

SAFETY DATA SHEET

1. Product Identification

Product Name Quikfair Epoxy Hardener Part B

SDS Number 1400B00

Product Type Amine/Pigment Mixture

Recommended use of the chemical and Putty Hardener Component.

restrictions on use

Restrictions

Manufacture/Supplier Information

Company Name SYSTEM THREE RESINS, INC. Address 3500 W. Valley Hwy North

Suite 105

None known.

Auburn, WA 98001-2436

Telephone (253) 333-8118

Website <u>www.systemthree.com</u>

Email <u>Support-08@systemthree.com</u>

Emergency Contact CHEMTREC (U.S. and CANADA) (800) 424-9300

CHEMTREC (Outside the U.S.) (703) 527-0585

2. Hazard(s) Identification

Classification ACUTE TOXICITY, ORAL – Category 4, H302

SKIN CORROSION/IRRITATION - Category 1B, H314

SENSITIZATION, SKIN - Category 1, H317

SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1, H318

ACUTE TOXICITY, INHALATION – Category 4, H332 REPRODUCTIVE TOXICITY – Category 2, H361 ACUTE AQUATIC TOXICITY – Category 1, H400 CHRONIC AQUATIC TOXICITY – Category 1, H410

Label Elements

Symbol









Signal Word DANGER

Hazard Statements H302: Harmful if swallowed.

H314: Causes severe skin burns and eye damage. H317: May cause an allergic skin reaction.

H318: Causes serious eye damage.

H332: Harmful if inhaled.

H361: Suspected of damaging fertility or the unborn child.

H400: Very toxic to aquatic life.

H410: Very toxic to aquatic life with long lasting effects

Precautionary Statements

Prevention P201: Obtain special instructions before use.

P202: Do not handle until all safety precautions have been read and understood.

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2. Hazard(s) Identification

Prevention (cont.) P260: Do not breathe dusts or mists.

P261: Avoid breathing fumes/vapors.

P264: Wash hands and exposed skin 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 clothes should not be allowed out of the workplace.

P273: Avoid release to the environment.

P280: Wear eye protection/face protection. Wear protective gloves.

P281: Use personal protective equipment as required.

Response P301 + P312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel

unwell.

P301 + P330 + P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P302 + P352: IF ON SKIN: Wash with plenty of soap and water.

P303 + P361 + P353: IF ON SKIN (or hair): Remove/Take off immediately all

contaminated clothing. Rinse skin with water/shower.

P304 + P340: IF INHALED: Remove victim to fresh air and keep at rest in a position

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. P308 + P313: IF exposed or concerned: Get medical advice/attention. P310: Immediately call a POISON CENTER or doctor/physician. P312: Call a POISON CENTER or doctor/physician if you feel unwell.

P330: Rinse mouth.

P333 + P313: If skin irritation or rash occurs: Get medical advice/attention.

P363: Wash contaminated clothing before reuse.

P391: Collect spillage.

Storage P405: Store locked up.

Disposal P501: Disposal of contents/container to be specified in accordance with regulations.

General Read label before use. Keep out of reach of children. If medical advice is needed, have

product container or label at hand.

Hazards Not Otherwise Classified

(HNOC)

None

0% of this mixture consists of ingredients of unknown acute toxicity.

OSHA/HCS Status This material is considered hazardous by the OSHA Hazard Communication Standard

(29 CFR 1910.1200).

3. Composition/Information on Ingredients

Component	%	CAS Number
Aliphatic Amines	50-60	*Proprietary
Alkyl Phenols	35-45	*Proprietary

^{*} Designates that a specific chemical identity and/or percentage of a composition has been withheld as a trade secret. Bonafide requests for disclosure of trade secret information to medical personnel must be made in accordance with the provisions contained in 29 CFR 1910.1200 | 1-13.

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.

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4. First Aid Measures

Skin Contact Get medical attention immediately. Remove material from skin immediately by

washing with soap and plenty of water. Remove contaminated clothing and shoes while washing. Seek medical attention if irritation persists or if open sores or blisters develop. Wash clothing before reuse. Discard items which cannot be decontaminated, including leather articles such as shoes, belts and watchbands. Safety shower should

be located in immediate work area.

Eye Contact Get medical attention immediately. Immediately flush eyes with plenty of water,

occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 15 minutes. Suitable emergency eye wash facility

should be available in work area.

