

SECTION 1: Identification

1.1. Identification

Product name : EP1296 Black B

1.2. Recommended use and restrictions on use

Recommended use : Epoxy hardener
 Restrictions on use : Product for industrial use only

1.3. Supplier

ResinLab, LLC
 N109 W13300 Ellsworth Drive
 Germantown, WI 53022 - United States
 T 1-877-259-1669
msds@resinlab.com - www.resinlab.com

1.4. Emergency telephone number

Emergency number : CHEMTREC:1-800-424-9300 (USA); +1 703-527-3887 (International)

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Skin corrosion/irritation Category 1B H314 Causes severe skin burns and eye damage
 Skin sensitization, Category 1 H317 May cause an allergic skin reaction

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) : Danger

Hazard statements (GHS US) : H314 - Causes severe skin burns and eye damage
 H317 - May cause an allergic skin reaction

Precautionary statements (GHS US) :

- P260 - Do not breathe dust/fume/gas/mist/vapors/spray.
- P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.
- P264 - Wash hands, forearms and face thoroughly after handling.
- P272 - Contaminated work clothing must not be allowed out of the workplace.
- P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- P301+P330+P331 - If swallowed: rinse mouth. Do NOT induce vomiting.
- P302+P352 - If on skin: Wash with plenty of water.
- P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P304+P340 - If inhaled: Remove person to fresh air and keep 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.
- P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
- P363 - Wash contaminated clothing before reuse.
- P391 - Collect spillage.
- P405 - Store locked up.
- P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

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SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
Fatty acids, tall-oil, reaction products with tetraethylenepentamine	(CAS-No.) 68953-36-6	30 – 50	Skin Corr. 1C, H314 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Tetraethylenepentamine	(CAS-No.) 112-57-2	5 – 10	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Skin Corr. 1B, H314 Skin Sens. 1, H317 Aquatic Acute 2, H401 Aquatic Chronic 2, H411
triethylenetetramine	(CAS-No.) 112-24-3	0.1 – 0.5	Acute Tox. 4 (Dermal), H312 Skin Corr. 1B, H314 Skin Sens. 1, H317 Aquatic Acute 3, H402 Aquatic Chronic 3, H412
Quartz	(CAS-No.) 14808-60-7	0.1 – 0.5	Not classified

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

- First-aid measures general : IF exposed or concerned: Get medical advice/attention.
- First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.
- First-aid measures after skin contact : Rinse immediately with plenty of water for 15 minutes. Remove/Take off immediately all contaminated clothing. Thoroughly clean shoes before reuse. Wash clothing before reuse. Get medical advice/attention.
- First-aid measures after eye contact : Immediately rinse with plenty of water (for at least 15 minutes). Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention.
- First-aid measures after ingestion : Rinse mouth. Do not induce vomiting. Call a physician immediately.

4.2. Most important symptoms and effects (acute and delayed)

- Symptoms/effects after skin contact : Burns. May cause an allergic skin reaction.
- Symptoms/effects after eye contact : Serious damage to eyes.
- Symptoms/effects after ingestion : Burns.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

- Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Specific hazards arising from the chemical

- Hazardous decomposition products in case of fire : Toxic fumes may be released

5.3. Special protective equipment and precautions for fire-fighters

- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapors/spray.

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6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Collect spillage.
Methods for cleaning up : Take up liquid spill into absorbent material.
Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Contains a component(s) that is encapsulated within the product and not expected to be released during normal processing conditions or a foreseeable emergency. Do not breathe dust created by sanding, grinding or machining.
Precautions for safe handling : Ensure good ventilation of the work station, ventilate curing ovens to prevent emissions in the workplace. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapors/spray. Wear personal protective equipment.
Hygiene measures : Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store locked up. Store in a well-ventilated place. Keep cool.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Fatty acids, tall-oil, reaction products with tetraethylenepentamine (68953-36-6)		
Not applicable		
Tetraethylenepentamine (112-57-2)		
Not applicable		
triethylenetetramine (112-24-3)		
Not applicable		
Quartz (14808-60-7)		
ACGIH	Local name	Silica crystalline - quartz
ACGIH	ACGIH OEL TWA	0.025 mg/m ³ (Respirable fraction)
ACGIH	Remark (ACGIH)	TLV® Basis: Pulm fibrosis; lung cancer. Notations: A2 (Suspected Human Carcinogen)
ACGIH	Regulatory reference	ACGIH 2020
OSHA	Remark (OSHA)	Table Z-3. For OSHA PEL (TWA): Use formulas: (250 / (%SiO ₂ +5)) for mppcf and (10 mg/m ³ / (%SiO ₂ +2)) for mg/m ³ . CAS No. source: eCFR Table Z-1.
OSHA	Regulatory reference (US-OSHA)	OSHA Annotated Table Z-3 Mineral Dusts

