



MATERIAL SAFETY DATA SHEET

SYSTEM THREE RESINS, INC. 3500 WEST VALLEY HWY. N. AUBURN, WA 98801

SECTION I - PRODUCT IDENTIFICATION

Product Name: **G2 Glue Resin PART A**
Date of Prep: February 26, 2015
Product Type: Epoxy Resin Mixture
24-Hr. Emergency Phone:
CHEMTREC: (800) 424-9300

WHMIS Classification: D2B
Information: (253) 333-8118
Prepared By: J. Bartlett

HMIS Ratings:
Health 2
Fire 1
Reactivity 0

SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

CHEMICAL NAME	AMOUNT	CAS NUMBER	OSHA PEL	ACGIH TLV
Diglycidyl Ether of Bisphenol A (DGEBCPA)	80-90%	25068-38-6	none established	none established
Dibutyl Phthalate	10-20%	84-74-2	5 mg/m ³	5mg/m ³
m-Cresol	1-5%	108-39-4	5 ppm	22mg/m ³

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Range: not applicable
Vapor Density: Heavier than Air
Evaporation Rate: Slower than Ether
Appearance and Odour: Colourless liquid with characteristic phenolic odour.

Specific Gravity: 1.15
Material V.O.C.: None
Water Solubility: Negligible

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flash Point: > 300°F
Flammable Limits in Air By Volume - Lower: N/A Upper: N/A
Extinguishing Media: Foam, Carbon Dioxide, Dry Chemical, Water Fog

Method: Pensky-Martens Closed Cup

Special Firefighting Procedures: When fighting chemical fires wear full protective equipment with self-contained breathing apparatus. Water spray may be used to cool fire-exposed containers. Toxic fumes may be evolved when this substance is burned.

SECTION V - REACTIVITY DATA

Stability: Stable.
Incompatibility: Strong oxidizing agents, Lewis and mineral acids.

Hazardous Polymerization: Will not occur.

Hazardous Decomposition Products: Oxides of carbon, aldehydes, acids

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.

SECTION VI - HEALTH HAZARD DATA

ROUTES OF ENTRY: Eye contact, ingestion, skin contact.
ACUTE EFFECTS OF OVEREXPOSURE:
Eye contact: may cause severe irritation or corrosive damage.
Inhalation: May cause irritation to nose, throat, respiratory tract.
Ingestion: None known.
Skin contact: Prolonged contact causes skin burns.

Chronic: May cause skin sensitization from prolonged and repeated contact.

Carcinogenicity: Early studies with DGEHPA have been negative. The IARC concluded in 1988 that DGEHPA was not classifiable as a carcinogen.

EMERGENCY AND FIRST AID PROCEDURES:

Eye Contact: Flush with water for 15 minutes holding eyelids 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.

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.

Medical Conditions Generally Aggravated by Exposure: Other than skin sensitization which appears to be permanent, epoxy resin does not appear to cause long term health effects. Nor, does it appear to aggravate other medical conditions.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

If Material is Spilled: Avoid contact with material. Persons not wearing appropriate protective equipment should leave the area of the spill until cleanup is complete. 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 containers.

Waste Disposal Method: Place in an appropriate disposal facility in compliance with all federal, provincial, and local regulations.

SECTION VIII - SPECIAL PROTECTION INFORMATION

Respiratory Protection: Normally none is required when adequate ventilation is provided. In the absence of proper environmental control, a NIOSH approved respirator for organic vapours is required. For emergencies, a self-contained breathing apparatus or full-faced respirator is recommended.

Ventilation: Provide adequate ventilation in work areas. Confine material in sealed containers when not in use.

Hand Protection: Always wear impervious gloves, neoprene, vinyl or rubber.

Eye 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.

Other Protective Equipment: Wear clean, body-covering clothing to avoid skin contact.

SECTION IX - TRANSPORTATION REQUIREMENTS

Transportation of Dangerous Goods Classification: Not regulated

Consumer warnings: Caution: Irritant, skin sensitizer.

All components in this product are on the Domestic Substances List.

Other Requirements: U.S. EPA:

This product contains the following toxic chemicals subject to the report requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372.:

Dibutyl Phthalate	10-20%	84-74-2	5 mg/m ³	5mg/m ³
m-Cresol	1-5%	108-39-4	5 ppm	22mg/m ³

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.

