

# Safety Data Sheet

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

Version: 1.2

Issue date: 08/24/2020 Revision date: 07/13/2022 Supersedes: 01/20/2022

## **SECTION 1: Identification**

### 1.1. Identification

Product form : Mixture

Product name : EP1295 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 Skin sensitization, Category 1 Reproductive toxicity Category 2

Full text of H statements : see section 16

H314 Causes severe skin burns and eye damage

H317 May cause an allergic skin reaction

H361 Suspected of damaging fertility or the unborn child

## 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

H361 - Suspected of damaging fertility or the unborn child

Precautionary statements (GHS US) : P201 - Obtain special instructions before use.

P202 - Do not handle until all safety precautions have been read and understood.

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.

P308+P313 - If exposed or concerned: Get medical advice/attention.

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.

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.

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#### 2.3. Other hazards which do not result in classification

No additional information available

## 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	%	GHS US classification
Styrenated phenol	(CAS-No.) 61788-44-1	10 – 30	Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Fatty acids, c18-unsat., dimers,polymers with 3,3'- (oxybis(2,1-ethanediyloxy))bis(1-propanamine)	(CAS-No.) 68541-13-9	5 – 10	Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317
N-(2-Aminoethyl)piperazine	(CAS-No.) 140-31-8	5 – 10	Acute Tox. 3 (Dermal), H311 Skin Corr. 1B, H314 Skin Sens. 1, H317 Repr. 2, H361 Aquatic Acute 3, H402 Aquatic Chronic 3, H412
Ammonium Polyphosphate	(CAS-No.) 68333-79-9	5 – 10	Eye Irrit. 2, H319
Fatty acids, tall-oil, reaction products with tetraethylenepentamine	(CAS-No.) 68953-36-6	1 – 5	Skin Corr. 1C, H314 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Diethylene glycol Bis(3-aminopropyl) Ether	(CAS-No.) 4246-51-9	0.5 – 1	Skin Corr. 1B, H314 Skin Sens. 1, H317
Tetraethylenepentamine	(CAS-No.) 112-57-2	0.1 – 0.5	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
Diethylenetriamine	(CAS-No.) 111-40-0	0.1 – 0.5	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 2 (Inhalation), H330 Skin Corr. 1, H314 Skin Sens. 1, H317 STOT SE 3, H335 Aquatic Acute 3, H402

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. If experiencing respiratory

symptoms: Call a poison center or a doctor.

First-aid measures after skin contact : Rinse immediately with plenty of water for 15 minutes. Remove/Take off immediately all

contaminated clothing. 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. Never give anything by mouth to an unconscious person.

## 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.

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#### **SECTION 5: Fire-fighting measures**

### 5.1. Suitable (and unsuitable) extinguishing media

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

Unsuitable extinguishing media : Do not use water jet to extinguish.

#### 5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of : Toxic fumes may be released, Carbon oxides (CO, CO2), Nitrogen oxides, ammonia

fire

#### 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.

#### 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. Notify authorities if product enters sewers or public

waters.

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

Precautions for safe handling : Ensure good ventilation of the work station, ventilate curing ovens to prevent emissions in the workplace. Obtain special instructions before use. Do not handle until all safety precautions

have been read and understood. Wear personal protective equipment. Avoid contact with skin

and eyes. Do not breathe dust/fume/gas/mist/vapors/spray.

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

Ammonium Polyphosphate	(68333-79-9)		
Not applicable			
Tetraethylenepentamine (11	2-57-2)		
AIHA	WEEL TWA	5 mg/m³	
Fatty acids, tall-oil, reaction	Fatty acids, tall-oil, reaction products with tetraethylenepentamine (68953-36-6)		
Not applicable			
Fatty acids, c18-unsat., dimers,polymers with 3,3'-(oxybis(2,1-ethanediyloxy))bis(1-propanamine) (68541-13-9)			
Not applicable			

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#### Diethylene glycol Bis(3-aminopropyl) Ether (4246-51-9)

Not applicable

## N-(2-Aminoethyl)piperazine (140-31-8)

Not applicable

## Styrenated phenol (61788-44-1)

Not applicable

Diethylenetriamine (111-40-0)		
ACGIH	Local name	Diethylenetriamine
ACGIH	ACGIH OEL TWA [ppm]	1 ppm
ACGIH	Remark (ACGIH)	TLV® Basis: URT & eye irr. Notations: Skin
ACGIH	Regulatory reference	ACGIH 2020

## 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:

Protective gloves

#### Eye protection:

Safety glasses with side shields

## Skin and body protection:

Wear suitable protective clothing

#### Respiratory protection:

In case of inadequate ventilation, wear respiratory protection.

