

ECTION 1: Identification	
.1. Identification	
Product form	: Mixture
Product name	: EP1238 Black B
.2. Recommended use and restr	rictions on use
Recommended use	: Epoxy hardener
Restrictions on use	: Product for industrial use only
.3. Supplier	
ResinLab, LLC N109 W13300 Ellsworth Drive Germantown, WI 53022 - United States T 1-877-259-1669 <u>msds@resinlab.com</u> - <u>www.resinlab.co</u>	
.4. Emergency telephone number	
Emergency number	: CHEMTREC:1-800-424-9300 (USA); +1 703-527-3887 (International)
ECTION 2: Hazard(s) identific	cation
.1. Classification of the substan	
HS US classification	
Skin corrosion/irritation Category 1B Skin sensitization, Category 1 Specific target organ toxicity (single exp ull text of H statements : see section 16	
HS US labeling	
Hazard pictograms (GHS US)	
Hazard pictograms (GHS US)	
Hazard pictograms (GHS US) Signal word (GHS US)	: Danger
Hazard pictograms (GHS US)	 : Danger : H314 - Causes severe skin burns and eye damage H317 - May cause an allergic skin reaction H370 - Causes damage to organs (nervous system) (oral) : P260 - Do not breathe dust/fume/gas/mist/vapors/spray.

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2.4.	Unknown	acute	toxicity	(GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%
Diethylene glycol Bis(3-aminopropyl) Ether	(CAS-No.) 4246-51-9	50 – 75
Epoxy Resin	(CAS-No.) 25068-38-6	10 – 30
1, 2, 3-Propanetriyl ester of 12-(oxiranylmethoxy)-9-octadecanoic acid	(CAS-No.) 74398-71-3	10 – 30
Resorcinol	(CAS-No.) 108-46-3	1 – 5

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. Obtain medical attention if irritation persists.
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. Get medical advice/attention.
4.2. Most important symptoms and effects	s (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 spec	cial treatment, if necessary
Treat symptomatically.	
SECTION 5: Fire-fighting measures	
5.1. Suitable (and unsuitable) extinguishin	ng media
Suitable extinguishing media	: Water spray. Dry powder. Foam. Carbon dioxide.
5.2. Specific hazards arising from the che	mical
Hazardous decomposition products in case of fire	: Toxic fumes may be released, Carbon oxides (CO, CO2), Nitrogen oxides, Gaseous ammonia, Use of water may result in the formation of very toxic aqueous solutions, Nitric acid, Silicon oxides, Formaldehyde, a known skin and lung sensitizer and a regulated carcinogen, may be released when heated above 150 °C.
5.3. Special protective equipment and pre	cautions for fire-fighters
Firefighting instructions	: Complete protective clothing. Self-contained breathing apparatus.
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
SECTION 6: Accidental release meas	ures
6.1. Personal precautions, protective equ	ipment and emergency procedures
6.1.1. For non-emergency personnel	
Emergency procedures	: Ventilate spillage area. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact with skin and eyes.
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. Do not allow to	enter drains or water courses.

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6.3. Methods and materia	I for containment and cleaning up		
For containment	: Collect spillage.		
Methods for cleaning up	: Take up liquid spill into absorbent		
Other information	: Dispose of materials or solid resid	lues at an authorized site.	
6.4. Reference to other se	ections		
For further information refer to se	ection 13.		
SECTION 7: Handling an	d storage		
7.1. Precautions for safe			
Precautions for safe handling	workplace. Do not breathe dust/fu Wear personal protective equipme		
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 s	torage, including any incompatibilities		
Storage conditions	: Store locked up. Store in a well-ve	entilated place. Keep cool. Keep only in original container.	
SECTION & Exposure of	ontrols/personal protection		
	phirols/personal protection		
8.1. Control parameters			
Diethylene glycol Bis(3-ami Not applicable	nopropyi) Ether (4246-51-9)		
Epoxy Resin (25068-38-6) Not applicable			
		4.0)	
Not applicable	12-(oxiranylmethoxy)-9-octadecanoic acid (74398-7	1-3)	
Resorcinol (108-46-3)			
ACGIH	Local name	Resorcinol	
ACGIH	ACGIH OEL TWA		
		10 ppm	
ACGIH	ACGIH OEL STEL	20 ppm	
ACGIH	Remark (ACGIH)	TLV® Basis: Eye & skin irr. Notations: A4 (Not classifiable as a Human Carcinogen)	
ACGIH	Regulatory reference	ACGIH 2023	
8.2. Appropriate engineer	ing controls		
Appropriate engineering contro	-	rk station, ventilate curing ovens to prevent emissions in the	
Environmental exposure contro			
8.3. Individual protection	measures/Personal protective equipment		
Hand protection:			
Protective gloves			
Eye protection:			
Safety glasses with side shiel	ds		
Skin and body protection:			

