ETI-GV *Injection Epoxy*
SAFETY DATA SHEET

1. Identification

Product Identification

Product Identifier: **ETI-GV (ETIGV22, ETIGV)**
Recommended Use: Gel Viscosity Injection Epoxy
Use Restrictions: None Known.

Company Identification

Company: Simpson Strong-Tie Company Inc.
Address: 5956 W. Las Positas Blvd.
Pleasanton, CA 94588
Phone: 1-800-999-5099
Website: www.strongtie.com
Emergency: 1-800-535-5053 (US/Canada)
1-352-323-3500 (International)

For most current SDS, please visit our website at **www.strongtie.com/sds**

2. Hazard Identification

General Information

ETI-GV Injection Epoxy is a two part system. The two parts of this product have been assessed according to GHS and are classified below. The final hardened material is considered nonhazardous. Some hazards apply upon grinding or cutting through hardened product.

Resin (white side) GHS Classification

Physical Hazards:	Not Classified.	
Health Hazards:	Skin Corrosion/Irritation	Category 2
	Serious Eye Damage/Irritation	Category 2A
	Sensitization, Skin	Category 1
	Germ Cell Mutagenicity	Category 2
Environmental Hazards:	Chronic Aquatic Environmental Hazard	Category 2

Signal Word: **WARNING!**
Hazard Statements: Causes skin irritation. Causes serious eye irritation. May cause an allergic skin reaction. Suspected of causing genetic defects. Toxic to aquatic life with long lasting effects.

Precautionary Statements:

Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection. Contaminated work clothing should not be allowed out of the workplace. Avoid breathing mist or vapor. Wash thoroughly after handling. Avoid release to the environment.

Response: If exposed or concerned: Call a poison center/doctor. If on skin: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash before re-use. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. Collect Spillage.

Storage: Store locked up. Store in a well-ventilated place. Store between 45-90°F (7-32°C).

Disposal: Dispose of contents/container in accordance with local/regional/national/international regulations.

Hardener (black side) GHS Classification

Physical Hazards:	Flammable Liquids	Category 4
Health Hazards:	Acute Toxicity, Dermal	Category 4
	Skin Corrosion/Irritation	Category 1C
	Serious Eye Damage/Irritation	Category 1
	Sensitization, Skin	Category 1
	Reproductive Toxicity	Category 2
	STOT, Single Exposure	Category 2 (narcotic effects)
Environmental Hazards:	Acute Aquatic Environmental Hazard	Category 1
	Chronic Aquatic Environmental Hazard	Category 1

Signal Word: **DANGER!**

Hazard Statements: Combustible liquid. Harmful in contact with skin. Causes severe skin burns and eye damage. May cause an allergic skin reaction. May cause drowsiness or dizziness. Suspected of damaging fertility or the unborn child. Very toxic to aquatic life with long lasting effects.

Precautionary Statements:

Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe mist or vapor. Use only outdoors or in a well-ventilated area. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment.

Response: If exposed or concerned: Get medical advice/attention. If swallowed: Rinse mouth. Do NOT induce vomiting. If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. Wash contaminated clothing before re-use. Collect Spillage.

Storage: Store locked up. Store in a well-ventilated place. Keep container tightly closed. Store between 45-90°F (7-32°C).

Disposal: Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazards Not Otherwise Classified (HNOC)

The above hazards are for the uncured Resin component of ETI-GV. Upon combination with the Hardener component of ETI-GV an innocuous solid is formed which does not present any immediate hazards. Upon grinding or cutting the cured product the following hazards may apply.

Health Hazards:	Carcinogenicity	Category 2
Hazard Statements:	Suspected of causing cancer.	
Precautionary Statements:	Do not breathe dust.	

3. Composition Information

General Information

This product is a mixture. Hazardous ingredients for each component are listed below. May include other nonhazardous ingredients. May include other trace ingredients, see Section 15.

Resin (white side)

Chemical Name	CAS Number	Weight %
Bisphenol A/Epichlorohydrin	25068-38-6	40-60
Phenol, polymer with formaldehyde, glycidyl ether	28064-14-4	40-60
Butyl Glycidyl Ether	2426-08-6	1-10
Titanium Dioxide	13463-67-1	1-10

Hardener (black side)

Chemical Name	CAS Number	Weight %
Benzyl Alcohol	100-51-6	10-30
Phenol, 2,4,6-trisdimethylaminomethyl	90-72-2	1-10
Nonylphenol	84852-15-3	1-10
Triethylenetetramine	112-24-3	1-10
Carbon Black	1333-86-4	0.1 - < 1

4. First-Aid Measures

General Information

Provide general supportive measures and treat symptomatically. Symptoms may be delayed. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. You should call the Poisons Information Center is you feel you may have been harmed, burned, or irritated by this product. The number is 13 11 26 (24hr). Ready access to running water and accessible eyewash is required. Wash contaminated clothing before reuse.