## Personal protective equipment symbol(s):







## **SECTION 9: Physical and chemical properties**

# 9.1. Information on basic physical and chemical properties

Physical state : Liquid Color : Tan

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 : Not applicable. Vapor pressure : No data available Relative vapor density at 20 °C : No data available Relative density : No data available

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Density : 1.44 g/cm<sup>3</sup> Solubility : No data available Partition coefficient n-octanol/water (Log Pow) : No data available : No data available Auto-ignition temperature 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).

#### 10.5. Incompatible materials

Oxidizing agent. Peroxides. Sodium hypochlorite. Organic acid.

#### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Refer to section 5.2 for hazardous decomposition products during combustion.

## **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

Ammonium Polyphosphate (68333-79-9)		
LD50 oral rat	5625 mg/kg (Rat, Oral)	
LD50 dermal rabbit	> 3160 mg/kg (Rabbit, Dermal)	
LC50 Inhalation - Rat	> 4.85 mg/l air Animal: rat, Guideline: OECD Guideline 436 (Acute Inhalation Toxicity: Acute Toxic Class Method), Guideline: other:EU Method B.52 (Acute Inhalation Toxicity - Acute Toxic Class Method, 2014)	
ATE US (oral)	5625 mg/kg body weight	
Tetraethylenepentamine (112-57-2		
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)	1100 mg/kg body weight	

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, Experimental 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	
ATE US (oral)	3160 mg/kg body weight	
ATE US (dermal)	2500 mg/kg body weight	
N-(2-Aminoethyl)piperazine (140-31-8)		
LD50 oral rat	2097 mg/kg body weight (Rat, Male, Experimental value, Oral, 14 day(s))	
LD50 dermal rabbit	866 mg/kg bw/day (24 h, Rabbit, Male, Experimental value, Dermal, 14 day(s))	

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N-(2-Aminoethyl)piperazine (140-31-8	
ATE US (oral)	2097 mg/kg body weight
ATE US (dermal)	866 mg/kg body weight
Styrenated phenol (61788-44-1)	
LD50 oral rat	> 2000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 423 (Acute Oral toxicity - Acute Toxic Class 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))
LC50 Inhalation - Rat	> 4.92 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity), Guideline: EU Method B.2 (Acute Toxicity (Inhalation))
Diethylenetriamine (111-40-0)	
LD50 oral rat	1553 mg/kg body weight (Rat, Male, Experimental value, Oral, 14 day(s))
LD50 dermal rabbit	1045 mg/kg body weight (Rabbit, Experimental value, Dermal)
LC50 Inhalation - Rat [ppm]	16.4 ppm/4h
ATE US (oral)	1553 mg/kg body weight
ATE US (dermal)	1045 mg/kg body weight
ATE US (gases)	16.4 ppmV/4h
ATE US (vapors)	0.5 mg/l/4h
ATE US (dust, mist)	0.05 mg/l/4h
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
Reproductive toxicity	: Suspected of damaging fertility or the unborn child.
STOT-single exposure	Not classified

STOT-single exposure : Not classified

Diethylenetriamine (111-40-0)	
STOT-single exposure	May cause respiratory irritation.
0.707	

STOT-repeated exposure : Not classified

Styrenated phenol (61788-44-1)	
LOAEL (oral,rat,90 days)	337 mg/kg body weight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test), Remarks on results: other:
NOAEL (dermal,rat/rabbit,90 days)	1000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 410 (Repeated Dose Dermal Toxicity: 21/28-Day Study)
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 : Toxic to aquatic life. Harmful 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)

