

Safety Data Sheet



GLOBALLY HARMONIZED SYSTEM OF CLASSIFICATION AND LABELING OF CHEMICALS (GHS)

THUNDER PLUG, PART A Resin

Date 05/24/2017

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product Name:	THUNDER PLUG, Resin Part A
Other Means of Identification:	Epoxy Adhesive part A
Product Use:	Epoxy adhesive used in Bowling Ball Repair
Trade Name:	THUNDER PLUG, Resin Part A Company: American Synthetics Company 4116 E Superior Ave. 7G Phoenix, AZ 85040-1727
Phone Number:	480-951-8400 and 602-438-7813
Emergency Telephone Number, 24 hours/day:	Chemtrec 1-800-262-8200

SECTION 2. HAZARDS IDENTIFICATION

OSHA Hazards: Skin sensitizer, Irritant.

GHS CLASSIFICATION OF THE SUBSTANCE OR MIXTURE USING 29CFR 1910 (OSHA HCS)

GHS Physical Hazards: None by GHS standards. Flash Point above 93C(199F). Material will not burn unless preheated.

GHS Health and Environmental Hazards

Acute Toxicity - 4

Dermal: Category 5. Warning. May be harmful in contact with skin.

Skin Corrosion: Category 3. Warning. Causes mild skin irritation.

Eye Irritation: Category 2B. Warning. Causes eye irritation.

Skin Sensitization: Category 1B. Warning. May cause an allergic skin reaction. Symbol: Exclamation Mark.

Target Organ Systemic Toxicity (TOST): Single Exposure: Category 3. Warning. May cause respiratory irritation. Symbol: Exclamation Mark.

Specific Target Organ Toxicity Repeated Exposure: Category 2. Warning. May cause damage to skin through prolonged or repeated exposure. Symbol: Health Hazard.

Environmental Hazards: No data available.

Aspiration Hazard: Signal Word: Warning. Category 2. May be harmful if swallowed and enters airways. Symbol: Health Hazard.

Emergency Overview:

Warning! Harmful if swallowed.

Aspiration Hazard. Severe respiratory irritant. May be harmful if inhaled or absorbed through skin. Vapor harmful as both liquid and vapor. May affect skin. Causes irritation to skin, eyes and respiratory tract.

Route of Entry: Inhalation: yes. Skin: yes. Ingestion: yes.

Carcinogenicity: NTP: no. IARC: no. OSHA: no.

There are no chemicals that cause cancer present at a concentration greater than 0.1%.

Reproductive Toxicity: No data available.

GHS SAFETY DATA THUNDER PLUG RESIN Compound PART A

Effects of Exposure:

Acute: Eye: Moderate to severe irritation, redness, tearing and blurred vision.

Skin: Prolonged/repeated exposure can cause moderate irritation, de-fatting and dermatitis.

Inhalation: Irritation to respiratory tract.

Ingestion: Toxic and harmful if swallowed.

Signs and Symptoms of Overexposure: Difficulty in breathing.

Health hazard: Aspiration of material into lungs can cause chemical pneumonia which can be fatal.

Medical Conditions Aggravated by Exposure: Asthma.

NFPA ratings (scale 0-4): Health-2, Fire-1, Reactivity-0.

HMIS ratings (scale 0-4): Health-2, Fire-1, Reactivity-0.

GHS LABEL ELEMENTS



Specific Target Organ Toxicity Repeated Exposure: Category 2. Warning. May cause damage to skin through prolonged or repeated exposure.

Aspiration Hazard: Signal Word: Warning. Category 2. May be harmful if swallowed and enters airways.



Skin Sensitization: Category 1B. Warning. May cause an allergic skin reaction.

Target Organ Systemic Toxicity (TOST): Single Exposure: Category 3. Warning. May cause respiratory irritation.

Product identifier: STONEWELD FLEX-SET, Part A

Signal word: Warning.

Hazard statements: Do not use around open flame or while smoking. Causes Skin and Eye Irritation. Do not breathe vapors or mist. Use only with adequate ventilation. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

FIRST AID

EYES: Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.

SKIN: In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Get medical attention if irritation develops and persists.

COMPANY NAME; American Synthetics Company
ADDRESS: 4116 East Superior Ave. Suite 7G
Phoenix, AZ 85040-1727
Phone number: 480-951-8400 and 602-438-7813
Emergency phone number: 1-800-262-8200.

GHS SAFETY DATA THUNDER PLUG RESIN Compound PART A

HAZARDS: Toxic if swallowed. May be fatal if swallowed and enters airways. Causes mild skin irritation.

Hazard Statements

H301 Toxic if swallowed
H304 May be fatal if swallowed and enters airways.
H316 Causes mild skin irritation
H317 May cause an allergic skin reaction
H320 Causes eye irritation
H335 May cause respiratory irritation

Precautionary Statements

P261 Avoid breathing dust/fume/gas/mist/vapours/spray
P280 Wear protective gloves.
P305 +P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses. If present and easy to do. Continue rinsing.