MATERIAL SAFETY DATA SHEET

SYSTEM THREE RESINS, INC. 3500 WEST VALLEY HWY. N. AUBURN, WA 98801

SECTION I - PRODUCT IDENTIFICATION

Product Name: **G2 Glue Hardener PART B**
Information: (253) 333-8818
Product Type: Polyamide Resin Mixture
24-Hr. Emergency Phone:
CHEMTREC: (800) 424-9300

WHMIS Classification: D2B
Date of Preparation: February 26, 2015
Prepared By: J. Bartlett

HMIS Ratings:
Health 2
Fire 1
Reactivity 0

SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

CHEMICAL NAME	AMOUNT	CAS NUMBER	OSHA PEL	ACGIH TLV
Polyamide Polymer	100%	Trade Secret	not established	not established

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Range: N/A
Vapor Density: Heavier than Air
Evaporation Rate: Slower than Ether
Appearance and Odour: Tan, thick liquid with mild ammonia smell. Dead air space above liquid in containers may have strong ammonia smell.

Specific Gravity: 0.97
Material V.O.C.: None
Water Solubility: Negligible

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flash Point: > 250F° Method: Pinsky-Martins Closed Cup
Flammable Limits in Air By Volume: Lower: N/A Upper: N/A
Extinguishing Media: Foam, Carbon Dioxide, Dry Chemical, Water Fog

Special Firefighting Procedures:

When fighting chemical fires wear full protective equipment with self-contained breathing apparatus. Water spray may be used to cool fire exposed containers. Toxic fumes will be evolved when this substance is burned.

SECTION V - REACTIVITY DATA

Stability: Stable

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.

Incompatibility: Strong oxidizing agents, mineral acids.

Hazardous Decomposition Products: Oxides of carbon, nitrogen

Hazardous Polymerization: Will not occur.

SECTION VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE:

Acute: May cause burns to skin and eyes. High vapor concentration can cause severe irritation of eyes and respiratory tract. Liquid causes severe damage to mucous membranes if swallowed.

Chronic: Prolonged and repeated skin contact may cause skin sensitization, asthma or other allergic responses.

Carcinogenicity: Results of in vitro mutagenicity tests on polyamides have been negative. It is not expected that any of the ingredients are carcinogenic.

EMERGENCY AND FIRST AID PROCEDURES:

Eyes: Flush thoroughly with water for at least 15 minutes. Get immediate medical attention.

Skin: Remove contaminated clothing and flood area with water. Wash affected skin with soap and water. Wash clothing before reuse. Discard shoes. Get medical attention if redness, soreness, or blistering occur or persist.

Inhalation: Remove to fresh air. Administer oxygen if necessary. Get medical attention if breathing is difficult or cough develops.

Ingestion: DO NOT INDUCE VOMITING. Vomiting will cause further damage to throat or respiratory tract. Dilute by giving water or milk to drink if victim is conscious. GET IMMEDIATE MEDICAL ATTENTION.

Medical Conditions Generally Aggravated by Exposure: This material may be a strong skin sensitizer in certain susceptible persons. Once sensitized, most persons are unable to work around amine cured epoxy resins without an allergic reaction. Sensitized persons are not known to have other health problems as a result of sensitization.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

If Material is Spilled: Avoid contact with material. Persons not wearing appropriate protective equipment should leave the area of the spill until cleanup is complete. 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 containers.

Waste Disposal Method: Waste is not hazardous by RCRA criteria(40 CFR 261). Place in an appropriate disposal facility in compliance with federal, provincial, and local regulations.

SECTION VIII - SPECIAL PROTECTION INFORMATION

Respiratory Protection: Normally none is required when adequate ventilation is provided. In the absence of proper environmental control a NIOSH approved respirator for organic vapour is required. For emergencies, a self-contained breathing apparatus or full-faced respirator is recommended.

Ventilation: Provide adequate ventilation in work areas. Confine material in sealed containers when not in use.

Hand Protection: Always wear impervious gloves, neoprene, vinyl or rubber.

Eye 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.

Other Protective Equipment: Wear clean, body-covering clothing to avoid skin contact.

SECTION IX – OTHER REQUIREMENTS

All chemicals in this product are included in the DSL.

T.D.G. Classification: Not regulated

Consumer Warnings: CAUTION: Skin Irritant/Sensitizer

U.S. EPA Right-To-Know SARA Title III:

This product contains the following toxic chemicals subject to the report requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372:

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.