Ecobeton Europe Srl
Via G.Galilei, 47
36030 Costabissara Vicenza (IT)
Italy
VAT : IT03257050249

T +39 0444 971893
E europe@ecobeton.it
I https://www.ecobeton.com

Safety Data Sheet

Poseidone

Revision:

20 December 2024
Supersedes version: 07/09/2021

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product Identifier

Poseidone
UFI: K410-H0K3-100Q-8NUR

1.2. Relevant identified uses of the substance or mixture and uses advised against recommended use

Cementitious overlay for swimming pools

1.3. Detail of the supplier of the safety data sheet

Ecobeton Italy Srl
Via G.Galilei, 47
36030 Costabissara, Vicenza - Italy
Phone: +39.0444.971893
Email: info@ecobeton.it

National Distributor
Ecobeton Italy Srl

Information about the Safety Data Sheet:

tecnica@ecobeton.it

1.4. Emergency telephone number

Italy - Italia | Verona Integrated Hospital Company: 800 011 858
Full list at: preparatipericolosi.iss.it

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

EC regulation criteria 1272/2008 (CLP):

Skin Irrit. 2	H315
Eye Dam. 1	H318
Skin Sens. 1B	H317
STOT SE 3	H335

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2. Label elements

Hazard Pictograms





Signal Word

Danger

Hazard Statements:
H315 - Causes skin irritation.
H318 - Causes serious eye damage.
H317 - May cause an allergic skin reaction.
H335 - May cause respiratory irritation.

Precautionary Statements:
P260 - Do not breathe dust.
P280 - Wear protective gloves/protective clothing/eye protection/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.
P302 + P352 - IF ON SKIN: Wash with plenty of water and soap.
P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention.

2.3. Other Hazards

PBT: none
vPvB: none
The product is not listed or identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100.
Other Hazards: none

SECTION 3: Composition/information on ingredients

Chemical identity:

Cementitious mortar

3.2. Mixtures

CAS / EC-No.	Component	Concentration	Classification: REGULATION (EC) No 1272/2008	Notes
CAS no: 65997-15-1 **EC no:** 266-043-4 **Reach no:**	Cement, portland, chemicals **IUPAC:** Portland cement compound	20 - 35 %	Substance with a community workplace exposure limit. Skin Irrit. 2 - H315 Eye Dam. 1 - H318 STOT SE 3 - H335 Skin Sens.1B - H317	
CAS no: 14808-60-7 **EC no:** 238-878-4 **Reach no:**	Quartz (SiO2) - fine fraction	< 5 %	Substance with a community workplace exposure limit.	
CAS no: 12005-25-3 **EC no:** 818-462-4 **Reach no:**	Calcium aluminate sulphate	< 1 %	Skin Sens. 1 - H317	
CAS no: 1305-78-8 **EC no:** 215-138-9 **Reach no:** 01-2119475325- 36-0154	Calcium oxide	< 0.6 %	Substance with a community workplace exposure limit. Eye Dam. 1 - H318 Skin Irrit. 2 - H315 STOT SE 3 - H335	

