1. Identification

GHS Product Identifier

Mixture identification:

Trade name: MAPEFIX EP 100 /B

Trade code: 9019695

Recommended use of the chemical and restrictions on use

Recommended use: Chemical anchor for metallic rebar

Uses advised against: Data not available.

Supplier's details

Company: MAPEI CONSTRUCTION CHEMICALS L.L.C
P.O. BOX 73869 DUBAI - United Arab Emirates

Office: 00971 4 8156666

Factory : 00971 4 8858428

Responsable: info@mapei.ae

Emergency phone number

Office: 00971 4 8156666

2. Hazard identification

Classification of the substance or mixture

Acute toxicity (oral), Category 4	Harmful if swallowed.
Skin corrosion, Category 1A	Causes severe skin burns and eye damage.
Serious eye damage, Category 1	Causes serious eye damage.
Skin Sensitisation, Category 1A	May cause an allergic skin reaction.

Adverse physicochemical, human health and environmental effects:

No other hazards

GHS label elements, including precautionary statements

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.

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.
P280	Wear protective gloves/clothing and eye/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.
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 [or 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.
P310	Immediately call a POISON CENTER.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.

P363 Wash contaminated clothing before reuse.

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

Other hazards which do not result in a classification

No other hazards

3. Composition/information on ingredients

Substances

Not Relevant

Mixtures

Mixture identification: MAPEFIX EP 100 /B

Hazardous components within the meaning of GHS and related classification:

Qty	Name	Ident. Numb.	Classification
≥30 - <36 %	trimethylhexamethylenediamine	CAS:25513-64-8 EC:247-063-2	Acute Tox. 4, H302; Skin Corr. 1A, H314; Skin Sens. 1A, H317
≥5 - <10 %	2,4,6-tris(dimethylaminomethyl)phenol	CAS:90-72-2 EC:202-013-9 Index:603-069-00-0	Acute Tox. 4, H302; Skin Corr. 1C, H314; Eye Dam. 1, H318
≥3 - <5 %	m-xylylenediamine	CAS:1477-55-0 EC:216-032-5	Acute Tox. 4, H332; Acute Tox. 4, H302; Skin Corr. 1B, H314; Skin Sens. 1, H317; Aquatic Chronic 3, H412; Aquatic Acute 3, H402
≥3 - <5 %	p-toluenesulphonic acid (containing a maximum of 5 % H2SO4)	CAS:104-15-4 EC:203-180-0 Index:016-030-00-2	Eye Irrit. 2A, H319; STOT SE 3, H335; Skin Irrit. 2, H315

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.

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 opthalmologist 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 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)

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media:

Water.

Carbon dioxide (CO2).

Unsuitable extinguishing media:

None in particular.

Special hazards arising from the chemical

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.
Hazardous combustion products: N.A.
Explosive properties: N.A.
Oxidizing properties: N.A.

Special protective actions 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.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.
Remove persons to safety.

Environmental precautions

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.

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.
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.

8. Exposure controls/personal protection

Control parameters

Community Occupational Exposure Limits (OEL)

	OEL Type	Country	Occupational Exposure Limit
m-xylylenediamine CAS: 1477-55-0	MEX	MEXICO	Short Term: Ceiling - 0.1 mg/m3
	ISL	ICELAND	Short Term: 0.1 mg/m3 - 0.02 ppm
	IDN	INDONESIA	Short Term: Ceiling - 0.1 mg/m3
	COL	COLOMBIA	Short Term: Ceiling - 0.1 mg/m3
	PAN	PANAMA	Long Term: 0.1 mg/m3; Short Term: 0.05 mg/m3
	COL	COLOMBIA	Short Term: Ceiling - 0.018 ppm

Predicted No Effect Concentration (PNEC) values

trimethylhexamethylenediamine CAS: 25513-64-8	Exposure Route: Fresh Water; PNEC Limit: 0.102 mg/l
	Exposure Route: Freshwater sediments; PNEC Limit: 0.622 mg/kg
	Exposure Route: Marine water; PNEC Limit: 0.01 mg/l
	Exposure Route: Marine water sediments; PNEC Limit: 0.062 mg/kg
	Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 72 mg/l
	Exposure Route: Soil; PNEC Limit: 10 mg/kg
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
p-toluenesulphonic acid (containing a maximum of 5 % H2SO4) CAS: 104-15-4	Exposure Route: Fresh Water; PNEC Limit: 0.073 mg/l
	Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 58 mg/l
	Exposure Route: Marine water; PNEC Limit: 0.0073 mg/l
	Exposure Route: Soil; PNEC Limit: 0.016 mg/kg

