


1. Product Identification

| | | |
|---|---|----------------|
| Product name | Quick Cure – 15 Minute, Part A | |
| SDS Number | 1010A000 | |
| Product type | Epoxy polymer mixture | |
| Recommended use of the chemical and restrictions on use | Directed at, but not limited to, the adhesion of similar and dissimilar substrates. | |
| Restrictions | None known. | |
| Manufacturer/Supplier information | | |
| Company name | SYSTEM THREE RESINS, INC. | |
| Address | 3500 W. Valley Hwy, Suite Suite 105 Auburn, WA 98001-2436 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 |
| | CHEMTREC (Outside the U.S.) | 1-703-527-0585 |

2. Hazard(s) Identification

| | | |
|--|--|--|
| Classification of substance or mixture/Signal Word | WARNING Skin Corrosion/Irritation - Category 2 Serious Eye Damage/Eye Irritation - Category 2 Skin Sensitization - Category 1 Specific Target Organ Toxicity (Single Exposure) [Respiratory tract irritation] – Category 3 | |
| <u>GHS Label Elements</u> Hazard Pictograms |  | |
| Hazard Statements/Classification of substance or mixture | H315 | Causes skin irritation. |
| | H317 | May cause an allergic skin reaction. |
| | H319 | Causes serious eye irritation. |
| | H335 | May cause respiratory irritation. |
| Precautionary statements | | |
| <u>Precautionary Statements</u> Prevention | P280 | Wear protective gloves. Wear eye or face protection. |
| | P201 | Obtain special instructions before use. |
| | P271 | Use only outdoors or in a well-ventilated area. |
| | P264 | Wash hands thoroughly after handling. |
| Response | P304 + 340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |

Storage
Disposal

P313 Call a POISON CENTER or doctor/physician if you feel unwell.
P302+352+363 IF ON SKIN: Wash with soap and water. Take off contaminated clothing and wash before reuse.
P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P401 Store at room temperature in a well-ventilated area.
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 (%) |
|---------------------------------|------------|-------------|
| Diglycidyl Ether of Bisphenol A | 25068-38-6 | 90-100% |
| Diglycidyl Ether of Bisphenol F | 28064-14-4 | 1-10% |

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

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 Flush with water for 15 minutes holding eye lids open. Seek medical attention.

Ingestion Do not give liquids if victim is unconscious or very drowsy. Otherwise, give no more than 2 glasses of water and induce vomiting by giving 2 tablespoons syrup of ipecac (1 tablespoon and 1 glass of water for child). If ipecac is unavailable, give 2 glasses of water and induce vomiting by touching finger to back of throat. Keep head below hips while vomiting. Get medical attention.

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

Notes to physician Treat symptoms as they appear. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments No specific treatment.

5. Fire-Fighting Measures

Suitable extinguishing media Alcohol-resistant foam.
Carbon dioxide (CO₂).
Dry chemical
Water Fog

Unsuitable extinguishing media None known.

Specific hazards arising from the chemical Potential skin irritation. Epoxy in mass can create exotherm.

Hazardous decomposition products Decomposition products may include the following materials:
Carbon dioxide
Carbon monoxide

| | |
|--|---|
| 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 | Wear proper personal protective equipment (PPE). Avoid direct contact with material. Proper PPE includes: disposable gloves, eye protection and skin protection. |
| Emergency procedures | If materials is spilled, avoid contact with material. Persons not wearing appropriate protective equipment should leave the area of the spill until cleanup is complete. |
| Methods and materials for containment/cleanup | Stop spill at source, dike area to prevent spreading, pump liquid to salvage tank or drum. Remaining liquid may be taken up on clay, diatomaceous earth, sawdust or other absorbent, and shoveled into disposal container. |
| Environmental precautions | Avoid dispersal of spilled material, contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil, or air). |