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice: Under ordinary workplace conditions: No special measures required.
Inhalation: Move person to fresh air. If effects occur, consult a physician.
Skin contact: Wash with plenty of water or water and soap. Take off contaminated clothing. If the product is dry: wipe all residues with a cloth. If the product is wet: Seek medical attention if symptoms occur or irritation persists. Wash clothing before reuse.
Eye contact: Remove contact lenses, if present and easy to do. Do not rub to avoid further damage to the cornea. Wash eyes immediately and continuously with water for 30 minutes. Seek medical attention immediately, preferably from an ophthalmologist.
Ingestion: Consult a physician immediately. Rinse mouth with water. Do NOT induce vomiting. Do not give anything by mouth unless the person is fully conscious.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after inhalation	Cement may irritate the throat and respiratory tract. Coughs, sneezing and respiratory discomfort may appear in circumstances where the limit value of occupational exposure is exceeded.
Symptoms/effects after skin contact	Causes skin irritation. May cause an allergic skin reaction. Dry cement in contact with slightly wet skin or exposure to wet or mixed cement may lead to thickening of the skin and the appearance of fissures or cracks. Prolonged contact combined with abrasions may cause severe burns.
Symptoms/effects after eye contact	Causes serious eye damage. Direct contact may damage the cornea due to rubbing, may cause immediate or subsequent irritation or inflammation. Larger quantities of dry cement or splashes of mixed cement may lead to consequences ranging from moderate irritation (conjunctivitis or blepharitis) to chemical burns and blindness.
Symptoms/effects after ingestion	Severe irritation or burns to the mouth, throat, oesophagus, and stomach. Nausea. Vomiting.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically. If possible show this sheet, if not available show packaging or label.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: All extinguishing agents can be used.
Unsuitable extinguishing media: None known.

5.2. Special hazards arising from the substance or mixture

None.

5.3. Advice for firefighters

Product does not burn. Collect contaminated fire extinguishing water separately.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures:

For non-emergency personnel: Follow safe handling advice and personal protective equipment recommendations.
For emergency responders: Avoid contact with skin and eyes. Do not breathe dust. Use personal protective equipment.

6.2. Environmental precautions

Prevent the product from entering sewers, surface water, groundwater.

6.3. Methods and materials for containment and cleaning up

If the product cannot be removed dry using a suction cleaner or made wet, make sure that staff responsible for sweeping it up dry wear appropriate individual protection equipment and that further dispersion of dust is prevented. Place the recovered product in a closed container. Wash contaminated area with large amounts of water. Clean up the dry product using methods that do not cause the dispersion of the dry product into the air, for example: - suction cleaners (portable industrial strength, equipped with an effective air particle filter (HEPA filter) or some other equivalent technique) - floorcloths, damp brushes or hosepipe with spray attachment (set to "fine spray" in order to avoid dispersing the product into the air). Recover the resulting slurry.

6.4. Reference to other sections

See sections: 7, 8, 11, 12 and 13.

After setting, the cement mortar can be removed like any other non-hazardous building waste. The cement mortar hardens in around 20 to 120 minutes after it has been mixed with water.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid creating or spreading dust. Do not breathe dust. Avoid contact with skin and eyes.

7.2. Conditions for safe storage, including any incompatibilities

Keep closed and in a cool and dry atmosphere.
Do not store with the following product types: None known.
Unsuitable materials for containers: Aluminium.

7.3. Specific end use(s)

See the technical data sheet on this product for further information.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

TLV Occupational exposure limit of the entire mixture: Not available
TLV Occupational exposure limit of the ingredients:

Cement, portland, chemicals

Region	Legislation	Long-term Exposure Limit (LTEL) Values	Short-term Exposure Limit (STEL) Values	Skin Designation	Dermal Sensitization	Respiratory Sensitization
		mg/m³	mg/m³			
UK	WEL TWA	10 mg/m³ inhalable dust 4 mg/m³ respirable dust				
France	VME	10 mg/m³ inhalable dust 4 mg/m³ respirable dust				
	ACGIH	1 mg/m³ respirable dust				

Quartz (SiO2) - fine fraction

Region	Legislation	Long-term Exposure Limit (LTEL) Values		Short-term Exposure Limit (STEL) Values		Skin Designation	Dermal Sensitization	Respiratory Sensitization
		mg/m³	ppm	mg/m³	ppm			
USA	ACGIH	0.025 mg/m³						
Europe	OEL	0.1 mg/m³						

Calcium oxide

Region	Legislation	Long-term Exposure Limit (LTEL) Values		Short-term Exposure Limit (STEL) Values		Expressed As	Physical Form	Skin Designation	Miscellaneous Notes
		mg/m³	ppm	mg/m³	ppm				
EU	OELs - Occupational Exposure Limits - 4th list	1 mg/m³		4 mg/m³			Respirable fraction		