Ingestion Get medical attention immediately. Wash out mouth with water. Remove dentures if

any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Do not induce vomiting unless directed to do so by medical personnel. 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. Maintain an open airway.

Loosen tight clothing such as a collar, tie, belt or waistband.

Inhalation Get medical attention immediately. Remove victim to fresh air and keep at rest in a

position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most Important Symptoms/Effects, Acute and Delayed

Skin Contact Causes severe skin irritation and/or burns. May cause an allergic reaction in sensitive

individuals.

Eye Contact Causes serious eye damage.

Ingestion Harmful if swallowed. May causes burns to mouth, throat and stomach.

Inhalation May cause severe irritation or burns to the respiratory system.

Over-exposure Signs/Symptoms

Skin Contact Adverse symptoms may include the following:

Irritation/redness

Pain

Blistering of skin Reduced fetal weight Increase in fetal deaths Skeletal malformations

Eye Contact Adverse symptoms may include:

Pain Watering Redness

Ingestion Adverse symptoms may include the following:

Stomach pains Reduced fetal weight Increase in fetal deaths Skeletal malformations

Inhalation Adverse symptoms may include the following:

Respiratory tract irritation

Coughing

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4. First Aid Measures

Inhalation (cont.) Tightness of chest

Shortness of breath Reduced fetal weight Increase in fetal deaths Skeletal malformations

Indication of Immediate Medical Attention and Special Treatment Needed

Notes to Physician Treat symptomatically. Contact poison treatment specialist immediately if large

quantities have been ingested or inhaled or if extended exposure to eye and skin

tissues have occurred.

Specific Treatments No specific treatment.

Protection of First Responders No action taken shall be taken involving any personal risk without suitable training. If

it is suspected that gas or vapor is still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person

providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

5. Fire Fighting Measures

Lower Explosive Limit (LEL) N/A
Upper Explosive Limit (UEL) N/A

Specific Hazards Arising From the

Chemicals

Use of water may result in the formation of very toxic aqueous solutions. Do not allow run-off from the fire fighting to enter drains or water courses. Incomplete combustion may form carbon monoxide. Downwind personnel must be evacuated. Burning produces noxious and toxic fumes. In a fire or if heated, a pressure increase will occur and the container may burst.

May generate ammonia gas. May generate amines and toxic nitrogen oxide gases.

and the container may t

Suitable Extinguishing Media Alcohol-resistant foam, dry chemical, dry sand, limestone powder or carbon dioxide

(CO₂).

run-off from the fire fighting to enter drains or water courses.

Products of Combustion May generate ammonia gas. May generate amines, toxic nitrogen oxide gases and

carbon oxide gases (CO, CO₂). Burning produces noxious and toxicfumes.

Protection of Firefighters 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. Move containers from fire area if this can be done without risk.

Fire-fighters should wear appropriate protection equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in a positive pressure

mode.

6. Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures

For Non-Emergency Personnel 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. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is

inadequate. Put on appropriate personal protective equipment.

For Emergency Responders If specialized clothing is required to deal with the spillage, take note of any information

in Section 8 on suitable and unsuitable materials. See also the information in "For

nonemergency personnel".

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6. Accidental Release Measures

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).

Methods For Containment

Small Spill Stop leak if without risk. Move containers from spill area. Absorb with an inert dry

absorbent material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor. Wash the spill area clean with water and

detergent, observing environmental requirements.

Large Spill 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 inert dry absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Wash the spill area clean with water and detergent, observing environmental requirements. Note: see Section 1 for emergency contact information and Section 13

for waste disposal.

7. Handling and Storage

Protective Measures Put on appropriate personal protective equipment (see Section 8). Avoid exposure -

obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Avoid breathing vapor or mist. Do not swallow. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse

container.

General Occupational Hygiene Eating, drinking and smoking should be prohibited in areas where this material is

handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See Section 8 for additional information on hygiene

measures.

Safe Storage Conditions Store in accordance with local regulations. Store in original container protected from

direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers.

Use appropriate containment to avoid environmental contamination.

8. Exposure Controls/Personal Protection

Occupational Exposure Limits:

List	Components	CAS-No.	Туре	Value
ACGIH	Proprietary	N/A	TLV	0.1 mg/m ³ – Ceiling (skin)
	Phenol	108-95-2	TLV	5.0 ppm TWA (skin)
AIHA	None			
NIOSH	Proprietary	N/A	REL	1.0 ppm C
OSHA Z1	Phenol	108-95-2	PEL	19.0 mg/m³ TWA (skin)

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8. Exposure Controls/Personal Protection

Engineering Controls

Use only with adequate ventilation. Use local exhaust ventilation or other engineering

controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. Provide readily accessible eye wash stations and safety showers.