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station, ventilate curing ovens to prevent emissions in the workplace.
Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

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Protective gloves

Eye protection:

Safety glasses with side shields

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s):



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Color	: Cream
Odor	: characteristic
Odor threshold	: No data available
pH	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: > 93 °C
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Not applicable.
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Density	: 1.4 g/cm ³
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
VOC content	No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

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10.5. Incompatible materials

Oxidizing agent. Acids.

10.6. Hazardous decomposition products

calcium oxide. Carbon oxides (CO, CO₂). Nitrogen oxides.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

Tetraethylenepentamine (112-57-2)	
LD50 oral rat	3990 mg/kg
LD50 dermal rabbit	660 mg/kg
LC50 Inhalation - Rat	> 9.9 mg/l air (8 h, Rat, Male, Literature study, Inhalation)
ATE US (oral)	500 mg/kg body weight
ATE US (dermal)	660 mg/kg body weight

triethylenetetramine (112-24-3)	
LD50 oral rat	2500 mg/kg (Rat, Literature, Oral)
LD50 dermal rabbit	805 mg/kg (Rabbit, Literature, Dermal)
ATE US (oral)	2500 mg/kg body weight
ATE US (dermal)	805 mg/kg body weight

Skin corrosion/irritation : Causes severe skin burns.
Serious eye damage/irritation : Assumed to cause serious eye damage
Respiratory or skin sensitization : May cause an allergic skin reaction.
Germ cell mutagenicity : Not classified
Carcinogenicity : Contains a component(s) that is encapsulated within the product and not expected to be released during normal processing conditions or a foreseeable emergency.

Quartz (14808-60-7)	
IARC group	1 - Carcinogenic to humans

Reproductive toxicity : Not classified
STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

Aspiration hazard : Not classified

Symptoms/effects after skin contact : Burns. May cause an allergic skin reaction.
Symptoms/effects after eye contact : Serious damage to eyes.
Symptoms/effects after ingestion : Burns.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Very toxic to aquatic life with long lasting effects.

Tetraethylenepentamine (112-57-2)	
LC50 - Fish [1]	420 mg/l (EU Method C.1, 96 h, Poecilia reticulata, Semi-static system, Fresh water, Experimental value, GLP)
EC50 - Crustacea [1]	24.1 mg/l (EU Method C.2, 48 h, Daphnia magna, Static system, Experimental value, GLP)
ErC50 algae	6.8 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Selenastrum capricornutum, Experimental value)

triethylenetetramine (112-24-3)	
LC50 - Fish [1]	495 mg/l (96 h, Pimephales promelas, Fresh water, Literature study)
EC50 - Crustacea [1]	31.1 mg/l (Equivalent or similar to OECD 202, 48 h, Daphnia magna, Literature study)

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triethylenetetramine (112-24-3)	
ErC50 algae	≥ 100 mg/l (DIN 38412-9, 72 h, Scenedesmus subspicatus, Literature study, Growth)

12.2. Persistence and degradability

Tetraethylenepentamine (112-57-2)	
Persistence and degradability	Not readily biodegradable in water.
triethylenetetramine (112-24-3)	
Persistence and degradability	Not readily biodegradable in water.
Quartz (14808-60-7)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)

12.3. Bioaccumulative potential

Tetraethylenepentamine (112-57-2)	
BCF - Fish [1]	3.162 l/kg (BCFBAF v3.01, Estimated value, Fresh weight)
Partition coefficient n-octanol/water (Log Pow)	-3.16 (Estimated value, KOWWIN)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
triethylenetetramine (112-24-3)	
BCF - Other aquatic organisms [1]	3.162 (BCFBAF v3.01, Calculated value)
Partition coefficient n-octanol/water (Log Pow)	-2.65 (Estimated value, KOWWIN)
Bioaccumulative potential	Not bioaccumulative.
Quartz (14808-60-7)	
Bioaccumulative potential	No bioaccumulation data available.

12.4. Mobility in soil

Tetraethylenepentamine (112-57-2)	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	3.04 (log Koc, Calculated value)
Ecology - soil	Low potential for mobility in soil.
triethylenetetramine (112-24-3)	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.885 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Ecology - soil	Highly mobile in soil.
Quartz (14808-60-7)	
Ecology - soil	No (test)data on mobility of the substance available.

