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Safety Data Sheet acc. to OSHA HCS

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· Product Identifier Trade Name: EP750 Black B

Application of the Substance or Mixture: Epoxy Hardener

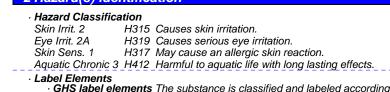
· Details of the Supplier of the Safety Data Sheet (SDS)

Manufacturer or Supplier: Resinlab, LLC N109 W13300 Ellsworth Drive, Germantown, WI 53022 1-800-388-8605

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)

## 2 Hazard(s) identification



GHS label elements The substance is classified and labeled according to the Globally Harmonized System (GHS). Pictogram(s)



· Signal Word Warning

Hazard-determining Component(s)
 Triethylenetetramine
 Hazard statements

Causes skin irritation. Causes serious eye irritation. May cause an allergic skin reaction. Harmful to aquatic life with long lasting effects.

### Precautionary statements

Precautionary statements Avoid breathing dust/fume/gas/mist/vapors/spray Wear protective gloves. Wear eye protection / face protection. Avoid release to the environment. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Specific treatment (see on this label). Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Dispose of contents/container in accordance with local/regional/national/international regulations. Hazard Rating System NFPA System NFPA Ratings (scale 0 - 4)



Health = 3Fire = 1Reactivity = 0

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

HMIS System
 HMIS Ratings (scale 0 - 4)



Other hazards
 Results of PBT and vPvB assessment
 PBT: Not applicable.
 vPvB: Not applicable.

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	3 Composition/information on ingredients Chemical Characterization: Mixtures				
ſ	Composition/Informatio				
	CAS: 68410-23-1	Fatty acids, C18 unsatd., dimers, reaction products with polyethylenepolyamines Aquatic Acute 1, H400; Aquatic Chronic 1, H410 Skin Irrit. 2, H315; Eye Irrit. 2A, H319	90-100%		
	CAS: 112-24-3 EINECS: 203-950-6 Index Number: 612-059-00-5 RTECS: YE6650000	Triethylenetetramine Skin Corr. 1B, H314; Eve Dam. 1, H318 Acute Tox. 4, H312; Skin Sens. 1, H317 Aquatic Chronic 3, H412	<u>≤</u> 0.1%		
	<ul> <li>Classification System:</li> </ul>				

The Classifications were based on the Toxicological and Ecological Data of the substances/mixtures in the Section 11 and 12. 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.

## 4 First-aid measures

## Description of First Aid Measures General Information

Ensure medical personnel are aware of exposure and take precautions for their personal protection; see Section 8 for the information of personal protection.

### After Inhalation

Remove victim from exposure to fresh air. Keep person at rest. Provide oxygen if person is not breathing. In case of unconsciousness place patient stably in side position for transportation. Supply fresh air; consult doctor in case of complaints.

### After Skin Contact

As quickly as possible remove contaminated clothing, shoes, and leather goods (e.g. watchbands, belts). Quickly and gently blot or brush away excess chemical. Immediately flush with lukewarm water for 15 minutes. Completely decontaminate clothing, shoes, and leather goods before reuse or discard. If irritation persists, obtain medical advice. Seek medical treatment in case of complaints.

### After Eye Contact

Immediately bathe eyes for 15 minutes under running water. Immediately remove contact lenses if present. Continue rinsing. Seek immediate medical advice.

• After Swallowing If victim is unconscious; never give anything by mouth. If victim is conscious; rinse out mouth and give victim small amounts of water. Immediately call a doctor.

Do NOT induce vomiting.

· After Exposure Seek medical treatment in case of complaints.

- Information for Doctor Have chemical containers, labels and/or (M)SDS ready when calling or visiting a medical center.
  - Indication of any Immediate Medical Attention and Special Treatment Needed After frequent or high intense exposure, the following medical tests are recommended: eve tests skin tests Check section 11 Toxicological Information for further relevant information.

### Additional Information

For additional information, please consult the corresponding first aid measures in the most current version of Emergency Response Guidebook which is produced by the US Department of Transportation.

## 5 Fire-fighting measures

Extinguishing Media

 Suitable Extinguishing Agent(s)
 Use fire fighting measures and extinguishing agents that suit the environment. In case of fire, suitable extinguishing agents are: Alcohol resistant foam. Dry chemical or fire-extinguishing powder. Carbon dioxide (CO<sub>2</sub>). Water spray or water fog.
 Unsuitable Extinguishing Agent(s) No relevant information.

