

## Safety Data Sheet

### MAPEWRAP 31 NA /B

Safety Data Sheet dated: 08/21/2024 - version 2

Date of first edition: 03/12/2024



## 1. Identification

### Product identifier

Mixture identification:

Trade name: MAPEWRAP 31 NA /B

Trade code: 9073244

### Recommended use and restrictions on use

Recommended use: Hardener for epoxy products

Restrictions on use: Not available

### Supplier's details

Company: MAPEI INC. (Canada)

2900 Francis-Hughes Avenue

H7L 3J5 - Laval - QC - CAN

Phone: 1-450-662-1212

Responsible: RDProductSafety@mapei.com

### Emergency phone number

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

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

## 2. Hazard identification



### Classification of the product

Acute toxicity (oral), Category 4

Serious eye damage, Category 1

Skin Sensitization, Category 1B

Acute (short-term) aquatic hazard - Category 3

Chronic (long-term) aquatic hazard - Category 2

Skin corrosion, Category 1C

Harmful if swallowed.

Causes serious eye damage.

May cause an allergic skin reaction.

Harmful to aquatic life

Toxic to aquatic life with long lasting effects.

Causes severe skin burns and eye damage.

### Label elements

#### Hazard pictograms and Signal Word



Danger

### Hazard statements

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H402 Harmful to aquatic life

H411 Toxic to aquatic life with long lasting effects.

### Precautionary statements

P260 Do not breathe mist/vapours/spray.

P264 Wash skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301+P312 IF SWALLOWED: Call a doctor if you feel unwell.

P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

1

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.  
3

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.  
8

P310 Immediately call a doctor.

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.

P501 Dispose of contents/container in accordance with applicable regulations.

#### Other hazards

None

#### Ingredient(s) with unknown acute toxicity

None

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### 3. Composition/information on ingredients

#### Substances

Not Relevant

#### Mixtures

Hazardous components within the meaning of WHMIS 2015 and related classification:

#### List of components

Qty	Name	Ident. Numb.	Classification	Registration Number
50-75 %	m-xylylenediamine	CAS:1477-55-0 EC:216-032-5	Acute Tox. 4, H332; Acute Tox. 4, H302; Aquatic Chronic 3, H412; Aquatic Acute 3, H402; Skin Corr. 1B, H314; Skin Sens. 1B, H317	01-2119480150-50-XXXX
20-25 %	fatty acids, c18-unsaturated, dimers, polymers with tall-oil fatty acids and triethylenetetramine; Reaction product of Fatty acids, C18-unsatd., dimers and trimers with amines, polyethylenepoly-, triethylenetetramine fraction	CAS:68082-29-1 EC:500-191-5	Skin Irrit. 2, H315; Skin Sens. 1, H317; Eye Irrit. 2A, H319; Aquatic Chronic 2, H411	
5-10 %	phenol, styrenated; Petroleum resins	CAS:61788-44-1 EC:262-975-0	Aquatic Chronic 2, H411	
5-10 %	diisopropylnaphthalene; Bis(isopropyl)naphthalene	CAS:38640-62-9 EC:254-052-6	Asp. Tox. 1, H304; Aquatic Chronic 1, H410	
0.49-1 %	triethylene tetramine; trientine	CAS:112-24-3 EC:203-950-6 Index:612-059-00-5	Skin Sens. 1, H317; Aquatic Chronic 3, H412; Acute Tox. 4, H312; Acute Tox. 4, H302; Skin Corr. 1B, H314	

The actual concentration of the components listed above is withheld as a trade secret.

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### 4. First-aid measures

#### Description of necessary first-aid measures

In case of skin contact:

Immediately take off all contaminated clothing.

OBTAIN IMMEDIATE MEDICAL ATTENTION.

Remove contaminated clothing immediately and dispose of safely.

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

If skin irritation or rash occurs: Get medical advice/attention.

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.

Remove contact lenses, if present and easy to do. Continue rinsing.

In case of Ingestion:

Give nothing to eat or drink.

IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

In case of Inhalation:

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

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

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

Eye irritation

Eye damages

Skin Irritation

Erythema

**Indication of immediate medical attention and special treatment needed, if necessary**

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**

**Suitable and unsuitable extinguishing media**

Suitable extinguishing media:

Water.

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

Unsuitable extinguishing media:

None in particular.

**Specific hazards arising from the hazardous product**

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

Hazardous combustion products: Not available

Explosive properties: Not Relevant

Oxidizing properties: Not Relevant

**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.

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.

Wash skin thoroughly after handling.

See also section 8 for recommended protective equipment.

