

SECTION 1 Identification

1.1. Product identifier

Product form : Mixture
 Product name : EP1225 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

Acute toxicity (oral), Category 4	H302	Harmful if swallowed.
Acute toxicity (inhalation), Category 4	H332	Harmful if inhaled.
Skin corrosion/irritation, Category 2	H315	Causes skin irritation.
Serious eye damage/eye irritation, Category 2	H319	Causes serious eye irritation.
Respiratory sensitization, Category 1	H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin sensitization, Category 1	H317	May cause an allergic skin reaction.
Reproductive toxicity, Category 2	H361	Suspected of damaging fertility or the unborn child.
Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation	H335	May cause respiratory irritation.
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)

: H302+H332 - Harmful if swallowed or if inhaled
 H315 - Causes skin irritation
 H317 - May cause an allergic skin reaction

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Precautionary statements (GHS US)	H319 - Causes serious eye irritation
	H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
	H335 - May cause respiratory irritation
	H361 - Suspected of damaging fertility or the unborn child
	H372 - Causes damage to organs (Respiratory tract) through prolonged or repeated exposure (Inhalation)
	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.
	P264 - Wash hands, forearms and face thoroughly after handling.
	P270 - Do not eat, drink or smoke when using this product.
	P271 - Use only outdoors or in a well-ventilated area.
	P272 - Contaminated work clothing must not be allowed out of the workplace.
	P280 - Wear protective gloves.
	P284 - Wear respiratory protection.
	P301+P312 - If swallowed: Call a poison center or doctor if you feel unwell.
	P302+P352 - If on skin: Wash with plenty of water.
	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.
	P312 - Call a poison center or doctor if you feel unwell.
	P314 - Get medical advice or attention if you feel unwell.
	P330 - Rinse mouth.
	P333+P313 - If skin irritation or rash occurs: Get medical advice or attention.
	P337+P313 - If eye irritation persists: Get medical advice or attention.
	P342+P311 - If experiencing respiratory symptoms: Call a poison center or doctor.
	P362+P364 - Take off contaminated clothing and wash it before reuse.
	P391 - Collect spillage.
	P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
	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	50 – 75
N-(2-Aminoethyl)piperazine	CAS-No.: 140-31-8	25 - 35

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Name	Product identifier	%
Diethylenetriamine	CAS-No.: 111-40-0	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.
First-aid measures after skin contact	: Rinse immediately with plenty of water for 15 minutes. Take off immediately all contaminated clothing and wash it before reuse. Get medical advice if skin irritation persists.
First-aid measures after eye contact	: Immediately rinse with plenty of water (for at least 15 minutes). Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention.
First-aid measures after ingestion	: Rinse mouth. Do not induce vomiting. Call a physician immediately.

4.2. Most important symptoms/effects, acute and delayed

Symptoms/effects after inhalation	: May cause respiratory irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.
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.
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SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

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

5.2. Specific hazards arising from the chemical

Fire hazard	: No fire hazard.
Explosion hazard	: No direct explosion hazard.
Reactivity in case of fire	: This product undergoes hazardous polymerization when exposed to extreme heat, such as fire, and ruptures closed containers.
Hazardous decomposition products in case of fire	: Toxic fumes may be released. Carbon oxides (CO, CO ₂). Nitrogen oxides.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions	: Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection.
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

General measures	: Evacuate area. Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material-damage.
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For non-emergency personnel

- Protective equipment : Wear recommended personal protective equipment.
- 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".
- Emergency procedures : Evacuate unnecessary personnel. Stop leak if safe to do so.
- 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. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapors/spray.
- Hygiene measures : Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.
- Additional hazards when processed : Not expected to present a significant hazard under anticipated conditions of normal use.

7.2. Conditions for safe storage, including incompatibilities

- Technical measures : Keep in a cool, well-ventilated place away from heat.
- Storage conditions : Store locked up. Store in a well-ventilated place. Keep cool.
- Packaging materials : Store always product in container of same material as original container.

