

Safety Data Sheet

MAPESHIELD CI 320 NA

Safety Data Sheet dated: 09/24/2025 - version 6

Date of first edition: 04/10/2023



1. IDENTIFICATION

Product identifier used on the label

Mixture identification:

Trade name: MAPESHIELD CI 320 NA

Trade code: 9019715

Recommended use of the chemical and restrictions on use

Recommended use: Admixture for concrete

Restrictions on use: 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

Acute toxicity (oral), Category 4

Harmful if swallowed.

Skin irritation, Category 2

Causes skin irritation.

Eye irritation, Category 2A

Causes serious eye irritation.

Specific target organ toxicity following single exposure, Category 3

May cause respiratory irritation.

Acute aquatic hazard, category 2

Toxic to aquatic life

Label elements

Hazard pictograms and Signal Word



Warning

Hazard statements

H302 Harmful if swallowed.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H401 Toxic to aquatic life

Precautionary statements

P261 Avoid breathing mist/vapours/spray.

P264 Wash skin thoroughly after handling.

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

P271 Use only outdoors or in a well-ventilated area.

P273 Avoid release to the environment.

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

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

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

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.

P330 Rinse mouth.

P332+P313 If skin irritation occurs: Get medical advice/attention.

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

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

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

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
≥25 - <30 %	2-(dimethylamino)ethyl benzoate; Benzoic acid, 2-(dimethylamino)ethyl ester	CAS:2208-05-1 EC:218-630-1	Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335
≥15 - <20 %	sodium nitrite; Nitrous acid, sodium salt	CAS:7632-00-0 EC:231-555-9 EU CLP Index:007-010-00-4	Ox. Sol. 2, H272; Acute Tox. 3, H301; Eye Irrit. 2A, H319; Aquatic Acute 1, H400

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.
- 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:

- 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
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)

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 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.

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.

Do not use on extensive surface areas in premises where there are occupants.

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

Store cool and dry.

Always keep in a well ventilated place.

Keep away from food, drink and feed.

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Cool and adequately ventilated.

Storage temperature: Not available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Predicted No Effect Concentration (PNEC) values

sodium nitrite; Nitrous acid, sodium salt
CAS: 7632-00-0

Exposure Route: Marine water; PNEC Limit: 0,00616 mg/l

Exposure Route: Freshwater sediments; PNEC Limit: 0,0195 mg/kg

Exposure Route: Marine water sediments; PNEC Limit: 0,0223 mg/kg

Derived No Effect Level (DNEL) values

sodium nitrite; Nitrous acid, sodium salt
CAS: 7632-00-0

Exposure Route: Human Inhalation; Exposure Frequency: Short Term, systemic effects
Worker Industry: 2 mg/m3

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects
Worker Industry: 2 mg/m3

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 respiratory protection where ventilation is insufficient or exposure is prolonged.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state:	Liquid
Appearance and colour:	liquid yellow
Odour:	faint
Odour threshold:	Not Relevant
Melting point / freezing point:	Not Relevant
Initial boiling point and boiling range:	Not Relevant
Flammability:	Not Relevant
Upper/lower flammability or explosive limits:	Not Relevant
Flash point:	95 °C (203 °F)
Auto-ignition temperature:	Not Relevant
Decomposition temperature:	Not Relevant
pH:	7.90
Viscosity:	Not Relevant
Kinematic viscosity:	> 20,5 mm ² /sec (40 °C)
Solubility in water:	easily soluble
Solubility in oil:	Not Relevant
Partition coefficient (n-octanol/water):	Not Relevant
Vapour pressure:	Not Relevant
Evaporation rate:	Not Relevant
Relative density:	1.15 g/cm ³
Vapour density:	Not Relevant

Particle characteristics:

Particle size:	No data available
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Other information

Explosive properties:	Not Relevant
Oxidizing properties:	Not Relevant
Solid/gas flammability:	Not Relevant
Substance Groups relevant properties:	Not Relevant
Miscibility:	Not Relevant
Fat Solubility:	Not Relevant
Conductivity:	Not Relevant

10. STABILITY AND REACTIVITY

Reactivity

Stable

Chemical stability

Data not available.

