# EP1112NC Black B

Safety Data Sheet

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS 2024)
Issue date: 9/16/2025 Version: 1.0

## SECTION 1 Identification

### 1.1. Product identifier

Product form : Mixture
Product name : EP1112NC Black B

### 1.2. Other means of identification

No additional information available

### 1.3. Recommended use of the chemical and restrictions on use

Recommended use : Epoxy hardener
Restrictions on use : Product for industrial use only

### 1.4. Supplier's details

ResinLab, LLC
N109 W13300 Ellsworth Drive
Germantown, WI, 53022
United States
T 1-877-259-1669
msds@resinlab.com - www.resinlab.com

### 1.5. Emergency phone number

Emergency number : CHEMTREC:1-800-424-9300 (USA); +1 703-527-3887 (International)

## SECTION 2 Hazard 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 (oral). |
| Specific target organ toxicity — Repeated exposure, Category 1 | H372 Causes damage to organs (Respiratory tract) through prolonged or repeated exposure (Inhalation). |

Full text of H statements : see section 16

### 2.2. Label elements

**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 (oral)
H372 - Causes damage to organs (Respiratory tract) through prolonged or repeated exposure (Inhalation)
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.
P270 - Do not eat, drink or smoke when using this product.
P272 - Contaminated work clothing must not be allowed out of the workplace.
P280 - Wear protective gloves, protective clothing, eye protection, face protection, and hearing 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.
P314 - Get medical advice or attention if you feel unwell.
P333+P313 - If skin irritation or rash occurs: Get medical advice or attention.
P363 - Take off immediately all contaminated clothing and wash it before reuse.
P391 - Collect spillage.
P405 - Store locked up.
P501 - Dispose of contents and/or container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulations.

### 2.3. Hazards associated with known or reasonably anticipated uses

No additional information available

### 2.4. Hazards not otherwise classified

No additional information available

### 2.5. Unknown acute toxicity

No additional information available

## SECTION 3 Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

| Name | Product identifier | % |
|---|---|---|
| 4-Nonylphenol, branched | CAS-No.: 84852-15-3 | 30 – 50 |
| Fatty acids, tall-oil, reaction products with tetraethylenepentamine | CAS-No.: 68953-36-6 | 30 – 50 |
| N-(2-Aminoethyl)piperazine | CAS-No.: 140-31-8 | 10 – 30 |
| Tetraethylenepentamine | CAS-No.: 112-57-2 | 1 – 5 |

Full text of hazard classes and H-statements : see section 16

## SECTION 4 First aid measures

### 4.1. Description of necessary 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. Give oxygen or artificial respiration if necessary. Get medical advice/attention.

First-aid measures after skin contact : Rinse immediately with plenty of water for 15 minutes. Remove/Take off immediately all contaminated clothing. Wash clothing before reuse. 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. Never give anything by mouth to an unconscious person. Get immediate medical advice/attention.

### 4.2. Most important symptoms/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. Indication of immediate medical attention and special treatment needed, if necessary

Other medical advice or treatment : 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 a heavy water stream.

### 5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of fire : Toxic fumes may be released. Carbon oxides (CO, CO2). Nitrogen oxides. Gaseous ammonia. Nitrogen oxide can react with water to form corrosive nitric acid. Nitrosamine.

### 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

#### For non-emergency personnel

Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapors/spray.

#### 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".

Environmental precautions : Avoid release to the environment.

### 6.2. Methods and materials 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.

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 incompatibilities

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

## SECTION 8 Exposure controls/personal protection

### 8.1. Control parameters

| Tetraethylenepentamine (112-57-2) | |
|---|---|
| **USA - AIHA - Occupational Exposure Limits** | |
| WEEL TWA | 5 mg/m³ |

### 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, such as personal protective equipment

| **Hand protection:** |
|---|
| Protective gloves |

| **Eye protection:** |
|---|
| Safety glasses |

| **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. 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 | : | > 170 °C |
| Flash point | : | > 93 °C |
| 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 | : | 0.96 g/cm³ |
| 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 | : | No data available |
| Explosion limits | : | No data available |
| Particle characteristics | : | No data available |

### 9.2. Data relevant with regard to physical hazard classes (supplemental)

No additional information 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

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

### 10.5. Incompatible materials

Oxidizing agents. Bases (Alkalis). metals. Peroxides. Phenolic compounds. N-Nitrosamines, many of which are known to be potent carcinogens, may be formed when the product comes in contact with nitrous acid, nitrites or atmospheres with high nitrous oxide concentrations.

