# SAFETY DATA SHEET

## 1. Product Identification

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|---|---|
| **Product name** | GelMagic Hardener, Part B |
| **SDS Number** | 1230B00 |
| **Product type** | Amine/Butadiene mixture |
| **Manufacturer/Supplier information** | Directed at, but not limited to, the adhesive bonding of similar and dissimilar substrates. |
| **Company name** | SYSTEM THREE RESINS, INC. |
| **Address** | 3500 W. Valley Hwy, Suite<br>Suite 105<br>Auburn, WA 98001-2436<br>United States |
| **Telephone** | 1-253-333-8118 |
| **Website** | www.systemthree.com |
| **Email** | support-08@systemthree.com |
| **Emergency Contact** | CHEMTREC (U.S. and CANADA) 1-800-424-9300<br>CHEMTREC (Outside the U.S.) 1-703-527-0585 |

## 2. Hazard(s) Identification

**Classification of substance or mixture/Signal Word**

DANGER

SKIN CORROSION/IRRITATION – Category 2
SERIOUS EYE DAMAGE/EYE IRRITATION – Category 1
SKIN SENSITIZATION – Category 1
ACUTE AQUATIC HAZARD – Category 2
LONG-TERM AQUATIC HAZARD – Category 2

**GHS Label Elements**
**Hazard Pictograms**

**Hazard Statements/Classification of substance or mixture**

H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H401 Toxic to aquatic life.
H411 Toxic to aquatic life with long lasting effects.

**Precautionary statements**

**Precautionary Statements**
**Prevention**

P261 Avoid breathing vapors.
P264 Wash hands thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

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| | P281 Use personal protective equipment as required.<br>P285 In case of inadequate ventilation wear respiratory protection. |
| **Response** | P313 Call a POISON CENTER or doctor/physician if you feel unwell.<br>P308 + P313 If exposed or concerned: Get medical attention.<br>P302+352+363 IF ON SKIN: Wash with soap and water. Take off contaminated clothing and wash before reuse.<br>P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.<br>P333+P313 If skin irritation or rash occurs: Get medical advice/attention.<br>P362+P364 Take off contaminated clothing and wash it before reuse.<br>P391 Collect spillage. |
| **Storage** | P401 Store at room temperature in a well-ventilated area. |
| **Disposal** | P501 Dispose of contents and container in accordance with all local, regional, national and international regulations. |
| **Hazards not otherwise classified (HNOC)** | None Available. |

## 3. Composition/Information On Ingredients

| Chemical Name | CAS Number | Content (%) |
|---|---|---|
| Modified Polyamines | Trade Secret | 60-70% |
| ATBN Polymer | 68683-29-4 | 20-30% |
| Nonyl Phenol | 25154-52-3 | 0-5% |

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section. Occupational exposure limits, if available, are listed in Section 8.

## 4. First-Aid Measures

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| **Skin contact** | Remove contaminated clothing and shoes and wipe excess off skin. Flush skin with water. Follow by washing in soap and water. If irritation occurs, seek medical attention. Do not reuse clothing until cleaned. Contaminated leather articles (shoes) cannot be decontaminated and should be destroyed. |
| **Eye contact** | Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. |
| **Ingestion** | Do not induce vomiting unless directed to do so by medical personnel. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. |
| **Inhalation** | Remove victim to fresh air and provide oxygen if breathing is difficult. Give artificial respiration if not breathing. Get medical attention. |

**Indication of immediate medical attention and special treatment needed, if necessary**

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| **Notes to physician** | In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. |
| **Specific treatments** | No specific treatment. |