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS-Number	Weight %
Bisphenol A Diglycidyl Ether	25068-38-6	< 80%
Proprietary Ingredient	Proprietary	< 15%
Neopentyl Glycol Diglycidyl Ether	17557-23-2	< 8 %
Specialty Additives / Surface & Bubble	Trade Secret	< 6%
Titanium Dioxide	13463-67-7	< .02 %

The exact percentage of the chemicals has been withheld as a trade secret. Paragraph(1) of 1910 1200
*Per NOM-018-STPS-2000

SECTION 4. FIRST-AID MEASURES

Inhalation: Remove victim to fresh air and provide oxygen if breathing is difficult. Get Medical attention.

Skin Contact: Remove contaminated clothing / shoes and wipe excess from skin. Flush skin with water. Follow by washing with soap and water. If irritation occurs, get medical attention.

Eye Contact: Flush eyes with plenty of water for 15 minutes while holding eyelids open. Rest eyes for 30 minutes. If redness, burning, blurred vision, or swelling persists, consult a physician.

Ingestion: Do not induce vomiting. Have victim rinse out mouth with water, and then drink sips of water to remove taste from mouth. In general, no treatment is necessary unless large quantities of product are ingested. However, get medical advice.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing : media	Use water fog, foam, dry chemical or carbon dioxide.
Specific hazards during fire: fighting	Material will not burn unless preheated. Evacuate the area of all non-essential personnel. Containers exposed to intense heat from fires should be cooled with water to prevent vapor pressure buildup which could result in container rupture. Container areas exposed to direct flame contact should be cooled with large quantities of water as needed to prevent weakening of container structure. Cool fire exposed containers with water.
Special protective: equipment for fire fighters	Do not enter confined fire space without full bunker gear (helmet with face shield, bunker cots, gloves and rubber boots) including a positive pressure NIOSH approved self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:	May burn although not readily ignitable. Use cautious judgment when cleaning up large spills. Shut off leaks, if possible without personal risk.
Environmental Precautions:	Dike and contain. Contain run-off and dispose of properly. Remove contaminated soil to remove contaminated trace residues. Prevent from entering into drains, ditches or rivers.
Clean up methods – small spillage:	Take up with an absorbent material and place in non-leaking containers. Seal tightly for proper disposal.
Clean up methods – large spillage:	Remove with vacuum trucks or pump to storage/salvage vessels. Soak up residue with an absorbent such as clay, sand, or other suitable material; place in non-leaking containers for proper disposal. Flush area with water to remove trace residue.
Additional Advice:	Notify authorities if any exposures to the general public or environment occurs or is likely to occur. See section 13 for information on disposal.

SECTION 7. HANDLING AND STORAGE

Handling Advice on safe handling:	Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. Containers, even those that have been emptied can contain hazardous product residues. Surfaces that are sufficiently hot may ignite even liquid product in the absence of sparks or flame. WARNING: Toxic and harmful if swallowed. May cause skin sensitization. Wash with soap and water before eating, drinking, smoking, applying cosmetics, or using toilet facilities. Launder contaminated clothing before reuse. Contaminated leather articles, including shoes, cannot be decontaminated and should be destroyed to prevent reuse.
Requirements for storage areas and containers:	Store in a cool dry place with adequate ventilation. Keep away from open flames and high temperatures. Keep containers closed when not in use.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Chemical Name	CAS Number	OSHA-PEL
Bisphenol A Diglycidyl Ether	25068-38-6	None established
Proprietary Ingredient	Proprietary	Not found
Neopentyl Glycol Diglycidyl Ether	17557-23-2	None established
Specialty Additives / Surface	Trade Secret	Not found

- Protective Measures:** Wear appropriate respirator and protective clothing.
- Engineering Measures:** Adequate ventilation to control airborne concentrations. Eye wash fountains and safety showers should be available for emergency use.
- Eye Protection:** Avoid contact with eyes. Wear chemical goggles.
- Skin and body protection:** Avoid prolonged or repeated contact with skin. Wear chemical resistant gloves and other clothing as required minimizing contact.
- Respiratory protection:** Avoid breathing vapor or mists
 Use a NIOSH approved respirator as required to prevent overexposure.
 In accord with 29 CFR 1910. 134, the types of respirators to be considered include:
 Air-Purifying Respirator for Organic Vapors.
 Full-Face Supplied-Air Respirator.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and color:	Clear liquid
Odour:	Mild petroleum
Odour threshold:	High
pH:	Not applicable
Melting point/freezing point:	Not determined
Initial boiling point and boiling range:	Not determined
Flash Point, closed cup:	>93C(199F)
Evaporation Rate:	Slower than ether
Flammability(solid, gas):	Not applicable
Upper/Lower flammability Limits	Not determined
Vapour pressure:	Not determined
Vapour density:	Not determined
Relative density (water):	1.2
Solubility (water):	Negligible
Partition coefficient: n-octanol/water:	Not determined
Auto-ignition temperature:	Not determined
Decomposition temperature:	Not determined
Viscosity:	Not determined