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s):

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and c	hemical properties
Physical state	: Liquid
Color	: Amber
Odor	: Amine-like
Odor threshold	: No data available
рН	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: > 120 °C
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability	: Not applicable.
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: No data available
Density	: 1.07 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 ur	nder normal conditions.
10.3.	Possibility of hazardous reactions
No dange	erous reactions known under normal conditions of use.
10.4.	Conditions to avoid
None und	der recommended storage and handling conditions (see section 7).
10.5.	Incompatible materials
Bases (A	Ikalis). Acids. Mercaptans. Sodium hypochlorite. May be corrosive to some metals. Oxidizing agent.
10.6.	Hazardous decomposition products
	section 5.2 for hazardous decomposition products during combustion. Under normal conditions of storage and use, hazardous decomposition should not be produced.

SECTIO	SECTION 11: Toxicological information			
11.1.	Information on toxicological effects			
Acute to	oxicity (oral)	: Not classified		
Acute to	oxicity (dermal)	: Not classified		

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Acute toxicity (inhalation)	: Not classified
Diethylene glycol Bis(3-aminopropyl) Ether	(4246-51-9)
LD50 oral rat	3160 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male / female, Experimenta value, Oral, 14 day(s))
LD50 dermal rat	> 2150 mg/kg (Equivalent or similar to OECD 402, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s))
LD50 dermal rabbit	2500 mg/kg body weight
Epoxy Resin (25068-38-6)	
LD50 oral rat	> 2000 mg/kg body weight Animal: rat, Animal sex: female, Guideline: OECD Guideline 420 (Acute Oral Toxicity - Fixed Dose Method)
LD50 dermal rat	> 2000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: EU Method B.3 (Acute Toxicity (Dermal))
Resorcinol (108-46-3)	
LD50 oral rat	510 mg/kg body weight (OECD 401: Acute Oral Toxicity, Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 dermal rabbit	2830 mg/kg body weight (Rabbit, Male, Experimental value, Dermal, 14 day(s))
ATE US (oral)	510 mg/kg body weight
ATE US (dermal)	2830 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	: Not classified
Epoxy Resin (25068-38-6)	
NOAEL (chronic,oral,animal/male,2 years)	15 mg/kg body weight Animal: rat, Animal sex: male, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies), Guideline: EPA OPPTS 870.4300 (Combined Chronic Toxicity / Carcinogenicity), Guideline: other:MITI, Japanese ministry of international trade and industry, February 1998, Remarks on results: other:Effect type: toxicit (migrated information)
NOAEL (chronic,oral,animal/female,2 years)	100 mg/kg body weight Animal: rat, Animal sex: female, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies), Guideline: EPA OPPTS 870.4300 (Combined Chronic Toxicity / Carcinogenicity), Guideline: other:MITI, Japanese ministry of international trade and industry, February 1998, Remarks on results: other:Effect type: toxicit (migrated information)
Resorcinol (108-46-3)	
IARC group	3 - Not classifiable
Reproductive toxicity	Not classified
STOT-single exposure	: Causes damage to organs (nervous system) (oral).
Resorcinol (108-46-3)	
STOT-single exposure	Causes damage to organs (central nervous system, respiratory system) (oral).
STOT-repeated exposure	: Not classified
Diethylene glycol Bis(3-aminopropyl) Ether	(4246-51-9)
LOAEL (oral,rat,90 days)	100 mg/kg body weight Animal: rat, Animal sex: male, Guideline: OECD Guideline 422
LOALL (Ural, rat, 30 days)	(Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test), Guideline: other:
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.
ECTION 12: Ecological information	
2.1. Toxicity	
Ecology goporal	· Harmful to aquatic life. Harmful to aquatic life with long lacting offacts

Ecology - general

: Harmful to aquatic life. Harmful to aquatic life with long lasting effects.

