

## Safety Data Sheet

### PLANISEAL TRAFFIC COAT FS PART B

Safety Data Sheet dated: 06/16/2021 - version 6

Date of first edition: 03/05/2016



## 1. IDENTIFICATION

### Product identifier

Mixture identification:

Trade name: PLANISEAL TRAFFIC COAT FS PART B

Trade code: 9024374

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

Recommended use: Hardener for epoxy products

Restrictions on use: Not available

### Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

Company: MAPEI CORP. (USA and Puerto Rico)

1144 East Newport Center Drive - 33442 - Deerfield Beach - FL - USA

Responsible: RDProductSafety@mapei.com

### Emergency 24 hour numbers:

Emergency Number (USA/Canada) CHEMTREC 1(800) 424-9300 / 1(703) 527-3887

Emergency Transport CANUTEC (Canada) 1-613-996-6666

## 2. HAZARD(S) IDENTIFICATION



### Classification of the chemical

Acute Tox. 4	Harmful if swallowed.
Acute Tox. 4	Harmful in contact with skin.
Eye Dam. 1	Causes serious eye damage.
Skin Sens. 1A	May cause an allergic skin reaction.
Repr. 1B	May damage fertility. May damage the unborn child.
Aquatic Acute 1	Very toxic to aquatic life.
Aquatic Chronic 1	Very toxic to aquatic life with long lasting effects.
Skin Corr. 1C	Causes severe skin burns and eye damage.

### Label elements

#### Hazard pictograms and Signal Word



Danger

### Hazard statements

H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H360FD	May damage fertility. May damage the unborn child.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

### Precautionary statements

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe mist/vapours/spray.
P264	Wash skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.

P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312	IF SWALLOWED: Call a POISON CENTER if you feel unwell.
P301+P330+P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
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.
P321	Specific treatment (see supplementary instructions on this label).
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P391	Collect spillage.
P405	Store locked up.
P501	Dispose of contents/container in accordance with applicable regulations.

**Ingredient(s) with unknown acute toxicity:**

None

**Hazards not otherwise classified identified during the classification process:**

None

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

**Substances**

Not available

**Mixtures**

Hazardous components within the meaning of 29 CFR 1910.1200 and related classification:

**List of components**

Concentration (%) w/w)	Name	Ident. Numb.	Classification	Registration Number
50-75 %	4-nonylphenol, branched; Isononylphenol	CAS:84852-15-3	Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Acute Tox. 4, H302; Skin Corr. 1B, H314; Eye Dam. 1, H318; Repr. 2, H361	
10-20 %	aminoethylpiperazine; 2-piperazine-1-ylethylamine	CAS:140-31-8	Acute Tox. 3, H311; Skin Corr. 1B, H314; Skin Sens. 1, H317; Eye Dam. 1, H318; Repr. 1B, H360	
5-10 %	benzyl alcohol; benzenemethanol	CAS:100-51-6	Acute Tox. 4, H302; Acute Tox. 4, H332; Eye Irrit. 2A, H319	
5-10 %	polyoxypropylenediamine; polypropylene glycol bis (2-aminipropyl ether)	CAS:9046-10-0	Eye Dam. 1, H318; Aquatic Acute 3, H402; Acute Tox. 4, H302; Skin Corr. 1B, H314; Aquatic Chronic 3, H412	
2.5-5 %	2,4,6-tri(dimethylaminomethyl)phenol; Mesityl, alpha2,alpha4,alpha6-tris(dimethylamino)-	CAS:90-72-2	Skin Corr. 1B, H314; Skin Sens. 1A, H317; Aquatic Chronic 3, H412	
1-2.5 %	2-methylpentanediamine; 1,5-pentanediamine, 2-Methyl	CAS:15520-10-2	Acute Tox. 4, H332; Acute Tox. 4, H302; Skin Corr. 1A, H314; Flam. Liq. 4, H227; Acute Tox. 4, H312; Eye Dam. 1, H318; STOT SE 3, H335	

**4. FIRST AID MEASURES**

**Description of first aid measures**

In case of skin contact:

Immediately take off all contaminated clothing.