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SECTION 10. STABILITY AND REACTIVITY

Reactivity: Reacts with Amines and Amides exothermically to form a polymer.
Chemical stability: Stable.
Possibility of Hazardous reactions: Stable under normal use conditions.
 Hazardous polymerization will not occur.
Conditions to avoid: Heat, flames and sparks.
 Avoid high temperatures.
Incompatible Materials to Avoid: Can react vigorously with strong oxidizing agents, strong lewis or mineral acid, and strong mineral and organic bases, especially primary and secondary aliphatic amines. Reaction with some curing agents may produce considerable heat and possible violent decomposition.
Hazardous decomposition Products: Oxides of Carbon.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely routes of exposure: Oral, Dermal, Inhalation.
Acute Oral toxicity: No data available
Acute dermal toxicity: Expected to be of low toxicity, LD50>2000 mg/kg
Acute Inhalation toxicity: No data available
Chronic Health Hazard
Mutagenicity: Not Determined
Potential Health Effects:
Inhalation: Not expected to be a relevant route of exposure, however, under conditions where exposure to vapors or mists is possible, could cause respiratory tract irritation.
Skin: May be mildly irritating to the skin.
 May cause skin sensitization.
 Prolonged or repeated skin contact can cause defatting and drying of the skin which may result in a burning sensation and a dried, cracked appearance.
Eyes: May be mildly irritating to the eyes.
Ingestion: Toxic and harmful if swallowed.

Information on toxicological effects:

Acute Toxicity: LD/LC50 values that are relevant for classification:

Chemical Name	CAS Number	LD50, mg/kg (oral) (rat)
Bisphenol A Diglycidyl Ether	25068-38-6	13,600
Proprietary Ingredient	Proprietary	Not found
Neopentyl Glycol Diglycidyl Ether	17557-23-2	4,500
Specialty Additives / Surface	Trade Secret	Not found

Carcinogenic Categories:

Chemical Name	CAS Number	OSHA	ACGIH	IARC	NTP
Bisphenol A Diglycidyl Ether	25068-38-6	No	No	No	No
Proprietary Ingredient	Proprietary	Not found	Not found	Not found	Not found
Neopentyl Glycol Diglycidyl Ether	17557-23-2	No	No	No	No
Specialty Additives / Surface	Trade Secret	Not found	Not found	Not found	Not found

SECTION 12. ECOLOGICAL INFORMATION

Elimination information (persistence and degradability)

Biodegradability: Not Determined.

Ecotoxicity effects

Toxicity to fish: Not Determined

SECTION 13. DISPOSAL CONSIDERATIONS

Product disposal: If this material becomes a waste, it would not be a hazardous waste by RCRA criteria (40 CFR 261). Place in an appropriate disposal facility in compliance with local and federal regulations.

SECTION 14. TRANSPORT INFORMATION

UN Number: Non Regulated Plastic Liquid
 Hazard Class: None
 Land Transport: Not Regulated
 Transport by sea: Not Regulated
 Transport by air: Not Regulated

SECTION 15. REGULATORY INFORMATION

SARA Hazard Categories (311/312):
 Immediate (Acute) Health Hazard. Delayed (chronic) Health Hazard

TOXIC SUBSTANCES CONTROL ACT (TSCA) Inventory Status:
 Some or all of this product's components are listed by TSCA Inventory of Chemical Substances

California Safe Drinking Water and Toxic Enforcement Act (Proposition 65)

WARNING: This product contains less than 2ppm of Epichlorohydrin (106-89-8) which has been determined by the State of California to cause birth defects.

WARNING: This product contains less than 2ppm of Epichlorohydrin (106-89-8) which has been determined by the State of California to cause cancer.

WARNING: This product contains less than 6ppm of Phenyl glycidyl ether (122-60-1) which has been determined by the State of California to cause cancer.

SECTION 15.1

California Proposition 65:
 Global Inventories

Chemical Name	CAS Number	Canada DSL.NDSL	USA-TSCA		
Bisphenol A Diglycidyl Ether	25068-38-6	DSL	YES		
Proprietary Ingredient	Proprietary	DSL	YES		
Neopentyl Glycol Diglycidyl Ether	17557-23-2	DSL	YES		

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NFPA – National Fire Protection Assoc.

