

SECTION 1: Identification

1.1. Identification

Product form : Mixture
 Product name : EP1056LC 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 |
| Reproductive toxicity Category 2 | H361 | Suspected of damaging fertility or the unborn child |

Full text of H- and EUH-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
 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.
- 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.

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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 |
|----------------------------------------------------------------------|----------------------|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Fatty acids, tall-oil, reaction products with tetraethylenepentamine | (CAS-No.) 68953-36-6 | 50 – 75 | Skin Corr. 1C, H314 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 |
| 4-Nonylphenol, branched | (CAS-No.) 84852-15-3 | 10 – 30 | Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Repr. 2, H361 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 |
| Epoxy Resin | (CAS-No.) 25068-38-6 | 10 – 30 | Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Acute 2, H401 Aquatic Chronic 2, H411 |
| 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 |
| 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 |
| triethylenetetramine | (CAS-No.) 112-24-3 | 0.5 – 1 | Acute Tox. 4 (Dermal), H312 Skin Corr. 1B, H314 Skin Sens. 1, H317 Aquatic Acute 3, H402 Aquatic Chronic 3, H412 |

Full text of hazard classes, H- and EUH-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. Maintain irrigation until patient received medical care. Continue to irrigate for one hour if medical attention is not available. Cover wound with sterile dressing. 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 (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.

5.2. Specific hazards arising from the chemical

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. Wear personal protective equipment. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapors/spray.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace.

7.2. Conditions for safe storage, including any incompatibilities

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

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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

| |
|----------------|
| Not applicable |
|----------------|

| |
|---------------------------------------------|
| 4-Nonylphenol, branched (84852-15-3) |
|---------------------------------------------|

| |
|----------------|
| Not applicable |
|----------------|

| |
|---------------------------------|
| Epoxy Resin (25068-38-6) |
|---------------------------------|

| |
|----------------|
| Not applicable |
|----------------|

| |
|------------------------------------------|
| Tetraethylenepentamine (112-57-2) |
|------------------------------------------|

| |
|----------------|
| Not applicable |
|----------------|

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

| |
|----------------|
| Not applicable |
|----------------|

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triethylenetetramine (112-24-3)

Not applicable

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 insufficient ventilation, wear suitable respiratory equipment. 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 | : amber |
| Odor | : characteristic |
| Odor threshold | : No data available |
| pH | : No data available |
| Melting point | : Not applicable |
| Freezing point | : No data available |
| Boiling point | : > 200 °C |
| 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 | : 0.97 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 |

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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

Organic acid. Mineral acids. Oxidizing agent. Peroxides. May slowly corrode copper, aluminum, zinc, and galvanized surfaces. Sodium hypochlorite.

10.6. Hazardous decomposition products

Carbon oxides (CO, CO₂). Nitrogen oxides. Nitrogen oxide can react with water to form corrosive nitric acid. NITRIC ACID. ammonia.

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 |

| 4-Nonylphenol, branched (84852-15-3) | |
|---------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| LD50 oral rat | 1412 mg/kg body weight (Other, Rat, Male / female, Experimental value, Oral) |
| ATE US (oral) | 1412 mg/kg body weight |
| Epoxy Resin (25068-38-6) | |
| LD50 oral rat | > 2000 mg/kg (OECD 420: Acute Oral toxicity – Acute Toxic Class Method, Rat, Female, Experimental value, Oral, 14 day(s)) |
| 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)) |
| 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 |
| 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)) |
| ATE US (oral) | 2097 mg/kg body weight |
| ATE US (dermal) | 866 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 | : Not classified |

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| 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: toxicity (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: toxicity (migrated information) |