OBTAIN IMMEDIATE MEDICAL ATTENTION.

Obtain medical attention if skin related symptoms persist.

Remove contaminated clothing immediately and dispose of safely.

After contact with skin, wash immediately with soap and plenty of water.

In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

Protect uninjured eye.

In case of Ingestion:

Give nothing to eat or drink.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

**Most important symptoms/effects, acute and delayed**

Eye irritation

Eye damages

Skin Irritation

Erythema

**Indication of any immediate medical attention and special treatment needed**

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment:

(see paragraph 4.1)

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**5. FIRE-FIGHTING MEASURES**

**Extinguishing media**

Suitable extinguishing media:

Water.

Carbon dioxide (CO<sub>2</sub>).

**Unsuitable extinguishing media:**

None in particular.

**Specific hazards arising from the chemical**

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

Hazardous combustion products: Not available

Explosive properties: Not available

Oxidizing properties: Not available

**Special protective equipment and precautions for fire-fighters**

Use suitable breathing apparatus.

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

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**6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions, protective equipment and emergency procedures**

Wear personal protection equipment.

Remove persons to safety.

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

Limit leakages with earth or sand.

**Methods and material for containment and cleaning up**

Suitable material for taking up: absorbing material, organic, sand

Retain contaminated washing water and dispose it.

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**7. HANDLING AND STORAGE**

**Precautions for safe handling**

Avoid contact with skin and eyes, inhalation of vapours and mists.

Exercise the greatest care when handling or opening the container.

Don't use empty container before they have been cleaned.

Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.

Contaminated clothing should be changed before entering eating areas.

Do not eat or drink while working.

See also section 8 for recommended protective equipment.

**Conditions for safe storage, including any incompatibilities**

Storage temperature: Not available

Keep away from food, drink and feed.

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Adequately ventilated premises.

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

#### List of components with OEL value

Component	OEL Type	Country	Ceiling	Long Term mg/m <sup>3</sup>	Long Term ppm	Short Term mg/m <sup>3</sup>	Short Term ppm	Behaviour Note
benzyl alcohol; benzenemethanol	MAK	GERMANY		22	5			
	MAK	SWITZERLAND		22	5			

Appropriate engineering controls: Not available

### Individual protection measures

Eye protection:

Use close fitting safety goggles, don't use eye lens.

Protection for skin:

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

Protection for hands:

Suitable materials for safety gloves; 29 CFR 1910.138 - ANSI/ISEA 105:

Polychloroprene - CR: thickness  $\geq 0,5\text{mm}$ ; breakthrough time  $\geq 480\text{min}$ .

Nitrile rubber - NBR: thickness  $\geq 0,35\text{mm}$ ; breakthrough time  $\geq 480\text{min}$ .

Butyl rubber - IIR: thickness  $\geq 0,5\text{mm}$ ; breakthrough time  $\geq 480\text{min}$ .

Fluorinated rubber - FKM: thickness  $\geq 0,4\text{mm}$ ; breakthrough time  $\geq 480\text{min}$ .

Use impervious gloves that provides comprehensive protection, e.g. P.V.C., neoprene or rubber.

Respiratory protection:

Respiratory protection must be used where exposure levels exceed workplace exposure limits. Refer to 29 CFR 1910.134 - CSA Z94.4 for information on selection and use of appropriate respiratory protection equipment.

Use adequate protective respiratory equipment.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

Physical state: Liquid

Appearance and colour: pale yellow

Odour: No data available

Odour threshold: No data available

pH: 7.00

Melting point / freezing point: No data available

Initial boiling point and boiling range: No data available

Flash point: 100 °C (212 °F)

Evaporation rate: No data available

Upper/lower flammability or explosive limits: No data available

Vapour density: No data available

Vapour pressure: No data available

Relative density: 0.98 g/cm<sup>3</sup>

Solubility in water: insoluble

Solubility in oil: No data available

Partition coefficient (n-octanol/water): No data available

Auto-ignition temperature: No data available

Decomposition temperature: No data available

Viscosity: No data available

Explosive properties: No data available

Oxidizing properties: No data available

Solid/gas flammability: No data available

### Other information

Substance Groups relevant properties No data available

Miscibility: No data available  
Fat Solubility: No data available  
Conductivity: No data available

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## 10. STABILITY AND REACTIVITY

### Reactivity

Stable under normal conditions

### Chemical stability

Data not available.

