

SECTION 1: Identification

1.1. Identification

Product form : Mixture
 Product name : EP1121 Clear 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 1B | H360 | May damage fertility or the unborn child |

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) : Danger

Hazard statements (GHS US) : H314 - Causes severe skin burns and eye damage
 H317 - May cause an allergic skin reaction
 H360 - May damage 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 | % |
|--|-----------------------|---------|
| fatty acids, C18-unsatd., dimers, reaction products with 1-piperazineethanamine and tall oil | (CAS-No.) 206565-89-1 | 30 – 50 |
| Poly(oxypropylene)diamine | (CAS-No.) 9046-10-0 | 10 – 30 |
| 4-Nonylphenol, branched | (CAS-No.) 84852-15-3 | 10 – 30 |
| 4-tert-butylphenol | (CAS-No.) 98-54-4 | 5 – 10 |
| Diethylenetriamine | (CAS-No.) 111-40-0 | 1 – 5 |
| 2,4,6-tris(dimethylaminomethyl)phenol | (CAS-No.) 90-72-2 | 1 – 5 |
| Bisphenol A | (CAS-No.) 80-05-7 | 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. If experiencing respiratory symptoms, call a doctor. |
| First-aid measures after skin contact | : Rinse immediately with plenty of water for 15 minutes. Remove/Take off immediately all contaminated clothing. Wash contaminated clothing before reuse. Thoroughly clean shoes before reuse. Rinse skin with water/shower. Call a physician immediately. |
| First-aid measures after eye contact | : Immediately flush eyes thoroughly with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention. Rinse cautiously with water for several minutes. Call a physician immediately. |
| First-aid measures after ingestion | : Rinse mouth out with water. Do not induce vomiting. If you feel unwell, seek medical advice. Rinse mouth. Call a physician immediately. |

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

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

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

| | |
|--------------------------------|--|
| Suitable extinguishing media | : Water spray. Dry powder. Foam. Carbon dioxide. |
| Unsuitable extinguishing media | : Do not use water jet to extinguish. |

5.2. Specific hazards arising from the chemical

| | |
|--|---|
| Hazardous decomposition products in case of fire | : Nitrogen oxides, Carbon dioxide, Carbon monoxide, For further information, refer to section 10 : "Stability and Reactivity" |
|--|---|

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 | : Only qualified personnel equipped with suitable protective equipment may intervene. Do not breathe dust/fume/gas/mist/vapors/spray. |
|----------------------|---|

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6.1.2. For emergency responders

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

6.2. Environmental precautions

Avoid release to the environment. Notify authorities if product enters sewers or public waters.

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

Additional hazards when processed : Use only with adequate ventilation. Use caution when heating, properly ventilate area. Store and use with adequate ventilation.
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 : Separate working clothes from town clothes. Launder separately. 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

| | | |
|---|----------------------|--|
| 4-Nonylphenol, branched (84852-15-3) | | |
| Not applicable | | |
| Poly(oxypropylene)diamine (9046-10-0) | | |
| Not applicable | | |
| Diethylenetriamine (111-40-0) | | |
| ACGIH | Local name | Diethylenetriamine |
| ACGIH | ACGIH OEL TWA | 1 ppm |
| ACGIH | Remark (ACGIH) | TLV® Basis: URT & eye irr. Notations: Skin |
| ACGIH | Regulatory reference | ACGIH 2023 |
| 2,4,6-tris(dimethylaminomethyl)phenol (90-72-2) | | |
| Not applicable | | |
| Bisphenol A (80-05-7) | | |
| Not applicable | | |
| fatty acids, C18-unsatd., dimers, reaction products with 1-piperazineethanamine and tall oil (206565-89-1) | | |
| Not applicable | | |
| 4-tert-butylphenol (98-54-4) | | |
| 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.

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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 | : Amber |
| Odor | : Ammonia-like |
| 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 |
| 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 |

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.

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10.4. Conditions to avoid

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

10.5. Incompatible materials

Bases (Alkalis).