7. Handling and Storage

| | |
|---|---|
| Precautions for safe handling | Put on appropriate personal protective equipment. Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid contact with skin and eyes. Do not ingest. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. 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. When using, do not eat, drink or smoke. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures. |
| Precautions/Recommendations for safe/proper storage | 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 and food and drink. Store locked up. 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 | 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

| | |
|---|-----------------------------------|
| Chemical family | Epoxy Resin |
| Appearance | Clear viscous liquid |
| Physical State | Epoxy polymer mixture |
| Form | Liquid |
| Color | Water clear |
| Odor | Little or no odor |
| Density (Specific Gravity) | 9.5-9.7 lb/gal (1.1-1.2) |
| Viscosity | 8,000-10,000 cps @ 25°C |
| pH | Data not available |
| Melting point/freezing point | Data not available |
| Initial boiling point and boiling range | Data not available |
| Flash point | >300°F, Pensky-Martens Closed Cup |
| Evaporation rate | Slower than ether |
| Flammability (solid, gas) | Data not available |
| Upper/lower flammability limit (by volume) | |
| Upper flammability limit (by volume) | N/A |
| Lower flammability limit (by volume) | N/A |
| Material VOC | None |
| Vapor density | Heavier than air |
| Relative density | Not determined |
| Solubility in water | Negligible, in water |
| Partition coefficient: n-octanol/water | 3 |
| Auto-ignition temperature | 300°C (572.00°F) |

Decomposition temperature

Data not available

10. Stability and Reactivity

| | |
|------------------------------------|---|
| Reactivity | None |
| 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 agents, Lewis and mineral acids. |
| Hazardous decomposition products | Oxides of carbon, aldehydes, acids. |
| Other hazards | None known. |

11. Toxicological Information

Acute Health Hazard (components) No comprehensive data (ingestion, inhalation, dermal) on mixture (product).

| Component | Result | Species | Dose | Exposure |
|---------------------------------|-------------|---------|--------------|----------|
| Diglycidyl Ether of Bisphenol A | LD50 Oral | Rat | 11,400 mg/kg | - |
| | LD50 Dermal | Rat | 2,000 mg/kg | - |

Irritation/Corrosion (components)

| Component | Result | Species | Test | Exposure |
|---------------------------------|--|---------|-----------|----------|
| Diglycidyl Ether of Bisphenol A | Skin – Erythema/Eschar 404 Acute Dermal Irritation/Corrosion | Rabbit | 1.5 – 2 | - |
| | Skin – Edema 404 Acute Dermal Irritation/Corrosion | Rabbit | 1.0 – 1.5 | - |
| | Eyes – 405 Acute Eye Irritation/Corrosion | Rabbit | 0 | - |
| | Eyes – Redness of the conjunctivae | Rabbit | 0.7 | - |
| | Skin – Moderate irritant | Rabbit | | 24 hrs |
| | Eyes – Mild irritant | Rabbit | | - |

Sensitization No information on product itself.

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.

| Component | Category | Route of exposure | Target organs |
|---------------------------------|------------|-------------------|------------------------------|
| Diglycidyl Ether of Bisphenol A | Category 3 | | Respiratory tract irritation |

| | | | |
|---|---|--|------------------------------|
| Diglycidyl Ether of Bisphenol F | Category 3 | | Respiratory tract irritation |
| <u>Specific target organ toxicity (repeated exposure)</u> | Not available. | | |
| <u>Aspiration hazard</u> | Not available. | | |
| <u>Potential acute health effects</u> | | | |
| Eye Contact | Causes serious eye irritation. | | |
| Inhalation | May cause respiratory irritation. | | |
| Skin Contact | Causes skin irritation. May cause an allergic skin reaction. | | |
| Ingestion | Irritating to mouth, throat and stomach. | | |
| <u>Symptoms related to the physical, chemical and toxicological characteristics</u> | | | |
| Eye Contact | Adverse symptoms may include the following: Pain or irritation Watering Redness | | |
| Inhalation | Adverse symptoms may include the following: Respiratory tract irritation Coughing | | |
| Skin Contact | Adverse symptoms may include the following: Irritation Redness | | |
| Ingestion | No specific data. | | |
| <u>Delayed and immediate effects and also chronic effects from short and long term exposure</u> | Not available. | | |
| <u>Potential chronic health effects</u> | | | |
| 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. | | |