### Possibility of hazardous reactions

None.

### Conditions to avoid

Stable under normal conditions.

### Incompatible materials

None in particular.

### Hazardous decomposition products

None.

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## 11. TOXICOLOGICAL INFORMATION

### Information on toxicological effects

#### Toxicological information of the product:

There is no toxicological data available on the mixture. Consider the individual concentration of each component to assess toxicological effects resulting from exposure to the mixture.

#### Toxicological information of the main substances found in the product:

4-nonylphenol, branched; Isononylphenol	a) acute toxicity	LD50 Oral Rat 1300 mg/kg  LD50 Skin Rabbit > 2000 mg/kg LD50 Skin Rabbit = 2000 mg/kg LD50 Oral Rat = 1300 mg/kg
aminoethylpiperazine; 2- piperazin-1-ylethylamine	a) acute toxicity	LD50 Skin Rabbit = 880 µL/kg  LD50 Oral Rat = 2140 mg/kg LD50 Oral Rat = 2140 µL/kg LD50 Skin Rabbit = 880 µL/kg
benzyl alcohol; benzenemethanol	a) acute toxicity	LD50 Skin Rabbit = 2000,00000 mg/kg  LC50 Inhalation Rat = 8,80000 mg/l 4h LD50 Oral Rat = 1230 mg/kg LD50 Skin Rabbit = 2 g/kg LD50 Oral Rat = 1230 mg/kg
polyoxypropylenediamine ; polypropylene glycol bis (2-aminipropyl ether)	a) acute toxicity	LD50 Skin Rabbit = 2980 mg/kg  LD50 Oral Rat = 242 mg/kg
2,4,6- tri(dimethylaminomethyl) phenol; Mesitol, alpha2,alpha4,alpha6- tris(dimethylamino)-	a) acute toxicity	LD50 Skin Rat = 1280 mg/kg  LD50 Oral Rat = 1000 mg/kg LD50 Skin Rat = 1280 mg/kg LD50 Oral Rat = 1200 mg/kg

2-methylpentanediamine; a) acute toxicity  
1,5-pentanediamine, 2-  
Methyl

LC50 Inhalation Rat = 4,1 mg/l 1h

LC50 Inhalation Rat = 2,9 mg/l 1h

LD50 Oral Rat = 1690 mg/kg

**If not differently specified, the information required in the regulation and listed below must be considered as N.A.**

- a) acute toxicity
- b) skin corrosion/irritation
- c) serious eye damage/irritation
- d) respiratory or skin sensitisation
- e) germ cell mutagenicity
- f) carcinogenicity
- g) reproductive toxicity
- h) STOT-single exposure
- Toxicological kinetics, metabolism  
and distribution information
- i) STOT-repeated exposure
- j) aspiration hazard

**Substance(s) listed on the IARC Monographs:**

None

**Substance(s) listed as OSHA Carcinogen(s):**

None

**Substance(s) listed as NIOSH Carcinogen(s):**

None

**Substance(s) listed on the NTP report on Carcinogens:**

None

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## 12. ECOLOGICAL INFORMATION

### Toxicity

Adopt good working practices, so that the product is not released into the environment.

Eco-Toxicological Information:

### List of components with eco-toxicological properties

Component	Ident. Numb.	Ecotox Infos
4-nonylphenol, branched; Isononylphenol	CAS: 84852-15- 3	LC50 Fish Pimephales promelas 0,135 mg/L 96h „Holcombe, G.W., Phipps, G.L., Knuth, M.L. and Felhaber, T. (1984) Environ. Pollut. (Series A) 35, 367-381  LC100 Fish Leuciscus idus 1,1 mg/L 48h „Huels study, 1988 (unpublished) LC50 Fish Leuciscus idus 0,95 mg/L 48h „Huels study, 1988 (unpublished) LOEC Fish Pimephales promelas 14 µg/L 33d „Chemical Manufacturers Association (1991) Two environmental effects 4-Nonylphenol final reports 1. Chronic toxicity of Nonylphenol to the Mysid, Mysidopsis bahia: EnviroSystems Study Number 8977-CMA 2. Early life stage toxicity of Nonylphenol to the fath  NOEC Fish Pimephales promelas 7,4 µg/L 33d „Chemical Manufacturers Association (1991) Two environmental effects 4-Nonylphenol final reports 1. Chronic toxicity of Nonylphenol to the Mysid, Mysidopsis bahia: EnviroSystems Study Number 8977-CMA 2. Early life stage toxicity of Nonylphenol to the fath  EC100 Daphnia Daphnia magna > 400 µg/L 48h „Huels report No. DK-522, 1992 (unpublished)  EC0 Daphnia Daphnia magna < 100 µg/L 48h „Huels report No. DK-522, 1992 (unpublished)  EC50 Daphnia Daphnia magna 140 µg/L 48h „Huels report No. DK-522, 1992 (unpublished)

LOEC Daphnia Daphnia magna > 100 µg/L 21d ,,Huels report No. DL-143, 1992 (unpublished)

NOEC Daphnia Daphnia magna 0,024 mg/L 21d ICI PLC (1991) Nonyl Phenol: Chronic Toxicity to Daphnia Magna Report No: BLS1319/B (Interim) BL4176/B (Final)

EC90 Algae Scenedesmus subspicatus (Desmodesmus subspicatus) 3,2 mg/L 72h Huels study (unpublished)

EC10 Algae Scenedesmus subspicatus (Desmodesmus subspicatus) 0,5 mg/L 72h Huels study (unpublished)

EC50 Algae Scenedesmus subspicatus (Desmodesmus subspicatus) 1,3 mg/L 72h Huels study (unpublished)

a) Aquatic acute toxicity : LC50 Fish Pimephales promelas = 0,135 mg/L 96h IUCLID

a) Aquatic acute toxicity : LC50 Fish Lepomis macrochirus = 0,1351 mg/L 96h EPA

a) Aquatic acute toxicity : EC50 Daphnia Daphnia magna = 0,14 mg/L 48h IUCLID

a) Aquatic acute toxicity : EC50 Algae Pseudokirchneriella subcapitata 0,36 mg/L 96h EPA

a) Aquatic acute toxicity : EC50 Algae Pseudokirchneriella subcapitata 0,16 mg/L 72h EPA

a) Aquatic acute toxicity : EC50 Algae Desmodesmus subspicatus = 1,3 mg/L 72h IUCLID

aminoethylpiperazine; 2-piperazin- CAS: 140-31-8  
1-ylethylamine

a) Aquatic acute toxicity : LC50 Fish Pimephales promelas 1950 mg/L 96h EPA

a) Aquatic acute toxicity : LC50 Fish Poecilia reticulata > 1000 mg/L 96h IUCLID

a) Aquatic acute toxicity : LC50 Fish Oncorhynchus mykiss >= 100 mg/L 96h IUCLID

a) Aquatic acute toxicity : EC50 Daphnia Daphnia magna = 32 mg/L 48h IUCLID

a) Aquatic acute toxicity : EC50 Algae Pseudokirchneriella subcapitata = 495 mg/L 72h IUCLID

benzyl alcohol; benzenemethanol CAS: 100-51-6

a) Aquatic acute toxicity : LC50 Fish Pimephales promelas = 460 mg/L 96h EPA

a) Aquatic acute toxicity : LC50 Fish Lepomis macrochirus = 10 mg/L 96h EPA

a) Aquatic acute toxicity : EC50 Daphnia water flea = 23 mg/L 48h

### Persistence and degradability

Not available

### Bioaccumulative potential

Not available

### Mobility in soil

Not available

### Other adverse effects

Not available

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## 13. DISPOSAL CONSIDERATIONS

### Waste treatment methods

The generation of waste should be avoided or minimized wherever possible. Recover if possible.