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

Keep away from food, drink and feed.

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Adequately ventilated premises.

Storage temperature: Not available

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**8. Exposure controls/personal protection**

## Control parameters

### Community Occupational Exposure Limits (OEL)

	OEL Type	Country	Occupational Exposure Limit
m-xylylenediamine CAS: 1477-55-0	ACGIH		Short Term: Ceiling - 0.1 mg/m <sup>3</sup> Skin - Eye, skin, and GI irr
	ACGIH		Short Term: Ceiling - 0.1 mg/m <sup>3</sup>
	ACGIH		Skin - potential significant contribution to overall exposure by the cutaneous route; eye, gastrointestinal and skin irritation
	MAK	AUSTRIA	Long Term: 0.1 mg/m <sup>3</sup> ; Short Term: 0.1 mg/m <sup>3</sup>
	MAK	SWITZERLAND	Long Term: 0.1 mg/m <sup>3</sup>
	MAK	AUSTRIA	Short Term: Ceiling - 0.1 mg/m <sup>3</sup>
	ACGIH		Short Term: Ceiling - 0.1 mg/m <sup>3</sup>
	ACGIH		Skin - potential significant contribution to overall exposure by the cutaneous route; eye, gastrointestinal and skin irritation
	ACGIH		Short Term: Ceiling - 0.018 ppm

### Predicted No Effect Concentration (PNEC) values

m-xylylenediamine CAS: 1477-55-0	Exposure Route: Fresh Water; PNEC Limit: 0.094 mg/kg
	Exposure Route: Marine water; PNEC Limit: 0.0094 mg/l
	Exposure Route: Freshwater sediments; PNEC Limit: 0.43 mg/kg
	Exposure Route: Marine water sediments; PNEC Limit: 0.043 mg/kg
	Exposure Route: Intermittent release; PNEC Limit: 0.152 mg/l
	Exposure Route: Soil; PNEC Limit: 0.045 mg/kg
	Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 10 mg/l

### Derived No Effect Level (DNEL) values

m-xylylenediamine CAS: 1477-55-0	Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects Worker Industry: 0.33 mg/kg
	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects Worker Industry: 1.2 mg/m <sup>3</sup>
	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, local effects Worker Industry: 0.2 mg/m <sup>3</sup>

### Appropriate engineering controls

Not available

### Individual protection measures, such as personal protective equipment (PPE)

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: liquid Amber

Odour: ammonia  
Odour threshold: Not Relevant  
pH: 11.00  
Melting point / freezing point: Not Relevant  
Initial boiling point and boiling range: 200 °C (392 °F)  
Flash point: 100 °C (212 °F)  
Evaporation rate: Not Relevant  
Upper/lower flammability or explosive limits: Not Relevant  
Vapour density: Not Relevant  
Vapour pressure: Not Relevant  
Relative density: 1.03 g/cm<sup>3</sup>  
Solubility in water: slightly soluble  
Solubility in oil: insoluble  
Partition coefficient (n-octanol/water): Not Relevant  
Auto-ignition temperature: Not Relevant  
Decomposition temperature: Not Relevant  
Viscosity: 108,000.00 mPA-s  
Kinematic viscosity: > 20,5 mm<sup>2</sup>/sec (40 °C) mm<sup>2</sup>/s  
Explosive properties: Not Relevant  
Oxidizing properties: Not Relevant  
Solid/gas flammability: Not Relevant

#### Other information

Substance Groups relevant properties Not Relevant  
Miscibility: Not Relevant  
Fat Solubility: Not Relevant  
Conductivity: Not Relevant

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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

Likely routes of exposure:

Skin contact, skin absorption, eye contact, inhalation and ingestion.

### Toxicological Information of the Preparation

a) acute toxicity	The product is classified: Acute toxicity (oral), Category 4(H302) ATEmix - Oral : 1476.19 mg/kg bw
b) skin corrosion/irritation	The product is classified: Skin corrosion, Category 1C(H314)
c) serious eye damage/irritation	The product is classified: Serious eye damage, Category 1(H318)
d) respiratory or skin sensitisation	The product is classified: Skin Sensitization, Category 1B(H317)
e) germ cell mutagenicity	Not classified Based on available data, the classification criteria are not met
f) carcinogenicity	Not classified Based on available data, the classification criteria are not met
g) reproductive toxicity	Not classified Based on available data, the classification criteria are not met
h) STOT-single exposure	Not classified Based on available data, the classification criteria are not met

- i) STOT-repeated exposure Not classified  
Based on available data, the classification criteria are not met
- j) aspiration hazard Not classified  
Based on available data, the classification criteria are not met