10.6. Hazardous decomposition products

ammonia. Carbon oxides (CO, CO₂). Nitrogen oxides. ketones. Aldehydes.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

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

| 4-Nonylphenol, branched (84852-15-3) | |
|--|---|
| LD50 oral rat | 1412 mg/kg body weight (Rat, Male / female, Experimental value, Oral, 14 day(s)) |
| ATE US (oral) | 1412 mg/kg body weight |
| Poly(oxypropylene)diamine (9046-10-0) | |
| LD50 oral rat | 2627 mg/kg |
| LD50 dermal rat | 2980 mg/kg |
| LD50 dermal rabbit | 2980 mg/kg body weight (Equivalent or similar to OECD 402, 24 h, Rabbit, Male / female, Experimental value, Dermal) |
| LC50 Inhalation - Rat | > 0.74 mg/l |
| ATE US (oral) | 2627 mg/kg body weight |
| ATE US (dermal) | 2980 mg/kg body weight |
| 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 |
| 2,4,6-tris(dimethylaminomethyl)phenol (90-72-2) | |
| LD50 oral rat | 2169 mg/kg body weight (OECD 401: Acute Oral Toxicity, Rat, Male / female, Experimental value, Oral, 14 day(s)) |
| ATE US (oral) | 2169 mg/kg body weight |
| Bisphenol A (80-05-7) | |
| LD50 oral rat | 2000 – 5000 mg/kg body weight (OECD 401: Acute Oral Toxicity, Rat, Male / female, Experimental value, Oral, 14 day(s)) |
| LD50 dermal rabbit | 3000 mg/kg body weight (Rabbit, Experimental value, Dermal) |
| ATE US (oral) | 2000 mg/kg body weight |
| ATE US (dermal) | 3000 mg/kg body weight |
| 4-tert-butylphenol (98-54-4) | |
| LD50 oral rat | > 2000 mg/kg (OECD 401: Acute Oral Toxicity, Rat, Male / female, Experimental value, Oral, 14 day(s)) |
| LD50 dermal rabbit | > 16000 mg/kg body weight (Equivalent or similar to OECD 402, 24 h, Rabbit, Male / female, Experimental value, Dermal, 14 day(s)) |
| LC50 Inhalation - Rat | > 5.6 mg/l (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Experimental value, Inhalation (dust), 14 day(s)) |

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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Reproductive toxicity : May damage fertility or the unborn child.
STOT-single exposure : Not classified

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

| Bisphenol A (80-05-7) | |
|------------------------------|-----------------------------------|
| STOT-single exposure | May cause respiratory irritation. |

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 Study 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 Study in Rodents) |
| STOT-repeated exposure | May cause damage to organs through prolonged or repeated exposure. |

| Diethylenetriamine (111-40-0) | |
|--------------------------------------|--|
| LOAEL (oral,rat,90 days) | 530 – 620 mg/kg body weight Animal: rat, Guideline: other: |
| NOAEL (oral,rat,90 days) | 70 – 80 mg/kg body weight Animal: rat, Guideline: other: |
| STOT-repeated exposure | May cause damage to organs through prolonged or repeated exposure. |

| Bisphenol A (80-05-7) | |
|------------------------------|--|
| LOAEL (oral,rat,90 days) | 600 mg/kg body weight Animal: rat, Guideline: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents) |

| 4-tert-butylphenol (98-54-4) | |
|-------------------------------------|---|
| NOAEL (oral,rat,90 days) | 200 mg/kg body weight Animal: rat, Guideline: EPA OPPTS 870.3100 (90-Day Oral Toxicity in Rodents), 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.

