

Safety Data Sheet

4 TO 1

Safety Data Sheet dated: 10/30/2025 - version 10

Date of first edition: 05/18/2015



1. IDENTIFICATION

Product identifier used on the label

Mixture identification:

Trade name: 4 TO 1

Trade code: 9011830

Recommended use of the chemical and restrictions on use

Recommended use: Mortar

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

Skin corrosion, Category 1A

Causes severe skin burns and eye damage.

Serious eye damage, Category 1

Causes serious eye damage.

Skin Sensitization, Category 1B

May cause an allergic skin reaction.

Carcinogenicity, Category 1A

May cause cancer if inhaled.

Specific target organ toxicity following repeated exposure, Category 1

Causes damage to organs through prolonged or repeated exposure if inhaled.

Label elements

Hazard pictograms and Signal Word



Danger

Hazard statements

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H350 May cause cancer if inhaled.

H372 Causes damage to organs through prolonged or repeated exposure if inhaled.

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 dust.

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

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 [or 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.

P308+P313 UN5\$P308+P313

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.

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

Prolonged exposition and/or intensive inhalation of respirable free crystalline silica (average diameter less than 10 micron in accordance with ACGIH) can cause pulmonary fibrosis commonly referred to as silicosis.

This preparation contains cement. Contact between cement and body fluids (e.g. sweat and eye fluids) may cause irritation or burns.

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
≥80 - <85 %	silica sand; quartz	CAS:14808-60-7 EC:238-878-4	STOT RE 1, H372; Carc. 1A, H350
≥15 - <20 %	portland cement; cement, portland, chemicals	CAS:65997-15-1 EC:266-043-4	Eye Dam. 1, H318; STOT SE 3, H335; Skin Sens. 1B, H317; Skin Corr. 1A, H314

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.
OBTAIN IMMEDIATE MEDICAL ATTENTION.
Obtain medical attention if skin related symptoms persist.
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
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.

Methods and material for containment and cleaning up

Take up mechanically and dispose of according to local/state/federal regulations
Scoop into containers and seal for disposal.
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

Occupational Exposure Limits (OEL)

	OEL Type	Country	Occupational Exposure Limit
silica sand; quartz CAS: 14808-60-7	ACGIH		Long Term: 0.025 mg/m3 A2 - Suspected Human Carcinogen;lung cancer;pulmonary fibrosis

portland cement; cement, portland, chemicals CAS: 65997-15-1	MAK	AUSTRIA	Long Term: 0.15 mg/m3
	ACGIH		Long Term: 0.025 mg/m3 (R), A2 - Pulm fibrosis, lung cancer
	MAK	SWITZERLAND	Long Term: 0.15 mg/m3
	EU		Long Term: 0.1 mg/m3 Behaviour Binding
	OSHA		Long Term: 15 mg/m3
	OSHA		Long Term: 5 mg/m3
	ACGIH		Long Term: 1 mg/m3 A4 - Not Classifiable as a Human Carcinogen;pulmonary function;respiratory symptoms;asthma
	ACGIH	AUSTRALIA	Long Term: 1 mg/m3 A4 - Not Classifiable as a Human Carcinogen;pulmonary function;respiratory symptoms;asthma
	MAK	AUSTRIA	Long Term: 5 mg/m3
	MAK	SWITZERLAND	Long Term: 5 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 $\geq 480\text{min}$.

Nitrile gloves are suggested (1,3 mm; 480 min). Not recommended gloves: not waterproof gloves

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:	Solid
Appearance and colour:	powder grey
Odour:	characteristic
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:	Not Relevant
Auto-ignition temperature:	Not Relevant
Decomposition temperature:	Not Relevant
pH:	Not Relevant

pH (water dispersion, 10%):	11.00
Viscosity:	Not Relevant
Kinematic viscosity:	No data available
Solubility in water:	dispersible
Solubility in oil:	Not Relevant
Partition coefficient (n-octanol/water):	Not Relevant
Vapour pressure:	Not Relevant
Evaporation rate:	Not Relevant
Relative density:	No data available
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 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

Contains cement. Cement gives a strong alkaline reaction with water and body fluids (e.g. sweat and eye fluids), therefore the contact with skin and eyes should be carefully avoided.