Methods of disposal:

Disposal of this product, solutions, packaging and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Dispose of surplus and nonrecyclable products via a licensed waste disposal contractor.

Do not dispose of waste into sewers.

Disposal considerations:

Do not allow to enter drains or watercourses.

Dispose of product according to all federal, state and local applicable regulations.

If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned.

Dispose of containers contaminated by the product in accordance with local or national legal provisions. For further information, contact your local waste authority.

Special precautions:

This material and its container must be disposed of in a safe way. Care should be taken when handling untreated empty containers.

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Empty containers or liners may retain some product residues. Do not re-use empty containers.

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## 14. TRANSPORT INFORMATION

### UN number

ADR-UN number: 1760

DOT-UN Number: UN1760

IATA-Un number: 1760

IMDG-Un number: 1760

### UN proper shipping name

ADR-Shipping Name: CORROSIVE LIQUID, N.O.S. (4-nonylphenol, branched; Isononylphenol - aminoethylpiperazine; 2-piperazin-1-ylethylamine)

DOT-Proper Shipping Name: Corrosive liquids, n.o.s. (4-nonylphenol, branched; Isononylphenol - aminoethylpiperazine; 2-piperazin-1-ylethylamine)

IATA-Technical name: CORROSIVE LIQUID, N.O.S. (4-nonylphenol, branched; Isononylphenol - aminoethylpiperazine; 2-piperazin-1-ylethylamine)

IMDG-Technical name: CORROSIVE LIQUID, N.O.S. (4-nonylphenol, branched; Isononylphenol - aminoethylpiperazine; 2-piperazin-1-ylethylamine)

### Transport hazard class(es)

ADR-Class: 8

DOT-Hazard Class: 8

IATA-Class: 8

IMDG-Class: 8

### Packing group

ADR-Packing Group: III

DOT-Packing group: III

IATA-Packing group: III

IMDG-Packing group: III

### Environmental hazards

Marine pollutant: Yes

Environmental Pollutant: Not available

### Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not available

### Special precautions

Department of Transportation (DOT):

DOT-Special Provision(s): IB3, T7, TP1, TP28

DOT-Label(s): 8

DOT-Symbol: N/A

DOT-Cargo Aircraft: N/A

DOT-Passenger Aircraft: N/A

DOT-Bulk: N/A

DOT-Non-Bulk: N/A

Road and Rail (ADR-RID) :

ADR-Label: 8

ADR-Hazard identification number: 80

ADR-Transport category (Tunnel restriction code): 3 (E)

Air (IATA) :

IATA-Passenger Aircraft: 852

IATA-Cargo Aircraft: 856

IATA-Label: 8

IATA-Subsidiary hazards: -



IATA-Erg: 8L

IATA-Special Provisioning: A3 A803

Sea ( IMDG ) :

IMDG-Stowage Code: Category A SW2

IMDG-Stowage Note: -

IMDG-Subsidiary hazards: -

IMDG-Special Provisioning: 223 274

IMDG-Page: N/A

IMDG-Label: N/A

IMDG-EMS: F-A, S-B

IMDG-MFAG: N/A

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## 15. REGULATORY INFORMATION

### USA - Federal regulations

#### TSCA - Toxic Substances Control Act

##### TSCA inventory:

All the components are listed on the TSCA inventory

##### TSCA listed substances:

4-nonylphenol, branched; Isononylphenol is listed in TSCA Section 8b Section 8a - PAIR Section 5a - SNUR Section 12b

aminoethylpiperazine; 2-piperazin-1-y lethylamine is listed in TSCA Section 8b

benzyl alcohol; benzenemethanol is listed in TSCA Section 8b

polyoxypropylenediamine; polypropylene glycol bis (2-aminipropyl ether) is listed in TSCA Section 8b

2,4,6-tri(dimethylaminomethyl)phenol; Mesityl, alpha2,alpha4,alpha6-tris(dimethylamino)- is listed in TSCA Section 8b

2-methylpentanediamine; 1,5-pentanediamine, 2-Methyl is listed in TSCA Section 8b