Routes of Exposure

Eye Contact: Immediately flush eyes with plenty of cool water for at least 15 minutes while holding the eyes open. Remove contact lenses if present and easy to do. If redness, burning, blurred vision, or swelling persists, **consult a physician.**

Skin Contact: Remove contaminated clothing and product, immediately wash affected area with soap and water. Do not apply greases or ointments. Chemical burns must be treated by a **physician.**

Ingestion: Rinse mouth immediately. Give large amounts of milk or water, if person is conscious. Only induce vomiting at the instruction of medical personnel. **Consult a physician.**

Inhalation: Remove patient to fresh air. Give oxygen or artificial respiration if needed. If patient continues to experience difficulty breathing, **consult a physician.**

Most Important Symptoms

Irritant effects. Sensitization. Symptoms include itching, burning, redness and tearing. May cause drowsiness or dizziness. Rash. Headaches, nausea and vomiting. Corrosive effects. Permanent eye damage including blindness could result.

5. Fire-Fighting Measures

Suitable Extinguishing Media: Extinguish with foam, carbon dioxide, dry powder, or water fog.

Unsuitable Extinguishing Media: None known.

Fire and Explosion Hazard: None known.

Hazards during Fire-Fighting: Hazardous decomposition products may occur when materials polymerize at temperatures above 500° F (260°C). Irritating and toxic gases/fumes may be released during a fire. Water run-off can cause environmental damage.

Fire-Fighting Procedures: Use standard fire-fighting procedures and consider the hazards of other involved materials. In case of fire and/or explosion do not breathe fumes. Self-contained breathing apparatus and full protective clothing must be worn. Move containers from fire area if you can do so without risk. Cool containers with flooding quantities of water until well after fire is out. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply.

Hazchem Code: 2Y (resin) / 2X (hardener)

Combustion Products: Carbon dioxide. Carbon monoxide. Nitrogen Oxides (NOx). Ammonia.

6. Accidental Release Measures

Personal Precautions

Keep unnecessary personnel away. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate personal protective equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Avoid inhalation of vapors or mists. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained.

Clean-Up Methods

Small spills: Wipe up with absorbent material (e.g. cloth, fleece). Place in leak-proof containers. Seal tightly for proper disposal. Clean surface thoroughly to remove residual contamination.

Large spills: Stop the flow of material, if this is without risk. Dike far ahead of spill for later disposal. Use a non-combustible material like vermiculite, sand or earth to soak up the product. Place in leak-proof containers. Seal tightly for proper disposal. Following product recovery, flush area with water.

Environmental Precautions

Avoid release to the environment. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so.

7. Handling and Storage

Handling

Mechanical ventilation or local exhaust ventilation is recommended. Keep away from open flames, hot surfaces and sources of ignition. Wear appropriate personal protective equipment. Pregnant women should not work with the product, if there is the least risk of exposure. Avoid any exposure. When using, do not eat, drink or smoke. Avoid contact with eyes, skin, and clothing. Observe good industrial hygiene practices.

Storage

Store in a closed container away from incompatible materials. Keep in original container. Keep container tightly closed. Store in a dry place out of direct sunlight. Store between 45-90°F (7-32°C). Keep away from heat and sources of ignition. Store in a well-ventilated place. Store locked up. Keep out of the reach of children.

