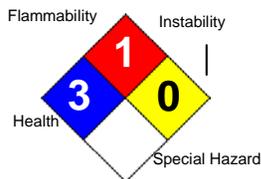


## 231 Water Emulsion Primer/Sealer Hardener -

## Part B



<b>HEALTH</b>	<b>3</b>
<b>FLAMMABILITY</b>	<b>1</b>
<b>PHYSICAL</b>	<b>0</b>
<b>PPE</b>	<b>X</b>



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## 1. Product and Company Identification

<b>Product Code:</b>	231-B		
<b>Product Name:</b>	231 Water Emulsion Primer/Sealer Hardener - Part B		
<b>Trade Name:</b>	231 Water Emulsion Primer/Sealer Hardener - Part B		
<b>Manufacturer Information</b>			
<b>Company Name:</b>	Epoxy Systems, Inc. 20774 W Pennsylvania Ave. Dunnellon, FL 34431		
<b>Phone Number:</b>	+1 (352) 489-1666		
<b>Emergency Contact:</b>	PERS (USA)	(800) 633-8253	
<b>Alternate Emergency Contact:</b>	PERS (International)	+1 (801) 629 0667	

## 2. Hazards Identification

GHS Classification	Placard	Key word	GHS hazard phrase
Skin Sensitization, Category 1B	Exclamation point	Warning	May cause an allergic skin reaction
Skin Corrosion/Irritation, Category 1B	Corrosive	Danger	Causes severe skin burns and eye damage
Serious Eye Damage/Eye Irritation, Category 1	Corrosive	Danger	Causes serious eye damage
Acute Toxicity: Oral, Category 4	Exclamation point	Warning	Harmful if swallowed

### GHS Hazard Phrases

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

### GHS Precaution Phrases

- 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.

### GHS Response Phrases

- P302 - IF ON SKIN: P362 - Take off contaminated clothing. P353 - Rinse skin with water/shower. P333+313 - If skin irritation or rash occurs, seek medical advice/attention.
- P305+351+338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P301+330+331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P311 - Call a POISON CENTER or doctor/physician.
- P304+340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

### GHS Storage and Disposal Phrases

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

### Potential Health Effects (Acute and Chronic)

- Corrosive! Damages skin and eyes.
- Inhalation: Vapors are irritating to the respiratory system, may cause throat pain and cough.
- 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.

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**Inhalation**

May cause respiratory irritation.

**Skin Contact**

Causes severe skin irritation. Causes skin burns.

**Eye Contact**

Corrosive/irritation to eyes. Causes eye burns.

**Ingestion**

Harmful if swallowed.

**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. Aliphatic Polyamine (Trade Secret)	NA	20 - 30 %
2. 2-Propenenitrile, reaction products with 3-amino-1,5,5-trimethylcyclohexanemethanami ne	90530-15-7	1.0 - 10 %
3. Isophoronediamine	2855-13-2	1.0 - 5.0 %
4. 1,3-Benzenedimethanamine	1477-55-0	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.

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**5. Fire Fighting Measures**

**Flash Pt:** > 212.00 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**

Product is not considered a fire hazard. Closed containers may rupture (due to build up in pressure) when exposed to extreme heat.

**Hazardous Combustion Products**

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

**Suitable Extinguishing Media**

Dry chemical, CO2 or water spray.

**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. Keep from freezing.

**Other Precautions**

Wash thoroughly after handling.

**8. Exposure Controls/Personal Protection**

Hazardous Components (Chemical Name)	CAS #	OSHA PEL	ACGIH TWA	Other Limits
1. Aliphatic Polyamine (Trade Secret)		NA No data.	No data.	No data.
2. 2-Propenenitrile, reaction products with 3-amino-1,5,5-trimethylcyclohexanemethanamine	90530-15-7	No data.	No data.	No data.
3. Isophoronediamine	2855-13-2	No data.	No data.	No data.
4. 1,3-Benzenedimethanamine	1477-55-0	No data.	CEIL: mg/m3	No data.