Health	3				
Fire	1				
Reactivity	0				

HMIS – Hazardous Materials Identification System

Health	3*				
Fire	1				
Reactivity	0				

Hazard Rating: 0 = minimal, 1 – slight, 2 = moderate, 3 = severe, 4 = extreme

SECTION 16. OTHER INFORMATION

Reference: Prepared in accordance with GHS, Globally Harmonized System of Classification and labelling of Chemicals.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Up dated by Brian Zelek, chemist on 5/24/17

END OF SAFETY DATA SHEET

GLOBALLY HARMONIZED SYSTEM OF CLASSIFICATION AND LABELING OF CHEMICALS (GHS)

THUNDER PLUG HARDENER– PART B

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product Name THUNDER PLUG HARDENER PART B
Other Means of Identification: Epoxy Adhesive Part B Curing Agent.
Product Use: Epoxy adhesive used for Bowling Ball Repair

Trade Name: THUNDER PLUG HARDENER PART B

Company: American Epoxy Products
5260 S. 39th Street, Unit B
Phoenix, AZ 85040

Phone Number: 602-354-8837

Emergency Telephone Number 24 hours/day: Chemtrec: 1-800-262-8200

1.2.1 Relevant identified uses

Main use category Intended for general public use
Consumer use, Professional use
Use of the substance Fixing Agents

SECTION 2. HAZARDS IDENTIFICATION

OSHA Hazards: Irritant, corrosive, skin sensitizer

GHS CLASSIFICATION OF THE SUBSTANCE OR MIXTURE IN ACCORDANCE WITH 29CFR 1910 (OSHA HCS)

GHS Physical Hazards: None by GHS standards. Flash point is above 93C(199F). Material will not burn unless preheated. It is corrosive to skin but not metal.

GHS Health and Environmental Hazards

Acute toxicity: Oral Rat (Category 4), H302. Symbol: Exclamation Mark. Signal Word: Warning. Harmful if swallowed.

Skin corrosion: (Category 1B), H314. Symbol: Corrosion. Signal Word: Danger. Causes severe skin burns and eye damage.

Skin sensitization: (Category 1B), H317. Symbol: Exclamation Mark. Signal Word: Warning. May cause an allergic skin reaction.

Serious eye damage: (Category 1), H318. Symbol: Corrosion. Signal Word: Danger. Causes serious eye damage.

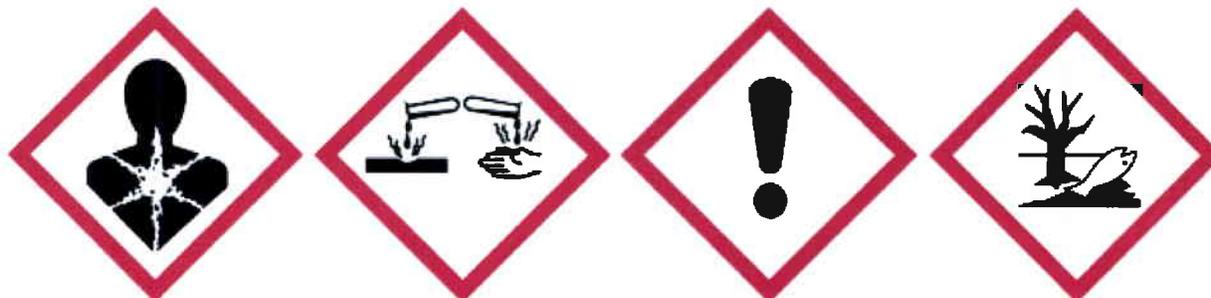
Reproductive toxicity: (Category 2), H361. Symbol: Health Hazard. Signal Word: Warning. Suspected of damaging fertility or the unborn child.

Acute aquatic toxicity: (Category 1), H400. Symbol: Environment. Signal Word: Warning. Very toxic to aquatic life.

Chronic aquatic toxicity: (Category 1), H410. Symbol: Environment. Signal Word: Warning. Very toxic to aquatic life with long lasting effects.

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GHS Label elements, including precautionary statements Pictograms



Signal Word: Warning

Hazard Statements:

- H302 Harmful if swallowed
- H315 Causes severe skin burns
- H319 Eye damage.
- H361 Suspected of damaging fertility or the unborn child.
- H412 Very toxic to aquatic life with long lasting effects.

Precautionary statements:

- P101 If medical advice is needed, have product label at hand.
- P102 Keep out of reach of children.
- P202 Do not handle until all safety precautions have been read and understood.
- P264 Wash skin thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P273 Avoid release to the environment.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- 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.
- 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.
- P310 Immediately call a POISON CENTER or doctor/ physician.
- P321 Specific treatment (see supplemental first aid instructions on this label).
- P363 Wash contaminated clothing before reuse.
- P391 Collect spillage.
- P405 Store locked up.
- P501 Dispose of contents/ container to an approved waste disposal plant.

Hazards not otherwise classified (HNOC) or not covered by GHS: None.

Product identifier: THUNDER PLUG HARDENER Part B

Signal word: Warning.

GHS SAFETY DATA SHEET THUNDER PLUG HARDENER

Hazard statements: Do not use around open flame or while smoking. Causes Skin and Eye Irritation. Do not breathe vapors or mist. Use only with adequate ventilation. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

FIRST AID

EYES: Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.

SKIN: In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Get medical attention if irritation develops and persists.

COMPANY NAME; American Epoxy Products
5260 S. 39th Street, Unit B
Phoenix, AZ 85040

Phone number: 602-354-8837
Emergency phone number: 1-800-262-8200.

