

Safety Data Sheet

In accordance with GB/T 16483-2008, GB/T 17519-2013

MAPEFLOOR I 390 EDF CN /B

Safety Data Sheet dated: 21/09/2023 - version 1

Date of first edition: 21/09/2023



1. Chemical Product and company Identification

Product identifier

Mixture identification:

Trade name: MAPEFLOOR I 390 EDF CN /B

Trade code: 905GA9999

Relevant identified uses of the substance or mixture and uses advised against

Recommended use: Hardener for epoxy products

Uses advised against: N.A.

Details of the supplier of the safety data sheet

Company: MAPEI CHINA – Mapei Construction Materials (Guangzhou) Co., Ltd
No. 6, Fengying Road, Guangdong Conghua Economy Development Zone,
Conghua District, Guangzhou, Guangdong Province, China

Phone: 86-20-8781 0701

Responsible: enquiry@mapei.com.cn

Emergency telephone number

Phone: 86-20-8781 0701

2. Hazards identification



Emergency overview:

N.A.

Classification of the substance or mixture

Acute toxicity (oral), Category 4

Harmful if swallowed.

Acute toxicity (dermal), Category 5

May be harmful in contact with skin

Skin corrosion, Category 1A

Causes severe skin burns and eye damage.

Serious eye damage, Category 1

Causes serious eye damage.

Skin Sensitisation, Category 1

May cause an allergic skin reaction.

Acute aquatic hazard, category 1

Very toxic to aquatic life.

Chronic (long term) aquatic hazard, category 1

Very toxic to aquatic life with long lasting effects.

Label elements

Hazard pictograms and Signal Word



Danger

Hazard statements

H302 Harmful if swallowed.

H313 May be 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.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements

P260 Do not breathe mist/vapours/spray.

P264 Wash hands 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+P310 IF SWALLOWED: Immediately call a POISON CENTER.

P301+P330+P33 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

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P302+P352 IF ON SKIN: Wash with plenty of water.

P303+P361+P35 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+P33 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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P312 Call a doctor if you feel unwell.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P362+P364 Take off contaminated clothing and wash it before reuse.

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

Hazards identification:

Physical hazards: N.A.

Health hazards: N.A.

Environmental hazards: N.A.

Other hazards

No PBT or vPvB substances present in concentration $\geq 0.1\%$

Other Hazards: No other hazards

3. Composition/information on ingredients

Substances

N.A.

Mixtures

Mixture identification: MAPEFLOOR I 390 EDF CN /B

List of components

Qty	Name	Ident. Numb.	Classification	Registration Number
≥ 25 - < 50 %	polyoxypropylenediamine	CAS:9046-10-0 EC:618-561-0	Skin Corr. 1C, H314; Aquatic Chronic 3, H412	
≥ 20 - < 25 %	benzyl alcohol	CAS:100-51-6 EC:202-859-9 Index:603-057-00-5	Acute Tox. 4, H302; Eye Irrit. 2A, H319	01-2119492630-38-XXXX
≥ 10 - < 20 %	bis-[4-(2,3-epoxipropoxy)phenyl]propane	CAS:1675-54-3, 25085-99-8 EC:216-823-5 Index:603-073-00-2	Skin Irrit. 2, H315; Skin Sens. 1, H317; Eye Irrit. 2A, H319; Aquatic Chronic 2, H411; Aquatic Acute 2, H401	01-2119456619-26-XXXX
≥ 10 - < 20 %	1,3-Cyclohexanedimethanamine	CAS:2579-20-6 EC:219-941-5	Aquatic Chronic 3, H412; Acute Tox. 4, H312; Acute Tox. 4, H302; Skin Corr. 1A, H314	01-2119543741-41-XXXX
≥ 10 - < 20 %	Coco alkyl ethyl dimethyl ethyl sulphates, quaternary ammonium compounds	CAS:1474044-65-9 EC:939-607-9	Acute Tox. 4, H302; Acute Tox. 3, H311; Eye Dam. 1, H318; Skin Corr. 1C, H314; Aquatic Acute 1, H400; Aquatic Chronic 1, H410	01-2119977130-42-XXXX
≥ 5 - < 10 %	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	01-2119480150-50-XXXX

4. First aid measures

Description of 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 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 and effects, both acute and delayed

Eye irritation

Eye damages

Skin Irritation

Erythema

Advices for first aid responders

N.A.

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)

5. Firefighting measures

Extinguishing media

Suitable extinguishing media:

Water.

Carbon dioxide (CO₂).

Extinguishing media which must not be used for safety reasons:

None in particular.

Special hazards arising from the substance or mixture

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

Advice for firefighters and protective measures

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.

Precautionary measures to prevent the occurrence of secondary hazard

N.A.

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

No data available

Exposure controls

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; EN ISO 374:

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 $\geq 480\text{min}$.

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.

Hygienic and Technical measures

N.A.

Appropriate engineering controls:

N.A.

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state: Liquid

Appearance and colour: liquid Transparent

Odour: ammonia

Odour threshold: N.A.

pH: 9.00

Melting point / freezing point: N.A.