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Diethylene glycol Bis(3-aminopropyl) Ether (4246-51-9)		
LC50 - Fish [1]	215 – 464 mg/l (DIN 38412-15, 96 h, Leuciscus idus, Static system, Fresh water, Experimental value, Nominal concentration)	
EC50 - Crustacea [1]	218.16 mg/l (EU Method C.2, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Nominal concentration)	
LC50 - Fish [2]	215 – 464 mg/l Test organisms (species): Leuciscus idus	
NOEC (chronic)	> 1 mg/l Test organisms (species): Daphnia magna	
NOEC chronic fish	> 1 mg/l Test organisms (species): Leuciscus idus	
Epoxy Resin (25068-38-6)		
LC50 - Fish [1]	1.3 mg/l (96 h, Pisces, Literature study)	
EC50 - Crustacea [1]	≈ 2 mg/l Test organisms (species): Daphnia magna	
LOEC (chronic)	1 mg/l Test organisms (species): Daphnia magna Duration: '21 d'	
NOEC (chronic)	0.3 mg/l Test organisms (species): Daphnia magna Duration: '21 d'	

12.2. Persistence and degradability

Diethylene glycol Bis(3-aminopropyl) Ether (4246-51-9)		
Persistence and degradability	Not readily biodegradable in water.	
Epoxy Resin (25068-38-6)		
Persistence and degradability	Not readily biodegradable in water.	
Resorcinol (108-46-3)		
Persistence and degradability	Readily biodegradable in water.	
Biochemical oxygen demand (BOD)	1.15 g O ₂ /g substance	
Chemical oxygen demand (COD)	0.0575 g O₂/g substance	
ThOD	1.89 g O ₂ /g substance	

12.3. Bioaccumulative potential

Diethylene glycol Bis(3-aminopropyl) Ether (4246-51-9)		
BCF - Fish [1] 0.89 – 3.16 (BCFBAF v3.01, Pisces, Estimated value)		
Partition coefficient n-octanol/water (Log Pow)	-1.25 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 25 °C)	
Bioaccumulative potential	Not bioaccumulative.	
Epoxy Resin (25068-38-6)		
Partition coefficient n-octanol/water (Log Pow)	3 (Estimated value, 25 °C)	
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).	
Resorcinol (108-46-3)		
Partition coefficient n-octanol/water (Log Pow)	0.8 (Experimental value, 20 °C)	
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).	

12.4. Mobility in soil

Diethylene glycol Bis(3-aminopropyl) Ether (4246-51-9)	
Ecology - soil	Highly mobile in soil.
Epoxy Resin (25068-38-6)	
Surface tension	59 mN/m (20 °C, 0.09 g/l)
Ecology - soil	No (test)data on mobility of the substance available.
Resorcinol (108-46-3)	
Surface tension	72 mN/m (20 °C, 0.1 %, OECD 115: Surface Tension of Aqueous Solutions)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.02 (log Koc, Experimental value)
Ecology - soil	Highly mobile in soil.

