



MSDS No.: 846
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MATERIAL SAFETY DATA SHEET

Product name: Hilti Epoxy Grout (EG)
Description: Part A (resin)
Supplier: Hilti, Inc. P.O. Box 21148, Tulsa, OK 74121
Emergency # (Chem-Trec.): 1 800 424 9300 (USA, PR, Virgin Islands, Canada); 001 703 527 3887 (other countries)

INGREDIENTS AND EXPOSURE LIMITS

Ingredients:	CAS Number:	PEL:	TLV:	STEL:
Epoxy resin	NJTSRN: 19136100-5025	NE	NE	NE

Abbreviations: NJTSRN = New Jersey Trade Secret Registry Number. PEL = OSHA Permissible Exposure Limit. TLV = ACGIH Threshold Limit Value. STEL = Short Term Exposure Limit. NE = None Established.

PHYSICAL DATA

Appearance:	Cloudy white liquid	Odor:	Sweet
Vapor Density: (air = 1)	>1	Vapor Pressure:	Not determined
Boiling Point:	>200° F	VOC Content:	Not determined
Evaporation Rate:	Not applicable	Solubility in Water:	Negligible
Specific Gravity:	1.13	pH:	Not determined

FIRE AND EXPLOSION HAZARD DATA

Flash Point:	> 200° F	Flammable Limits:	Not determined
Extinguishing Media:	Carbon Dioxide, Dry Chemical, Foam		
Special Fire Fighting Procedures:	None known. A self-contained breathing apparatus should be used when fighting fires involving chemicals.		
Unusual Fire and Explosion Hazards:	None known		

REACTIVITY DATA

Stability:	Stable.
Hazardous Polymerization:	Contact with epoxy hardeners under uncontrolled conditions. May release excess heat and vapors.
Incompatibility:	Strong oxidizing agents and acids
Hazardous Decomposition Products:	Thermal decomposition can yield CO, CO ₂ , aldehydes and NO _x .
Conditions to Avoid:	Exposure to excessive heat and storage above 80°F will shorten product shelf life.

HEALTH HAZARD DATA

Known Hazards:	Can cause eye, skin and respiratory irritation. Skin sensitizer.
Routes of Exposure:	Dermal, inhalation.
Signs and Symptoms of Exposure:	Eyes: Irritation. Corneal injury is not expected unless symptoms go untreated. Skin: Can cause sensitization (itching, redness, swelling, etc.) with some individuals. Inhalation: Exposure to heated vapors can cause irritation. Ingestion: Gastro-intestinal irritation and nausea are likely.
Carcinogenicity:	No ingredients are classified as a carcinogen by IARC, NTP or OSHA.
Medical Conditions Aggravated by Exposure:	Eye, skin, and respiratory conditions.

EMERGENCY AND FIRST AID PROCEDURES

Eyes:	Immediately flush with plenty of water for at least 15 minutes. Contact a physician.
Skin:	Remove contaminated clothing/shoes and wipe excess from skin. Flush skin with water. Follow by washing with soap and water. Contact a physician if symptoms occur.
Inhalation:	Move victim to fresh air. Call a physician if symptoms persist. If sensitization occurs, further use or contact with the product should not be allowed.
Ingestion:	If conscious, give plenty of water to drink. Do not induce vomiting unless directed by a physician. Contact a physician immediately.
Other:	Referral to a physician is recommended if there is any question about the seriousness of the injury/exposure. If sensitization occurs, future contact with the material should be avoided.

CONTROL MEASURES AND PERSONAL PROTECTIVE EQUIPMENT

Ventilation:	General (natural or mechanically induced fresh air movements).
Eye Protection:	Chemical goggles recommended.
Skin Protection:	Impermeable gloves recommended. Use other protective clothing as needed to prevent skin contact.
Respiratory Protection:	Use a NIOSH-approved organic vapor cartridge respirator when air movement is inadequate to control vapor build-up.

PRECAUTIONS FOR SAFE HANDLING AND USE

Handling and Storing Precautions:	Avoid contact with eyes, skin and clothing. Avoid prolonged inhalation of vapors. Use with adequate ventilation. Wash thoroughly after handling. Store in a cool dry place out of direct rays of the sun. Recommended storage temperature range is between 60° and 80° F.
Spill Procedures:	Cover with an absorbent material and place in a salvage container for proper disposal. If possible, mix parts A and B and allow product to cure (harden).

REGULATORY INFORMATION

Hazard Communication:	This MSDS has been prepared in accordance with the federal OSHA Hazard Communication Standard 29 CFR 1910.1200.
HMIS Codes:	Health 2, Flammability 1, Reactivity 0, PPE B (Gloves, Chemical Goggles)
DOT Shipping Name:	Part A is not regulated.
IATA / ICAO Shipping Name:	Part A is not regulated.
TSCA Inventory Status:	Chemical components listed on TSCA inventory.
SARA Title III, Section 313:	Part A (resin) does not contain any toxic chemicals which are subject to reporting under Section 313 of SARA Title III (40 CFR Part 372).
EPA Waste Code(s):	Not regulated by EPA as a hazardous waste
Waste Disposal Methods:	Consult with regulatory agencies or your corporate personnel for disposal methods that comply with local, state, and federal safety, health and environmental regulations.