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS-No.	Weight %	Labels	EC Risk Phrases
Polyoxypropylenediamine	9046-10-0	< 45%	C	R21/22, R34, R43
Proprietary Polymer	Proprietary	< 35%	Xi	R36/37/38
Nonyl Phenol	84852-15-3	< 10%	C	R21/22, R34, R43
Proprietary Additives	Proprietary	< 10%	Xi	R22
Proprietary Curing Agent	Proprietary	< 25%	C	R21/22, R34, R43

HMIS Ratings: Estimated Health:3 Flammability: 1 Reactivity: 0
NFPA Ratings: Health:3 Flammability: 1 Reactivity: 0
Product EC Label Required: Corrosive

Emergency Overview

Harmful if swallowed.

Components of the product may affect the nervous system.

Severe respiratory irritant.

Skin irritant.

Severe eye irritant.

May cause sensitization by extended skin contact.

Potential Health

Effects Inhalation:

May cause central nervous system effects, such as headache, nausea, dizziness, breathing difficulties. May cause nose, throat, and lung irritation. Inhalation of vapors in high concentration may cause irritation of respiratory system.

Eye Contact:

Severe eye irritation.

Skin contact:

If absorbed through the skin, may cause central nervous system effects, such as headache, nausea and dizziness.

Ingestion:

Harmful if swallowed. May cause central nervous system effects, such as headache, nausea, vomiting and abdominal pain.

Chronic Health Hazard: Prolonged contact may result in chemical burns and permanent damage. Repeated or prolonged contact causes sensitization, asthma and eczemas.

GHS SAFETY DATA SHEET THUNDER PLUG HARDENER

Explanation of Labeling Requirements, Safety Phrases and Risk Phrases

Xi – Irritant

C – Corrosive

S(1/2): Keep locked up and out of the reach of children.

S15: Keep away from heat

S24/25: Avoid contact with skin and eyes.

S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S27/28: After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of soap and water.

S36/37/39: Wear suitable protective clothing, gloves and eye/face protection.

R22: Harmful if swallowed.

R36/37/38: Irritating to eyes, respiratory system and skin.

R43: May cause sensitization by skin contact.

SECTION 4. FIRST AID MEASURE

Inhalation:	Get medical attention immediately. Remove victim to fresh air and provide oxygen if breathing is difficult. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
Skin Contact:	Get medical attention immediately. Remove contaminated clothing / shoes and wipe excess from skin. Flush skin with water. Follow by washing with soap and water. Chemical burns must be treated promptly by a physician. Wash clothing before reuse.
Eye Contact:	Get medical attention immediately. Flush eyes with plenty of water for 15 minutes while holding eyelids open. Rest eyes for 30 minutes. Chemical burns must be treated promptly by a physician.
Ingestion:	Get medical attention immediately. Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing	Water spray, Dry powder. Foam. Carbon Dioxide
Specific hazards during fire fighting:	<p>In a fire, or if heated, a pressure increase will occur and the container may burst.</p> <p>Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action should be taken involving any personal risk or without suitable training.</p>
Special protective:	Firefighters should wear appropriate protective equipment and self contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

GHS SAFETY DATA SHEET THUNDER PLUG HARDENER

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:	No action shall be taken involving any personal risk or without suitable training. Avoid breathing vapor mist. Provide adequate ventilation.
6.1.1 For non-emergency personal	Ventilate spillage area. Avoid contact with skin and eyes.
6.1.2 For emergency responders	Do not attempt to take action without suitable protect equipment
6.2 Environmental precautions	Avoid release to the environment.
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.
Methods for cleaning up:	Stop leak if without risk. Move container from spilled area. Approach release from up wind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. 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. (see section 13) Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose same hazard as the spilled product.

SECTION 7. HANDLING & STORAGE

7.1 Precautions for safe handling Ensure good ventilation of the work area.

Put on appropriate protective equipment (section 8). Workers should wash hands and face before eating, drinking, and smoking. Do not get in eyes or on skin or clothing. Do not ingest. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed. Keep away from acids. Empty containers retain product residue and can be hazardous. Do not reuse container.

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. 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.

7.2 Safe storage Store in a well ventilated place. Keep cool
Storage temperature 2 – 40 C.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control Parameters:	No additional information available
Hand Protection	Disposable gloves, Nitrile Rubber (nbr) Thickness .13 mm
Skin and Body protection	Wear suitable protective clothing.
Respiratory protection	In case of insufficient ventilation, wear suitable respiratory mask
Preventative Measures:	Conditions of use, adequacy of engineering or other control measures, and actual exposures will dictate the need for specific protective devices at the work place.

GHS SAFETY DATA SHEET THUNDER PLUG HARDENER

Engineering Controls: Use local exhaust ventilation to maintain airborne concentrations below TLV. Suitable respiratory equipment should be used in cases of insufficient ventilation or where operational procedures demand it. For guidance on engineering control measures refer to publications such as the ACGIH current edition of 'Industrial Ventilation, a manual or Recommended Practice.'

Personal Protection:

Eyes: 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.

Skin: Protective equipment for the body should be selected based on the task being performed and the risks involved. Should be approved by a specialist before handling this product.