## **Firefighting Procedures**

Isolate fire and deny unnecessary entry. Eliminate all ignition sources if safe to do so. Do not extinguish fire unless flow can be stopped.

Fight fire remotely due to the risk of explosion. Use water spray or water fog to cool fire-exposed containers. Burning liquids may be moved by flushing with water; protect personnel and minimize property damage. Contain fire water runoff if possible to prevent environmental pollution. Use water in flooding quantities as fog.

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Trade Name: EP750 Black B (Contd. of page 2) **Special Hazards Arising in Fire** Will not burn unless preheated. May evolve flammable hydrogen ( $H_2$ ) in contact with metals when heated or in a fire. In case of fire, following can be released: Various hydrocarbons May generate ammonia gas. nitric acid Carbon dioxide (CO₂) and Carbon monoxide (CO) Nitrogen oxides Advice for Firefighters 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. · Additional Information Ensure adequate and functional fire fighting facilities equipped in working area at all times. 6 Accidental release measures Personal Precautions Do not breathe gas, vapors, dusts or mists if their inhalable particles occur during use. Ensure personnel take precautions for their personal protection during clean up; see Section 8 for the specific requirements. Environmental Precautions Keep away from sewage system or other water courses; do not penetrate ground/soil. Inform respective authorities in case of any seepage to the environment. Cleaning Up Methods Ensure adequate ventilation. Eliminate all ignition sources. Keep unauthorized personnel away. Absorb residues with liquid-binding materials. Ventilate and wash area after clean-up is complete. Collect spills in suitable and properly labeled containers. Do not use solvents unless following safe handling practices and within the recommended exposure guidelines. Dispose contaminated chemicals as waste according to Section 13. 7 Handling and storage Handling Precautions for Safe Handling Obtain special instruction before use; do not handle until all safety precautions have been read and understood. Do not breathe gas, vapors, dusts or mists if their inhalable particles occur during handling. Keep away from incompatible material(s). Observe all the personal protection requirements in Section 8. Information about Protection Against Explosions and Fires Will not burn unless preheated. Keep away from heat, sparks, open flame and other ignition sources during handling. Storage Requirements to be Met by Storerooms and Receptacles
 Store in a well-ventilated place; provide ventilation for receptacles.
 Keep stored in accordance with local, regional, national, and international regulations.
 Information about Storage in One Common Storage Facility
 Store away from incompatible material(s).
 Store away from foodstuffs. Avoid release to the environment. · Additional Information No further relevant information. 8 Exposure controls/personal protection Engineering Measures or Controls · Exposure Limit Values that Require Monitoring at the Workplace 112-24-3 Triethylenetetramine WEEL Long-term value: 6 mg/m<sup>3</sup>, 1 ppm Skin Other Engineering Measures or Controls Ventilation rates should be matched to conditions. If applicable, use process enclosure(s), local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. · Personal Protective General Protective and Hygienic Measures Avoid any contact with eye. Do not eat, drink or smoke during work. Clean hands and exposed skin thoroughly after work and before breaks. (Contd. on page 4)



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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.

Hand Protection



Protective gloves

Selection of glove material should take into consideration the penetration times, rates of diffusion, and the degradation. Suggested glove type(s): Nitrile Gloves Buty/ Rubber Gloves

Eye Protection

safety glasses with side shields and or face shield.

Intensive or long term use: Tightly sealed goggles and Face Shields

## Body Protection

Chemical resistant apron; cover exposed skin. Where the potential for over-exposure exists, the following protective work clothing is recommended: Tychem® BR Coveralls

## · Additional Information

All protective clothing (suits, gloves, footwear, headgear) should be clean, available every day, and put on before work. 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.