8. Exposure Controls / Personal Protection

Exposure Limits

Component	OSHA (PEL)	US. ACGIH (TLV)	NIOSH Pocket Guide
N-Butyl Glycidyl Ether (2426-08-6)	270 mg/m^3 50 ppm	3 ppm	30 mg/m^3 (ceiling) 5.6 ppm (ceiling)
Titanium Dioxide (13463-67-7)	5 mg/m^3 (respirable) 10 mg/m^3 (total dust)	10 mg/m^3	N/E
Phenol* (CAS 108-95-2)	19 mg/m^3 5 ppm	5 ppm	60 mg/m^3 (ceiling) 15.6 ppm (ceiling)
Carbon Black (CAS 1333-86-4)	3.5 mg/m^3	3.5 mg/m^3 (inhalable)	0.1 mg/m^3 (TWA)
Benzyl Alcohol (CAS 100-51-6)	N/E	N/E	44.2 mg/m^3
Triethylenetetramine* (CAS 112-24-3)	N/E	N/E	6 mg/m^3 1 ppm

***Skin Designation**: Material can be absorbed through the skin**.**

Personal Protective Equipment

Protective Measure: Wear appropriate personal protective equipment.
Eye Protection: Wear chemical splash goggles or safety glasses with side shield.
Hand Protection: Wear chemical-resistant gloves such as: Nitrile, neoprene, butyl.
Skin and Body Protection: Wear long sleeve shirt/long pants and other clothing as required to minimize contact.
Respirator Protection: The use of a respirator is not required during normal use of this product. If grinding or cutting cured product the use of an approved respirator is recommended.

General Hygiene: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

Engineering Controls

When using indoors good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. Ready access to running water is required. Provide eyewash station.

Additional Information

After Cure: Product forms an innocuous solid. Processing after cure (grinding or cutting) may produce dust containing compounds that present an inhalation hazard.

9. Physical and Chemical Properties

Property	Resin	Hardener
Physical State:	Liquid, Paste	Liquid, Paste
Color:	White	Black
Odor:	Sweet	Ammonia
pH:	6.9	10.7
Flammability limit – lower %:	No data	No data
Flammability limit – upper %:	No data	No data
Vapor Pressure:	Non-volatile	No data
Vapor Density:	No data	No data
Solubility:	Insoluble in water	Slightly soluble in water
Freezing/Melting Point:	No data	No data
Boiling Point:	> 500 °F (>260 °C)	No data
Flash Point:	250 °F (121 °C) Open Cup	175 °F (79.4 °C) Closed Cup
Evaporation Rate:	No data	No data
Decomposition Temperature:	No data	No data
Specific Gravity:	1.21 at 72°F (22°C)	1.02 at 72°F (22°C)
VOC (after cure):	4 g/L	4 g/L
Kow:	No data	No data
Viscosity:	No data	No data

10. Stability and Reactivity

Resin (white side)

Reactivity: This product is stable and non-reactive under normal conditions.
Chemical Stability: Stable under normal storage conditions.
Condition to Avoid: High heat and open flame.
Substances to Avoid: Oxidizing agents, acids, organic bases, and amines.
Hazardous Reactions: Hazardous polymerization does not occur.
Decomposition Products: Carbon dioxide, carbon monoxide, oxides of nitrogen, and other organic compounds.

Hardener (black side)

Reactivity: This product is stable and non-reactive under normal conditions.
Chemical Stability: Stable under normal storage conditions.
Condition to Avoid: Contact with incompatible materials. High heat and open flame.
Substances to Avoid: Strong oxidizing agents. Strong acids.
Hazardous Reactions: Hazardous polymerization does not occur.
Decomposition Products: Carbon dioxide, carbon monoxide, oxides of nitrogen, and other organic compounds.

11. Toxicological Information

Likely Routes of Exposure

Ingestion: May be harmful if swallowed. Causes digestive tract burns
Inhalation: May be harmful if inhaled. Causes respiratory tract burns. Inhalation of dust from grinding or cutting may irritate the respiratory tract.
Skin contact: Harmful in contact with skin. Causes skin irritation. Causes severe skin burns. May cause sensitization by skin contact.
Eye contact: Causes serious eye irritation. Causes eye burns.

Information on Toxicological Effects

Acute toxicity: Occupational exposure to the substance or mixture may cause adverse effects.

Product	Species	Test Result
ETIGV Resin (CAS mixture)		
Acute, *Dermal*, LC50	Rabbit	>2000 mg/kg
Acute, *Oral*, LD50	Rat	>5000 mg/kg
Benzyl alcohol (CAS 100-51-6)		
Acute, *Dermal*, LC50	Rabbit	2000 mg/kg
Acute, *Oral*, LD50	Rat	1230-3100 mg/kg
Acute, *Inhalation*, LD50	Rat	>4173 mg/m^3, 4 hours

Skin corrosion/irritation: Causes skin irritation. Causes severe skin burns.
Eye damage/eye irritation: Causes serious eye irritation. Causes serious eye damage.
Respiratory sensitization: No data available.
Skin sensitization: May cause an allergic skin reaction.
Germ cell mutagenicity: Contains a component that is suspected of causing genetic defects.
Carcinogenicity: Both the resin and hardener components of this product contain a component that is suspected of causing cancer. Titanium Dioxide and Carbon Black are considered carcinogens only in their inhalable form. Due to the nature of this product inhalation is highly unlikely. Exposure to respirable Titanium Dioxide and Carbon Black is likely only when grinding or cutting cured product, ensure good work practice and use of personal protective equipment as needed to control exposure.