Hilti Epoxy Grout (EG)

DESCRIPTION: Part B (hardener)

INGREDIENTS AND EXPOSURE LIMITS

Ingredients:	CAS Number:	PEL:	TLV:	STEL:
Aliphatic amines	NJTSRN: 19136100-5026	NE	NE	NE
Phenol	108-95-2	19 mg/m ³	19 mg/m ³	NE

Abbreviations: **NJTSRN** = New Jersey Trade Secret Registry Number. **PEL** = OSHA Permissible Exposure Limit. **TLV** = ACGIH Threshold Limit Value. **STEL** = Short Term Exposure Limit. **NE** = None Established.

PHYSICAL DATA

Appearance:	Blue liquid	Odor:	Amine odor
Boiling Point:	>200° F	Vapor Pressure:	Not determined
Vapor Density:	Heavier than air	VOC Content:	Not determined
Evaporation Rate:	Not determined	Solubility in Water:	Negligible
Specific Gravity:	1.04	pH:	Not determined

FIRE AND EXPLOSION HAZARD DATA

Flash Point / Method:	> 200° F	Flammable Limits:	Not applicable
Extinguishing Media:	Carbon Dioxide, Dry Chemical, Foam		
Special Fire Fighting Procedures:	None known. A self-contained breathing apparatus should be used when fighting fires involving chemicals.		
Unusual Fire and Explosion Hazards:	None known. Thermal decomposition products can be formed. See below.		

REACTIVITY DATA

Stability:	Stable.	Hazardous Polymerization:	Will not occur.
Incompatibility:	Mineral acids and oxidizing materials.		
Hazardous Decomposition Products:	Thermal decomposition can yield ammonia, CO, CO ₂ , aldehydes, and NO _x .		
Conditions to Avoid:	Exposure to excessive heat and storage above 80° F will shorten product shelf life.		

HEALTH HAZARD DATA

Known Hazards:	Can cause eye, skin and respiratory irritation. Skin sensitizer. Moderate skin irritant.
Routes of Exposure:	Eye contact, skin contact, ingestion, inhalation.
Signs and Symptoms of Exposure:	Eyes: Irritation, redness, swelling. Possible eye burns. Skin: Can cause irritation and possibly skin burns. Inhalation: High concentrations of vapors can cause irritation to the nose and throat. Ingestion: Can cause severe damage if swallowed.
Carcinogenicity:	No ingredients are classified as a carcinogen by IARC, NTP or OSHA.
Medical Conditions Aggravated by Exposure:	Eye, skin, and respiratory conditions.

EMERGENCY AND FIRST AID PROCEDURES

Eyes:	Immediately flush with plenty of water for at least 15 minutes. Contact a physician.
Skin:	Remove contaminated clothing/shoes and wipe excess from skin. Flush skin with water. Follow by washing with soap and water. Contact a physician if symptoms occur.
Inhalation:	Move victim to fresh air. Contact a physician if symptoms persist.
Ingestion:	Give plenty of water to drink. Do not induce vomiting unless directed by a physician. Contact a physician immediately.
Other:	Referral to a physician is recommended if there is any question about the seriousness of the injury/exposure.

CONTROL MEASURES AND PERSONAL PROTECTIVE EQUIPMENT

Ventilation:	General (natural or mechanically induced fresh air movements).
Eye Protection:	Chemical goggles recommended.
Skin Protection:	Impermeable gloves. Use other protective clothing as needed to prevent skin contact.
Respiratory Protection:	Use a NIOSH-approved organic vapor cartridge respirator when air movement is inadequate to control vapor build-up.

PRECAUTIONS FOR SAFE HANDLING AND USE

Handling and Storing Precautions:	Avoid contact with eyes, skin and clothing. Avoid prolonged inhalation of vapors. Use with adequate ventilation. Wash thoroughly after handling. Store in a cool dry place out of direct rays of the sun. Recommended storage temperature range is between 60° and 80° F.
Spill Procedures:	Cover with an absorbent material and place in a salvage container for proper disposal. If possible, mix parts A and B and allow product to cure (harden).

REGULATORY INFORMATION

Hazard Communication:	This MSDS has been prepared in accordance with the federal OSHA Hazard Communication Standard. 29 CFR 1910.1200.
HMIS Codes:	Health 2, Flammability 1, Reactivity 0, PPE B (Gloves, Chemical Goggles)
DOT Shipping Name:	Not regulated
IATA / ICAO Shipping Name:	Not regulated
TSCA Inventory Status:	Chemical components listed on TSCA inventory.
SARA Title III, Section 313:	This product contains 1-5% Phenol (CAS#108-95-2) which is subject to reporting under Section 313 of SARA Title III (40 CFR Part 372).
EPA Waste Code(s):	Not regulated by EPA as a hazardous waste
Waste Disposal Methods:	Consult with regulatory agencies or your corporate personnel for disposal methods that comply with local, state, and federal safety, health and environmental regulations.