Reproductive toxicity : Suspected of damaging fertility or the unborn child.
STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

| 4-Nonylphenol, branched (84852-15-3) | |
|--------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| LOAEL (oral,rat,90 days) | 400 mg/kg body weight Animal: rat, Guideline: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents) |
| NOAEL (oral,rat,90 days) | 100 mg/kg body weight Animal: rat, Animal sex: male, Guideline: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents) |

| Epoxy Resin (25068-38-6) | |
|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| NOAEL (oral,rat,90 days) | 50 mg/kg body weight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents), Guideline: EPA OPPTS 870.3100 (90-Day Oral Toxicity in Rodents), Guideline: EU Method B.26 (Sub-Chronic Oral Toxicity Test: Repeated Dose 90-Day Oral Toxicity Study in Rodents), Guideline: other:japanese MITI guidelines for toxicity testing of chemicals |

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 : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment. Very toxic to aquatic life with long lasting effects.

| 4-Nonylphenol, branched (84852-15-3) | |
|--------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| LC50 - Fish [1] | 0.08 mg/l (ASTM E729-96, 96 h, Hybopsis monacha, Static system, Fresh water, Experimental value, Nominal concentration) |
| EC50 - Crustacea [1] | 0.084 mg/l (ASTM E729-88, 48 h, Daphnia magna, Semi-static system, Fresh water, Experimental value) |
| NOEC chronic fish | 0.006 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri) Duration: '91 d' |

| Epoxy Resin (25068-38-6) | |
|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| LC50 - Fish [1] | 2.3 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Oncorhynchus mykiss, Semi-static system, Fresh water, Experimental value, Nominal concentration) |
| EC50 - Crustacea [1] | 2 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value) |
| 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' |

| 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, Selastrum capricornutum, Experimental value) |

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

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

12.2. Persistence and degradability

| 4-Nonylphenol, branched (84852-15-3) | |
|---------------------------------------------|------------------------------------------------------------------------------|
| Persistence and degradability | Biodegradability in soil: no data available. Readily biodegradable in water. |

| Epoxy Resin (25068-38-6) | |
|---------------------------------|-------------------------------------|
| Persistence and degradability | Not readily biodegradable in water. |

| Tetraethylenepentamine (112-57-2) | |
|------------------------------------------|-------------------------------------|
| 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 O ₂ /g substance |

| triethylenetetramine (112-24-3) | |
|----------------------------------------|-------------------------------------|
| Persistence and degradability | Not readily biodegradable in water. |

12.3. Bioaccumulative potential

| 4-Nonylphenol, branched (84852-15-3) | |
|-------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| BCF - Fish [1] | 1200 – 1300 (OECD 305: Bioconcentration: Flow-Through Fish Test, 16 day(s), Gasterosteus aculeatus, Flow-through system, Salt water, Experimental value, Fresh weight) |
| Partition coefficient n-octanol/water (Log Pow) | 5.4 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 23 °C) |
| Bioaccumulative potential | Potential for bioaccumulation (500 ≤ BCF ≤ 5000). |

| Epoxy Resin (25068-38-6) | |
|-------------------------------------------------|------------------------------------------------|
| BCF - Other aquatic organisms [1] | 31 (Estimated value, Fresh weight) |
| Partition coefficient n-octanol/water (Log Pow) | 3 (Estimated value, 25 °C) |
| Bioaccumulative potential | Low potential for bioaccumulation (BCF < 500). |

| 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). |

| 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 | Not bioaccumulative. |

| 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. |

12.4. Mobility in soil

| 4-Nonylphenol, branched (84852-15-3) | |
|-------------------------------------------------|-------------------------------------------------------|
| Partition coefficient n-octanol/water (Log Koc) | 4.35 – 5.69 (log Koc, Other, Experimental value, GLP) |
| Ecology - soil | Adsorbs into the soil. |