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Diethylene glycol Bis(3-aminoprop	pyl) Ether (4246-51-9)
LC50 - Fish [1]	215 – 464 mg/l (DIN 38412-15, 96 h, Leuciscus idus, Static system, Fresh water, Experimenta value, Nominal concentration)
EC50 - Crustacea [1]	218.16 mg/l (EU Method C.2, 48 h, Daphnia magna, Static system, Fresh water, Experimenta 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
N-(2-Aminoethyl)piperazine (140-3	1-8)
LC50 - Fish [1]	2190 mg/l (96 h, Pimephales promelas, Static system, Fresh water, Experimental value)
EC50 - Crustacea [1]	58 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Experimental value, GLP)
ErC50 algae	> 1000 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Fresh water, Experimental value, GLP)
Styrenated phenol (61788-44-1)	
LC50 - Fish [1]	1.77 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)
EC50 - Crustacea [1]	4.6 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)
NOEC (chronic)	0.115 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic fish	1.9 mg/l Test organisms (species): Oryzias latipes Duration: '14 d'
Diethylenetriamine (111-40-0)	
LC50 - Fish [1]	430 mg/l (EU Method C.1, 96 h, Poecilia reticulata, Semi-static system, Fresh water, Experimental value, GLP)
EC50 - Crustacea [1]	64.6 mg/l (EU Method C.2, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)
EC50 - Crustacea [2]	16 mg/l Test organisms (species): Daphnia magna
ErC50 algae	1164 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Selenastrum capricornutum, Static system, Fresh water, Experimental value, GLP)
LOEC (chronic)	11.3 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	5.6 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic fish	> 10 mg/l Test organisms (species): Gasterosteus aculeatus Duration: '28 d'

# 12.2. Persistence and degradability

Tetraethylenepentamine (112-57-2)		
Persistence and degradability	Not readily biodegradable in water.	
Diethylene glycol Bis(3-aminopropyl) Ether (4	246-51-9)	
Persistence and degradability	Not readily biodegradable in water.	
N-(2-Aminoethyl)piperazine (140-31-8)		
Persistence and degradability	Not readily biodegradable in water.	
Chemical oxygen demand (COD)	0.56 g O₂/g substance	
Styrenated phenol (61788-44-1)		
Persistence and degradability	Not readily biodegradable in water.	
Diethylenetriamine (111-40-0)		
Persistence and degradability	Readily biodegradable in the soil. Readily biodegradable in water.	

# 12.3. Bioaccumulative potential

Ammonium Polyphosphate (68333-79-9)		
No test data of component(s) available.		
Tetraethylenepentamine (112-57-2)		
3.162 l/kg (BCFBAF v3.01, Estimated value, Fresh weight)		
-3.16 (Estimated value, KOWWIN)		
Low potential for bioaccumulation (BCF < 500).		

BCF - Fish [1] 0.89 – 3.16 (BCFBAF v3.01, Pisces, Estimated value)	

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Diethylene glycol Bis(3-aminopropyl) Ether (4246-51-9)			
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.		
N-(2-Aminoethyl)piperazine (140-31-8)			
BCF - Fish [1]	0.3 – 6.3 (OECD 305: Bioconcentration: Flow-Through Fish Test, 6 week(s), Cyprinus carpio, Flow-through system, Fresh water, Read-across)		
Partition coefficient n-octanol/water (Log Pow)	-1.48 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 20 °C)		
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).		
Styrenated phenol (61788-44-1)			
BCF - Fish [1]	3246 l/kg (BCFBAF v3.01, Pisces, Fresh water, Weight of evidence, Fresh weight)		
Partition coefficient n-octanol/water (Log Pow)	3.03 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 23.6 °C)		
Bioaccumulative potential	Potential for bioaccumulation (500 ≤ BCF ≤ 5000).		
Diethylenetriamine (111-40-0)			
BCF - Fish [1]	0.3 – 6.3 (OECD 305: Bioconcentration: Flow-Through Fish Test, 8 week(s), Cyprinus carpio, Flow-through system, Fresh water, Experimental value, Fresh weight)		
Partition coefficient n-octanol/water (Log Pow)	-1.58 (Calculated, 20 °C)		
Bioaccumulative potential	Not bioaccumulative.		

# 12.4. Mobility in soil

Ammonium Polyphosphate (68333-79-9)		
Ecology - soil	No (test)data on mobility of the component(s) available.	
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.	

Diethylene glycol Bis(3-aminopropyl) Ether (4246-51-9)		
Ecology - soil	Highly mobile in soil.	
N-(2-Aminoethyl)piperazine (140-31-8)		
Surface tension	No data available in the literature	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	4.57 (log Koc, Read-across, GLP)	
Ecology - soil	Low potential for mobility in soil.	
Styrenated phenol (61788-44-1)		
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	3.145 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value)	
Ecology - soil	Low potential for mobility in soil.	
Diethylenetriamine (111-40-0)		
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	3.4 – 4.6 (log Koc, Other, Experimental value, GLP)	
Ecology - soil	Adsorbs into the soil. Low potential for mobility in soil. Soil contaminant.	