## 9 Physical and chemical properties

Information on Basic Physical and Chemical Properties						
· Appearance:						
Form:	Liquid					
· Color:	Amber					
· Odor:	Ammonia-like					
<ul> <li>Odor Threshold:</li> </ul>	Not determined.					
· PH-Value at 20 °C (68 °F):	8					
· Change in Condition:						
Melting Point:	Not determined.					
Boiling Point:	140 °C (284 °F)					
· Flash Point:	266 °C (511 °F)					
	Not determined.					
· Flammability:	Not determined.					
· Explosion:	Not determined.					
Explosion Limits:						
Lower:	Not determined.					
· Upper:	Not determined.					
· Vapor Pressure:	Not determined.					
Vapor Density	not determined					
Density at 20 °C (68 °F):	0.98 g/cm³ (8.178 lbs/gal)					
<ul> <li>Solubility in or Miscibility with</li> </ul>						
· Water:	Not misciple or difficult to mix.					
· Viscosity:						
<ul> <li>Dynamic at 20 °C (68 °F):</li> </ul>	8000 mPas					
· Kinematic:	Not determined.					
· Additional Information No	further relevant information.					

### 10 Stability and reactivity

· Physical Hazard(s) Not a regulated reactive or physical hazard under GHS.

· Hazardous Reactivity and Chemical Stability Stable under normal conditions of use, storage and temperatures.

• Thermal Decomposition and Conditions to be Avoided Keep away from incompatible material(s). Thermally decomposes during fire or high heat; keep away from heat, sparks, open flame and other ignition sources.

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· Possibility of Other Hazardous Reaction(s) No further relevant information available.

Incompatible Material(s)
 Incompatible Material(s)
 strong reducing agents, mixtures with nitrites may generate carcinogenic N-Nitrosamines. acid chlorides, acid anhydrides, hypochlorites
 Oxidizing agents
 Strong acids

- Hazardous Decomposition Product(s) Hazardous Decomposes during fire or very high heat. See Section 5 for fire hazards evolved during thermal decomposition.
- · Hazardous Polymerization Product(s) No relevant information.

11 Toxicological	information	
· Acute Toxicity LD	D50(rat):>8000 mg/kg ATE	
· Oral		
ATE (Acute Toxic	city Estimates)	
Oral LD50 >8000 Royce	0 mg/kg (rat) 9 SDS (2015)	
	Health Effect(s): pain	
See acute . · <b>Dermal</b>	inhalative effect(s) for further information	
LD50(rabbit):>		
Dermal LD50 >50 Roy		
No further	<i>Health Effect(s):</i> relevant information available; classification is not possible. inhalative effect(s) for further information.	
Potential I While not p shortness of sore throat wheezing	t	om(s):
<ul> <li>Skin Corrošio.</li> </ul>		
Rabbit/skin: se Corrosion/Irritation	evere irritation severe (rabbit) (Draize test) Royce SDS (2015)	
68410-23-1 Fatty a	acids, C18 unsatd., dimers, reaction products with polyethylenepolyamines	
Corrosion/Irritation	n (Not applicable) (OECD Test Guideline 431) Not considered to be corrosive to skin in the in vitro skin model EpiDermTM. Source: ECHA REACH Dossier GLP Study 2012	
Causes ski	Health Effect(s): sin irritation. with skin, may cause: nulation	
redness an • <b>Eye Serious D</b>		
Damage/Irritation	serious (rabbit) (Draise) Royce SDS (2015)	
	Health Effect(s):	
Causes se In contact redness an	erious eye irritàtion. with eye, may cause: nd nain	
	or Skin Sensitization	
	(No data available for the product itself) Product contains Triethylenetetramine - may produce an allergic reaction.	
May cause	Health Effect(s): e an allergic skin reaction. nt information for respiratory sensitization; classification is not possible.	
	(Occupational Safety & Health Administration)	
None of the ingredi		
Germ Cell Mut Triethyleneteti		nd withou
activation. • <b>Potential I</b>	Health Effect(s): No further relevant information; classification is not possible.	
Carcinogenici		
Carcinogenicity (N	No data available for the product itself) lot listed by OSHA/NTP/IARC. Not classified as a carcinogen.	
Potential H	Health Effect(s): Not a known Carcinogen. (Contd.	on page 6)