Respiratory: Use a properly fitted, air purifying or air fed respirator complying with an approved standard if a risk assessment indicated this is necessary. Respirator selection must be based on known or anticipated exposure levels.

Hands: Chemical resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicated this.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and color:	Light Yellow liquid
Odour:	Ammoniacal
Odour threshold:	No data available
pH:	11.2
Melting point/freezing point:	No data available
Initial boiling point and boiling range:	+260 C
Flash Point, closed cup:	>163 C
Evaporation Rate:	No data available
Flammability(solid, gas):	No data available
Upper/Lower flammability Limits	No data available
Vapour pressure:	No data available
Vapour density (air=1):	>1.3
Relative density (water):	0.97-.98
Solubility (water):	No data available
Partition coefficient: n-octanol/water:	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
Viscosity:	Approximately 700-800 Centipoise

SECTION 10. STABILITY AND REACTIVITY

10.1 Stability and Reactivity: The product is stable and non reactive under normal conditions
10.2 Chemical Stability Stable under normal conditions
10.3 Possibility of hazard reactions No dangerous reaction know under normal conditions
10.4 Conditions to avoid **None under recommended storage conditions**
10.5 Incompatible materials **Acids**

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Hazardous Polymerization: Will not occur.

Hazardous decomposition: Fumes, carbon dioxide, acrid smoke and phenolics

Conditions to avoid: High heat, strong oxidizers, acids. May react with acids.

SECTION 11. TOXOLOGICAL INFORMATION

Toxicity Data Acute Toxicity

Product/ Ingredient Name	CAS Number	Test	Species	Result	Exposure
Polyoxypropylenediamine	9046-10-0	LD50 Dermal	Rabbit	2980 mg/kg	Not found
Polyoxypropylenediamine	9046-10-0	LD50 Oral	Rat	2880 mg/kg	Not found
Nonyl Phenol	84852-15-3	LD50 Dermal	Rabbit	2140 mg/kg	Not found
Nonyl Phenol	84852-15-3	LD50 Oral	Rat	580 mg/kg	Not found

Potential acute health effects

Ingestion: Harmful if swallowed. May cause burns to mouth, throat & stomach.

Inhalation: Irritation to respiratory system

Eyes: Corrosive to eyes. Causes Burns

Skin: Corrosive to the skin. Causes Burns

Potential chronic health effects

Target Organs: None known.

Carcinogenicity: No known significant effects or critical hazards.

SECTION 12. ECOLOGICAL INFORMATION

Ingredient	CAS Number	Species	LC50	EC50
Polyoxypropylenediamine	9046-10-0	Rainbow Trout	>15mg/l 96 h	Not applicable
Polyoxypropylenediamine	9046-10-0	Daphnia magna	Not applicable	80mg/l-48h
Nonylphenol	84852-15-3	Lepomis macrochirus	0.209 mg/l 95h	Not applicable
Nonylphenol	84852-15-3	Daphnia magna	Not applicable	0.0844mg/l 48h

Persistence and degradability:

Biodegradability of Polyoxypropylenediamine: OECD Test Guideline 301B. Result: 0%. According to the results of tests of biodegradability this product is not readily biodegradable. Harmful to aquatic life with long lasting effects.

SECTION 13. DISPOSAL CONSIDERATIONS

Waste Disposal: The generation of waste should be avoided or minimized wherever possible. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. 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. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

GHS SAFETY DATA SHEET THUNDER PLUG HARDENER

SECTION 14. TRANSPORT INFORMATION

Regulatory Information	UN Number	Proper Shipping Name	Class	PG	Label	Additional Information
DOT Classification	UN 2735	Amines, liquid corrosive, n.o.s	8	III	corrosive	None

USA Domestic Ground: Shipping Name: Consumer Commodity
Hazard Class; ORM-D
ID Number: N/A
Label required: None

USA Domestic Air: Shipping Name: Consumer Commodity
Hazard Class; ORM-D
ID Number: N/A
Packing Group: N/A
Label required: ORM-D-AIR

International Surface: Shipping Name: Corrosive Liquids, N.O.S., (Amines)
Hazard Class; 8
ID Number: UN 2735
Packing Group: III
Label required: Corrosive
EMS #8-15

International Air: Shipping Name: Corrosive Liquids, N.O.S., (Triethylene Tetramine)
Hazard Class; 8
ID Number: UN 2735
Packing Group: III
Label required: Corrosive
EMS #8-15

SECTION 15. REGULATORY INFORMATION

United Status:

HCS Classification:	Corrosive material
U.S. Federal Regulations:	United States Inventory (TSCA 8b): all components are listed or exempted.
CERCLA: Hazardous Substances:	No ingredients listed
SARA 311 / 312:	Acute, reactive
SARA 313 Toxic Chemicals	None known
	This product does not contain nor is it manufactured with ozone depleting substances.
California Prop 65:	No ingredients listed.