Environmental Exposure Controls Emissions from ventilation or work process equipment should be checked to ensure

they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment

will be necessary to reduce emissions to acceptable levels.

Individual Protection Measures

Hygiene Measures Wash hands, forearms and face thoroughly after handling chemical products, before

eating, smoking and using the lavatory and at the end of the working period.

Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Discard contaminated leather items. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/Face Protection Safety eyewear complying with an approved standard should be used when a risk

assessment indicates this is necessary to avoid exposure to liquid splashes, mists,

gases or dusts. Recommended: chemical splash goggles.

Skin Protection

Hand Protection Chemical-resistant, impervious gloves complying with an approved standard should be

worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Recommended gloves:

Neoprene PVC disposable Butyl-rubber Nitrile rubber

Body Protection Personal protective equipment for the body should be selected based on the task

being performed and the risks involved and should be approved by a specialist before handling this product. Long sleeve shirts and pants without cuffs are minimal

recommended.

Other Skin Protection Appropriate footwear and any additional skin protection measures should be selected

based on the task being performed and the risks involved and should be approved by a

specialist before handling this product.

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.

9. Physical and Chemical Properties

Physical State Paste

Color Off-white

Odor Ammonia-like odor

pH Not available

Melting Point Not applicable

Boiling Point Not applicable

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9. Physical and Chemical Properties

Specific Gravity 0.7 - 0.8

Solubility in Water Negligible

Evaporation Rate Slower than ether

Vapor Pressure Not available
Vapor Density (Air = 1) Heavier than air

VOC Content None

Viscosity 30,000 – 40,000 CPS

10. Stability and Reactivity

Reactivity No specific test data related to reactivity is available for this product or its ingredients.

Chemical Stability Stable under normal conditions.

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 a large mass as the ensuing exothermic reaction may produce heat, smoke and hazardous

decomposition products. Reaction with peroxides may result in violent decomposition

of peroxide possibly creating an explosion.

Incompatible Materials Strong oxidizing agents.

Mineral acids
Organic acids
Sodium hypochlorite

Reactive metals (e.g. sodium, calcium, zincetc.).

Hazardous Decomposition Products

Under normal conditions of storage and use, hazardous decomposition products

should not be produced. Toxic fumes may be evolved when product is burned.

Decomposition products may include:

Nitric acid Ammonia

Nitrogen oxides (NOx) Carbon oxides (CO, CO₂)

Flammable hydrocarbon fragments

Note: Nitrogen oxide can react with water vapors to form corrosive nitric acid. N-Nitrosamines, many of which are known to be potent carcinogens, may be formed when the product comes into contact with nitrous acid, nitrites or atmospheres with

high nitrous oxide concentrations.

Possibility of Hazardous Reactions Under normal conditions of storage and use, hazardous reactions will not occur.

11. Toxicological Information

<u>Information on Toxicological Effects</u>

Acute Toxicity

Component	CAS No	Result	Species	Dose	Exposure
Proprietary	N/A	LD50 Oral LD50 Dermal LC50 Inhalation	Rat Rabbit Rat	980 mg/kg 2,000 mg/kg 1.34 mg/l	- - 4 h
Proprietary	N/A	LD50 Oral LC50 Inhalation	Rat Rat	1,690 mg/kg 4.9 mg/l	- 1 h
4-tert-Butylphenol	98-54-4	LD50 Oral LC50 Inhalation	Rat Rat	>2,000 mg/kg 5.6 mg/l	-
Nonylphenol	84852-15-3	LD50 Oral LD50 Dermal	Rat Rabbit	1,412 mg/kg 2,031 mg/kg	-

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11. Toxicological Information

Irritation/Corrosion

Component	CAS No	Test	Species	Result	Exposure
Proprietary	N/A	Skin Eye	Rat Rabbit	Corrosive Severe eye irritation	4 h 24 h
4-tert-Butylphenol	98-54-4	Skin Eye	Rabbit Rabbit	Moderate irritation Severe eye irritation	4 h 24 h
Nonylphenol	84852-15-3	Skin Eye	Rabbit Rabbit	Cause burns Corrosive	4 h 24 h

Sensitization

No data is available for this product.