12. Ecological Information

Ecotoxicity No information on product itself.

| Component | Result | Species | Exposure |
|---------------------------------|---|--------------------------------------|----------|
| Diglycidyl Ether of Bisphenol A | Acute LC50 1.3 mg/l – 203 Fish, Acute Toxicity Test | Fish – Fish | 96 h |
| | Acute EC50 2.1 mg/l – 202 Daphnia sp. Acute Immobilization Test and Reproduction Test | Aquatic invertebrates. Water flea | 48 h |
| | Acute NOEC 0.3 mg/l – 211 Daphnia Magna Reproduction Test | Aquatic invertebrates. Water flea | 21 d |
| | Acute LC50 > 11 mg/l | Aquatic plants – Algae | 72 h |

Persistence and degradability No information on product itself.

Bioaccumulative Potential

No information on product itself.

| Component | LogPow | BCF | Potential |
|---------------------------------|-------------|--------------|-----------|
| Diglycidyl Ether of Bisphenol A | 2.64 – 3.78 | 3 – 31 31.00 | low |
| Diglycidyl Ether of Bisphenol F | 3 | - | low |

Mobility in Soil

Soil/water partition coefficient (KOC)

No information on product itself.

Other adverse effects

No known significant effects or critical hazards.

13. Disposal Considerations

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. (BISPHENOL-A EPICHLOROHYDRIN RESIN) | Class 9 III | |
| IATA (Cargo) | UN3082 | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (BISPHENOL-A EPICHLOROHYDRIN RESIN) | 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**

U.S. Federal Regulations

United States – TSCA 12(b) – Chemical export notification: None Required.
United States – TSCA 5(a)2 – Final significant new use rules: Not Listed.
United States – TSCA 5(a)2 – Proposed significant new use rules: Not Listed.

United States – TSCA 5(e) – Substance consent order: Not listed.

California Prop. 65

WARNING: This product contains less than 0.1% of a chemical known to the State of California to cause cancer. WARNING: This product contains less than 1% of a chemical known to the State of California to cause birth defects or other reproductive harm.

| Ingredient Name | Cancer | Reproductive | No significant risk level | Maximum acceptable dosage level |
|----------------------------|--------|--------------|---------------------------|---------------------------------|
| Oxirane, 2-(phenoxyethyl)- | Yes | No | 5 µg/day | No |
| Oxirane, 2-(chloromethyl)- | Yes | Yes | 9 µg/day | No |

EPA SARA 302 Extremely Hazardous Substances

None required.

EPA SARA 302/304/311/312 Hazardous Chemicals

Acute Health Hazard.

United States inventory (TSCA 8b)

All components are listed or exempted.

CANADA

WHMIS (Canada)

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

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 2
Flammability 1
Physical Hazard 0

Date of Preparation

2/14/2017

Date of Last Revision

12/7/2016

Revision #

3.0

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.

1. Product Identification

| | | |
|---|---|----------------|
| Product name | Quick Cure - 15 Adhesive Part B | |
| SDS Number | 1010B00 | |
| Product type | Mercaptan/Amine polymer mixture | |
| Recommended use of the chemical and restrictions on use | Directed at, but not limited to, the adhesion of wood, similar and dissimilar substrates. | |
| Restrictions | None known. | |
| Manufacturer/Supplier information | | |
| Company name | SYSTEM THREE RESINS, INC. | |
| Address | 3500 W. Valley Hwy, Suite Suite 105 Auburn, WA 98001-2436 United States | |
| Telephone | 1-253-333-8118 | |
| Website | www.systemthree.com | |
| Email | support@systemthree.com | |
| Emergency Contact | CHEMTREC (U.S. and CANADA) | 1-800-424-9300 |
| | CHEMTREC (Outside the U.S.) | 1-703-527-0585 |

