5. Tetraethylenepentamine	112-57-2	1.0 - 5.0 %

4. First Aid Measures

Emergency and First Aid Procedures

In Case of Inhalation

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. If experiencing respiratory symptoms: Get medical attention immediately.

In Case of Skin Contact

In case of contact, immediately wash skin with soap and copious amounts of water. Remove contaminated clothing and shoes. Get medical attention if irritation develops or persists.

In Case of Eye Contact

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Get medical attention immediately.

In Case of Ingestion

If swallowed, wash out mouth with water provided person is conscious. Do not induce vomiting. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions. Get medical attention immediately.

Signs and Symptoms Of Exposure

Eyes: Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.

Skin: Can cause severe skin burns. Symptoms may include redness, edema, drying, defatting and cracking of the

skin.

Inhalation: Vapors are irritating to the respiratory system, may cause throat pain and cough.

5. Fire Fighting Measures

Flash Pt: > 200.00 F Method Used: Pensky-Marten Closed Cup

Explosive Limits: LEL: NE UEL: NE

Autoignition Pt: No data available.

Fire Fighting Instructions

Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Flammable Properties and Hazards

Combustible material: may burn but does not ignite readily.

Hazardous Combustion Products

In a fire, product may produce the following: Carbon monoxide, Carbon dioxide, Nitrogen oxides, Fire may produce irritating, corrosive and/or toxic gases.

Suitable Extinguishing Media

CO₂, dry chemical, dry sand, alcohol-resistant foam.

Unsuitable Extinguishing Media

Do not use a direct water stream, which may spread fire.

6. Accidental Release Measures

Steps To Be Taken In Case Material Is Released Or Spilled

PROCEDURE TO BE FOLLOWED IN CASE OF LEAK OR SPILL.

Absorb with sand or vermiculite and place in closed containers for disposal. Ventilate the area.

Protective Precautions, Protective Equipment and Emergency Procedures

Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves. Where splashing is possible, full chemically resistant protective clothing, and boots are required.

Environmental Precautions

Prevent entry into waterways, sewers, basements or confined areas.

7. Handling and Storage

Hazard Label Information:

Avoid contact with eyes. Do not get on skin and clothing. Avoid inhalation of vapor or mist. Store in a closed container.

Precautions To Be Taken in Handling

Provide adequate ventilation. Wear all personal protection required in section 8.

Precautions To Be Taken in Storing

Keep container tightly closed in a dry and well-ventilated place. Store away from incompatible material.

Other Precautions

Read product SDS and all labels before use. Follow all MSDS/label precautions even after container is emptied because they may retain product residues.

8. Exposure Controls/Personal Protection

Hazardous Components (Chemical Name)	CAS #	OSHA PEL	ACGIH TLV	Other Limits
1. Modified Polyamine		NA No data.	No data.	No data.
2. Fatty acids, tall-oil, reaction products withdiethylenetriamine, di-Me sulfate and propyleneoxide	68953-36-6	No data.	No data.	No data.

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Hazardous Components (Chemical Name)	CAS #	OSHA PEL	ACGIH TLV	Other Limits
3. Diethylenetriamine	111-40-0	No data.	1 ppm	No data.
4. 4,4'-Isopropylidenediphenol	80-05-7	No data.	No data.	No data.
5. Tetraethylenepentamine	112-57-2	No data.	No data.	No data.

Protective Equipment Summary - Hazard Label Information:

Neoprene gloves Safety glasses, or goggles. Impervious clothing. Chemical resistant boots

Respiratory Equipment (Specify Type)

Normally when good engineering controls are used, no respiratory protection is needed. However, if cured product is abraded by sanding or grinding use a NIOSH approved air-purifying respirator. Where risk assessment shows air-purifying respirators are appropriate use a dust mask type N95 (US) or type P1 (EN 143) respirator. A NIOSH/MSHA approved air purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.

Eye Protection

Safety glasses, or goggles.

Protective Gloves

Nitrile rubber and Neoprene are recommended.

Other Protective Clothing

Where splashing is possible, full chemically resistant protective clothing, safety glasses or face shield and boots are required.

Engineering Controls (Ventilation etc.)

Good general ventilation should be sufficient to control airborne levels. Safety shower and eye bath.

Work/Hygienic/Maintenance Practices

Wash contaminated clothing before reuse. Discard contaminated shoes. Wash thoroughly after handling.

Environmental Exposure Controls

Avoid runoff into storm sewers and ditches which lead to waterways.

9. Physical and Chemical Properties

Physical States:	[] Gas [X] Liquid [] Solid
Melting Point:	NE
Boiling Point:	NE
Decomposition Temperature:	NE
Autoignition Pt:	No data.
Flash Pt:	> 200.00 F Method Used: Pensky-Marten Closed Cup
Explosive Limits:	LEL: NE UEL: NE
Specific Gravity (Water = 1):	~ .982
Density:	~ 8.2 LB/GL
Vapor Pressure (vs. Air or mm Hg):	NE
Vapor Density (vs. Air = 1):	NE
Evaporation Rate:	NE
Solubility in Water:	No data.
Solubility Notes	
	Slightly Soluble.
Percent Volatile:	N.A.