### 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 |

| EP1112NC Black B | |
|---|---|
| ATE US (oral) | 1944.432 mg/kg body weight |

| 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) | 500 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 |

| 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 |

Skin corrosion/irritation : Causes severe skin burns.

| 4-Nonylphenol, branched (84852-15-3) | |
|---|---|
| pH | No data available in the literature |

| N-(2-Aminoethyl)piperazine (140-31-8) | |
|---|---|
| pH | 11.4 |

| Tetraethylenepentamine (112-57-2) | |
|---|---|
| pH | 12 |

Serious eye damage/irritation : Assumed to cause serious eye damage

| 4-Nonylphenol, branched (84852-15-3) | |
|---|---|
| pH | No data available in the literature |

| N-(2-Aminoethyl)piperazine (140-31-8) | |
|---|---|
| pH | 11.4 |

| Tetraethylenepentamine (112-57-2) | |
|---|---|
| pH | 12 |

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 (oral).

| 4-Nonylphenol, branched (84852-15-3) | |
|---|---|
| NOAEL (animal/female, F0/P) | 15 mg/kg body weight Animal: rat, Animal sex: female, Guideline: OECD Guideline 416 (Two-Generation Reproduction Toxicity Study), Remarks on results: other:Generation: All generations tested: F0, F1, F2, F3 (migrated information) |

| 4-Nonylphenol, branched (84852-15-3) | |
|---|---|
| NOAEL (animal/male, F1) | 15 mg/kg body weight Animal: rat, Animal sex: male, Guideline: other:EPA OPPTS 837.3800 (US EPA OPPTS 1998) |

STOT-single exposure : Not classified

STOT-repeated exposure : Causes damage to organs (Respiratory tract) through prolonged or repeated exposure (Inhalation).

| 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) |

| N-(2-Aminoethyl)piperazine (140-31-8) | |
|---|---|
| STOT-repeated exposure | Causes damage to organs (respiratory system) through prolonged or repeated exposure (Inhalation). |

Aspiration hazard : Not classified

| 4-Nonylphenol, branched (84852-15-3) | |
|---|---|
| Viscosity | No data available in the literature |
| **N-(2-Aminoethyl)piperazine (140-31-8)** | |
| Viscosity | No data available in the literature |
| **Tetraethylenepentamine (112-57-2)** | |
| Viscosity | 0.096 mm²/s (20 °C) |

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. Ecotoxicity

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.

Hazardous to the aquatic environment, short–term (acute) : Very toxic to aquatic life.

Hazardous to the aquatic environment, long–term (chronic) : 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) |
| EC50 72h - Algae [1] | 0.33 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum) |
| EC50 96h - Algae [1] | 0.027 mg/l (EPA OTS 797.1050, Skeletonema costatum, Static system, Salt water, Experimental value, Cell numbers) |
| EC50 96h - Algae [2] | 0.41 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum) |
| NOEC chronic fish | 0.006 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri) Duration: '91 d' |

| 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) |
| EC50 72h - Algae [1] | > 1000 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum) |
| ErC50 algae | > 1000 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Fresh water, Experimental value, GLP) |

| 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 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) |

## 12.2. Persistence and degradability

| EP1112NC Black B | |
|---|---|
| Persistence and degradability | Not rapidly degradable |

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

| Fatty acids, tall-oil, reaction products with tetraethylenepentamine (68953-36-6) | |
|---|---|
| Persistence and degradability | Not rapidly degradable |

| 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 |

| Tetraethylenepentamine (112-57-2) | |
|---|---|
| Persistence and degradability | Not readily biodegradable in water. |

## 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) |
| 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). |

| 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). |

| Tetraethylenepentamine (112-57-2) | |
|---|---|
| BCF - Other aquatic organisms [1] | 3.2 l/kg (BCFBAF v3.01, Estimated value, Fresh weight) |
| Partition coefficient n-octanol/water (Log Pow) | 1.5 (Literature study) |
| 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. |

| 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. |

| Tetraethylenepentamine (112-57-2) | |
|---|---|
| Organic Carbon Normalized Adsorption Coefficient (Log Koc) | 2.2 (log Koc, SRC PCKOCWIN v2.0, Calculated value) |
| Ecology - soil | Low potential for adsorption in soil. |

### 12.5. Other adverse effects

Ozone : Not classified
Fluorinated greenhouse gases : No

## SECTION 13 Disposal considerations

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

## SECTION 14 Transport information

In accordance with DOT / IMDG / IATA

### 14.1. UN number

UN-No. (DOT) : UN3267
UN-No. (IMDG) : 3267
UN-No. (IATA) : 3267

### 14.2. UN Proper Shipping Name

Proper Shipping Name (DOT) : Corrosive liquid, basic, organic, n.o.s. (4-Nonylphenol, branched, N-Aminoethylpiperazine)
Proper Shipping Name (IMDG) : CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (4-Nonylphenol, branched ; N-(2-Aminoethyl)piperazine)
Proper Shipping Name (IATA) : Corrosive liquid, basic, organic, n.o.s. (4-Nonylphenol, branched ; N-(2-Aminoethyl)piperazine)

## 14.3. Transport hazard class(es)

### DOT

Transport hazard class(es) (DOT) : 8

Hazard labels (DOT) : 8

### IMDG

Transport hazard class(es) (IMDG) : 8

Hazard labels (IMDG) : 8

### IATA

Transport hazard class(es) (IATA) : 8

Hazard labels (IATA) : 8

## 14.4. Packing group

Packing group (DOT) : III

Packing group (IMDG) : III

Packing group (IATA) : III

## 14.5. Environmental hazards

Dangerous for the environment : Yes

Marine pollutant : Yes

Other information : No supplementary information available.