SECTION 12: Ecological information

12.1. Toxicity

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

| 4-Nonylphenol, branched (84852-15-3) | |
|---|--|
| EC50 - Crustacea [1] | 84 µg/l (ASTM E729-88, 48 h, Daphnia magna, Semi-static system, Fresh water, Experimental value, Lethal) |
| NOEC chronic fish | 0.006 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri) Duration: '91 d' |

| Poly(oxypropylene)diamine (9046-10-0) | |
|--|--|
| LC50 - Fish [1] | 772.14 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Cyprinodon variegatus, Static system, Salt water, Experimental value, GLP) |
| EC50 - Crustacea [1] | 80 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP) |
| ErC50 algae | 15 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP) |
| NOEC (chronic) | 7.64 mg/l Test organisms (species): |

| 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) |

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| Diethylenetriamine (111-40-0) | |
|--------------------------------------|--|
| 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' |

| 2,4,6-tris(dimethylaminomethyl)phenol (90-72-2) | |
|--|--|
| LC50 - Fish [1] | 175 mg/l (APHA, 96 h, Cyprinus carpio, Static system, Fresh water, Experimental value, Nominal concentration) |
| EC50 - Crustacea [1] | > 100 mg/l Test organisms (species): Daphnia magna |
| LC50 - Fish [2] | 180 – 240 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri) |
| ErC50 algae | 84 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, GLP) |

| Bisphenol A (80-05-7) | |
|------------------------------|---|
| LC50 - Fish [1] | 4.6 mg/l (Equivalent or similar to OECD 203, 96 h, Pimephales promelas, Flow-through system, Fresh water, Experimental value, Lethal) |
| EC50 - Crustacea [1] | 10.2 mg/l (ASTM E-35.21, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Lethal) |
| LOEC (chronic) | 3.6 mg/l Test organisms (species): other:Rotifer (Brachionus calyciflorus) Duration: '48 h' |

| fatty acids, C18-unsatd., dimers, reaction products with 1-piperazineethanamine and tall oil (206565-89-1) | |
|---|--|
| LC50 - Fish [1] | 0.66 mg/l Test organisms (species): other: |
| EC50 - Other aquatic organisms [1] | 0.13 mg/l Test organisms (species): other aquatic crustacea: |

| 4-tert-butylphenol (98-54-4) | |
|-------------------------------------|--|
| LC50 - Fish [1] | > 1 mg/l (Equivalent or similar to OECD 203, 96 h, Oncorhynchus mykiss, Semi-static system, Fresh water, Similar product, Nominal concentration) |
| EC50 - Crustacea [1] | 4.8 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Nominal concentration) |
| ErC50 algae | 14 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Nominal concentration) |
| LOEC (chronic) | 2.3 mg/l Test organisms (species): Daphnia magna Duration: '21 d' |
| NOEC (chronic) | 0.73 mg/l Test organisms (species): Daphnia magna Duration: '21 d' |

12.2. Persistence and degradability

| 4-Nonylphenol, branched (84852-15-3) | |
|---|-------------------------------------|
| Persistence and degradability | Not readily biodegradable in water. |

| Poly(oxypropylene)diamine (9046-10-0) | |
|--|-------------------------------------|
| Persistence and degradability | Not readily biodegradable in water. |

| Diethylenetriamine (111-40-0) | |
|--------------------------------------|--|
| Persistence and degradability | Readily biodegradable in the soil. Readily biodegradable in water. |

| 2,4,6-tris(dimethylaminomethyl)phenol (90-72-2) | |
|--|-------------------------------------|
| Persistence and degradability | Not readily biodegradable in water. |

| Bisphenol A (80-05-7) | |
|-------------------------------|--|
| Persistence and degradability | Readily biodegradable in the soil. Readily biodegradable in water. |
| Chemical oxygen demand (COD) | 0.036 g O ₂ /g substance |
| ThOD | 2.5 g O ₂ /g substance |

| 4-tert-butylphenol (98-54-4) | |
|-------------------------------------|------------------------------------|
| Persistence and degradability | Readily biodegradable in water. |
| ThOD | 2.77 g O ₂ /g substance |

12.3. Bioaccumulative potential

| 4-Nonylphenol, branched (84852-15-3) | |
|---|---|
| BCF - Fish [1] | 1200 – 1300 (Equivalent or similar to OECD 305, 16 day(s), Gasterosteus aculeatus, Flow-through system, Salt water, Experimental value, Fresh weight) |