Hilti Epoxy Grout (EG)

DESCRIPTION: Part C (Aggregate)

INGREDIENTS AND EXPOSURE LIMITS

Ingredients:	CAS Number:	PEL:	TLV:	STEL:
Silicon dioxide (sand)	14808-60-7	$\frac{10 \text{ mg/m}^3}{\% \text{SiO}_2 + 2}$ (R)	0.025 mg/m ³ (R)	NE
Aggregate blend	NJTSRN: 19136100-5027	10 mg/m ³ (R)	5 mg/m ³ (R)	NE

Abbreviations: **NJTSRN** = New Jersey Trade Secret Registry Number. **PEL** = OSHA Permissible Exposure Limit. **TLV** = ACGIH Threshold Limit Value. **STEL** = Short Term Exposure Limit. **NE** = None Established. **(R)** indicates "as respirable dust".

PHYSICAL DATA

Appearance:	Grey powder	Odor:	None
Boiling Point:	Not applicable	Vapor Pressure:	Not applicable
Vapor Density:	Not applicable	VOC Content:	Not applicable
Evaporation Rate:	Not applicable	Solubility in Water:	Nil
Specific Gravity:	1.92	pH:	Not applicable

FIRE AND EXPLOSION HAZARD DATA

Flash Point:	Not applicable.	Flammable Limits:	Not applicable.
Extinguishing Media:	Not applicable – as appropriate for surrounding fire		
Special Fire Fighting Procedures:	None known. A self-contained breathing apparatus should be used when fighting fires involving chemicals.		
Unusual Fire and Explosion Hazards:	None known.		

REACTIVITY DATA

Stability:	Stable.	Hazardous Polymerization:	Will not occur.
Conditions to Avoid:	Contact with incompatible materials – see below.		
Incompatibility:	Strong acids, strong bases and mercaptans may initiate polymerization, possibly hazardous.		
Hazardous Decomposition Products:	Not applicable.		

HEALTH HAZARD DATA

Known Hazards:	None expected from normal use of this product.
Routes of Exposure:	Dermal.
Signs and Symptoms of Exposure:	Eyes - Irritation due to the abrasive nature of sand. Skin - Prolonged and repeated exposure to the hands can lead to drying of the skin and dermatitis. Inhalation – No effects expected. Ingestion - No effects expected.
Carcinogenicity:	IARC classifies crystalline silica (dust) as Group I based upon evidence among workers in industries where there has been long-term and chronic exposure (via inhalation) to silica dust; e.g. mining, quarry, stone crushing, refractory brick and pottery workers. The use of this product does not pose an increased risk of cancer.
Medical Conditions Aggravated by Exposure:	Eye, skin, and respiratory conditions.

EMERGENCY AND FIRST AID PROCEDURES

Eyes:	Do not rub the eyes - Mechanical injury can occur from rubbing the eyes due to the abrasive nature of sand. Immediately flush with plenty of water while holding the eyelids apart. Call a physician if symptoms persist.
Skin:	Practice good hygiene; i.e. wash with soap and water after use and before eating or smoking.
Inhalation:	No ill effects expected from Part C (sand).
Ingestion:	No ill effects expected from Part C (sand).

Other: See requirements for Parts A and B.

CONTROL MEASURES AND PERSONAL PROTECTIVE EQUIPMENT

Ventilation:	General (natural or mechanically induced fresh air movements).
Eye Protection:	Chemical goggles. Also refer to requirements for Parts A and B.
Skin Protection:	Impermeable gloves. Also refer to requirements for Parts A and B.
Respiratory Protection:	None normally required for Part C.

PRECAUTIONS FOR SAFE HANDLING AND USE

Handling and Storing Precautions:	Do not get in the eyes; the abrasive nature of sand can cause irritation and corneal abrasions. Practice good hygiene; i.e. wash with soap and water after use and before eating or smoking. Store in a dry location.
Spill Procedures:	Sweep up and dispose as ordinary waste.

REGULATORY INFORMATION

Hazard Communication:	This MSDS has been prepared in accordance with the federal OSHA Hazard Communication Standard. 29 CFR 1910.1200.
HMIS Codes:	Health 1, Flammability 0, Reactivity 0, PPE B
DOT Shipping Name:	Not regulated (for Part C)
IATA / IAO Shipping Name:	Not regulated (for Part C)
TSCA Inventory Status:	Chemical components listed on TSCA inventory.
SARA Title III, Section 313:	This product does not contain any toxic chemicals which are subject to reporting under Section 313 of SARA Title III (40 CFR Part 372).
EPA Waste Code(s):	Not regulated by EPA as a hazardous waste
Waste Disposal Methods:	Landfill is suitable for Part C (sand).

CONTACTS

Customer Service:	1 800 879 8000	Technical Service:	1 800 879 8000
Health / Safety:	1 800 879 6000	Jerry Metcalf	(x1003704)
Emergency # (Chem-Trec):	1 800 424 9300 (USA, PR, Virgin Islands, Canada); 001 703 527 3887 (other countries)		

The information and recommendations contained herein are based upon data believed to be correct; however, no guarantee or warranty of any kind expressed or implied is made with respect to the information provided.