Initial boiling point and boiling range: 100 °C (212 °F)

Flash point: 100.1 °C (212.2 °F)

Evaporation rate: N.A.

Upper/lower flammability or explosive limits: N.A.

Vapour density: N.A.

Vapour pressure: N.A.

Relative density: 1.00 g/cm³

Solubility in water: slightly soluble

Solubility in oil: insoluble

Partition coefficient (n-octanol/water): N.A.

Auto-ignition temperature: N.A.

Decomposition temperature: N.A.

Viscosity: 400.00 mPA-s

Kinematic viscosity: > 20,5 mm²/sec (40 °C) mm²/s

Explosive properties: N.A.

Oxidizing properties: N.A.

Solid/gas flammability: N.A.

Volatile Organic compounds - VOCs = N.A.

Other information

Substance Groups relevant properties N.A.

Miscibility: N.A.

Conductivity: N.A.

10. Stability and reactivity

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), Acute toxicity (dermal), Category 5(H313)
	ATEmix - Oral : 1324.73 mg/kg bw
	ATEmix - Dermal : 3167.02 mg/kg bw
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 1(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:

benzyl alcohol	a) acute toxicity	LD50 Oral Rat = 1230 mg/kg LC50 Inhalation Rat = 8.8 mg/l 4h
bis-[4-(2,3-epoxipropoxy)phenyl]propane	a) acute toxicity	LD50 Skin Rabbit = 20 mg/kg LD50 Oral Rat = 11300 µL/kg
1,3-Cyclohexanedimethanamine	a) acute toxicity	LD50 Oral Rat 700 mg/kg LD50 Skin Rat 1700 mg/kg LD50 Skin Rabbit = 1700 mg/kg LD50 Oral Rat 200 mg/kg
Coco alkyl ethyl dimethyl ethyl sulphates, quaternary ammonium compounds	a) acute toxicity	LD50 Oral Rat = 570 mg/kg LD50 Skin Rabbit = 528 mg/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

12. Ecological information

Toxicity

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

Eco-Toxicological Information:

Very toxic to aquatic organisms.

Very toxic to aquatic life with long lasting effects.

List of Eco-Toxicological properties of the product

The product is classified: Acute aquatic hazard, category 1(H400), Chronic (long term) aquatic hazard, category 1(H410)

List of Eco-Toxicological properties of the components

Component	Ident. Numb.	Ecotox Data
benzyl alcohol	CAS: 100-51-6 - EINECS: 202- 859-9 - INDEX: 603-057-00-5	a) Aquatic acute toxicity : LC50 Fish Pimephales promelas = 460 mg/L 96h EPA
bis-[4-(2,3- epoxipropoxi)phenyl]propane	CAS: 1675-54-3, 25085-99-8 - EINECS: 216- 823-5 - INDEX: 603-073-00-2	a) Aquatic acute toxicity : LC50 Fish = 2 mg/L 96h
1,3-Cyclohexanedimethanamine	CAS: 2579-20-6 - EINECS: 219- 941-5	a) Aquatic acute toxicity : EC50 Daphnia = 1.8 mg/L 48h a) Aquatic acute toxicity : LC50 Fish = 130 mg/L 96
Coco alkyl ethyl dimethyl ethyl sulphates, quaternary ammonium compounds	CAS: 1474044- 65-9 - EINECS: 939-607-9	a) Aquatic acute toxicity : EC50 Daphnia = 64.7 mg/L 48 a) Aquatic acute toxicity : EC50 Algae = 58.4 mg/L 72 c) Bacteria toxicity : EC50 Bacteria = 90 mg/L a) Aquatic acute toxicity : EC50 Daphnia = 0.036 mg/L 48h
m-xylylenediamine	CAS: 1477-55-0 - EINECS: 216- 032-5	a) Aquatic acute toxicity : EC50 Algae = 0.14 mg/L 72h a) Aquatic acute toxicity : LC50 Fish = 13.8 mg/kg 96h 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

Persistence and degradability

N.A.

Bioaccumulative potential

N.A.

Mobility in soil

N.A.

Other adverse effects

N.A.

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.

14. Transport information

UN number

2735

UN proper shipping name

ADR-Shipping Name: AMINES, LIQUID, CORROSIVE, N.O.S. (1,3-cyclohexanedimethanamine - quaternary ammonium compounds)

IATA-Technical name: AMINES, LIQUID, CORROSIVE, N.O.S. (1,3-cyclohexanedimethanamine - quaternary ammonium compounds)

IMDG-Technical name: AMINES, LIQUID, CORROSIVE, N.O.S. (1,3-cyclohexanedimethanamine - quaternary ammonium compounds)

Transport hazard class(es)

ADR-Class: 8

IATA-Class: 8

IMDG-Class: 8

Packing group

ADR-Packing Group: II

IATA-Packing group: II

IMDG-Packing group: II

Environmental hazards

Marine pollutant: Yes

Environmental Pollutant: Yes

Special precautions for user

Road and Rail (ADR-RID):

ADR-Label: 8

ADR-Hazard identification number: 80

ADR-Special Provisions: 274

ADR-Transport category (Tunnel restriction code): 2 (E)

ADR-Limited Quantity threshold: 1 L

Air (IATA):

IATA-Passenger Aircraft: 851

IATA-Cargo Aircraft: 855

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: 274

IMDG-EMS: F-A, S-B

15. Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Chemical classification, hazard labelling and precautionary statements according to GB30000.2-2013 ~ GB30000.29-2013.