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| 4-Nonylphenol, branched (84852-15-3) | |
|--|--|
| 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 ($500 \leq BCF \leq 5000$). |
| Poly(oxypropylene)diamine (9046-10-0) | |
| Partition coefficient n-octanol/water (Log Pow) | 1.34 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 25 °C) |
| Bioaccumulative potential | Not bioaccumulative. |
| 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. |
| 2,4,6-tris(dimethylaminomethyl)phenol (90-72-2) | |
| Partition coefficient n-octanol/water (Log Pow) | -0.66 (Experimental value, EPA OPPTS 830.7550: Partition Coefficient (n-octanol/water), Shake Flask Method, 21.5 °C) |
| Bioaccumulative potential | Not bioaccumulative. |
| Bisphenol A (80-05-7) | |
| BCF - Fish [1] | 5.1 – 67 (42 day(s), Cyprinus carpio, Flow-through system, Fresh water, Experimental value, Fresh weight) |
| Partition coefficient n-octanol/water (Log Pow) | 3.4 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 21.5 °C) |
| Bioaccumulative potential | Low potential for bioaccumulation ($BCF < 500$). |
| 4-tert-butylphenol (98-54-4) | |
| BCF - Fish [1] | 20 – 48 (OECD 305: Bioconcentration: Flow-Through Fish Test, 8 week(s), Cyprinus carpio, Flow-through system, Fresh water, Experimental value) |
| Partition coefficient n-octanol/water (Log Pow) | 3 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 23 °C) |
| Bioaccumulative potential | Low potential for bioaccumulation ($BCF < 500$). |

12.4. Mobility in soil

| 4-Nonylphenol, branched (84852-15-3) | |
|--|---|
| Surface tension | 38.9 mN/m (20 °C, EU Method A.5: Surface tension) |
| Organic Carbon Normalized Adsorption Coefficient (Log Koc) | 4 (log Koc, Calculated value) |
| Ecology - soil | Low potential for mobility in soil. |
| Poly(oxypropylene)diamine (9046-10-0) | |
| Surface tension | Data waiving |
| Ecology - soil | No (test)data on mobility of the substance available. |
| 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. |
| 2,4,6-tris(dimethylaminomethyl)phenol (90-72-2) | |
| Surface tension | No data available in the literature |
| Organic Carbon Normalized Adsorption Coefficient (Log Koc) | 1.32 (log Koc, Calculated value) |
| Ecology - soil | Highly mobile in soil. |
| Bisphenol A (80-05-7) | |
| Surface tension | No data available (test not performed) |
| Organic Carbon Normalized Adsorption Coefficient (Log Koc) | 2.8 – 2.97 (log Koc, OECD 106: Adsorption/Desorption Using a Batch Equilibrium Method, Experimental value, GLP) |
| Ecology - soil | Low potential for adsorption in soil. |
| 4-tert-butylphenol (98-54-4) | |
| Surface tension | No data available in the literature |

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| 4-tert-butylphenol (98-54-4) | |
|--|-------------------------------------|
| Organic Carbon Normalized Adsorption Coefficient (Log Koc) | 3.1 (log Koc, QSAR) |
| Ecology - soil | Low potential for mobility 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. (4-Nonylphenol, branched ; Poly(oxypropylene)diamine), 8, III
UN-No.(DOT) : UN3267
Proper Shipping Name (DOT) : Corrosive liquid, basic, organic, n.o.s.
4-Nonylphenol, branched ; Poly(oxypropylene)diamine
Class (DOT) : 8 - Class 8 - Corrosive material 49 CFR 173.136
Packing group (DOT) : III - Minor Danger
Hazard labels (DOT) : 8 - Corrosive



Dangerous for the environment : Yes
Marine pollutant : Yes



DOT Packaging Non Bulk (49 CFR 173.xxx) : 203
DOT Packaging Bulk (49 CFR 173.xxx) : 241
DOT Special Provisions (49 CFR 172.102) : IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672).
T7 - 4 178.274(d)(2) Normal..... 178.275(d)(3)
TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = $97 / 1 + a (tr - tf)$ Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.
TP28 - A portable tank having a minimum test pressure of 2.65 bar (265 kPa) may be used provided the calculated test pressure is 2.65 bar or less based on the MAWP of the hazardous material, as defined in 178.275 of this subchapter, where the test pressure is 1.5 times the MAWP.
DOT Packaging Exceptions (49 CFR 173.xxx) : 154
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 5 L
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 60 L

