

Safety Data Sheet

MAPECUBE 1

Safety Data Sheet dated: 10/10/2025 - version 2

Date of first edition: 02/16/2024



1. IDENTIFICATION

Product identifier used on the label

Mixture identification:

Trade name: MAPECUBE 1

Trade code: 9007654

Recommended use of the chemical and restrictions on use

Recommended use: Setting and hardening accelerator for concrete

Restrictions on use: Data not available.

Name, U.S. address, and U.S. 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

Phone: 954-246-8888

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

Eye irritation, Category 2A

Causes serious eye irritation.

Reproductive toxicity, Category 2

Suspected of damaging fertility or the unborn child if inhaled, in contact with skin and if swallowed.

Specific target organ toxicity following repeated exposure, Category 2

May cause damage to organs through prolonged or repeated exposure if inhaled, in contact with skin and if swallowed.

Label elements

Hazard pictograms and Signal Word



Warning

Hazard statements

H319 Causes serious eye irritation.

H361 Suspected of damaging fertility or the unborn child if inhaled, in contact with skin and if swallowed.

H373 May cause damage to organs through prolonged or repeated exposure if inhaled, in contact with skin and if swallowed.

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.

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

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.

P314 Get medical advice/attention if you feel unwell.

P337+P313 If eye irritation persists: Get medical advice/attention.

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

Hazards associated with foreseeable chemical reactions

None

Ingredient(s) with unknown acute toxicity:

None

Hazards not otherwise classified identified during the classification process:

None

3. COMPOSITION/INFORMATION ON INGREDIENTS**Substances**

Not Relevant

Mixtures

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

List of components

Qty	Name	Ident. Numb.	Classification
≥5 - <10 %	ionic mixture from calcium nitrate and sodium silicate		Eye Irrit. 2A, H319
≥2.5 - <3 %	methyldiethanolamine; 2,2'-methyliminodiethanol	CAS:105-59-9 EC:203-312-7 EU CLP Index:603-079-00-5	Eye Irrit. 2A, H319

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

4. FIRST AID MEASURES**Description of first aid measures**

In case of skin contact:

Immediately take off all contaminated clothing.

Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap.

Wash thoroughly the body (shower or bath).

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:

Do not induce vomiting, get medical attention showing the SDS and the hazard label.

In case of Inhalation:

If breathing is irregular or stopped, administer artificial respiration.

In case of inhalation, consult a doctor immediately and show him packing or label.

Most important symptoms/effects, acute and delayed

Eye irritation

Eye damages

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. FIRE-FIGHTING MEASURES**Extinguishing media**

Suitable extinguishing media:

Water.

Carbon dioxide (CO2).

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.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

Provide adequate ventilation.

Use appropriate respiratory protection.

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.

Exercise the greatest care when handling or opening the container.

Use localized ventilation system.

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.

Storage temperature: Not available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Predicted No Effect Concentration (PNEC) values

methyldiethanolamine; Exposure Route: Fresh Water; PNEC Limit: 0,1 mg/l
2,2'-methyliminodiethanol
CAS: 105-59-9

Exposure Route: Marine water; PNEC Limit: 0,012 mg/l

Exposure Route: Intermittent release; PNEC Limit: 1 mg/l

Exposure Route: Freshwater sediments; PNEC Limit: 0,89 mg/kg

Exposure Route: Marine water sediments; PNEC Limit: 0,111 mg/kg

Exposure Route: Soil; PNEC Limit: 0,119 mg/kg

Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 10 mg/l

Derived No Effect Level (DNEL) values

methyldiethanolamine; Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects
2,2'-methyliminodiethanol Worker Industry: 26 mg/m³; Consumer: 6,5 mg/m³
CAS: 105-59-9

Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects
Worker Industry: 19 mg/kg; Consumer: 9,4 mg/kg

Appropriate engineering controls: Not available

Individual protection measures

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; 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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state:	Liquid
Appearance and colour:	liquid purple
Odour:	characteristic
Odour threshold:	No data available
Melting point / freezing point:	No data available
Initial boiling point and boiling range:	100 °C (212 °F)
Flammability:	No data available
Upper/lower flammability or explosive limits:	No data available
Flash point:	100 °C (212 °F)
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
pH:	11.00
Viscosity:	400.00 cPs
Kinematic viscosity:	No data available
Solubility in water:	insoluble
Solubility in oil:	insoluble
Partition coefficient (n-octanol/water):	No data available
Vapour pressure:	No data available
Evaporation rate:	No data available
Relative density:	1.11 g/cm ³
Vapour density:	No data available

Particle characteristics:

Particle size:	No data available
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Other information

Explosive properties:	No data available
Oxidizing properties:	No data available
Solid/gas flammability:	No data available
Substance Groups relevant properties:	No data available