Catalogue of Hazardous Chemicals:

Substance(s) listed under Catalogue of Hazardous Chemicals:

polyoxypropylenediamine	9046-10-0
benzyl alcohol	100-51-6
bis-[4-(2,3-epoxipropoxy)phenyl]propane	1675-54-3
1,3-Cyclohexanedimethanamine	2579-20-6
m-xylylenediamine	1477-55-0

Catalogue of Highly Toxic Chemicals:**Substance(s) listed under Catalogue of Highly Toxic Chemicals:**

No substance(s) listed.

16. Other information

Code	Description
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
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.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H400	Very toxic to aquatic life.
H401	Toxic to aquatic life
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.

Code	Hazard class and hazard category	Description
3.1/3/Dermal	Acute Tox. 3	Acute toxicity (dermal), Category 3
3.1/4/Dermal	Acute Tox. 4	Acute toxicity (dermal), Category 4
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
4.1/A1	Aquatic Acute 1	Acute aquatic hazard, category 1
4.1/A2	Aquatic Acute 2	Acute aquatic hazard, category 2
4.1/A3	Aquatic Acute 3	Acute aquatic hazard, category 3
4.1/C1	Aquatic Chronic 1	Chronic (long term) aquatic hazard, category 1
4.1/C2	Aquatic Chronic 2	Chronic (long term) aquatic hazard, category 2
4.1/C3	Aquatic Chronic 3	Chronic (long term) aquatic hazard, category 3

Date of revision of this SDS: . 9/21/2023

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

This SDS complies with "Safety data sheet for chemical product – Content and order of sections" (GB/T 16483-2008) and "Guidance on the compilation of safety data sheet for chemical products" (GB/T 17519-2013). The classification of the product in this SDS complies with "Rules for classification and labelling of chemicals" (GB30000.2-2013 ~ GB30000.29-2013).

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

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

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ACGIH: American Conference of Governmental Industrial Hygienists
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
AND: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ATE: Acute Toxicity Estimate
ATEmix: Acute toxicity Estimate (Mixtures)
BCF: Biological Concentration Factor
BEI: Biological Exposure Index
BOD: Biochemical Oxygen Demand
CAS: Chemical Abstracts Service (division of the American Chemical Society).
CAV: Poison Center
CE: European Community
CLP: Classification, Labeling, Packaging.
CMR: Carcinogenic, Mutagenic and Reprotoxic
COD: Chemical Oxygen Demand
COV: Volatile Organic Compound
CSA: Chemical Safety Assessment
CSR: Chemical Safety Report
DMEL: Derived Minimal Effect Level
DNEL: Derived No Effect Level.
DPD: Dangerous Preparations Directive
DSD: Dangerous Substances Directive
EC50: Half Maximal Effective Concentration
ECHA: European Chemicals Agency
EINECS: European Inventory of Existing Commercial Chemical Substances.
ES: Exposure Scenario
GefStoffVO: Ordinance on Hazardous Substances, Germany.
GHS: Globally Harmonized System of Classification and Labeling of Chemicals.
IARC: International Agency for Research on Cancer
IATA: International Air Transport Association.
IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
IC50: half maximal inhibitory concentration
ICAO: International Civil Aviation Organization.
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG: International Maritime Code for Dangerous Goods.
INCI: International Nomenclature of Cosmetic Ingredients.
IRCCS: Scientific Institute for Research, Hospitalization and Health Care
KAFH: KAFH
KSt: Explosion coefficient.
LC50: Lethal concentration, for 50 percent of test population.
LD50: Lethal dose, for 50 percent of test population.
LDLo: Leathal Dose Low
N.A.: Not Applicable
N/A: Not Applicable
N/D: Not defined/ Not available
NA: Not available
NIOSH: National Institute for Occupational Safety and Health
NOAEL: No Observed Adverse Effect Level
OSHA: Occupational Safety and Health Administration
PBT: Persistent, Bioaccumulative and Toxic
PGK: Packaging Instruction
PNEC: Predicted No Effect Concentration.
PSG: Passengers
RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.
STEL: Short Term Exposure limit.
STOT: Specific Target Organ Toxicity.
TLV: Threshold Limiting Value.
TWATLV: Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).
vPvB: Very Persistent, Very Bioaccumulative.
WGK: German Water Hazard Class.

Disclaimer:

The information in this SDS is provided all the relevant data fully and truly. However, the information is provided without any warranty on their absolute extensiveness and accuracy. This SDS was prepared to provide safety preventive measures for the users who have got professional training. The personal user who obtained this SDS should make independent judgment for the applicability of this SDS under special conditions. In these special cases, we do not assume responsibility for the damage.