SECTION 8 Exposure controls/personal protection

8.1. Control parameters

Diethylenetriamine (111-40-0)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Diethylenetriamine
ACGIH® TLV® TWA	1 ppm
Remark (ACGIH)	TLV® Basis: URT & eye irr. Notations: Skin
Regulatory reference	ACGIH 2024

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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

Personal protective equipment:
Wear recommended personal protective equipment.

Hand protection:
Protective gloves
Eye protection:
Safety glasses
Skin and body protection:
Wear suitable protective clothing
Respiratory protection:
In case of inadequate ventilation, wear respiratory protection. When using a spray gun or other means to aerosolize the material, respiratory protection is recommended.

Personal protective equipment symbol(s):



SECTION 9 Physical and chemical properties

9.1. Basic physical and chemical properties

- Physical state
- : Liquid
- Color
- : Clear
- Odor
- : Amine-like
- Odor threshold
- : No data available
- pH
- : No data available
- Melting point
- : No data available
- Freezing point
- : No data available
- Boiling point
- : No data available
- 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
- : 0.97 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

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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

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

10.5. Incompatible materials

Acids. Strong bases. Oxidizing agents. Amines.

10.6. Hazardous decomposition products

No hazardous decomposition products if stored and handled as prescribed/ indicated. Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11 Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Harmful if swallowed.
Acute toxicity (dermal) : No data available
Acute toxicity (inhalation) : Harmful if inhaled.

EP1225 Black B	
ATE US (oral)	1561.323 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)	1412 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
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)

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Diethylenetriamine (111-40-0)	
ATE US (oral)	500 mg/kg body weight
ATE US (dermal)	1100 mg/kg body weight
ATE US (gases)	100 ppmV/4h
ATE US (vapors)	0.5 mg/l/4h
ATE US (dust, mist)	0.05 mg/l/4h

Skin corrosion/irritation : Causes skin irritation.

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

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

Diethylenetriamine (111-40-0)	
pH	12.5

Serious eye damage/irritation : Causes serious eye irritation.

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

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

Diethylenetriamine (111-40-0)	
pH	12.5

Respiratory or skin sensitization : May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.

Germ cell mutagenicity : No data available

Carcinogenicity : No data available

Reproductive toxicity : Suspected of damaging fertility or the unborn child.

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)
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 : May cause respiratory irritation.

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

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 in Rodents)

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4-nonylphenol, branched (84852-15-3)	
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)
N-(2-Aminoethyl)piperazine (140-31-8)	
STOT-repeated exposure	Causes damage to organs (respiratory system) through prolonged or repeated exposure (Inhalation).
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:
Aspiration hazard	: No data available
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
Diethylenetriamine (111-40-0)	
Viscosity	No data available in the literature
Symptoms/effects after inhalation	: May cause respiratory irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.
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	: 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]	0.41 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
EC50 96h - Algae [2]	0.027 mg/l Test organisms (species): Skeletonema costatum
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)

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

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]	65 mg/l (EU Method C.2, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)
EC50 - Crustacea [2]	16 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	1164 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
EC50 72h - Algae [2]	187 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
ErC50 algae	1164 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)
LOEC (chronic)	11.3 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	5.6 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic fish	> 10 mg/l Test organisms (species): Gasterosteus aculeatus Duration: '28 d'

12.2. Persistence and degradability

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Persistence and degradability	Not rapidly degradable
4-nonylphenol, branched (84852-15-3)	
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
Diethylenetriamine (111-40-0)	
Persistence and degradability	Biodegradable in the soil, 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).

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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).

Diethylenetriamine (111-40-0)	
BCF - Fish [1]	0.3 – 6.3 (OECD 305: Bioconcentration: Flow-Through Fish Test, 6 week(s), Cyprinus carpio, Flow-through system, Fresh water, Experimental value, Fresh weight)
Partition coefficient n-octanol/water (Log Pow)	-1.6 (Estimated value, 20 °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.