#### SARA - Superfund Amendments and Reauthorization Act

##### Section 302 - Extremely Hazardous Substances:

No substances listed

##### Section 304 - Hazardous substances:

No substances listed

##### Section 313 - Toxic chemical list:

4-nonylphenol, branched; Isononylphenol

#### CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act

##### Substance(s) listed under CERCLA:

No substances listed

#### CAA - Clean Air Act

##### CAA listed substances:

benzyl alcohol; benzenemethanol is listed in CAA Section 112(b) - HON

#### CWA - Clean Water Act

##### CWA listed substances:

No substances listed

### USA - State specific regulations

#### California Proposition 65

##### Substance(s) listed under California Proposition 65:

No substances listed

#### Massachusetts Right to know

##### Substance(s) listed under Massachusetts Right to know:

aminoethylpiperazine; 2-piperazin-1-y lethylamine

benzyl alcohol; benzenemethanol

**Pennsylvania Right to know**

**Substance(s) listed under Pennsylvania Right to know:**

aminoethylpiperazine; 2-piperazin-1-ylethylamine  
benzyl alcohol; benzenemethanol

**New Jersey Right to know**

**Substance(s) listed under New Jersey Right to know:**

aminoethylpiperazine; 2-piperazin-1-ylethylamine

**Canada - Federal regulations**

**DSL - Domestic Substances List**

**DSL (Domestic Substances List)**

All the substances are listed in the DSL.

**NDSL - Non Domestic Substances List**

**NDSL (Non Domestic Substances List)**

No substances listed

**NPRI - National Pollutant Release Inventory**

**NPRI (National Pollutant Release Inventory) - List of substances listed.**

No substances listed

**16. OTHER INFORMATION**

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**Additional classification information**

NFPA Health: 3 = Serious  
NFPA Flammability: 1 = Combustible if heated  
NFPA Reactivity: 0 = Minimal  
NFPA Special Risk: Not available



Reasonable care has been taken in the preparation of this information, but the manufacturer makes no warranty of merchantability or any other warranty, expressed or implied, with respect to this information. The manufacturer makes no representations and assumes no liability for any direct, incidental or consequential damages resulting from its use. The information herein is presented in good faith and believed to be accurate as of the effective date given. It is the buyer's responsibility to ensure that its activities comply with Federal, State or provincial, and local laws.

This document was prepared by a competent person who has received appropriate training.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This SDS cancels and replaces any preceding release.

Code	Description
H227	Combustible liquid.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H360	May damage fertility or the unborn child.
H360FD	May damage fertility. May damage the unborn child.
H361	Suspected of damaging fertility or the unborn child.
H400	Very toxic to aquatic life.
H402	Harmful to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

**Legend to abbreviations and acronyms used in the safety data sheet:**

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.  
RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.  
IMDG: International Maritime Code for Dangerous Goods.  
IATA: International Air Transport Association.

IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).  
ICAO: International Civil Aviation Organization.  
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO).  
GHS: Globally Harmonized System of Classification and Labeling of Chemicals.  
CLP: Classification, Labeling, Packaging.  
EINECS: European Inventory of Existing Commercial Chemical Substances.  
INCI: International Nomenclature of Cosmetic Ingredients.  
CAS: Chemical Abstracts Service (division of the American Chemical Society).  
GefStoffVO: Ordinance on Hazardous Substances, Germany.  
LC50: Lethal concentration, for 50 percent of test population.  
LD50: Lethal dose, for 50 percent of test population.  
DNEL: Derived No Effect Level.  
PNEC: Predicted No Effect Concentration.  
TLV: Threshold Limiting Value.  
TWATLV: Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).  
STEL: Short Term Exposure limit.  
STOT: Specific Target Organ Toxicity.  
WGK: German Water Hazard Class.  
KSt: Explosion coefficient.

**Paragraphs modified from the previous revision:**

- 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING
- 2. HAZARDS IDENTIFICATION
- 3. COMPOSITION/INFORMATION ON INGREDIENTS
- 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
- 9. PHYSICAL AND CHEMICAL PROPERTIES
- 11. TOXICOLOGICAL INFORMATION
- 12. ECOLOGICAL INFORMATION
- 16. OTHER INFORMATION