Safety Data Sheet
acc. to OSHA HCS

Printing date 09/05/2017 Reviewed on 09/05/2017

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1 Identification

· **Product identifier**

· **Trade name: EP11HTFS Gray B**

· **Application of the substance / the mixture** Epoxy Hardener

· **Details of the supplier of the safety data sheet**

· **Manufacturer/Supplier:**
ResinLab, LLC
N109 W13300 Ellsworth Drive
Germantown, WI 53022
1-877-259-1669
www.resinlab.com

· **Information Department:** Product Safety Department: msds@resinlab.com

· **Emergency Telephone Number:**
North America - Chemtrec: 1-800-424-9300 (24 hours)
International - Chemtrec: 01-703-527-3887 (24 hours)

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2 Hazard(s) identification

· **Classification of the substance or mixture**

Skin Corr. 1B H314 Causes severe skin burns and eye damage.
Skin Sens. 1 H317 May cause an allergic skin reaction.
Repr. 2 H361 Suspected of damaging fertility or the unborn child.

· **Label elements**

· **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**

GHS05 GHS07 GHS08

· **Signal word** Danger

· **Hazard-determining components of labeling:**
Polyamide Resin
4-Nonylphenol, branched
N-(2-Aminoethyl)piperazine
Triethylenetetramine
Siloxanes and Silicones, di-Me, reaction products with silica

· **Hazard statements**
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H361 Suspected of damaging fertility or the unborn child.

· **Precautionary statements**
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Avoid breathing dust/fume/gas/mist/vapors/spray
Wash thoroughly after handling.
Contaminated work clothing must not be allowed out of the workplace.
Wear protective gloves / eye protection / face protection.
If swallowed: Rinse mouth. Do NOT induce vomiting.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF exposed or concerned: Get medical advice/attention.
If skin irritation or rash occurs: Get medical advice/attention.
Wash contaminated clothing before reuse.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Classification system:**

· **NFPA System**

· **NFPA ratings (scale 0 - 4)**

Health = 3
Fire = 1
Reactivity = 0

NFPA special hazards (water reactivity and oxidizing property): None

· **HMIS System**

· **HMIS-ratings (scale 0 - 4)**

Health = *3
Fire = 1
Reactivity = 0

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

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· **vPvB:** Not applicable.

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3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Dangerous components:**

CAS: 1317-65-3 EINECS: 215-279-6 RTECS: EV 9580000	Calcium Carbonate	30-40%
CAS: 68082-29-1 NLP: 500-191-5	Fatty acids, C18 unsaturated, dimers, polymers with tall oil fatty acids and triethylenetetramine Eye Dam. 1, H318 Aquatic Acute 1, H400; Aquatic Chronic 1, H410 Skin Irrit. 2, H315; Skin Sens. 1, H317	30-40%
CAS: 84852-15-3 EINECS: 284-625-5 Index number: 601-053-00-8	4-Nonylphenol, branched Repr. 2, H361 Skin Corr. 1B, H314; Eye Dam. 1, H318 Aquatic Chronic 1, H410 Acute Tox. 4, H302	10-20%
CAS: 140-31-8 EINECS: 205-411-0 Index number: 612-105-00-4 RTECS: TK 8050000	N-(2-Aminoethyl)piperazine Acute Tox. 3, H311 Skin Corr. 1B, H314 Acute Tox. 4, H302; Skin Sens. 1, H317 Aquatic Chronic 3, H412	5-10%
CAS: 67762-90-7 EC number: 614-122-2	Siloxanes and Silicones, di-Me, reaction products with silica	5-10%
CAS: 112-24-3 EINECS: 203-950-6 Index number: 612-059-00-5 RTECS: YE6650000	Triethylenetetramine Skin Corr. 1B, H314 Acute Tox. 4, H312; Skin Sens. 1, H317 Aquatic Chronic 3, H412	1-2.5%
CAS: 14808-60-7 EINECS: 238-878-4 RTECS: VV 7330000	Quartz	0.1-1%

· **Additional information:**
If the chemical name/CAS number is proprietary and or weight percentage is listed as a range, the specific chemical identity and or percentage of composition has been withheld as a trade secret.