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

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	Not classified Based on available data, the classification criteria are not met Mutagenesis Salmonella Typhimurium Negative
b) skin corrosion/irritation	Not classified Based on available data, the classification criteria are not met Skin Irritant Skin Negative Skin Corrosive Skin Negative
c) serious eye damage/irritation	The product is classified: Eye irritation, Category 2A(H319)
d) respiratory or skin sensitisation	Not classified Based on available data, the classification criteria are not met
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	The product is classified: Reproductive toxicity, Category 2(H361)
h) STOT-single exposure	Not classified Based on available data, the classification criteria are not met
i) STOT-repeated exposure	The product is classified: Specific target organ toxicity following repeated exposure, Category 2(H373)
j) aspiration hazard	Not classified Based on available data, the classification criteria are not met

Toxicological information on main components of the mixture:

methyldiethanolamine; 2,2'-methyliminodiethanol	a) acute toxicity	LD50 Oral Rat = 4680, mg/kg
		LD50 Skin Rabbit = 10244, mg/kg
	i) STOT-repeated exposure	No Observed Adverse Effect Level Skin Rat = 750, 30h 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

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

a) Aquatic acute toxicity : EC50 Algae = mg/L 72

List of Eco-Toxicological properties of the components

Component	Ident. Numb.	Ecotox Data
methyldiethanolamine; 2,2'-methyliminodiethanol	CAS: 105-59-9 - EINECS: 203-312-7 - INDEX: 603-079-00-5	a) Aquatic acute toxicity : LC50 Fish Pimephales promelas > 1000 mg/L 96h IUCLID
		a) Aquatic acute toxicity : EC50 Daphnia Daphnia magna = 230 mg/L 48h IUCLID
		a) Aquatic acute toxicity : EC50 Algae Desmodesmus subspicatus = 37 mg/L 72h IUCLID
		a) Aquatic acute toxicity : EC50 Algae Desmodesmus subspicatus = 20 mg/L 96h IUCLID
		c) Bacteria toxicity : EC50 Bacteria = 413,8 mg/L 17 - h

Persistence and degradability

N.A.

Bioaccumulative potential

Component	Test	Value
methyldiethanolamine; 2,2'-methyliminodiethanol	BCF - Bioconcentration factor	3,160

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

DOT-UN Number: NA3082

ADR-UN number: NA3082

IATA-Un number: -

IMDG-Un number: -

UN proper shipping name

DOT-Proper Shipping Name: Other regulated substances, liquid, n.o.s (diethanolamine)

ADR-Shipping Name: - (diethanolamine)

IATA-Technical name: - (diethanolamine)

IMDG-Technical name: - (diethanolamine)

Transport hazard class(es)

DOT-Hazard Class: 9

ADR-Class: -

IATA-Class: -

IMDG-Class: -

Packing group

DOT Packing Group: III

ADR-Packing Group: -

IATA-Packing group: -

IMDG-Packing group: -

Environmental hazards

Marine pollutant: No

Environmental Pollutant: Not Applicable

DOT-RQ: Yes DOT-RQ - Quantity: 100 lbs

Transport in bulk according to IMO instruments

N.A.

Not Applicable

Special precautions

Department of Transportation (DOT):

DOT-Special Provision(s): A189, IB3, T2, TP1

DOT-Label(s): 9

DOT-Symbol: N/A

DOT-Cargo Aircraft: No limit

DOT-Passenger Aircraft: No limit

DOT-Bulk: 241

DOT-Non-Bulk: 203

DOT-Limited Quantity threshold: N/A

Road and Rail (ADR-RID) :

ADR-Label: -

ADR-Hazard identification number: -

ADR-Transport category (Tunnel restriction code): -

Air (IATA) :

IATA-Passenger Aircraft: -

IATA-Cargo Aircraft: -

IATA-Label: -

IATA-Subsidiary hazards: -

IATA-Erg: -

IATA-Special Provisioning: -

Sea (IMDG) :

IMDG-Stowage and handling: -

IMDG-Segregation: -

IMDG-Subsidiary hazards: -

IMDG-Special Provisioning: -

IMDG-EMS: -

15. REGULATORY INFORMATION

This Safety Data Sheet has been prepared according to the Hazard Communication Standard 2024 (HCS 2024)

USA - Federal regulations

TSCA - Toxic Substances Control Act

All the components are listed on the TSCA inventory

TSCA listed substances:

methyldiethanolamine; 2,2'- is listed in TSCA Section 8b
methylinodiethanol

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:

No substances listed

Pennsylvania Right to know

Substance(s) listed under Pennsylvania Right to know:

No substances listed

New Jersey Right to know

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

No substances listed

Canada - Federal regulations

DSL - Domestic Substances List

Not compliant to DSL inventory

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

16. OTHER INFORMATION

Safety Data Sheet dated: 10/10/2025 - version 2

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
H319	Causes serious eye irritation.

Code	Hazard class and hazard category	Description
A.3/2A	Eye Irrit. 2A	Eye irritation, Category 2A

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.
 EU CLP Index: Index number as reported in Annex VI to EU Reg. 1272/2008
 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
- 14. TRANSPORT INFORMATION
- 15. REGULATORY INFORMATION
- 16. OTHER INFORMATION