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**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

<b>Physical States:</b>	[ ] Gas [ X ] Liquid [ ] Solid
<b>Melting Point:</b>	NE
<b>Boiling Point:</b>	NE
<b>Decomposition Temperature:</b>	NE
<b>Autoignition Pt:</b>	No data.
<b>Flash Pt:</b>	> 212.00 F Method Used: Pensky-Marten Closed Cup
<b>Explosive Limits:</b>	LEL: NE UEL: NE
<b>Specific Gravity (Water = 1):</b>	~ 1.03 - 1.04
<b>Density:</b>	~ 8.60 - 8.65 LB/GL
<b>Vapor Pressure (vs. Air or mm Hg):</b>	NE
<b>Vapor Density (vs. Air = 1):</b>	NE NE
<b>Evaporation Rate:</b>	Soluble
<b>Solubility in Water:</b>	> 40.0 % by weight.
<b>Percent Volatile:</b>	NP
<b>VOC / Volume:</b>	NP
<b>HAP / Volume:</b>	NE

**Saturated Vapor Concentration:****Appearance and Odor**

Odor: amine-like.

Appearance: Liquid. amber.

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**10. Stability and Reactivity**

**Stability:** Unstable [ ] Stable [ X ]

**Reactivity**

Avoid: acids, isocyanates and epoxides.

**Conditions To Avoid - Instability**

Extreme temperatures.

**Incompatibility - Materials To Avoid**

Avoid: acids, Isocyanates.

**Hazardous Decomposition Or Byproducts**

Thermal decomposition may produce smoke, carbon monoxide, carbon dioxide.

**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**

Skin sensitization.

**Irritation or Corrosion**

Corrosive! Damages skin and eyes.

**Symptoms related to Toxicological Characteristics**

Contact can cause reddening, swelling, rash, scaling, or blistering.

Hazardous Components (Chemical Name)	CAS #	NTP	IARC	ACGIH	OSHA
1. Aliphatic Polyamine (Trade Secret)	NA	n.a.	n.a.	n.a.	n.a.
2. 2-Propenenitrile, reaction products with 3-amino-1,5,5-trimethylcyclohexanemethanamine	90530-15-7	n.a.	n.a.	n.a.	n.a.
3. Isophoronediamine	2855-13-2	n.a.	n.a.	n.a.	n.a.
4. 1,3-Benzenedimethanamine	1477-55-0	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.

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## 14. Transport Information

## LAND TRANSPORT (US DOT)

**DOT Proper Shipping Name** Amines, Liquid, Corrosive n.o.s. (Modified Polyamine) MARINE POLLUTANT.

NOTE: Marine Pollutants - DOT requirements specific to Marine Pollutants do not apply to non-bulk packagings transported by motor vehicles, rail cars or aircraft.

**DOT Hazard Class:** 8

**DOT Hazard Label:** CORROSIVE

**UN/NA Number:** UN2735

**Packing Group:** III

**Precautionary Label** Corrosive! Damages skin and eyes. May cause sensitization by skin contact. May be harmful if swallowed. Vapors may be harmful to the respiratory tract.

## AIR TRANSPORT (ICAO/IATA)

**ICAO/IATA Shipping Name** Amines, Liquid, Corrosive n.o.s. (Modified Polyamine) MARINE POLLUTANT.

NOTE: Marine Pollutants - DOT requirements specific to Marine Pollutants do not apply to non-bulk packagings transported by motor vehicles, rail cars or aircraft.

**UN Number:** 2735

**Hazard Class:** 8 - CORROSIVE

**Packing Group:** III

## MARINE TRANSPORT (IMDG/IMO)

**IMDG/IMO Shipping Name** Amines, Liquid, Corrosive n.o.s. (Modified Polyamine) MARINE POLLUTANT.

Note: The presence of a shipping description for a particular mode of transport (ocean, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. Shipment compliance is the responsibility of the person offering the product for transport.

**UN Number: Hazard** 2735

**Class: Packing** 8 - CORROSIVE

**Group: IMDG EMS** III

**Number: Marine** FA,SB

**Pollutant:** Yes

## 15. Regulatory Information

## US EPA SARA Title III

Hazardous Components (Chemical Name)	CAS #	Sec.302 (EHS)	Sec.304 RQ	Sec.313 (TRI)	Sec.110
1. Aliphatic Polyamine (Trade Secret)	NA	No	No	No	No
2. 2-Propenenitrile, reaction products with 3-amino-1,5,5-trimethylcyclohexanemethanamine	90530-15-7	No	No	No	No
3. Isophoronediamine	2855-13-2	No	No	No	No
4. 1,3-Benzenedimethanamine	1477-55-0	No	No	No	No

## Regulatory Information

SARA 302 Extremely Hazardous Substances: None.

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

**SAFETY DATA SHEET**  
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SARA 313 Toxic Chemicals: None.

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 the 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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