IARC Monographs. Overall Evaluation of Carcinogenicity

Titanium Dioxide (13463-67-7) 2B Possibly Carcinogenic to humans.
Carbon Black (1333-86-4) 2B Possibly Carcinogenic to humans.

Reproductive toxicity: Suspected of damaging fertility or the unborn child.
Aspiration hazard: No data available.
Specific target organ toxicity:
Single exposure May cause drowsiness or dizziness.
Repeated exposure No data available.

Further Information

Toxicological, ecotoxicological, physical, and chemical properties may not have been fully investigated. Hazard data above is estimated based on best available information. Some workers with pre-existing medical conditions such as: asthma, allergies, or impaired pulmonary and/or liver functions, or who may be particularly susceptible to this material, may be affected by exposure to this material.

12. Ecological Information

General Information

Information given is based on data on the components and the ecotoxicology of similar products. Resin is classified as toxic to aquatic life with long lasting effects. Hardener is classified as very toxic to aquatic life with long lasting effects. Avoid release to the environment.

Supporting Data

Component	Species	Test Result
ETIGV Resin (CAS mixture)		
Aquatic Acute, Algae, EC50	Algae	>1000 mg/l, 72 hours
Aquatic Acute, Crustacea, EC50	Daphnia Magna	324.87 mg/l, 48 hours
Aquatic Acute, Fish, LC50	Fish	707.11 mg/l, 96 hours
Benzyl alcohol (CAS 100-51-6)		
Aquatic Acute, Fish, LC50	Bluegill	10 mg/l, 96 hours
Nonylphenol (CAS 84852-15-3)		
Aquatic, Crustacea, EC50	Clam	0.0379 mg/l, 48 hours
Aquatic, Fish, LC50	Winter Flounder	0.017 mg/l, 96 hours

Persistence and degradability: This product is not expected to be readily biodegradable.
Bioaccumulative potential: No data available for this product.

Partition coefficient n-octanol / water (log Kow)	
Butyl glycidyl ether (2426-08-6)	0.63
Benzyl alcohol (CAS 100-51-6)	1.1
Mobility in soil:	This product is non-volatile.

Further Information

No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this product.

13. Disposal Consideration

Waste Disposal of Substance:	Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.
Container Disposal:	Empty containers or liners may retain some product residues; follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.
Disposal of Cured Product:	Grind or chip off surface. Solid material does not need special consideration.

14. Transportation Information

Resin (white side)

UN number:	UN3082
UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Bisphenol-A-Epichlorohydrin), 9, III, Marine Pollutant
Precautions:	Marine Pollutant
Required Labels:	9
ERG Code (IATA):	9L
EmS (IMDG):	F-A, S-F

Hardener (black side)

UN number:	UN2735
UN proper shipping name:	AMINES, LIQUID, CORROSIVE, N.O.S. (Nonylphenol), 8, III, Marine Pollutant
Precautions:	Corrosive, Marine Pollutant
Required Labels:	8
ERG Code (IATA):	8L
EmS (IMDG):	F-A, S-F

Additional Information

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

This substance/mixture is not intended to be transported in bulk

This information does not cover all specific regulatory or operational requirements of this product. The classifications for transportation may vary by container volume or different regional or national regulations.

15. Regulatory Information

United States

Federal Regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)	Not regulated.
US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)	Not listed.
CERCLA Hazardous Substance List (40 CFR 302.4)	Not listed.