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| Epoxy Resin (25068-38-6) | |
|-------------------------------------------------|------------------------------------------------------|
| Surface tension | 59 mN/m (20 °C, 0.09 g/l) |
| Partition coefficient n-octanol/water (Log Koc) | 2.65 (log Koc, SRC PCKOCWIN v2.0, QSAR) |
| Ecology - soil | Low potential for adsorption in soil. |
| Tetraethylenepentamine (112-57-2) | |
| Partition coefficient n-octanol/water (Log Koc) | 3.04 (log Koc, Calculated value) |
| Ecology - soil | Low potential for mobility in soil. |
| N-(2-Aminoethyl)piperazine (140-31-8) | |
| Partition coefficient n-octanol/water (Log Koc) | 4.57 (log Koc, Read-across, GLP) |
| Ecology - soil | Low potential for mobility in soil. |
| triethylenetetramine (112-24-3) | |
| Partition coefficient n-octanol/water (Log Koc) | 1.885 (log Koc, SRC PCKOCWIN v2.0, Calculated value) |
| Ecology - soil | Highly mobile in soil. |

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) : UN3267 Corrosive liquid, basic, organic, n.o.s. (Fatty acids, tall-oil, reaction products with tetraethylenepentamine ; 4-Nonylphenol, branched), 8, III

UN-No.(DOT) : UN3267

Proper Shipping Name (DOT) : Corrosive liquid, basic, organic, n.o.s.
Fatty acids, tall-oil, reaction products with tetraethylenepentamine ; 4-Nonylphenol, branched

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

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| | |
|------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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 | : 40 - Stow "clear of living quarters", 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 3267 CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (Fatty acids, tall-oil, reaction products with tetraethylenepentamine ; 4-Nonylphenol, branched), 8, III |
| UN-No. (IMDG) | : 3267 CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. Fatty acids, tall-oil, reaction products with tetraethylenepentamine ; 4-Nonylphenol, branched |
| Class (IMDG) | : 8 - Corrosive substances |
| Packing group (IMDG) | : III - substances presenting low danger |
| Limited quantities (IMDG) | : 5 L |
| Marine pollutant | : Yes |



Air transport

| | |
|---------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Transport document description (IATA) | : UN 3267 Corrosive liquid, basic, organic, n.o.s. (Fatty acids, tall-oil, reaction products with tetraethylenepentamine ; 4-Nonylphenol, branched), 8, III |
| UN-No. (IATA) | : 3267 |
| Proper Shipping Name (IATA) | : Corrosive liquid, basic, organic, n.o.s. Fatty acids, tall-oil, reaction products with tetraethylenepentamine ; 4-Nonylphenol, branched |
| Class (IATA) | : 8 - Corrosives |
| Packing group (IATA) | : III - Minor Danger |

SECTION 15: Regulatory information

15.1. US Federal regulations

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

4-Nonylphenol, branched

CAS-No. 84852-15-3

10 – 30%

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

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

4-Nonylphenol, branched (84852-15-3)

Listed on the United States TSCA (Toxic Substances Control Act) inventory
Subject to reporting requirements of United States SARA Section 313

EPA TSCA Regulatory Flag

SP - SP - indicates a substance that is identified in a proposed Significant New Use Rule.

Epoxy Resin (25068-38-6)

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).

Tetraethylenepentamine (112-57-2)

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

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)

4-Nonylphenol, branched (84852-15-3)

Listed on the Canadian DSL (Domestic Substances List)

Epoxy Resin (25068-38-6)

Listed on the Canadian DSL (Domestic Substances List)

Tetraethylenepentamine (112-57-2)

Listed on the Canadian DSL (Domestic Substances List)

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

Listed on the Canadian DSL (Domestic Substances List)

triethylenetetramine (112-24-3)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

Contains the following REACH ingredient(s): 4-Nonylphenol, branched and linear [substances with a linear and/or branched alkyl chain with a carbon number of 9 covalently bound in position 4 to phenol, covering also UVCB- and well-defined substances which include any of the individual isomers or a combination thereof] (EC 284-325-5, CAS 84852-15-3)

National regulations

No additional information available

15.3. US State regulations

WARNING: This product can expose you to 1-chloro-2,3-epoxypropane, 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 |
|--------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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 |
| 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 |

SECTION 16: Other information

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Revision date : 04/30/2021

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 |
| H319 | Causes serious eye 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.