Derived No Effect Level (DNEL) values

2,4,6-tris (dimethylaminomethyl) phenol CAS: 90-72-2	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects Worker Industry: 0.31 mg/m3
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/m3
	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, local effects Worker Industry: 0.2 mg/m3
p-toluenesulphonic acid (containing a maximum of 5 % H2SO4) CAS: 104-15-4	Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects Worker Industry: 7.6 mg/kg
	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects Worker Industry: 53.6 mg/m3
	Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects Consumer: 2.5 mg/kg
	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects Consumer: 8.7 mg/m3
	Exposure Route: Human Oral; Exposure Frequency: Long Term, systemic effects Consumer: 2.5 mg/kg

Appropriate engineering controls: N.A.

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

Eye protection:

Use close fitting safety goggles, don't use contact lenses.

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; EN ISO 374:

Polychloroprene - CR: thickness >=0,5mm; breakthrough time >=480min.

Nitrile rubber - NBR: thickness >=0,35mm; breakthrough time >=480min.

Butyl rubber - IIR: thickness >=0,5mm; breakthrough time >=480min.

Fluorinated rubber - FKM: thickness >=0,4mm; breakthrough time >=480min.

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

Respiratory protection:

Personal Protective Equipment should comply with relevant CE standards (as EN ISO 374 for gloves and EN ISO 166 for goggles), correctly maintained and stored. Consult the supplier to check the suitability of equipment against specific chemicals and for user information.

Use adequate protective respiratory equipment.

9. Physical and chemical properties

Physical state Liquid

Color: Black
Appearance: paste
Odour: Characteristic
Odour threshold: N.A.
pH: N.A.
Melting point / freezing point: N.A.
Initial boiling point and boiling range: N.A.
Flash point: N.A.
Evaporation rate: N.A.
Solid/gas flammability: N.A.
Upper/lower flammability or explosive limits: N.A.
Vapour pressure: N.A.
Vapour density: N.A.
Relative density: 1.42 g/cm3
Solubility in water: Insoluble
Solubility in oil: N.A.
Partition coefficient (n-octanol/water): N.A.
Auto-ignition temperature: N.A.
Decomposition temperature: N.A.
Viscosity: N.A.

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.

11. Toxicological information

Information on toxicological effects

Toxicological Information of the Preparation

a) acute toxicity	The product is classified: Acute toxicity (oral), Category 4(H302)
	ATEmix - Oral : 1893.73 mg/kg bw
	LD50 Oral Rat = 813.1 mg/kg
	LD50 Skin Rabbit = 1216.6 mg/kg
	LC50 Inhalation Vapour Rat = 5.53 mg/l
b) skin corrosion/irritation	The product is classified: Skin corrosion, Category 1A(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 Sensitisation, Category 1A(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:

trimethylhexamethylenediamine	a) acute toxicity	LD50 Oral Rat = 910 mg/kg
2,4,6-tris (dimethylaminomethyl) phenol	a) acute toxicity	LD50 Skin Rat > 1 ml/kg
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
p-toluenesulphonic acid (containing a maximum of 5 % H2SO4)	a) acute toxicity	LD50 Skin Rabbit > 2000 mg/kg

12. Ecological information

Toxicity

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

Eco-Toxicological Information:

List of Eco-Toxicological properties of the product

Not classified for environmental hazards.