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rade Name: EP750 Black B	
· Reproductive Toxicity	(Contd. of page
Triethylenetetramine was fetotoxic and teratoo	genic when fed to rats in a 0.83% and 1.67% diet. When applied dermally to the skir ion rate or death of fetus with secondary copper deficiency, resulting from the chelat
Reproductive Toxi (Test species listed below)	genic when fed to rats in a 0.83% and 1.67% diet. When applied dermally to the skin as a 90% abortion rate or death of fetus with secondary copper deficiency, resulting fro
Aspiration Hazard	vant information; classification is not possible.
Potential Health Effect(s): No relevant info	ormation; classification is not possible.
2 Ecological information	
· Aquatic Environmental Toxicity	
LC50(fish)(96hr): 10-100mg/l EC50(Daphnia magna)(24hr): 31.1mg/l EC50(algae)(72hr): 10-100mg/l	
Algae Toxicity 10-100 mg/l (Green Algae) (EC50(7. Royce SDS (2015)	2-hr))
Fish Toxicity 10-100 mg/l (Test species listed bely LC50(fish)(96-hr) 10-100mg/l. Royce SDS (2015)	ow) (LC50 (96hr))
Aquatic Environmental Toxicity Assessment Degradability and Stability Not readily biodegradable (0% after 20 days)	<i>t:</i> Harmful to aquatic life with long lasting effects.
Biodegradation (Not applicable) Not readily biodegradable (0% afte Royce SDS (2015)	er 20 days)
Degradability and Bioaccumulation Assess Product not classified as Persistant, Bioaccumu Product not classified as very Persistant or very Non-rapidly degradable, and low bioaccumulati	ulative and Toxic. v Bioaccumulative
3 Disposal considerations	
· Hazardous Waste List	nd dispose of the substance/mixture as a hazardous waste.
Waste Treatment Recommendation: Generation of waste should be avoided or minir Chemical waste, even small quantities, is neiti	mized wherever possible. her allowed to be poured down drains, sewage system or waterways; nor disposed v
household garbage. Dispose of contents/containers in accordance v	with local, regional, national, and international regulations.
Unused and Uncontaminated Packagings Recommendation Dispose of according to you	ir local waste regulations.
4 Transport information	
· UN-Number · DOT, ADR, IMDG, IATA	UN3082
UN Proper Shipping Name	Environmentally hazardous substance, liquid, n.o. (Polyethylenepolyamines), 9,III
<ul> <li>Transport hazard class(es)</li> <li>DOT, IMDG, IATA</li> </ul>	
· Class	9 Miscellaneous dangerous substances and articles



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1. Data 10/00/0015	
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ade Name: EP750 Black B	
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ADR	
· Class · Label	9 (M6) Miscellaneous dangerous substances and articles 9
· Packing group · DOT, ADR, IMDG, IATA	<i>III</i>
Environmental Hazards:	Product contains environmentally hazardous substances: Fatty acid. C18 unsatd., dimers, reaction products with polyethylenepolyamines
· Marine Pollutant:	Yes Symbol (fish and tree)
<ul> <li>Special Marking (ADR):</li> <li>Special Marking (IATA):</li> </ul>	Symbol (fish and tree) Symbol (fish and tree)
<ul> <li>Special Precautions:</li> <li>Danger Code (Kemler):</li> <li>EMS Number:</li> <li>Segregation Groups</li> </ul>	Warning: Miscellaneous dangerous substances and articles 90 F-A,S-F Alkalis
<ul> <li>Transport in Bulk according to Annex II of MARPC IBC Code</li> </ul>	DL73/78 and the Not applicable.
· Transport/Additional Information:	
· DOT · Remarks:	Special marking with the symbol (fish and tree).
• ADR • Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· IMDG · Limited quantities (LQ) · Excepted quantities (EQ)	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· UN "Model Regulation":	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCES LIQUID, N.O.S. (FATTY ACIDS, C18 UNSATD., DIMERS REACTION PRODUCTS WITH POLYETHYLENEPOLYAMINES), S III