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4 First-aid measures

· **Description of first aid measures**
· **General information:**
Keep warm, position comfortably and cover well.
Immediately remove any clothing soiled by the product.
· **After inhalation:**
Remove victim from exposure to fresh air. Keep person at rest. Provide oxygen if person is not breathing.
Supply fresh air and if symptoms occur call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
· **After skin contact:**
Flush skin thoroughly. Remove all contaminated clothing and shoes. Continue to rinse skin for 15 minutes. Obtain medical attention if symptoms develop. Wash all contaminated clothing and shoes before reuse.
· **After eye contact:**
Rinse opened eye for 10-15 minutes under running water. Then consult a doctor.
Remove contact lenses if present and easy to do so; continue rinsing.
Do not put any ointments, oils or medication in eyes without specific instructions.
Get medical attention.
· **After swallowing:**
If victim is unconscious; never give anything by mouth.
Do NOT induce vomiting.
If victim is conscious, rinse out mouth with water.
Get medical attention
If vomiting occurs spontaneously, keep victim's head below hips to prevent aspiration of liquid into lungs.
· **Information for doctor:**
· **Most important symptoms and effects, both acute and delayed** No further relevant information available.
· **Indication of any immediate medical attention and special treatment needed**
Check section 11 Toxicological Information for further relevant information.

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5 Fire-fighting measures

· **Extinguishing media**
· **Suitable extinguishing agents:**
Alcohol resistant foam
Carbon dioxide
dry chemical
water fog
Use suitable extinguishing media. Use water spray to cool containers.
· **Special hazards arising from the substance or mixture**
Will not burn unless preheated.
In case of fire, the following can be released:
Various hydrocarbons
Ammonia gas may be liberated at high temperatures.

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Nitrogen oxides (NOx)
Formaldehyde, a skin and lung sensitizer and a regulated carcinogen, may be formed during fires.
Carbon dioxide (CO_2) and Carbon monoxide (CO)
Silicon oxide (SiO_2)
· ***Advice for firefighters***
· ***Protective equipment:***
If employees are expected to fight fires, they must be trained and equipped as stated in the OSHA fire brigades standard (29 CFR 1910.156).
As with any fire, wear positive-pressure self-contained breathing apparatus and full protective gear that are NIOSH approved.

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6 Accidental release measures

· ***Personal precautions, protective equipment and emergency procedures***
Wear protective equipment. Keep unprotected persons away.
Do not breathe gas, vapors, dusts or mists if their inhalable particles occur during use.
· ***Environmental precautions:***
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
· ***Methods and material for containment and cleaning up:***
For large spills: provide diking or containment to minimize spreading. If possible pump and store material in appropriate container.
For small spills: Ventilate and wash area. Collect spills and absorbant material in appropriate container.
Ensure adequate ventilation.
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Use neutralizing agent if necessary.
Dispose contaminated material as waste according to item 13.

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7 Handling and storage

· ***Handling:***
· ***Precautions for safe handling***
Ensure good ventilation/exhaustion at the workplace.
Do not breathe dust created by cutting, sanding, grinding or machining.
Open and handle receptacle with care.
Prevent formation of aerosols.
Keep away from incompatible material(s).
Avoid any release into the environment.
For industrial or professional use only
Do not breathe dust/fumes/mist/vapor/spray.
Avoid contact with eyes, skin and clothing.
Keep away from heat,sparks, flames and ignition sources.
Observe all the personal protection requirements in Section 8.
· ***Conditions for safe storage, including any incompatibilities***
· ***Storage:***
· ***Requirements to be met by storerooms and receptacles:***
Provide ventilation for receptacles.
Keep stored in accordance with local, regional, national, and international regulations.