GHS SAFETY DATA SHEET THUNDER PLUG HARDENER

Canada:

WHMIS (Canada):

Class E: Corrosive material

D1B – Material is toxic with short exposure and moderate dose

D2A – Material is teratogenic, embryotoxic, or fetotoxic

D2B – Skin sensitizer

CEPA (DSL):

Canada Inventory: All components are listed or exempted

SECTION 16. OTHER INFORMATION

Notice to Reader:

While the information and recommendations in this publication are to the best of our knowledge, information, and belief accurate at the date of publication, NOTHING IS HEREIN TO BE CONSTRUED AS A WARRANTY, EXPRESS OR OTHERWISE.

IN ALL CASES IT IS THE RESPONSIBILITY OF THE USER TO DETERMINE THE APPLICABILITY OF SUCH INFORMATION AND RECOMMENDATIONS AND THE SUITABILITY OF ANY PRODUCT FOR ITS OWN PARTICULAR PURPOSE.

THE PRODUCT MAY PRESENT HAZARDS AND SHOULD BE USED WITH CAUTION. WHILE CERTAIN HAZARDS ARE DESCRIBED IN THIS PUBLICATION, NO GUARANTEE IS MADE THAT THESE ARE THE ONLY HAZARDS THAT EXIST

Up dated February 2021.

MATERIAL SAFETY DATA SHEET

Prepared: March 2014 M. Brian Zelek

24 HOUR EMERGENCY ASSISTANCE CHEMTREC: 800-424-9300			AMERICAN SYNTHETICS COMPANY 14255 N. 79th St. Scottsdale, AZ 85260 Ph 480.951-8400		
ACUTE HEALTH 1	FIRE 0	REACTIVITY 0	HAZARD RATING LEAST - 0 SLIGHT - 1 MODERATE - 2 HIGH - 3 EXTREME - 4		

SECTION I		EPOXY RESIN	
PRODUCT NAME	Epoxy COLOR PIGMENTS Blue, Green, Orange, Red, Teal, Turquoise, Purple, Yellow, White and Black		
CHEMICAL NAME	EPICHLOROHYDRIN BASED EPOXY RESINS		
CHEMICAL FAMILY	EPOXY RESIN		

SECTION II-A	PRODUCT / INGREDIENT
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Number	Composition	CAS Number	Percent
P	COMPOUND INGREDIENT, PAINT FILL MIXTURE		
1	Polymer of EPICHLORHYDRIN & BISPHENOL A	025085-99-8	30-38%
2	Assorted Color PIGMENTS		46-58%
3	Assorted Clay FILLERS		4-9%
4	ALKYL GLYCIDYL ETHER (C12-C14)	068609-97-2	8-15%
5	* TRADE SECRET		3-7%

* SPECIFIC CHEMICAL IDENTITY AND / OR PROPORTION OF THIS COMPONENT IS BEING HELD AS TRADE SECRET INFORMATION.

SECTION II-B	TOXICITY DATA
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Number	Acute Oral LD50	Acute Dermal LD50	Acute Inhalation
P	NO DATA AVAILABLE	NO DATA AVAILABLE	NO DATA AVAILABLE
1	.11.4 G/KG (RAT)	20 ML/KG (RABBIT)	n.a.
2			
3			
4	15000 mg / kg (rat)	n.a.	70810 mg / m3 (rat, 4 hr)

* THIS INHALATION TEST MAY NOT BE RELEVANT DUE TO LOW VOLATILITY OF THE RESIN.

SECTION III	HEALTH INFORMATION
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EYE CONTACT

BASED ON PRODUCT TESTING, PRODUCT IS MODERATELY IRRITATING TO THE EYES.

SKIN CONTACT

MODERATELY IRRITATING TO THE EYES.

INHALATION

RELATIVELY LOW VOLATILITY, THIS PRODUCT IS NOT LIKELY TO BE AN INHALATION HAZARD, HOWEVER IF BREATHING BECOMES DIFFICULT, REMOVE TO FRESH AIR

INGESTION

CONSIDERED TO HAVE A LOW ORDER OF ACUTE ORAL TOXICITY. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. DRINK SEVERAL GLASSES OF WATER. DO NOT INDUCE VOMITNG.

SIGNS / SYMPTOMS

IRRITATION AS NOTED. SKIN SENSITIZATION (ALLERGY) MAY BE EVIDENCED BY RASHES, ESPECIALLY HIVES.

OTHER EFFECTS

SECTION IV OCCUPATIONAL EXPOSURE LIMITS

Number	OSHA PEL	ACGIH/TLV	VAPOR PRESSURE 25 C mm Hg	Temp	OTHER Wt Percent
P					
1	NO OSHA NOR ACGIH LIMITS HAVE BEEN ESTABLISHED FOR THIS PRODUCT.			Believed to be relatively harmless	
2	NO OSHA NOR ACGIH LIMITS HAVE BEEN ESTABLISHED FOR THIS PRODUCT.			Believed to be relatively harmless	
3					
4	100 PPM	100 PPM	23	68 F	8-15%

* THE SKIN NOTATION INDICATES THE SUBSTANCE MAY BE ABSORBED THROUGH THE SKIN, MUCOUS MEMBRANES, OR EYES, BY DIRECT OR AIRBORNE EXPOSURE, AND SUGGESTS THAT APPROPRIATE MEASURES BE TAKEN TO PREVENT SUCH ABSORPTION.