Component	CAS No	Test	Species	Result	Exposure
Proprietary	N/A	Skin	Mouse	Sensitizing	-

Carcinogenicity No data is available for this product.

Reproductive Toxicity In vitro tests showed mutagenic effects (Phenol).

Teratogenicity

No data is available for this product.

Specific Target Organ Toxicity

No data is available for this product.

(single exposure)

Specific Target Organ Toxicity

(repeat exposure)

No data is available for this product.

Aspiration Hazard No data is available for this product.

Information on likely routes of

exposure

Absorption of phenolic solutions through the skin may be very rapid and can cause damage to the kidneys, liver, pancreas and spleen, and edema of the lungs. Prolonged contact may result in chemical burns and permanent damage. Repeated or prolonged contact causes sensitization, asthma, eczemas. Contact with eye tissues may result in eye disease.

Additional Information

Phenol: Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea, Vomiting, Circulatory collapse, tachypnea, paralysis, Convulsions, Coma., necrosis of mouth and G.I. Tract, Jaundice, respiratory failure, cardiac arrest.

To the best of our knowledge, the chemical, physical, and toxicological properties have

not been thoroughly investigated.

Stomach - Irregularities - Based on Human Evidence.

12. Ecological Information

Ecotoxicity

Component	CAS No	Test	Species	Dose	Exposure
Proprietary	N/A	LC50 EC50	Fish Daphnia	87.6 mg/l 15.2 mg/l	96 h 48 h
Proprietary	N/A	LC50 EC50	Fish Daphnia	130 mg/l 19.8 mg/l	48 h 48 h
4-tert-Butylphenol	98-54-4	LC50 EC50	Fish Daphnia	5.14 mg/l 4.8 mg/l	96 h 48 h
Nonylphenol	84852-15-3	LC50 EC50	Fish Daphnia	0.209 mg/l 0.0844 mg/l	96 h 48 h

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12. Ecological Information

Persistence and Degradability

Biodegradability No data is available on the product itself.

Component	Test	Period	Result
Proprietary	OECD 301B	28 d	49%
Proprietary	OECD 301F	28 d	60%
Nonylphenol	OECD 301F Derived	28 d	62%

Bioaccumulative Potential

No data is available on the product itself.

Mobility in Soil

Soil/water Partition Coefficient (Koc)

Not available.

Other Adverse Effects

No known significant effects or critical hazards.

Disposal Considerations

Other Adverse Effects

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. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

14. Transport Information

	DOT Classification	IMDG	IATA
UN Number	2735	2735	2735
UN Proper Shipping Name	Amines, liquid,corrosive,	Amines, liquid, corrosive,	Amines, liquid, corrosive,
	n.o.s. (Ethylene Amine)	n.o.s. (Ethylene Amine)	n.o.s. (Ethylene Amine)
Transport Hazard Classes	8	8	8
Packing Group	III	III	III
Environmental Hazards	YES	YES	YES
Additional Information	-	EMS: F-A, S-B	-

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

U.S. Federal Regulation United States Inventory (TSCA 8b): All components are listed or exempted.

DSL Status All components of this product are on the Canadian DSL list.

SARA 302 No chemicals in this material are subject to reporting levels established by SARA Title

III, Section 302.

SARA 311/312 Hazards Acute Health Hazard, Chronic Health Hazard.

SARA 313 This material contains the following chemical components of known CAS numbers

that exceed the threshold (De Minimis) reporting levels established by SARA Title III,

Section 313: 4-Nonyphenol, branched, 84852-15-3, 25-35% by weight.

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15. Regulatory Information

Massachusetts Right To Know Components

ComponentCAS-No.Revision Date4-Nonylphenol, branched84852-15-312/1/1989

New Jersey Right To Know Components

Component	CAS-No.	Revision Date
Trade Secret	N/A	7/1/1991
4-Nonylphenol, branched	84852-15-3	12/1/1989

Pennsylvania Right To Know Components

Component	CAS-No.	Revision Date
Trade Secret	N/A	7/1/1991
4-Nonylphenol, branched	84852-15-3	12/1/1989

California Prop 65

This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

16. Other Information

HMIS Rating



History

Date of Printing	12/29/15
Date of Issue/Date of Revision	12/29/15
Date of Previous Issue	None.
Prepared by	N. Kim

References

None.

Disclaimer

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.

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