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8 Exposure controls/personal protection

· ***Control parameters***

· **Components with limit values that require monitoring at the workplace:**	
1317-65-3 Calcium Carbonate	
TEEL	Short-term value: 15.0 mg/m³ Long-term value: 60.0 mg/m³ SCAPA, 2008
84852-15-3 4-Nonylphenol, branched	
TEEL-1	Short-term value: 20 mg/m³
TEEL-2	Short-term value: 125 mg/m³
TEEL-3	Short-term value: 500 mg/m³
140-31-8 N-(2-Aminoethyl)piperazine	
TEEL-1	Short-term value: 7.5 mg/m³
TEEL-2	Short-term value: 50.0 mg/m³
TEEL-3	Short-term value: 500 mg/m³
67762-90-7 Siloxanes and Silicones, di-Me, reaction products with silica	
OSHA PEL	Short-term value: 15 mg/m³
US ACGIH	Short-term value: 10 mg/m³
112-24-3 Triethylenetetramine	
WEEL	Long-term value: 6 mg/m³, 1 ppm Skin
14808-60-7 Quartz	
PEL	see Quartz listing
REL	Long-term value: 0.05* mg/m³ *respirable dust; See Pocket Guide App. A
TLV	Long-term value: 0.025* mg/m³ *as respirable fraction

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· **Additional Occupational Exposure Limit Values for possible hazards during processing:** None.

· **Exposure controls**
If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits.
If exposure limits have not been established, maintain airborne levels to an acceptable level.

· **Personal protective equipment:**

· **General protective and hygienic measures:**
Be sure to clean skin thoroughly after work and before breaks.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Avoid contact with the eyes and skin.
Pregnant women should avoid direct skin contact with this product.

· **Personal Protective Equipment (PPE)**

· **Breathing equipment:**
Sufficient ventilation in pattern and volume should be provided in order to maintain air contaminant levels below recommended exposure limits.
Use a NIOSH approved air-purifying organic vapor respirator if occupational limits are exceeded. For emergency situations, confined space use, or other conditions where exposure limits may be greatly exceeded, use an approved air supplied respirator. Observe OSHA regulations (29CFR 1910.134) for respirator use.

· **Protection of hands:**
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

Chemical resistant gloves

· **Eye protection:**

Safety Glasses with side shields

· **Body protection:** Appropriate chemical resistant clothing.

· **Limitation and supervision of exposure into the environment**
The Engineering measures or controls, and PPE recommendations are only guidelines and may not apply to every situation. For additional information, please consult the corresponding requirements under OSHA 29 CFR 1910.94-95, and 29 CFR 1910.132-138.

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9 Physical and chemical properties

· **Information on basic physical and chemical properties**	
· **General Information**	
· **Appearance:**	
· **Form:**	Pasty
· **Color:**	Cream colored
· **Odor:**	Amine-like
· **Odor threshold:**	Not determined.
· **pH-value:**	Not determined.
· **Change in condition**	
· **Melting point/Melting range:**	Undetermined.
· **Boiling point/Boiling range:**	>200°C (°F)
· **Flash point:**	>99°C (°F)
· **Flammability (solid, gaseous):**	Not applicable.
· **Ignition temperature:**	Not determined.
· **Decomposition temperature:**	Not determined.
· **Auto igniting:**	Product is not selfigniting.
· **Danger of explosion:**	Product does not present an explosion hazard.
· **Explosion limits:**	
· **Lower:**	Not determined.
· **Upper:**	Not determined.
· **Vapor pressure:**	Not determined.
· **Vapor Density:**	not determined
· **Density at 20°C (68 °F):**	1.29 g/cm³ (lbs/gal)
· **Relative density**	Not determined.
· **Vapor density**	Not determined.
· **Evaporation rate**	Not determined.
· **Solubility in / Miscibility with**	
· **Water:**	Partly miscible.
· **Partition coefficient (n-octanol/water):**	Not determined.
· **Viscosity:**	
· **Dynamic:**	Not available.