2. Hazard(s) Identification

| | | |
|--|---|---|
| Classification of substance or mixture/Signal Word | WARNING Skin Corrosion/Irritation – Category 2 Serious Eye Damage – Category 1 Skin Sensitization – Category 1 | |
| <u>GHS Label Elements</u> Hazard Pictograms |  | |
| Hazard Statements/Classification of substance or mixture | H312 | Harmful in contact with skin. |
| | H317 | May cause an allergic skin reaction. |
| | H318 | Causes serious eye damage. |
| Precautionary statements | | |
| <u>Precautionary Statements</u> Prevention | P202 | Do not handle until all safety precautions have been read and understood. |
| | P264 | Wash hands thoroughly after handling. |
| | P270 | Do not eat, drink, or smoke when using this product. |
| | P280 | Wear protective clothing, gloves, eye, and face protection. |
| Response | P301+P330+P314 | IF SWALLOWED: Rinse mouth and get medical attention if you feel unwell. |
| | P302+P352 | IF ON SKIN: Wash with plenty of soap and water. |

Storage
Disposal

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes and remove contacts if present and easy to do so. Continue rinsing.
P337+P313 IF EYE IRRITATION PERSISTS: Get medical attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P401 Store above 32 °F / 0 °C
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 (%) |
|--|--------------|-------------|
| Polymercaptan Resin | Trade Secret | 80 - 100 % |
| Phenol, 2,4,6-Tris((dimethylamino)methyl)- | 90-72-2 | 1-10% |

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

| | |
|--------------|---|
| 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 | Flush with water for 15 minutes holding eye lids open. Remove contacts if present and easy to do so. Seek medical attention, if irritation or symptoms of overexposure persist. |
| Ingestion | If swallowed, do NOT induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person. Turn victim's head to the side. |
| 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

| | |
|---------------------|--|
| Notes to physician | Symptomatic and supportive therapy as needed. Following severe exposure medical follow-up should be monitored for at least 48 hours. |
| Specific treatments | No specific treatment. |

5. Fire-Fighting Measures

| | |
|--|---|
| 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 | Potential skin irritation. |
| Hazardous decomposition products | Decomposition products may include the following materials: 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 | Avoid contact with skin. A face shield should be worn. Use personal protective equipment. Wear self-contained breathing apparatus for fighting if necessary. |

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

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 appropriate respirator when ventilation is inadequate. Wear proper protective clothing, gloves and eye/face protection.

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

Contain spills with an inert absorbent material such as soil or sand. Prevent from spreading by covering, diking or other means. Provide ventilation.

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).

7. Handling and Storage

Precautions for safe handling

Always wear protective, disposable gloves when handling epoxy products to prevent exposure. Use with adequate ventilation. Avoid breathing vapor and contact with eyes, skin and clothing.

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

Occupational Exposure Limits

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

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. 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 NIOSH approved respiratory device when sanding cured epoxy to prevent dust in lungs.

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

| | |
|--|-----------------------------------|
| Chemical family | Mercaptan/Amine curing agent |
| Appearance | Straw-colored viscous liquid |
| Physical State | Amine mixture |
| Form | Liquid |
| Color | Clear straw-colored |
| Odor | Sulfur like |
| Density (Specific Gravity) | 9.5-9.7 lb/gal (1.1-1.2) |
| Viscosity | 9,000-14,000 cps @ 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) | N/A |
| Upper/lower flammability limit (by volume) | N/A |
| Upper flammability limit (by volume) | N/A |
| Lower flammability limit (by volume) | N/A |
| Material VOC | None |
| Vapor density | Heavier than air |
| Relative density | Not determined |
| Solubility in water | Negligible |
| Partition coefficient: n-octanol/water | N/A |
| Auto-ignition temperature | N/A |
| Decomposition temperature | N/A |