**Toxicological information on main components of the mixture:**

m-xylylenediamine	a) acute toxicity	LD50 Oral Mouse = 930 mg/kg LD50 Skin Rabbit = 2000 mg/kg LC50 Inhalation Mist Rat = 1.34 mg/l 4h LC50 Inhalation Rat = 700 ppm 1h
phenol, styrenated; Petroleum resins	a) acute toxicity	LD50 Skin Rabbit > 7940 mg/kg  LD50 Oral Rat = 2500 mg/kg LC50 Inhalation Rat > 2.5 mg/l 6h LD50 Oral Rat 2100 mg/kg
diisopropylnaphthalene; Bis(isopropyl)naphthalene	a) acute toxicity	LD50 Skin Rat > 4500 mg/kg  LC50 Inhalation Rat > 5.64 mg/l 4h LD50 Oral Rat = 3900 mg/kg
triethylene tetramine; trientine	a) acute toxicity	LD50 Skin Rabbit = 550 mg/kg  LD50 Oral Rat = 2500 mg/kg LD50 Skin Rabbit = 550 mg/kg LD50 Oral Rat = 2500 mg/kg

**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

**12. Ecological information**

**Ecotoxicity**

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

**List of Eco-Toxicological properties of the product**

The product is classified: Acute (short-term) aquatic hazard - Category 3(H402), Chronic (long-term) aquatic hazard - Category 2(H411)

**List of Eco-Toxicological properties of the components**

<b>Component</b>	<b>Ident. Numb.</b>	<b>Ecotox Data</b>
m-xylylenediamine	CAS: 1477-55-0 - EINECS: 216-032-5	a) Aquatic acute toxicity : EC50 Algae = 20 mg/L 72h  a) Aquatic acute toxicity : EC50 Daphnia = 15.2 mg/L 48h a) Aquatic acute toxicity : LC50 Fish Oryzias latipes = 87.6 mg/L 96h ECHA
fatty acids, c18-unsaturated, dimers, polymers with tall-oil fatty acids and triethylenetetramine; Reaction product of Fatty acids, C18-unsatd., dimers and trimers	CAS: 68082-29-1 - EINECS: 500-191-5	a) Aquatic acute toxicity : LC50 Fish Danio rerio = 7.07 mg/L 96h ECHA

with amines, polyethylenepoly-,  
triethylenetetramine fraction

diisopropyl naphthalene;  
Bis(isopropyl)naphthalene

CAS: 38640-62-9 - EINECS:  
254-052-6 a) Aquatic acute toxicity : LC50 Fish Cyprinus carpio > 1000 mg/L 96h

triethylene tetramine; trientine

CAS: 112-24-3 - EINECS: 203-  
950-6 - INDEX:  
612-059-00-5

a) Aquatic acute toxicity : LC50 Fish Oryzias latipes > 1000 mg/L 96h  
a) Aquatic acute toxicity : LC50 Fish Poecilia reticulata = 570 mg/L 96h  
IUCLID

a) Aquatic acute toxicity : LC50 Fish Pimephales promelas = 495 mg/L 96h  
IUCLID

a) Aquatic acute toxicity : EC50 Algae Desmodesmus subspicatus = 2.5 mg/L  
72h IUCLID

a) Aquatic acute toxicity : EC50 Algae Pseudokirchneriella subcapitata = 20  
mg/L 72h IUCLID

a) Aquatic acute toxicity : EC50 Algae Pseudokirchneriella subcapitata = 3.7  
mg/L 96h EPA

a) Aquatic acute toxicity : EC50 Daphnia Daphnia magna = 31.1 mg/L 48h  
IUCLID

#### **Persistence and degradability**

N.A.

#### **Bioaccumulative potential**

N.A.

#### **Mobility in soil**

N.A.

#### **Other adverse effects**

N.A.

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### **13. Disposal considerations**

#### **Safe handling and methods for disposal**

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**

TDG-UN number: UN2735

ADR-UN number: 2735

DOT-UN Number: UN2735

IATA-Un number: 2735

IMDG-Un number: 2735

#### **UN proper shipping name**

TDG-Shipping Name: AMINES, LIQUID, CORROSIVE, N.O.S. (m-xylylendiamine - fatty acids, amines react. prod.)

ADR-Shipping Name: AMINES, LIQUID, CORROSIVE, N.O.S. (m-xylylendiamine - fatty acids, amines react. prod.)

DOT-Proper Shipping Name: AMINES, LIQUID, CORROSIVE, N.O.S. (m-xylylendiamine - fatty acids, amines react. prod.)