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· **Kinematic:** Not available.
· **VOC content:** 0.00 %
0.0 g/l / 0.00 lb/gl

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10 Stability and reactivity

· **Reactivity** Not a regulated physical hazard under GHS.
· **Hazardous Reactivity and Chemical Stability** Stable under normal conditions of use, storage and temperatures.
· **Thermal decomposition / conditions to be avoided:**
To avoid thermal decomposition do not overheat.
No decomposition if used and stored according to specifications.
· **Possibility of hazardous reactions** In contact with incompatible materials.
· **Conditions to avoid** Keep away from heat, sparks, flame and any other ignition sources.
· **Incompatible materials:**
acid chlorides, acid anhydrides, hypochlorites
chlorinated hydrocarbons, copper, copper alloys, nickel, cobalt, nitrites or other nitrosating agents.
Oxidizing agents
Strong bases
Strong reducing agents
Acids
· **Hazardous decomposition products:**
Possible in traces.
Refer to section 5.

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11 Toxicological information

· **Information on toxicological effects**
· **Acute toxicity:**

· LD/LC50 values that are relevant for classification:		
68082-29-1 Fatty acids, C18 unsaturated, dimers, polymers with tall oil fatty acids and triethylenetetramine		
Oral	LD50	>2,000 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rat)
84852-15-3 4-Nonylphenol, branched		
Oral	LD50	1,620 mg/kg (rat)
Dermal	LD50	2,031 mg/kg (rat)
140-31-8 N-(2-Aminoethyl)piperazine		
Oral	LD50	2,140 mg/kg (rat)
Dermal	LD50	866 mg/kg (rabbit)
67762-90-7 Siloxanes and Silicones, di-Me, reaction products with silica		
Oral	LD50	>5,000 mg/kg (rat)
112-24-3 Triethylenetetramine		
Oral	LD50	2,500 mg/kg (rat)
Dermal	LD50	550 mg/kg (rabbit)

· **Primary irritant effect:**
· **on the skin:** Caustic effect on skin and mucous membranes.
· **on the eye:** Strong caustic effect.
· **Sensitization:** Sensitization possible through skin contact.
· **Experience with humans:** Not applicable.
· **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Corrosive
Irritant
Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.
· **Carcinogenic categories**

· IARC (International Agency for Research on Cancer)		
14808-60-7	Quartz	1
· NTP (National Toxicology Program)		
14808-60-7	Quartz	K
· OSHA-Ca (Occupational Safety & Health Administration)		
None of the ingredients is listed.		

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12 Ecological information

· **Toxicity**
· **Aquatic toxicity:** No further relevant information available.
· **Persistence and degradability** No further relevant information available.
· **Behavior in environmental systems:**
· **Bioaccumulative potential** No data available.
· **Mobility in soil** No further relevant information available.
· **Additional ecological information:** The product is non-rapid degradable, and low or not highly bioaccumulative.
· **General notes:**
Water hazard class 3 (Self-assessment): extremely hazardous for water
Do not allow product to reach ground water, water course or sewage system, even in small quantities.

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Danger to drinking water if even extremely small quantities leak into the ground.
· **Results of PBT and vPvB assessment**
· **PBT:** None of the ingredients is listed.
· **vPvB:** None of the ingredients is listed.
· **Other adverse effects** No further relevant information available.

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13 Disposal considerations

· **Waste treatment methods**
· **Recommendation:**
Must be specially treated adhering to official regulations.
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
· **Uncleaned packagings:**
· **Recommendation:** Dispose of according to your local waste regulations.