## 5. Fire-Fighting Measures

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| **Suitable extinguishing media** | Alcohol-resistant foam, carbon dioxide ($CO_2$), dry chemical, water fog. |
| **Unsuitable extinguishing media** | None known. |
| **Specific hazards arising from the chemical** | In a fire or if heated, a pressure increase will occur and the container may burst. This material is toxic to aquatic life with long lasting effects. Fire water contaminated must be contained and prevented from being discharged to any waterway, sewer or drain. |
| **Hazardous decomposition products** | Decomposition products may include the following materials:<br>Carbon dioxide, carbon monoxide, nitrogen oxides |
| **Special protective actions for fire-fighters** | Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. |
| **Special protective equipment for fire-fighters** | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. |
| **Further information** | Do not allow run-off from firefighting to enter drains or water courses. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. |

## 6. Accidental Release Measures

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| **Personal precautions** | No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear proper protective clothing, gloves and eye/face protection. Use self-contained breathing apparatus and chemically protective clothing. |
| **Emergency procedures** | If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. |
| **Methods and materials for containment/cleanup** | Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. |
| **Environmental precautions** | Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage. |

## 7. Handling and Storage

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| **Precautions for safe handling** | Avoid contact with skin and eyes. Emergency showers and eye wash stations should be readily accessible. Adhere to work practice rules established by government regulations. Use personal protective equipment. When using, do not eat, drink or smoke. |
| **Precautions/Recommendations for safe/proper storage** | Store epoxy products in temperature stable environment, out of the reach of pets or children. Securely fasten container lids and tops, and prevent products from sitting and below freezing temperatures. |

## 8. Exposure Controls/Personal Protection

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| **Permissible exposure limit (OSHA)** | None established. |
| **Threshold limit value (ACGIH)** | None established. |
| **Appropriate engineering controls** | Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. |
| **Environmental exposure controls** | Use appropriate containment to avoid environmental contamination. Do not allow spill to enter sewers or waterways. |
| **Individual protection measures/Personal protective equipment** | |
| **Eye/face protection** | Splash-proof goggles or safety spectacles with side shields are recommended. Always wear eye protection when sanding cured epoxy resins to avoid dust in eyes. |
| **Hand protection** | Always wear impervious gloves: butyl rubber, nitrile rubber, Neoprene, PVC disposable gloves, |
| **Skin protection** | Wear clean, body-covering clothing to avoid skin contact. |
| **Respiratory protection** | Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. |
| **Special instructions for protection and hygiene** | Wear gloves at all times when handling product, avoid direct contact with skin. When finished using product, dispose of gloves properly and wash hands with warm, soapy water. |

## 9. Physical and Chemical Properties

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|---|---|
| **Chemical family** | Polyamine |
| **Appearance** | Amber colored paste |
| **Physical State** | Amine/Butadiene mixture |
| **Form** | Paste |
| **Color** | Amber |
| **Odor** | Mild |
| **Density (Specific Gravity)** | 8.40 lb/gal (1.01) |
| **Viscosity** | 60,000 cps at 77 °F (25 °C) |
| **pH** | N/A |
| **Melting point/freezing point** | N/A |
| **Initial boiling point and boiling range** | N/A |
| **Flash point** | >250°F, Pensky-Martens Closed Cup |
| **Evaporation rate** | Slower than ether |
| **Flammability (solid, gas)** | Data not available |
| **Upper/lower flammability limit (by volume)** | N/A |
| **Material VOC** | None |
| **Vapor density** | Heavier than air |
| **Relative density** | Not determined |

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| **Solubility in water** | Negligible |
| **Partition coefficient: n-octanol/water** | N/A |

## 10.Stability and Reactivity

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| **Reactivity** | No specific test data related to reactivity available for this product. |
| **Chemical Stability** | Stable under normal conditions. |
| **Possibility of hazardous reactions** | Hazardous polymerization will not occur. |
| **Conditions to avoid** | Epoxy resins and epoxy resin hardeners react with each other producing heat. They should not be mixed with each other under uncontrolled conditions or in large mass as the ensuing exotherm may result in heat and smoke, resulting in hazardous decomposition products. |
| **Incompatible materials** | Strong oxidizing and reducing agents. Lewis and mineral acids. |
| **Hazardous decomposition products** | Oxides of carbon and nitrogen. |