## 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.

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## **SECTION 14: Transport information**

## **Department of Transportation (DOT)**

In accordance with DOT

Transport document description (DOT) : UN2735 Polyamines, liquid, corrosive, n.o.s. (N-(2-Aminoethyl)piperazine; Fatty acids, tall-oil,

reaction products with tetraethylenepentamine), 8, III

UN-No.(DOT) : UN2735

Proper Shipping Name (DOT) : Polyamines, liquid, corrosive, n.o.s.

N-(2-Aminoethyl)piperazine; Fatty acids, tall-oil, reaction products with tetraethylenepentamine

Class (DOT) : 8 - Class 8 - Corrosive material 49 CFR 173.136

Packing group (DOT) : III - Minor Danger Hazard labels (DOT) : 8 - Corrosive



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

: 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 : 5 L
(49 CFR 173.27)

DOT Quantity Limitations Cargo aircraft only (49 : 60 L

CFR 175.75)

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. (N-(2-Aminoethyl)piperazine; Fatty

acids, tall-oil, reaction products with tetraethylenepentamine), 8, III

UN-No. (IMDG) : 2735

POLYAMINES, LIQUID, CORROSIVE, N.O.S.

N-(2-Aminoethyl)piperazine; Fatty acids, tall-oil, reaction products with tetraethylenepentamine

Class (IMDG) : 8 - Corrosive substances

Packing group (IMDG) : III - substances presenting low danger

Limited quantities (IMDG) : 5 L

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#### Air transport

Transport document description (IATA) : UN 2735 Polyamines, liquid, corrosive, n.o.s. (N-(2-Aminoethyl)piperazine; Fatty acids, tall-oil,

reaction products with tetraethylenepentamine), 8, III

UN-No. (IATA)

Proper Shipping Name (IATA) : Polyamines, liquid, corrosive, n.o.s.

N-(2-Aminoethyl)piperazine; Fatty acids, tall-oil, reaction products with tetraethylenepentamine

Class (IATA) : 8 - Corrosives Packing group (IATA) : III - Minor Danger

## **SECTION 15: Regulatory information**

#### 15.1. US Federal regulations

#### Ammonium Polyphosphate (68333-79-9)

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

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

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

### Fatty acids, c18-unsat., dimers,polymers with 3,3'-(oxybis(2,1-ethanediyloxy))bis(1-propanamine) (68541-13-9)

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

**EPA TSCA Regulatory Flag** XU - XU - indicates a substance exempt from reporting under the Chemical Data Reporting

Rule, (40 CFR 711).

## Diethylene glycol Bis(3-aminopropyl) Ether (4246-51-9)

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

## N-(2-Aminoethyl)piperazine (140-31-8)

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

#### Styrenated phenol (61788-44-1)

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

## Diethylenetriamine (111-40-0)

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

### 15.2. International regulations

#### **CANADA**

### Ammonium Polyphosphate (68333-79-9)

Listed on the Canadian DSL (Domestic Substances List)

## Tetraethylenepentamine (112-57-2)

Listed on the Canadian DSL (Domestic Substances List)

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

Listed on the Canadian DSL (Domestic Substances List)

# Fatty acids, c18-unsat., dimers,polymers with 3,3'-(oxybis(2,1-ethanediyloxy))bis(1-propanamine) (68541-13-9)

Listed on the Canadian DSL (Domestic Substances List)

#### Diethylene glycol Bis(3-aminopropyl) Ether (4246-51-9)

Listed on the Canadian DSL (Domestic Substances List)

## N-(2-Aminoethyl)piperazine (140-31-8)

Listed on the Canadian DSL (Domestic Substances List)

#### Styrenated phenol (61788-44-1)

Listed on the Canadian DSL (Domestic Substances List)

## Diethylenetriamine (111-40-0)

Listed on the Canadian DSL (Domestic Substances List)

#### **EU-Regulations**

Contains no REACH candidate substance

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## **National regulations**

No additional information available

## 15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

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
N-(2-Aminoethyl)piperazine(140-31-8)	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
Diethylenetriamine(111-40-0)	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 : 07/13/2022

## Full text of H-phrases:

H302	Harmful if swallowed
H311	Toxic in contact with skin
H312	Harmful in contact with skin
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H319	Causes serious eye irritation
H330	Fatal if inhaled
H335	May cause respiratory irritation
H361	Suspected of damaging fertility or the unborn child
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.

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