Possibility of hazardous reactions

None.

Conditions to avoid

No data available

Incompatible materials

Data not available.

Hazardous decomposition products

Data not available.

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 : 1111.45 mg/kg bw
b) skin corrosion/irritation	The product is classified: Skin irritation, Category 2(H315)
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	Not classified Based on available data, the classification criteria are not met
h) STOT-single exposure	The product is classified: Specific target organ toxicity following single exposure, Category 3(H335)
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:

sodium nitrite; Nitrous acid, sodium salt	a) acute toxicity	LD50 Oral Rat = 180 mg/kg
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Substance(s) listed on the IARC Monographs:

sodium nitrite; Nitrous acid, sodium salt	Group 2A
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Substance(s) listed as OSHA Carcinogen(s):

sodium nitrite; Nitrous acid, sodium salt

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

The product is classified: Acute aquatic hazard, category 2(H401)

List of Eco-Toxicological properties of the components

Component	Ident. Numb.	Ecotox Data
sodium nitrite; Nitrous acid, sodium salt	CAS: 7632-00-0 - EINECS: 231-555-9 - INDEX: 007-010-00-4	a) Aquatic acute toxicity : LC50 Fish > 0,54 mg/L 96h

Persistence and degradability

N.A.

Bioaccumulative potential

Component	Bioaccumulation
sodium nitrite; Nitrous acid, sodium salt	Not bioaccumulative

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 (sodium nitrite)
ADR-Shipping Name: - (sodium nitrite)
IATA-Technical name: - (sodium nitrite)
IMDG-Technical name: - (sodium nitrite)

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:
2-(dimethylamino)ethyl benzoate; is listed in TSCA Section 8b
Benzoic acid, 2-(dimethylamino)ethyl ester

sodium nitrite; Nitrous acid, sodium salt is listed in TSCA Section 8b Section 5a - SNUR Section 12b

SARA - Superfund Amendments and Reauthorization Act

Section 302 - Extremely Hazardous Substances:

No substances listed

Section 304 - Hazardous substances:

sodium nitrite; Nitrous acid, sodium salt

Section 313 - Toxic chemical list:

sodium nitrite; Nitrous acid, sodium salt

CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act

Substance(s) listed under CERCLA:

sodium nitrite; Nitrous acid, sodium salt Reportable quantity: 100 pounds

CAA - Clean Air Act

CAA listed substances:

No substances listed

CWA - Clean Water Act

CWA listed substances:

sodium nitrite; Nitrous acid, is listed in CWA Section 311
sodium salt

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:

sodium nitrite; Nitrous acid, sodium salt

Pennsylvania Right to know

Substance(s) listed under Pennsylvania Right to know:

sodium nitrite; Nitrous acid, sodium salt

New Jersey Right to know

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

sodium nitrite; Nitrous acid, sodium salt

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

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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.

Code	Description
H272	May intensify fire; oxidiser.
H301	Toxic if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.

Code	Hazard class and hazard category	Description
A.1/3/Oral	Acute Tox. 3	Acute toxicity (oral), Category 3
A.2/2	Skin Irrit. 2	Skin irritation, Category 2
A.3/2A	Eye Irrit. 2A	Eye irritation, Category 2A
A.8/3	STOT SE 3	Specific target organ toxicity following single exposure, Category 3
B.14/2	Ox. Sol. 2	Oxidising solids, Category 2
US-HAE/A1	Aquatic Acute 1	Acute aquatic hazard, category 1

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:

- 2. HAZARDS IDENTIFICATION
- 3. COMPOSITION/INFORMATION ON INGREDIENTS
- 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
- 9. PHYSICAL AND CHEMICAL PROPERTIES
- 12. ECOLOGICAL INFORMATION
- 14. TRANSPORT INFORMATION
- 16. OTHER INFORMATION