10. Stability and Reactivity

| | |
|------------------------------------|---|
| Reactivity | No specific test data related to reactivity available for this product. |
| Chemical Stability | Stable under normal conditions. |
| Possibility of hazardous reactions | Under normal conditions of storage and use, hazardous reactions 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 | Reactive or incompatible with the following materials: Mineral acids |

| | |
|----------------------------------|-------------------------------------|
| | Strong oxidizing agents |
| | Lewis acids |
| Hazardous decomposition products | Oxides of carbon, aldehydes, acids. |
| Other hazards | None known. |

11. Toxicological Information

Acute Health Hazard (components)

No comprehensive data (ingestion, inhalation, dermal) on mixture (product).

| Component | Result | Species | Dose | Exposure |
|--|-----------|---------|-------------|----------|
| Phenol, 2,4,6-Tris((dimethylamino)methyl)- | LD50 Oral | Rat | 2,169 mg/kg | - |

Irritation/Corrosion (components)

Classifies as Skin Irritation Category 2 using bridging principles for classification of mixtures. Classifies as Severe Eye Damage Category 1 using the bridging principles for the classification of mixtures.

| Component | Result | Species | Test | Exposure |
|--|--------------------------|---------|--|----------|
| Phenol, 2,4,6-Tris((dimethylamino)methyl)- | Skin – Corrosive | Rabbit | OECD 404 Acute Dermal Irritation/Corrosion | - |
| | Eyes – Severe Irritation | Rabbit | OECD 405 Acute Eye Irritation/Corrosion | - |

Sensitization

No information on product itself.

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)

Not available.

Aspiration hazard

Not available.

Potential acute health effects

Eye Contact

Causes eye burns.

Inhalation

Not available.

Skin Contact

Causes skin irritation.

Ingestion

Harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics

Not available.

Eye Contact

Not available.

Inhalation

Not available.

Skin Contact

Not available.

Ingestion

Not available.

Delayed and immediate effects and also chronic effects from short and long term exposure

Not available.

Potential chronic health effects

Not available.

General

May cause sensitization by skin contact.

| | |
|-----------------------|---|
| 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 (ATEmix)

| Route | ATE value |
|---------------------|-----------|
| Oral | N/A |
| Dermal | N/A |
| Inhalation (vapors) | N/A |

12. Ecological Information

Ecotoxicity No information on product itself.

| Component | Test | Endpoint | Exposure | Species | Result |
|---------------------------------------|----------------------------------|------------|----------|------------------------------|---------|
| 2,4,6-tris(dimethylaminomethyl)phenol | 201 Alga, Growth Inhibition Test | Acute EC50 | 72 hr | Aquatic plants – Green Algae | 84 mg/l |

Persistence and degradability No information on product itself.

Bioaccumulative Potential No information on product itself.

Mobility in Soil

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

13. Disposal Considerations

| | |
|--------------------------------------|---|
| 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 | | Non-regulated | |
| IATA | UN3334 | AVIATION REGULATED LIQUID, N.O.S. (Mercaptan-terminated polymer) | 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

| | |
|--|--|
| U.S. Federal Regulations | United States – TSCA 12(b) – Chemical export notification: None Required. United States – TSCA 5(a)2 – Final significant new use rules: Not Listed. United States – TSCA 5(a)2 – Proposed significant new use rules: Not Listed. 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) | This product does not contain nor is it manufactured with hazardous air pollutants. |
| California Prop. 65 | This product does not contain chemicals known to the state of California to cause cancer, birth defects, or other reproductive harm. |
| EPA SARA 302 Extremely Hazardous Substances | None Required |
| EPA SARA 302/304/311/312 Hazardous Chemicals | Acute Health Hazard |
| SARA 313 | None Required |
| Form R – Reporting requirements | |
| CERCLA Hazardous substances | None Required |
| United States inventory (TSCA 8b) | All components are listed or exempted. |

CANADA

| | |
|-----------------------|---|
| WHMIS (Canada) | Class D-2B: Material causing other toxic effects (Toxic). |
| 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



Physical Hazard 0

| | |
|-----------------------|----------------------------------|
| Date of Preparation | October 18, 2018 |
| Date of Last Revision | December 5, 2017 |
| Revision # | 3.0 |
| 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.