## 11. Toxicological Information

**Acute Toxicity** No comprehensive data is available on the product itself.

**Irritation/Corrosion (components)** Classifies as non-corrosive to skin per negative Corrositex Dermal Testing. Classifies as Serious Eye Damage Category 1 per GHS calculations of additivity.

| Component | Test | Species | Result |
|---|---|---|---|
| Modified Polyamines | OECD 404 Acute Dermal Irritation/Corrosion | Rabbit | Skin – Corrosive |
| | OECD 405 Acute Eye Irritation/Corrosion | Rabbit | Eyes - Corrosive |

**Sensitization** No information on product itself.

| Component | Species | Result |
|---|---|---|
| ATBN Polymer | Guinea Pig | Strong Sensitizer |

**Mutagenicity** No information on product itself.

**Carcinogenicity** No information on product itself.

**Reproductive Toxicity** No information on product itself.

**Teratogenicity** No information on product itself.

**Specific target organ toxicity (single exposure)** No information on product itself.

**Specific target organ toxicity (repeated exposure)** No information on product itself.

**Aspiration hazard** No information on product itself.

**Potential acute health effects**

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|---|---|
| **Eye Contact** | Causes serious eye damage. |
| **Inhalation** | May give off vapor that is irritating to the respiratory system. |
| **Skin Contact** | Causes skin irritation. May cause an allergic skin reaction. |
| **Ingestion** | Harmful if swallowed. |

**Symptoms related to the physical, chemical and toxicological characteristics**

**Eye Contact** Adverse symptoms may include the following:
Pain
Watering
Redness

**Inhalation** No data available.

**Skin Contact** Adverse symptoms may include the following:
Pain or irritation

**Ingestion** No data available.

**Delayed and immediate effects and also chronic effects from short and long term exposure** No data available.

**Potential chronic health effects**

**General** Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

**Carcinogenicity** No known significant effects or critical hazards.

**Mutagenicity** No known significant effects or critical hazards.

**Teratogenicity** No known significant effects or critical hazards.

**Developmental effects** No known significant effects or critical hazards.

**Fertility effects** No known significant effects or critical hazards.

**Numerical measures of toxicity**

**Acute toxicity estimates ($ATE_{mix}$)**

| Route | ATE value |
|---|---|
| Oral | 2344.2 mg/kg |
| Dermal | 2054.1 mg/kg |
| Inhalation (vapors) | N/A |

## 12. Ecological Information

**Ecotoxicity** No information on product itself.

| Component | Test | Endpoint | Exposure | Species | Result |
|---|---|---|---|---|---|
| ATBN Polymer | OECD 202 Invertebrates | Acute EC50 | 48 h | Invertebrates | >1000 mg/l |
| | OECD 201 Algae, Growth Inhibition Test | Acute EC50 | 72 h | Algae | >1000 mg/l |
| Nonyl Phenol | OECD 209 Activated Sludge, Respiration Inhibition Test | Acute EC50 | 3 h Static | Bacteria | 950 mg/l |
| | ASTM | Acute EC50 | 48 h Static | Daphnia | 0.085 mg/l |
| | ASTM | Acute LC50 | 96 h Static | Fish | 0.05 mg/l |

**Persistence and degradability** No information on product itself.

| Component | Test | Period | Result |
|---|---|---|---|
| Nonyl phenol | OECD 301B Ready Biodegradability – CO2 Evolution Test | 35 days | 48.2% |

**Bioaccumulative Potential** No information on product itself.

| Component | LogPow | BCF | Potential |
|---|---|---|---|
| Nonyl Phenol | 5.4 | 740 | High |

**Mobility in Soil**

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|---|---|
| **Soil/water partition coefficient (KOC)** | No information on product itself. |
| **Other adverse effects** | No known significant effects or critical hazards. |

## 13. Disposal Considerations

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| **Waste from residues/ unused products** | The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Product should not be allowed to enter drains, water courses or the soil; dispose of this material and its containers in a safe way. Contact supplier if guidance is required. |
| **Contaminated packaging** | Dispose of container and unused contents in accordance with federal, state and local requirements. |

## 14.Transport Information

The data provided in this section is for information only and may not be specific to your package size or mode of transport. You will need to apply the appropriate regulations to properly classify your shipment for transportation.