SECTION V EMERGENCY AND FIRST AID PROCEDURES

EYE CONTACT

IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES WHILE HOLDING EYELIDS OPEN. RINSE CONTINUOUSLY WITH WATER WHILE ON WAY TO GET MEDICAL ATTENTION.

SKIN CONTACT

IMMEDIATELY REMOVE CONTAMINATED CLOTHING OR SHOES, WIPE EXCESS FROM SKIN. FLUSH SKIN WITH WATER. FOLLOW BY WASHING WITH SOAP AND WATER. DO NOT REUSE CLOTHING UNTIL THOROUGHLY DECONTAMINATED. LEATHER ARTICLES, INCLUDING SHOES, CANNOT BE DECONTAMINATED AND SHOULD BE DESTROYED.

INHALATION

REMOVE VICTIM TO FRESH AIR AND PROVIDE OXYGEN IF BREATHING IS DIFFICULT. GET MEDICAL ATTENTION IF NECESSARY

INGESTION

DO NOT INDUCE VOMITING. IN GENERAL, NO TREATMENT IS NECESSARY UNLESS LARGE QUANTITIES OF PRODUCT ARE INGESTED. HOWEVER, GET MEDICAL ADVICE.

SECTION VI SUPPLEMENTAL HEALTH INFORMATION

SECTION VII PHYSICAL DATA

BOILING POINT N.A.	SPECIFIC GRAVITY	9.6 -10.2 lbs. / gal
MELTING POINT N.A.	SOLUBILITY (In Water)	NEGLIGIBLE
EVAPORATION RATE NOT AVAILABLE	VAPOR PRESSURE	.03 AT 77 DEG. C
APPEARANCE Mobile, viscous liquid	VAPOR DENSITY	NOT APPLICABLE

SECTION VIII FIRE AND EXPLOSION HAZARDS

FLASH POINT AND METHOD

T.C.C., F. NOT AVAIL

EXTINGUISHING MEDIA

USE WATER FOR, "ALCOHOL" FOAM, DRY CHEMICAL OR CO2.

FIRE FIGHTING PROCEDURES & PRECAUTIONS

DO NOT ENTER CONFINED FIRE SPACE WITHOUT FULL BUNKER GEAR, INCLUDING A POSITIVE PRESSURE NIOSH APPROVED SELF-CONTAINED BREATHING APPARATUS. COOL FIRE EXPOSED CONTAINERS WITH WATER.

UNUSUAL FIRE AND EXPLOSION HAZARDS

SEE SECTION

FLAMMABLE LIMITS

Lower: NA Upper: NA

SECTION IX REACTIVITY

STABILITY: STABLE

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

CONDITIONS AND MATERIALS TO AVOID

CAN REACT WITH STRONG OXIDIZING AGENTS, STRONG LEWIS OR MINERAL ACIDS, AND STRONG MINERAL AND ORGANIC BASES.

HAZARDOUS DECOMPOSITION PRODUCTS

CARBON MONOXIDE, ALDEHYDES, ACIDS AND OTHER ORGANIC SUBSTANCES MAY BE FORMED DURING COMBUSTION OR ELEVATED (500 DEG. F) TEMPERATURE DEGRADATION.

SECTION X EMPLOYEE PROTECTION

RESPIRATORY PROTECTION

NOT ORDINARILY REQUIRED.

AVOID CONTACT WITH EYES. WEAR SAFETY GLASSES OR GOGGLES AS APPROPRIATE. AVOID PROLONGED OR REPEATED CONTACT WITH SKIN.

PROTECTIVE CLOTHING

ADDITIONAL PROTECTIVE MEASURES

SECTION XI ENVIRONMENTAL PROTECTION

SPILL OR LEAK PROCEDURES

WILL BURN ALTHOUGH NOT READILY IGNITABLE, BUT WILL NOT SUPPORT COMBUSTION. USE CAUTIOUS JUDGMENT WHEN CLEANING UP LARGE SPILLS.

SECTION XII SPECIAL PRECAUTIONS

STORE IN A COOL, DRY PLACE. KEEP AWAY FROM OPEN FLAMES.

CONTAINERS, EVEN THOSE THAT HAVE BEEN EMPTIED, CAN CONTAIN HAZARDOUS PRODUCT RESIDUES. WASH WITH SOAP AND WATER BEFORE EATING, DRINKING, SMOKING, APPLYING COSMETICS, OR USING TOILET FACILITIES.

SECTION XIII TRANSPORTATION REQUIREMENTS

DEPARTMENT OF TRANSPORTATION CLASSIFICATION:

NOT REGULATED

D.O.T. PROPER SHIPPING NAME

NOT DETERMINED - KEEP AWAY FROM FOOD