IATA-Technical name: AMINES, LIQUID, CORROSIVE, N.O.S. (m-xylylendiamine - fatty acids, amines react. prod.)

IMDG-Technical name: AMINES, LIQUID, CORROSIVE, N.O.S. (m-xylylendiamine - fatty acids, amines react. prod.)

#### **Transport hazard class(es)**

TDG-Class: 8

ADR-Class: 8

DOT-Hazard Class: 8

IATA-Class: 8

IMDG-Class: 8

#### **Packing group**

TDG-Packing Group: III

ADR-Packing Group: III

DOT Packing Group: III

IATA-Packing group: III

IMDG-Packing group: III

#### **Environmental hazards**

Marine pollutant: Yes

Environmental Pollutant: Not Applicable

DOT-RQ: No

#### **Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code)**

Not Applicable

#### **Special precautions in connection with transport or conveyance**

TDG:

TDG Special provisions: 16

Department of Transportation (DOT):

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

DOT-Label(s): 8

DOT-Symbol: N/A

DOT-Cargo Aircraft: 60 L

DOT-Passenger Aircraft: 5 L

DOT-Bulk: 241

DOT-Non-Bulk: 203

DOT-Limited Quantity threshold: 5 L

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 Provisions: A3 A803

Sea (IMDG):

IMDG-Stowage Code: Category A

IMDG-Stowage Note: SG35 SGG18

IMDG-Subsidiary hazards: -

IMDG-Special Provisions: 223 274

IMDG-EMS: F-A, S-B

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## **15. Regulatory information**

### **Canada - Federal regulations**

#### **DSL - Domestic Substances List**

All the substances are listed in the DSL.

#### **NDSL - Non Domestic Substances List**

This product complies with NDSL inventory



**NPRI - National Pollutant Release Inventory**

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

No substances listed

**USA - Federal regulations**

**TSCA - Toxic Substances Control Act**

All the components are listed on the TSCA inventory

**TSCA listed substances:**

- m-xylylenediamine is listed in TSCA Section 8b
- fatty acids, c18-unsaturated, dimers, polymers with tall-oil fatty acids and triethylenetetramine; Reaction product of Fatty acids, C18-unsatd., dimers and trimers with amines, polyethylenepoly-, triethylenetetramine fraction is listed in TSCA Section 8b
- phenol, styrenated; Petroleum resins is listed in TSCA Section 8b Section 8a - PAIR
- diisopropylnaphthalene; Bis(isopropyl)naphthalene is listed in TSCA Section 8b
- triethylene tetramine; trientine 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:**

No substances listed

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

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

No substances listed

**CAA - Clean Air Act**

**CAA listed substances:**

No substances listed

**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:**

- m-xylylenediamine
- triethylene tetramine; trientine

**Pennsylvania Right to know**

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

- m-xylylenediamine
- triethylene tetramine; trientine

**New Jersey Right to know**

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

- m-xylylenediamine
- triethylene tetramine; trientine

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**16. Other information**

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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.

<b>Code</b>	<b>Description</b>
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H402	Harmful to aquatic life
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

<b>Code</b>	<b>Hazard class and hazard category</b>	<b>Description</b>
A.1/4/Dermal	Acute Tox. 4	Acute toxicity (dermal), Category 4
A.1/4/Inhal	Acute Tox. 4	Acute toxicity (inhalation), Category 4
A.1/4/Oral	Acute Tox. 4	Acute toxicity (oral), Category 4
A.10/1	Asp. Tox. 1	Aspiration hazard, Category 1
A.2/1B	Skin Corr. 1B	Skin corrosion, Category 1B
A.2/2	Skin Irrit. 2	Skin irritation, Category 2
A.3/2A	Eye Irrit. 2A	Eye irritation, Category 2A
A.4.2/1	Skin Sens. 1	Skin Sensitization, Category 1
A.4.2/1B	Skin Sens. 1B	Skin Sensitization, Category 1B
CAN-HAE/A3	Aquatic Acute 3	Acute (short-term) aquatic hazard - Category 3
CAN-HAE/C1	Aquatic Chronic 1	Chronic (long-term) aquatic hazard - Category 1
CAN-HAE/C2	Aquatic Chronic 2	Chronic (long-term) aquatic hazard - Category 2
CAN-HAE/C3	Aquatic Chronic 3	Chronic (long-term) aquatic hazard - Category 3

#### **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:**

- 2. HAZARDS IDENTIFICATION
- 11. TOXICOLOGICAL INFORMATION
- 14. TRANSPORT INFORMATION