SARA 302 Extremely hazardous substance	No
SARA 311/312 Hazardous chemical	Yes
SARA 313 (TRI reporting)	Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard Categories:	Immediate	Delayed	Fire	Pressure	Reactivity
Resin	Yes	Yes	No	No	No
Hardener	Yes	Yes	Yes	No	No

US State Right-To-Know Lists

Chemical	Massachusetts RTK	New Jersey Work and Community RTK Act	Pennsylvania Worker and Community RTK Law	Rhode Island RTK
Butyl Glycidyl Ether (CAS 2426-08-6)	Listed		Listed	
Titanium Dioxide (CAS 13463-67-7)	Listed		Listed	
Benzyl Alcohol (CAS 100-51-6)	Listed		Listed	
Carbon Black (CAS 1333-86-4)	Listed		Listed	
Triethylenetetramine (CAS 112-24-3)	Listed		Listed	

US. California Proposition 65 WARNING: This product contains a chemical listed by the State of California as known to cause cancer, birth defects, or reproductive harm.

Component	Regulation	% In Blend (approx.)	Remark
Titanium dioxide (CAS 13463-67-7)	ACGIH	1-10	Carcinogenic
Carbon Black (1333-86-4)	ACGIH	< 1	Carcinogenic

Canada

This product has been classified according to the hazard criteria of the CPR and the SDS contains all of the information required by the CPR.

WHMIS Classification

		
Class E: Corrosive	**Class B-3:** Combustible Liquid	**Class D-2A:** Material Causing other toxic effects

International

International Inventories

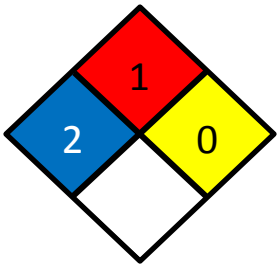
Country or Region	Inventory	On Inventory? (Yes/No)
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

16. Other Information

Date Prepared or Revised: September 2014
Supersedes: August 2012

Additional Resin (white side) Classifications

NFPA Ratings

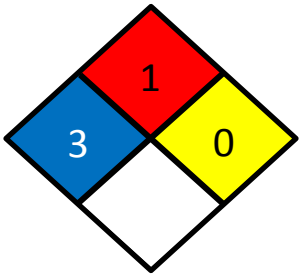


HMIS Rating

HEALTH HAZARD	2
FLAMMABILTY HAZARD	1
PHYSICAL HAZARD	0
PERSONAL PROTECTION	B

Additional Hardener (black side) Classifications

NFPA Ratings



HMIS Rating

HEALTH HAZARD	3
FLAMMABILTY HAZARD	1
PHYSICAL HAZARD	0
PERSONAL PROTECTION	B

Abbreviations

ACGIH:	American Conference of Governmental Industrial Hygienists
CAS No.:	Chemical Abstract Service Registry Number
CERCLA:	Comprehensive Environmental Response, Compensation and Liability Act (U.S. EPA)
CPR:	Controlled Product Regulations (Canada)
DOT:	Department of Transportation (U.S.)
EPA:	Environmental Protection Agency (U.S.)
GHS:	Globally Harmonized System of Classification and Labeling of Chemicals
HEPA:	High-Efficiency Particulate Air
HMIS:	Hazardous Materials Identification System
IARC:	International Agency for Research on Cancer
IATA:	International Air Transport Association
IMDG:	International Maritime Dangerous Goods code
LPP:	Limité Permisible Ponderado (Chile)
NIOSH:	National Institute of Occupational Safety and Health (U.S.)
NFPA:	National Fire Protection Association (US)
NTP:	National Toxicology Program (US)
OSHA:	Occupational Safety and Health Administration (U.S.)
PEL:	Permissible Exposure Limit
SARA:	Superfund Amendments and Reauthorization Act (U.S. EPA)
SDS:	Safety Data Sheet
STEL:	Short Term Exposure Limit (15 minute Time Weighted Average)
STOT:	Specific Target Organ Toxicity (GHS Classification)
TLV:	Threshold Limit Value
TSCA:	Toxic Substances Control Act (U.S.)
TWA:	Time Weighted Average (exposure for 8-hour workday)
U.S.:	United States
VOC:	Volatile Organic Compounds
WHMIS:	Canadian Workplace Hazardous Materials Information System

Disclaimer

This Safety Data Sheet (SDS) is prepared by Simpson Strong-Tie Co. in compliance with the requirements of OSHA 29 CFR Part 1910.1200. The information it contains is offered in good faith as accurate as of the date of this SDS. This SDS is provided solely for the purpose of conveying health, safety, and environmental information. No warranty, expressed or implied, is given. Health and Safety precautions may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations.

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Internal

FOR INTERNAL USE ONLY

ETI-GV Resin:
XCOM3B – 50% Cartridge

ETI-GV Hardener:
XCOM3A – 50% Cartridge
XCORR – 50% Cartridge