SAFETY DATA SHEET
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VOC / Volume: NP
HAP / Volume: NP
Saturated Vapor Concentration: NE

Appearance and Odor

Odor: amine-like.
Appearance: Liquid. amber.

10. Stability and Reactivity

Stability: Unstable [] Stable [X]

Reactivity

Avoid: acids, alkalis, oxidizing agents.

Conditions To Avoid - Instability

Extreme temperatures.

Incompatibility - Materials To Avoid

Avoid: acids, alkalis, oxidizing agents.

Hazardous Decomposition Or Byproducts

Carbon dioxide, Carbon monoxide, Nitrogen oxides, aldehydes. nitrosamines. ammonia.

Possibility of Hazardous Will occur [] Will not occur [X]

Polymerization:

Conditions To Avoid - Hazardous Reactions

Will not undergo hazardous polymerization in normal storage conditions.

11. Toxicological Information

Toxicological Information

May cause sensitization by skin contact.

Chronic Toxicological Effects

No data available.

Irritation or Corrosion

Corrosive! Damages skin and eyes.

Symptoms related to Toxicological Characteristics

Skin: Contact with substance may cause severe burns to skin. Symptoms may include redness, edema, drying, defatting and cracking of the skin.

Eyes: Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. Permanent eye damage including blindness could result.

Inhalation: Inhalation of vapors/fumes causes respiratory irritation with throat discomfort, coughing or difficulty breathing.

Sensitization

May cause sensitization by skin contact.

Hazardous Components (Chemical Name)	CAS #	NTP	IARC	ACGIH	OSHA
1. Modified Polyamine	NA	n.a.	n.a.	n.a.	n.a.
2. Fatty acids, tall-oil, reaction products with diethylenetriamine, di-Me sulfate and propyleneoxide	68953-36-6	n.a.	n.a.	n.a.	n.a.
3. Diethylenetriamine	111-40-0	n.a.	n.a.	n.a.	n.a.
4. 4,4'-Isopropylidenediphenol	80-05-7	n.a.	n.a.	n.a.	n.a.
5. Tetraethylenepentamine	112-57-2	n.a.	n.a.	n.a.	n.a.

12. Ecological Information

General Ecological Information

Avoid release to the environment. Do not empty into drains. May be hazardous to the environment if released in large quantities.

Results of PBT and vPvB assessment

No data available.

Persistence and Degradability

Not readily biodegradable.

Bioaccumulative Potential

No data available.

Mobility in Soil

not reported, unknown.

13. Disposal Considerations

Waste Disposal Method

Incinerate or dispose of unused material, residues and containers in a licensed facility in accordance with all applicable local, state and federal regulations. Do not discharge substance/product into sewage system.

14. Transport Information

LAND TRANSPORT (US DOT)

DOT Proper Shipping Name	CAUSTIC ALKALI LIQUID, N.O.S. (Modified Polyamine)
DOT Hazard Class:	8
DOT Hazard Label:	CORROSIVE
UN/NA Number:	UN1719
Packing Group:	III
Precautionary Label	Corrosive! Damages skin and eyes. Avoid skin and eye contact. May cause eye and skin irritation. May cause skin sensitization. Wear protective equipment and clothing. Always read MSDS/SDS before use.

AIR TRANSPORT (ICAO/IATA)

ICAO/IATA Shipping Name	CAUSTIC ALKALI LIQUID, N.O.S. (Modified Polyamine)
UN Number:	1719
Hazard Class:	8 - CORROSIVE
Packing Group:	III

MARINE TRANSPORT (IMDG/IMO)

IMDG/IMO Shipping Name	CAUSTIC ALKALI LIQUID, N.O.S. (Modified Polyamine)
UN Number: Hazard	1719
Class: Packing	8 - CORROSIVE
Group: IMDG EMS	III
Number: Marine	FA,SB
Pollutant:	No

15. Regulatory Information

Regulatory Information

SARA 302 Extremely Hazardous Substances: None.

SARA 313 Toxic Chemicals: None.

SARA Section 311/312: Acute, Chronic Health Hazard.

CERCLA Reportable Quantity: None.

16. Other Information

CA=CIRCA NA=NOT AVAILABLE NE=NOT ESTABLISHED NR=NOT REGULATED NP= NOT APPLICABLE PR=PROPRIETARY TS=TRADE SECRET ?=UNKNOWN.

Company Policy or Disclaimer

The information contained in this MSDS is taken from sources believed to be accurate as of the date hereof; however Epoxy Systems, Inc. makes no expressed or implied warranty in respect to the accuracy of the information or the suitability of the recommendations, and assumes no liabilities to any user thereof.

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