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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. (4-Nonylphenol, branched ; Poly(oxypropylene)diamine), 8, III, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS

UN-No. (IMDG) : 3267
CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S.
4-Nonylphenol, branched ; Poly(oxypropylene)diamine

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. (4-Nonylphenol, branched ; Poly(oxypropylene)diamine), 8, III, ENVIRONMENTALLY HAZARDOUS

UN-No. (IATA) : 3267

Proper Shipping Name (IATA) : Corrosive liquid, basic, organic, n.o.s.
4-Nonylphenol, branched ; Poly(oxypropylene)diamine

Class (IATA) : 8 - Corrosives

Packing group (IATA) : III - Low 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% |
| Bisphenol A | CAS-No. 80-05-7 | 1 – 5% |

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.

Poly(oxypropylene)diamine (9046-10-0)

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).

Diethylenetriamine (111-40-0)

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

2,4,6-tris(dimethylaminomethyl)phenol (90-72-2)

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

Bisphenol A (80-05-7)

Subject to reporting requirements of United States SARA Section 313

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fatty acids, C18-unsatd., dimers, reaction products with 1-piperazineethanamine and tall oil (206565-89-1)

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

EPA TSCA Regulatory Flag

PMN - PMN - indicates a commenced PMN substance.

S - S - indicates a substance that is identified in a final Significant New Use Rule.

4-tert-butylphenol (98-54-4)

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

15.2. International regulations

CANADA

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

Listed on the Canadian DSL (Domestic Substances List)

Poly(oxypropylene)diamine (9046-10-0)

Listed on the Canadian DSL (Domestic Substances List)

Diethylenetriamine (111-40-0)

Listed on the Canadian DSL (Domestic Substances List)

2,4,6-tris(dimethylaminomethyl)phenol (90-72-2)

Listed on the Canadian DSL (Domestic Substances List)

Bisphenol A (80-05-7)

Listed on the Canadian DSL (Domestic Substances List)

fatty acids, C18-unsatd., dimers, reaction products with 1-piperazineethanamine and tall oil (206565-89-1)

Listed on the Canadian NDSL (Non-Domestic Substances List)

4-tert-butylphenol (98-54-4)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

Contains the following REACH ingredient(s): 4-Nonylphenol, branched (EC 284-325-5, CAS 84852-15-3), Bisphenol A (EC 201-245-8, CAS 80-05-7), 4-tert-butylphenol (EC 202-679-0, CAS 98-54-4)

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

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Diethylenetriamine (111-40-0)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

2,4,6-tris(dimethylaminomethyl)phenol (90-72-2)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Bisphenol A (80-05-7)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

4-tert-butylphenol (98-54-4)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

National regulations

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

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)

Poly(oxypropylene)diamine (9046-10-0)

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)

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Diethylenetriamine (111-40-0)

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)

2,4,6-tris(dimethylaminomethyl)phenol (90-72-2)

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)

Bisphenol A (80-05-7)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active
Listed on INSQ (Mexican National Inventory of Chemical Substances)
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)


fatty acids, C18-unsatd., dimers, reaction products with 1-piperazineethanamine and tall oil (206565-89-1)

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)

4-tert-butylphenol (98-54-4)

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)

15.3. US State regulations

 **WARNING:** This product can expose you to Bisphenol A (BPA), 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 |
|------------------------------|---|
| 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 |
| Bisphenol A(80-05-7) | 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 : 12/21/2023

Full text of H-phrases:

| | |
|------|--|
| H314 | Causes severe skin burns and eye damage |
| H317 | May cause an allergic skin reaction |
| H360 | May damage fertility or the unborn child |
| H400 | Very toxic to aquatic life |
| H410 | Very toxic 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.