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14 Transport information

· **UN-Number**
· **DOT, IMDG, IATA** UN3267

· **UN proper shipping name** Corrosive liquid, basic, organic, n.o.s. (4-Nonylphenol, branched, Polyamidoamine)
· **DOT** Corrosive liquid, basic, organic, n.o.s. (4-Nonylphenol, branched, Polyamidoamine)
· **IMDG** CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (4-Nonylphenol, branched, Polyamidoamine), MARINE POLLUTANT
· **IATA** CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (4-Nonylphenol, branched, Polyamidoamine)

· **Transport hazard class(es)**
· **DOT**

· **Class** 8 Corrosive substances
· **Label** 8

· **IMDG**

· **Class** 8 Corrosive substances
· **Label** 8

· **IATA**

· **Class** 8 Corrosive substances
· **Label** 8

· **Packing group**
· **DOT, IMDG, IATA** III

· **Environmental hazards:** Product contains environmentally hazardous substances: 4-Nonylphenol, branched

· **Special precautions for user** Warning: Corrosive substances
· **Danger code (Kemler):** 80
· **EMS Number:** F-A,S-B
· **Segregation groups** Alkalis
· **Stowage Category** A
· **Stowage Code** SW2 Clear of living quarters.
· **Segregation Code** SG35 Stow "separated from" acids.

· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

· **Transport/Additional information:**
· **DOT**
· **Quantity limitations** On passenger aircraft/rail: 5 L
On cargo aircraft only: 60 L
· **Remarks:** Special marking with the symbol (fish and tree).

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· **IMDG**
· **Limited quantities (LQ)** 5L
· **Excepted quantities (EQ)** Code: E1
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 1000 ml

· **UN "Model Regulation":** UN 3267 CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (4-NONYLPHENOL, BRANCHED, POLYAMIDOAMINE), 8, III

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15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**

· **SARA Section 355 (extremely hazardous substances):**
None of the ingredients is listed.

· **SARA Section 313 (Specific toxic chemical listings):**

84852-15-3	4-Nonylphenol, branched	10-20%

· **SARA Section 311/312 (Hazardous Chemical Inventory Reporting)**

1317-65-3	Calcium Carbonate	A, C	30-40%
84852-15-3	4-Nonylphenol, branched	A	10-20%
140-31-8	N-(2-Aminoethyl)piperazine	A, C	5-10%
112-24-3	Triethylenetetramine	A	1-2.5%

· **Hazard Abbreviations for SARA 311/312**
A - Acute Health Hazard
C - Chronic Health Hazard
F - Fire Hazard
R - Reactive Hazard
S - Sudden Release of Pressure Hazard

· **TSCA (Toxic Substances Control Act):**
All ingredients are listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

14808-60-7	Quartz

· **Chemicals known to cause reproductive toxicity for females:**
None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**
None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**
None of the ingredients is listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**
None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**

14808-60-7	Quartz	A2

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

14808-60-7	Quartz

· **International Regulation Lists**

· **Chinese Chemical Inventory of Existing Chemical Substances:**
All ingredients are listed.

· **GHS label elements** GHS label elements

· **National regulations:**

· **Japanese Existing and New Chemical Substance List:**

1317-65-3	Calcium Carbonate
84852-15-3	4-Nonylphenol, branched
140-31-8	N-(2-Aminoethyl)piperazine
67762-90-7	Siloxanes and Silicones, di-Me, reaction products with silica
112-24-3	Triethylenetetramine
14808-60-7	Quartz

· **Korean Existing Chemical Inventory:**
All ingredients are listed.

· **European Pre-registered substances:**
All ingredients are listed.

· **EINECS List:**

1317-65-3	Calcium Carbonate
84852-15-3	4-Nonylphenol, branched
140-31-8	N-(2-Aminoethyl)piperazine
112-24-3	Triethylenetetramine
14808-60-7	Quartz

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· **ELINCS List:**
None of the ingredients is listed.

· **REACh - Substances of Very High Concern (SVHC) List:**

84852-15-3	4-Nonylphenol, branched	10-20%

· **Restriction of Hazardous Substances Directive (RoHS) list:**
None of the ingredients is listed.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department Issuing (M)SDS:** Product Development Department
· **Contact:** msds@resinlab.com
· **Date of preparation / last revision** 09/05/2017 / 4
· *** Data compared to the previous version altered.**