12.5. Other adverse effects

No additional information available

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3.1. Disposal methods	
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
ECTION 14: Transport information	
Department of Transportation (DOT)	
In accordance with DOT	
Transport document description (DOT) UN-No.(DOT)	: UN2735 Polyamines, liquid, corrosive, n.o.s. (Diethylene glycol Bis(3-aminopropyl) Ether), 8, II : UN2735
Proper Shipping Name (DOT)	: Polyamines, liquid, corrosive, n.o.s.
	Diethylene glycol Bis(3-aminopropyl) Ether : 8 - Class 8 - Corrosive material 49 CFR 173.136
Class (DOT)	
Packing group (DOT) Hazard labels (DOT)	: III - Minor Danger : 8 - Corrosive
	CORROSIVE 8
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 liquid 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
DOT Packaging Exceptions (49 CFR 173.xxx)	: 154
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	: 5L
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. (Diethylene glycol Bis(3-aminopropyl) Ether), 8, III
UN-No. (IMDG)	: 2735
	POLYAMINES, LIQUID, CORROSIVE, N.O.S.
	Diethylene glycol Bis(3-aminopropyl) Ether
Class (IMDG)	: 8 - Corrosive substances
Packing group (IMDG)	: III - substances presenting low danger
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Limited quantities (IMDG)	: 5L
Air transport	
Transport document description (IATA)	: UN 2735 Amines, liquid, corrosive, n.o.s. (Diethylene glycol Bis(3-aminopropyl) Ether), 8, III
UN-No. (IATA)	: 2735
Proper Shipping Name (IATA)	: Amines, liquid, corrosive, n.o.s.
	Diethylene glycol Bis(3-aminopropyl) Ether

Class (IATA) Packing group (IATA)

: III - Low danger

: 8 - Corrosives

SECTION 15: Regulatory information

15.1. US Federal regulations

Diethylene glycol Bis(3-aminopropyl) Ether (4246-51-9)		
Listed on the United States TSCA (Toxic Substances Control Act) inventory		
Epoxy Resin (25068-38-6)		
Listed on the United States TSCA (Toxic Substan	nces Control Act) inventory	
EPA TSCA Regulatory Flag	XU - XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711).	
1, 2, 3-Propanetriyl ester of 12-(oxiranylmethoxy)-9-octadecanoic acid (74398-71-3)		
EPA TSCA Regulatory Flag	TP - TP - indicates a substance that is the subject of a proposed TSCA section 4 test rule. XU - XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711).	
Resorcinol (108-46-3)		
Listed on the United States TSCA (Toxic Substances Control Act) inventory Not subject to reporting requirements of the United States SARA Section 313		
CERCLA RQ	5000 lb	

15.2. International regulations

CANAD	JA
Diet	hylene glycol Bis(3-aminopropyl) Ether (4246-51-9)
Liste	ed on the Canadian DSL (Domestic Substances List)
Epo	xy Resin (25068-38-6)
Liste	ed on the Canadian DSL (Domestic Substances List)
1, 2,	3-Propanetriyl ester of 12-(oxiranylmethoxy)-9-octadecanoic acid (74398-71-3)
Liste	ed on the Canadian DSL (Domestic Substances List)
Res	orcinol (108-46-3)
Liste	ed on the Canadian DSL (Domestic Substances List)

EU-Regulations

Contains no REACH candidate substance

Diethylene glycol Bis(3-aminopropyl) Ether (4246-51-9)	
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)	
Epoxy Resin (25068-38-6)	
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)	
Resorcinol (108-46-3)	
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)	
ational regulations	
Diethylene glycol Bis(3-aminopropyl) Ether (4246-51-9)	

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

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Listed on KECL/KECI (Korean Existing Chemicals Inventory)

Listed on NZIoC (New Zealand Inventory of Chemicals)

Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)

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Epoxy Resin (25068-38-6)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Listed on KECL/KECI (Korean Existing Chemicals Inventory) Listed on NZIoC (New Zealand Inventory of Chemicals) Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)	
1, 2, 3-Propanetriyl ester of 12-(oxiranylmethoxy)-9-octadecanoic acid (74398-71-3)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Listed on KECL/KECI (Korean Existing Chemicals Inventory) Listed on NZIoC (New Zealand Inventory of Chemicals) Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)	
Resorcinol (108-46-3)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Listed on KECL/KECI (Korean Existing Chemicals Inventory) Listed on NZIoC (New Zealand Inventory of Chemicals) Listed on INSQ (Mexican National Inventory of Chemical Substances) Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)	

WARNING: This product can expose you to Epichlorohydrin, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Component	State or local regulations
Resorcinol(108-46-3)	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

SECTION 16: Other information

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Revision date

: 03/25/2024

Full text of H-phrases:

H314	Causes severe skin burns and eye damage
H317	May cause an allergic skin reaction
H370	Causes damage to organs
H401	Toxic to aquatic life

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.