Based on available data, the classification criteria are not met

List of Eco-Toxicological properties of the components

Component	Ident. Numb.	Ecotox Data
trimethylhexamethylenediamine	CAS: 25513-64-8 - EINECS: 247-063-2	a) Aquatic acute toxicity : LC50 Fish = 174 mg/L 48
		a) Aquatic acute toxicity : EC50 Daphnia = 31.5 mg/L 24
		a) Aquatic acute toxicity : EC50 Algae = 43.5 mg/L 72
		a) Aquatic acute toxicity : NOEC Algae = 16 mg/L 72
		c) Bacteria toxicity : EC50 Bacteria = 89 mg/L 17
		b) Aquatic chronic toxicity : NOEC Fish = 10.9 mg/L - 34 d
		b) Aquatic chronic toxicity : NOEC Daphnia = 1.02 mg/L - 21 d
		d) Terrestrial toxicity : NOEC = 1000 mg/kg - 28 d
2,4,6-tris(dimethylaminomethyl)phenol	CAS: 90-72-2 - EINECS: 202-013-9 - INDEX: 603-069-00-0	a) Aquatic acute toxicity : LC50 Fish = 175 mg/L 96h
		a) Aquatic acute toxicity : EC50 Algae = 46.7 mg/L 72h
		a) Aquatic acute toxicity : NOEC Algae = 25.1 mg/L 72h
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
p-toluenesulphonic acid (containing a maximum of 5 % H2SO4)	CAS: 104-15-4 - EINECS: 203-180-0 - INDEX: 016-030-00-2	a) Aquatic acute toxicity : EC50 Daphnia > 100 mg/L 48h
		a) Aquatic acute toxicity : LD50 Fish = 500 mg/L 96h

Persistence and degradability

N.A.

Bioaccumulative potential

N.A.

Mobility in soil

N.A.

Other adverse effects

No Data found about other evironmental hazard properties.

13. Disposal considerations

Disposal 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.

14. Transport information

UN number

2735

UN proper shipping name

ADR-Shipping Name: AMINES, LIQUID, CORROSIVE, N.O.S. (trimethylhexamethylenediamine)

IATA-Shipping Name: AMINES, LIQUID, CORROSIVE, N.O.S. (trimethylhexamethylenediamine)

IMDG-Shipping Name: AMINES, LIQUID, CORROSIVE, N.O.S. (trimethylhexamethylenediamine)

Transport hazard class(es)

ADR-Class: 8

IATA-Class: 8

IMDG-Class: 8

Packing group, if applicable

Road and Rail (ADR-RID):

ADR-Label: 8

ADR-Packing Group: III

ADR-Hazard identification number: 80

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

ADR-Limited Quantity threshold: 5 L

Air (IATA):

IATA-Passenger Aircraft: 852

IATA-Cargo Aircraft: 856

IATA-Label: 8

IATA-Packing group: III

IATA-Subsidiary hazards: -

IATA-Erg: 8L

IATA-Special Provisions: A3 A803

Sea (IMDG):

IMDG-Packing group: III

IMDG-Stowage and handling: Category A

IMDG-Segregation: SG35 SGG18

IMDG-Subsidiary hazards: -

IMDG-Special Provisions: 223 274

IMDG-Page: N/A

IMDG-Label: N/A

IMDG-EMS: F-A, S-B

IMDG-MFAG: N/A

Environmental hazards

Marine pollutant: No

Environmental Pollutant: N.A.

Special precautions for user

N.A.

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

N.A.

15. Regulatory information

Safety, health and environmental regulations specific for the product in question

This Safety Data Sheet has been prepared according to the Globally Harmonized System of Classification and Labelling of Chemicals (GHS), Fifth revised edition.

16. Other information

Code	Description
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
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.
H402	Harmful to aquatic life
H412	Harmful to aquatic life with long lasting effects.

Code	Hazard class and hazard category	Description
3.1/4/Inhal	Acute Tox. 4	Acute toxicity (inhalation), Category 4
3.1/4/Oral	Acute Tox. 4	Acute toxicity (oral), Category 4
3.2/1A	Skin Corr. 1A	Skin corrosion, Category 1A
3.2/1B	Skin Corr. 1B	Skin corrosion, Category 1B
3.2/1C	Skin Corr. 1C	Skin corrosion, Category 1C
3.2/2	Skin Irrit. 2	Skin irritation, Category 2
3.3/1	Eye Dam. 1	Serious eye damage, Category 1
3.3/2A	Eye Irrit. 2A	Eye irritation, Category 2A
3.4.2/1	Skin Sens. 1	Skin Sensitisation, Category 1
3.4.2/1A	Skin Sens. 1A	Skin Sensitisation, Category 1A
3.8/3	STOT SE 3	Specific target organ toxicity — single exposure, Category 3
4.1/A3	Aquatic Acute 3	Acute aquatic hazard, category 3
4.1/C3	Aquatic Chronic 3	Chronic (long term) aquatic hazard, category 3

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

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

Insert here further consulted bibliography

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

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.

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
- 3. COMPOSITION/INFORMATION ON INGREDIENTS
- 11. TOXICOLOGICAL INFORMATION
- 12. ECOLOGICAL INFORMATION
- 14. TRANSPORT INFORMATION
- 15. REGULATORY INFORMATION