Regulatory information	
USA Regulation Lists SARA (Superfund Amendments and Reauthorization Act of 1986)	
· Section 302 (Extremely Hazardous Substances)	
None of the ingredients is listed.	
<ul> <li>Section 313 (Toxics Release Inventory (TRI) reporting)</li> </ul>	
None of the ingredients is listed.	
<ul> <li>Section 311/312 (Hazardous Chemical Inventory Reporting)</li> </ul>	
112-24-3 Triethylenetetramine	A <u>&lt;</u>
• <b>Hazard Abbreviations for SARA 311/312</b> 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)	
112-24-3 Triethylenetetramine	
· Proposition 65	
Chemicals Known to Cause Cancer	
None of the ingredients is listed.	
<ul> <li>Chemicals Known to Cause Reproductive Toxicity for Females</li> </ul>	
None of the ingredients is listed.	
<ul> <li>Chemicals Known to Cause Reproductive Toxicity for Males</li> </ul>	
None of the ingredients is listed.	
<ul> <li>Chemicals Known to Cause Developmental Toxicity</li> </ul>	
None of the ingredients is listed.	
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Print Date 10/26/2015 Trade Name: EP750 Black B (Contd. of page 7) · Carcinogenic Categories EPA (Environmental Protection Agency) None of the ingredients is listed. · IARC (International Agency for Research on Cancer) None of the ingredients is listed. · NTP (National Toxicology Program) None of the ingredients is listed. · TLV (Threshold Limit Value Established by ACGIH) None of the ingredients is listed. NIOSH-Ca (National Institute for Occupational Safety and Health) None of the ingredients is listed. · International Regulation Lists · Canadian Domestic Substance Listings: 112-24-3 Triethylenetetramine Canadian Ingredient Disclosure list (limit 0.1%) 112-24-3 Triethvlenetetramine Canadian Ingredient Disclosure list (limit 1%) None of the ingredients is listed. Chinese Chemical Inventory of Existing Chemical Substances: 112-24-3 Triethylenetetramine Japanese Existing and New Chemical Substance List: 112-24-3 Triethylenetetramine Korean Existing Chemical Inventory: 112-24-3 Triethylenetetramine European Pre-registered substances: 112-24-3 Triethylenetetramine · REACh - Substances of Very High Concern (SVHC) List: None of the ingredients is listed.

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

## 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 Safety Department

Contact: msds@resinlab.com

· Abbreviations and acronyms:

- ACGIH: American Conference of Governmental Industrial Hygienists
- ACToR: US EPA Aggregated Computational Toxicology Resource ADR: European Agreement Concerning the International Carriage of Dangerous Goods by Road BCF: Bioconcentration Factor

CAS: Chemical Abstracts Service (division of the American Chemical Society) CCRIS: US NLM TOXNET Chemical Carcinogenesis Research Information System CHRIP: Japan NITE Information on Biodegradation and Bioconcentration of the Existing Chemical Substances in the Chemical Risk Information Platform DOT: US Description

CHRIP: Japan NITE Information on Biodegradation and Bioconcentration of the Existing Chemical Substances in the Chemical Risk Information Platform DSL: Canada Domestic Substance List ESIS: European Chemical Substances Information System HMIS: US National Paint & Coatings Association (NPCA) Hazardous Materials Identification System HSDB: US NLM TOXNET Hazardous Substances Databank HSNO CCID: New Zealand Hazardous Substances and New Organisms Chemical Classification Information Database IARC: International Agency for Research on Cancer developed by United Nations World Health Organisation (WHO) IATA-DGR: Dangerous Goods Regulations (DGR) by the International Air Transport Association (IATA) ICAO-TI: Technical Instructions (T) by the International Civil Aviation Organization (ICAO) ICSC: International Chemical Safety Cards IMDG: International Maritime Dangerous Goods; the principal international rules for International Carriage of Dangerous Goods by SEA under the Recommendations on the Transport of Dangerous Goods by United Nations (RTDG) Koc: Partition coefficient, soil Organic Carbon to water LCSO/LDSO: Lethal Concentration/Dose, 50 percent N/a: Not available or Not applicable NFPA: US National Institute of Occupational Safety and Health NITE: National Institute of Decomparation and Development OSHA: US Occupational Safety and Health Administration P: Marine Pollutant RCRA: Resource Conservation and Recovery Act (USA)

RCRA: Resource Conservation and Recovery Act (USA)

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(Contd. of page 8) REACh: EU Registry, Evaluation and Authorisation of Chemicals RID: the Regulations Concerning the International Carriage of Dangerous Goods by Rail; published by the Central Office for International Carriage by Rail (OTIF) RTDG: the Recommendations on the Transport of Dangerous Goods by United Nations (UN) RTECS: US Registry of Toxic Effects of Chemical Substances SARA: US Superfund Amendments and Reauthorization Act SIDS: OECD existing chemicals Screening Information Data Sets SVHC: EU ECHA Substance of Very High Concern TEEL: Temporary Emergency Exposure Limit developed by US Subcommittee on Consequence Assessment and Protective Actions (SCAPA) of US Department of Energy (DOE) TOXLINE: US NLM bibliographic database search system TSCA: US Toxic Substance Control Act . Date of preparation / last revision 10/26/2015 / 10