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Transport document description (DOT) : UN2735 Polyamines, liquid, corrosive, n.o.s. (Fatty acids, tall-oil, reaction products with tetraethylenepentamine ; Tetraethylenepentamine), 8, III

UN-No.(DOT) : UN2735

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Proper Shipping Name (DOT) : Polyamines, liquid, corrosive, n.o.s.
Fatty acids, tall-oil, reaction products with tetraethylenepentamine ; Tetraethylenepentamine
Class (DOT) : 8 - Class 8 - Corrosive material 49 CFR 173.136
Packing group (DOT) : III - Minor Danger
Hazard labels (DOT) : 8 - Corrosive



Dangerous for the environment : Yes
Marine pollutant : Yes



DOT Packaging Non Bulk (49 CFR 173.xxx) : 203
DOT Packaging Bulk (49 CFR 173.xxx) : 241
DOT Special Provisions (49 CFR 172.102) : IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672).
T7 - 4 178.274(d)(2) Normal..... 178.275(d)(3)
TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = $97 / 1 + a (tr - tf)$ Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.
TP28 - A portable tank having a minimum test pressure of 2.65 bar (265 kPa) may be used provided the calculated test pressure is 2.65 bar or less based on the MAWP of the hazardous material, as defined in 178.275 of this subchapter, where the test pressure is 1.5 times the MAWP.
DOT Packaging Exceptions (49 CFR 173.xxx) : 154
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 5 L
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 60 L
DOT Vessel Stowage Location : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.
DOT Vessel Stowage Other : 52 - Stow "separated from" acids
Emergency Response Guide (ERG) Number : 153
Other information : No supplementary information available.

Transportation of Dangerous Goods

Not applicable

Transport by sea

Transport document description (IMDG) : UN 2735 POLYAMINES, LIQUID, CORROSIVE, N.O.S. (Fatty acids, tall-oil, reaction products with tetraethylenepentamine ; Tetraethylenepentamine), 8, III
UN-No. (IMDG) : 2735
POLYAMINES, LIQUID, CORROSIVE, N.O.S.
Fatty acids, tall-oil, reaction products with tetraethylenepentamine ; Tetraethylenepentamine
Class (IMDG) : 8 - Corrosive substances
Packing group (IMDG) : III - substances presenting low danger
Limited quantities (IMDG) : 5 L

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Marine pollutant

: Yes



Air transport

Transport document description (IATA) : UN 2735 Polyamines, liquid, corrosive, n.o.s. (Fatty acids, tall-oil, reaction products with tetraethylenepentamine ; Tetraethylenepentamine), 8, III

UN-No. (IATA) : 2735

Proper Shipping Name (IATA) : Polyamines, liquid, corrosive, n.o.s.
Fatty acids, tall-oil, reaction products with tetraethylenepentamine ; Tetraethylenepentamine

Class (IATA) : 8 - Corrosives

Packing group (IATA) : III - Minor Danger

SECTION 15: Regulatory information

15.1. US Federal regulations

Fatty acids, tall-oil, reaction products with tetraethylenepentamine (68953-36-6)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Tetraethylenepentamine (112-57-2)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

triethylenetetramine (112-24-3)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

Fatty acids, tall-oil, reaction products with tetraethylenepentamine (68953-36-6)

Listed on the Canadian DSL (Domestic Substances List)

Tetraethylenepentamine (112-57-2)

Listed on the Canadian DSL (Domestic Substances List)

triethylenetetramine (112-24-3)

Listed on the Canadian DSL (Domestic Substances List)

Quartz (14808-60-7)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

Contains no REACH candidate substance

National regulations

Quartz (14808-60-7)

Listed on IARC (International Agency for Research on Cancer)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active

Listed on INSQ (Mexican National Inventory of Chemical Substances)

15.3. US State regulations

WARNING: This product can expose you to Quartz, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

Component	State or local regulations
Tetraethylenepentamine(112-57-2)	U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List
triethylenetetramine(112-24-3)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List

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Component	State or local regulations
Quartz(14808-60-7)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Full text of H-phrases:

H302	Harmful if swallowed
H312	Harmful in contact with skin
H314	Causes severe skin burns and eye damage
H317	May cause an allergic skin reaction
H400	Very toxic to aquatic life
H401	Toxic to aquatic life
H402	Harmful to aquatic life
H410	Very toxic to aquatic life with long lasting effects
H411	Toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects

SDS US - ResinLab

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.