## 14.6. Transport in bulk

Not applicable

## 14.7. Special precautions for user

### DOT

UN-No. (DOT) : UN3267

| | | |
|---|---|---|
| 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).<br>T7 - 4 178.274(d)(2) Normal..... 178.275(d)(3)<br>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.<br>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 Packaging Non Bulk (49 CFR 173.xxx) | : | 203 |
| DOT Packaging Bulk (49 CFR 173.xxx) | : | 241 |
| 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 |

**IMDG**

| | | |
|---|---|---|
| Special provision (IMDG) | : | 223, 274 |
| Limited quantities (IMDG) | : | 5 L |
| Excepted quantities (IMDG) | : | E1 |
| Packing instructions (IMDG) | : | P001, LP01 |
| IBC packing instructions (IMDG) | : | IBC03 |
| Tank instructions (IMDG) | : | T7 |
| Tank special provisions (IMDG) | : | TP1, TP28 |
| EmS-No. (Fire) | : | F-A - FIRE SCHEDULE Alfa - GENERAL FIRE SCHEDULE |
| EmS-No. (Spillage) | : | S-B - SPILLAGE SCHEDULE Bravo - CORROSIVE SUBSTANCES |
| Stowage category (IMDG) | : | A |
| Stowage and handling (IMDG) | : | SW2 |
| Segregation (IMDG) | : | SGG18, SG35 |
| Properties and observations (IMDG) | : | Reacts violently with acids. Causes burns to skin, eyes and mucous membranes. |

**IATA**

| | | |
|---|---|---|
| Special provision (IATA) | : | A3, A803 |
| PCA Excepted quantities (IATA) | : | E1 |
| PCA Limited quantities (IATA) | : | Y841 |
| PCA limited quantity max net quantity (IATA) | : | 1L |
| PCA packing instructions (IATA) | : | 852 |
| PCA max net quantity (IATA) | : | 5L |
| CAO packing instructions (IATA) | : | 856 |
| CAO max net quantity (IATA) | : | 60L |
| ERG code (IATA) | : | 8L |

## SECTION 15 Regulatory information

### 15.1. Federal regulations

Commercial status of components according to the United States Environmental Protection Agency’s Toxic Substances Control Act (TSCA):

| Name | CAS-No. | Listing | Commercial status | Flags |
|---|---|---|---|---|
| 4-Nonylphenol, branched | 84852-15-3 | Present | Active | SP |
| Fatty acids, tall-oil, reaction products with tetraethylenepentamine | 68953-36-6 | Present | Active | |
| N-(2-Aminoethyl)piperazine | 140-31-8 | Present | Active | |
| Tetraethylenepentamine | 112-57-2 | Present | Active | |

| 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 | 30 – 50% |

## 15.2. International regulations

### CANADA

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

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)

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

Listed on the Canadian DSL (Domestic Substances List)

**Tetraethylenepentamine (112-57-2)**

Listed on the Canadian DSL (Domestic Substances List)

### EU-Regulations

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

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

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

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

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

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

**Tetraethylenepentamine (112-57-2)**

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

**National regulations**

| 4-Nonylphenol, branched (84852-15-3) |
|---|
| Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)<br>Listed on KECL/KECI (Korean Existing Chemicals Inventory)<br>Listed on NZIoC (New Zealand Inventory of Chemicals)<br>Listed on INSQ (Mexican National Inventory of Chemical Substances)<br>Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory) |

| Fatty acids, tall-oil, reaction products with tetraethylenepentamine (68953-36-6) |
|---|
| Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)<br>Listed on KECL/KECI (Korean Existing Chemicals Inventory)<br>Listed on NZIoC (New Zealand Inventory of Chemicals)<br>Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory) |

| N-(2-Aminoethyl)piperazine (140-31-8) |
|---|
| Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)<br>Listed on KECL/KECI (Korean Existing Chemicals Inventory)<br>Listed on NZIoC (New Zealand Inventory of Chemicals)<br>Listed on INSQ (Mexican National Inventory of Chemical Substances)<br>Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory) |

| Tetraethylenepentamine (112-57-2) |
|---|
| Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)<br>Listed on KECL/KECI (Korean Existing Chemicals Inventory)<br>Listed on NZIoC (New Zealand Inventory of Chemicals)<br>Listed on INSQ (Mexican National Inventory of Chemical Substances)<br>Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory) |

### 15.3. 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 |
|---|---|
| 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 |
| Tetraethylenepentamine(112-57-2) | U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List |

## SECTION 16 Other information

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS 2024)
Issue date : 9/16/2025

| Full text of hazard classes and H-statements | |
|---|---|
| H314 | Causes severe skin burns and eye damage |
| H317 | May cause an allergic skin reaction |
| H361 | Suspected of damaging fertility or the unborn child |

| Full text of hazard classes and H-statements | |
|---|---|
| H372 | Causes damage to organs through prolonged or repeated exposure |
| H400 | Very toxic to aquatic life |
| H410 | Very toxic to aquatic life with long lasting effects |

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.