**International Transport Regulations**

| **Regulatory information** | **UN/NA number** | **Proper Shipping Name** | **Classes/*PG** | **Additional Information** |
|---|---|---|---|---|
| **DOT** | | Non-regulated | | |
| **TDG** | | Non-regulated | | |
| **IMO/IMDG** | UN3082 | Environmentally hazardous substance, liquid, n.o.s. (Nonyl Phenol) | Class 9 III | Marine pollutant |
| **IATA (Cargo)** | UN3082 | Environmentally hazardous substance, liquid, n.o.s. (Nonyl Phenol) | Class 9 III | |

*PG: Packing group

| | |
|---|---|
| **Special precautions for user:** | Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage. |

## 15. Regulatory Information

**UNITED STATES**

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|---|---|
| **U.S. Federal Regulations** | **United States – TSCA 12(b) – Chemical export notification:** None Required.<br>**United States – TSCA 5(a)2 – Final significant new use rules:** Not Listed.<br>**United States – TSCA 12(b) – Proposed significant new use rules:** None Required.<br>**United States – TSCA 5(e) – Substance consent order:** Not listed. |
| **Clean Air Act – Ozone Depleting Substances (ODS)** | This product does not contain nor is it manufactured with ozone depleting substances. |
| **Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs)** | |

| **Product Name** | **Concentration %** |
|---|---|
| Phenol | 0 – 1% |
| Diethanolamine | |

| | |
|---|---|
| **Pennsylvania – RTK** | Phenol. |

**California Prop. 65**

This product contains no listed substances known to the State of California to cause cancer, birth defects or other reproductive harm, at levels which would require a warning under the statute.

**EPA SARA 302/304/311/312 Substances**

Acute Health Hazard

**EPA SARA 313 Form R – Reporting requirements**

| Product Name | Concentration % |
|---|---|
| Phenol | 0 – 1% |
| Diethanolamine | 1% |

**CERCLA Hazardous Substances**

| Component | % | Section 304 CERCLA Hazardous Substance | CERCLA Reportable Quantity (Lbs) | Product Reportable Quantity (Lbs) |
|---|---|---|---|---|
| Phenol | 1 | Listed | | |
| Diethanolamine | 1 | | 100 | |

**United States inventory (TSCA 8b)**

All components are listed or exempted.

**CANADA**

**WHMIS (Canada)**

Class D-2B: Material causing other toxic effects (Toxic).
Class E: Corrosive material.

**Canadian NPRI**

None Required

**CEPA Toxic substances**

None Required

**INTERNATIONAL REGULATIONS**

**International Lists**

**Australia inventory (AICS):** All components are listed or exempted.
**Canada inventory:** All components are listed or exempted.
**Korea inventory:** All components are listed or exempted.
**Japan inventory:** All components are listed or exempted.
**China inventory (IECSC):** All components are listed or exempted.
**New Zealand inventory (NZIoC):** All components are listed or exempted.
**Philippines inventory (PICCS):** All components are listed or exempted.
**Taiwan inventory (CSNN):** All components are listed or exempted.

## 16. Other Information, Including Date of Preparation or Last Revision

**HMIS Rating**

Health 3
Flammability 1
Physical Hazard 0

**Date of Preparation** April 20, 2017

**Date of Last Revision** July 25, 2016

**Revision #** 2.0

**More Information** 1-253-333-8118

**Prepared by** N. Kim, System Three Resins Inc.

The information contained herein is based on the data available to us and is believed to be correct. However, System Three Resins, Inc. makes no warranty, expressed or implied, regarding the accuracy of these data or the results to be obtained from the use thereof. System Three assumes no responsibility for injury from the use of the product described herein.