Toxicological Information of the Preparation

a) acute toxicity	Not classified
	Based on available data, the classification criteria are not met
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 Sensitization, Category 1B(H317)
e) germ cell mutagenicity	Not classified
	Based on available data, the classification criteria are not met
f) carcinogenicity	The product is classified: Carcinogenicity, Category 1A(H350)
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	The product is classified: Specific target organ toxicity following repeated exposure, Category 1(H372)
j) aspiration hazard	Not classified
	Based on available data, the classification criteria are not met

Toxicological information on main components of the mixture:

silica sand; quartz	a) acute toxicity	LD50 Oral > 2000 mg/kg
		LD50 Skin > 2000 mg/kg

Substance(s) listed on the IARC Monographs:

silica sand; quartz	Group 1
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Substance(s) listed as OSHA Carcinogen(s):

silica sand; quartz

Substance(s) listed as NIOSH Carcinogen(s):

silica sand; quartz

Substance(s) listed on the NTP report on Carcinogens:

silica sand; quartz

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

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.

14. TRANSPORT INFORMATION

Not classified as dangerous in the meaning of transport regulations.

UN number

DOT-UN Number: Not Applicable
ADR-UN number: Not Applicable
IATA-Un number: Not Applicable
IMDG-Un number: Not Applicable

UN proper shipping name

DOT-Proper Shipping Name: Not Applicable
ADR-Shipping Name: Not Applicable
IATA-Technical name: Not Applicable
IMDG-Technical name: Not Applicable

Transport hazard class(es)

DOT-Hazard Class: Not Applicable
ADR-Class: Not Applicable
IATA-Class: Not Applicable
IMDG-Class: Not Applicable

Packing group

DOT Packing Group: Not Applicable
ADR-Packing Group: Not Applicable
IATA-Packing group: Not Applicable
IMDG-Packing group: Not Applicable

Environmental hazards

Marine pollutant: No
Environmental Pollutant: Not Applicable
DOT-RQ: No

Transport in bulk according to IMO instruments

N.A.
Not Applicable

Special precautions

Department of Transportation (DOT):

Not Applicable

Road and Rail (ADR-RID) :

Not Applicable

Air (IATA) :

Not Applicable

Sea (IMDG) :

Not Applicable

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:

silica sand; quartz	is listed in TSCA	Section 8b
portland cement; cement, portland, chemicals	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:

silica sand; quartz Listed as carcinogen

Massachusetts Right to know

Substance(s) listed under Massachusetts Right to know:

silica sand; quartz

portland cement; cement, portland, chemicals

Pennsylvania Right to know

Substance(s) listed under Pennsylvania Right to know:

silica sand; quartz

portland cement; cement, portland, chemicals

New Jersey Right to know

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

silica sand; quartz

portland cement; cement, portland, chemicals

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

16. OTHER INFORMATION

Safety Data Sheet dated: 10/30/2025 - version 10

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
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H314	Causes severe skin burns and eye damage.
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H317	May cause an allergic skin reaction.
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H318	Causes serious eye damage.
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H335	May cause respiratory irritation.
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H350	May cause cancer.
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H372	Causes damage to organs through prolonged or repeated exposure.
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Code	Hazard class and hazard category	Description
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A.2/1A	Skin Corr. 1A	Skin corrosion, Category 1A
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A.3/1	Eye Dam. 1	Serious eye damage, Category 1
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A.4.2/1B	Skin Sens. 1B	Skin Sensitization, Category 1B
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A.6/1A	Carc. 1A	Carcinogenicity, Category 1A
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A.8/3	STOT SE 3	Specific target organ toxicity following single exposure, Category 3
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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
- 9. PHYSICAL AND CHEMICAL PROPERTIES
- 11. TOXICOLOGICAL INFORMATION
- 14. TRANSPORT INFORMATION
- 16. OTHER INFORMATION