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.

Diethylenetriamine (111-40-0)	
Surface tension	No data available in the literature
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	3.4 – 4.6 (log Koc, EPA OTS 796.2750: Sediment and Soil Adsorption Isotherm, Experimental value, GLP)
Ecology - soil	Low potential for mobility in soil. Soil contaminant.

12.5. Other adverse effects

Ozone	: No data available
Fluorinated greenhouse gases	: No

SECTION 13 Disposal considerations

Regional waste regulation	: Disposal must be done according to official regulations.
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations	: Disposal must be done according to official regulations.
Product/Packaging disposal recommendations	: Disposal must be done according to official regulations.
Additional information	: Do not re-use empty containers.

SECTION 14 Transport information

In accordance with DOT / IMDG / IATA

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14.1. UN number

UN-No. (DOT)	: Not regulated
UN-No. (IMDG)	: 3082
UN-No. (IATA)	: 3082

14.2. UN Proper Shipping Name

Proper Shipping Name (DOT)	: Not regulated
Proper Shipping Name (IMDG)	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (4-nonylphenol, branched)
Proper Shipping Name (IATA)	: Environmentally hazardous substance, liquid, n.o.s. (4-nonylphenol, branched)

14.3. Transport hazard class(es)

DOT

Transport hazard class(es) (DOT)	: Not regulated
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IMDG

Transport hazard class(es) (IMDG)	: 9
Hazard labels (IMDG)	: 9



IATA

Transport hazard class(es) (IATA)	: 9
Hazard labels (IATA)	: 9



14.4. Packing group

Packing group (DOT)	: Not regulated
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.
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14.6. Transport in bulk

Not applicable

14.7. Special precautions for user

DOT

Not regulated

IMDG

Special provision (IMDG)	: 274, 335, 969
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Limited quantities (IMDG)	: 5 L
Excepted quantities (IMDG)	: E1
Packing instructions (IMDG)	: LP01, P001
Packing provisions (IMDG)	: PP1
IBC packing instructions (IMDG)	: IBC03
Tank instructions (IMDG)	: T4
Tank special provisions (IMDG)	: TP1, TP29
EmS-No. (Fire)	: F-A - FIRE SCHEDULE Alfa - GENERAL FIRE SCHEDULE
EmS-No. (Spillage)	: S-F - SPILLAGE SCHEDULE Foxtrot - WATER-SOLUBLE MARINE POLLUTANTS
Stowage category (IMDG)	: A

IATA

Special provision (IATA)	: A97, A158, A197, A215
PCA Excepted quantities (IATA)	: E1
PCA Limited quantities (IATA)	: Y964
PCA limited quantity max net quantity (IATA)	: 30kgG
PCA packing instructions (IATA)	: 964
PCA max net quantity (IATA)	: 450L
CAO packing instructions (IATA)	: 964
CAO max net quantity (IATA)	: 450L
ERG code (IATA)	: 9L

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
N-(2-Aminoethyl)piperazine	140-31-8	Present	Active	
Diethylenetriamine	111-40-0	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	50 – 75%
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15.2. International regulations

CANADA

4-nonylphenol, branched (84852-15-3)
Listed on the Canadian DSL (Domestic Substances List)

N-(2-Aminoethyl)piperazine (140-31-8)
Listed on the Canadian DSL (Domestic Substances List)

Diethylenetriamine (111-40-0)
Listed on the Canadian DSL (Domestic Substances List)

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EU-Regulations

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

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)

Diethylenetriamine (111-40-0)

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)
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)

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

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)

Diethylenetriamine (111-40-0)

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)

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
Diethylenetriamine(111-40-0)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16 Other information

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS 2024)

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Safety Data Sheet

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS 2024)

Full text of hazard classes and H-statements	
H302	Harmful if swallowed
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H332	Harmful if inhaled
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335	May cause respiratory irritation
H361	Suspected of damaging fertility or the unborn child
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.