DNEL Exposure limit values for the whole mixture: Not available
DNEL Exposure limit values of the ingredients:

Calcium oxide

Data for WORKERS

INHALATION Exposure	Threshold
Systemic Effects	
Long-term:	No hazard identified
Acute / short term:	No hazard identified
Local Effects	
Long-term:	(DNEL) 1 mg/m³
Acute / short term:	(DNEL) 4 mg/m³

DERMAL Exposure	Threshold
Systemic Effects	
Long-term:	No hazard identified
Acute / short term:	No hazard identified
Local Effects	
Long-term:	Low hazard (no threshold derived)
Acute / short term:	Low hazard (no threshold derived)

EYE Exposure
Medium hazard (no threshold derived)

Data for GENERAL POPULATION

INHALATION Exposure	Threshold
Systemic Effects	
Long-term:	No hazard identified
Acute / short term:	No hazard identified
Local Effects	
Long-term:	(DNEL) 1 mg/m³
Acute / short term:	(DNEL) 4 mg/m³

DERMAL Exposure	Threshold
Systemic Effects	
Long-term:	No hazard identified
Acute / short term:	No hazard identified
Local Effects	
Long-term:	Low hazard (no threshold derived)
Acute / short term:	Low hazard (no threshold derived)

ORAL Exposure	Threshold
Systemic Effects	
Long-term:	No hazard identified
Acute / short term:	No hazard identified

EYE Exposure
Medium hazard (no threshold derived)

PNEC Exposure limit values for the entire mixture: Not available
PNEC Exposure limit values of the ingredients:

Calcium oxide

Hazard for Aquatic Organism	
Freshwater	370 µg/L
Intermittent releases (freshwater)	370 µg/L
Marine water	240 µg/L
Intermittent releases (marine water)	240 µg/L
Sewage treatment plant (STP)	2.27 mg/L
Sediment (freshwater)	Insufficient data available (further information necessary)
Sediment (marine water)	Insufficient data available (further information necessary)

Hazard for Air	
Air	No hazard identified

Hazard for Terrestrial Organism	
Soil	817.4 mg/kg soil dw

Hazard for Predators	
Secondary poisoning	No potential for bioaccumulation

8.2. Exposure controls

Appropriate engineering controls: If there are no applicable exposure limit requirements or guidelines, use only with adequate ventilation.

Individual protection measures

Eye/Face protection: Use protective goggles. It is recommended to wear airtight protective goggles.
Skin Protection: Hand Protection: Use of protective gloves is recommended when handling the material. Other: Wear professional long-sleeved work clothes and safety footwear (category S2 or superior).
Respiratory protection: Dust mask FFP2
Thermal hazards: Not Available.

Environmental exposure controls
See SECTION 7: Handling and storage and SECTION 13: Disposal considerations for measures to prevent excessive environmental exposure during use and waste disposal.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Solid
Colour	Off-white
Odour	Odourless
Melting point/freezing point	> 1250 °C
Boiling point or initial boiling point and boiling range	n.d.
Flammability	The product is not flammable
Lower and upper explosion limit	n.a. (solid state)
Flash point	n.a. (non-flammable solid)
Auto-ignition temperature	n.a. (non-flammable solid)
Decomposition temperature	n.a. (no decomposition observed)
pH	12 (when mixed with water)
Kinematic viscosity	n.a. (solid state)
Solubility	0.1 - 1.5 g / l Slightly soluble
Partition coefficient n-octanol/water (log value)	n.a. (mixture)
Vapour pressure	n.a. (solid state)
Density and/or relative density	2.0 g/cm³ (when mixed with water)
Relative vapour density	n.a. (solid state)
Particle characteristics	Particle size : 1 - 1200 µm.

9.2. Other information

No data available.

SECTION 10: Stability and reactivity

10.1. Reactivity

Not classified as a reactivity hazard.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

It can react with aluminum to produce hydrogen.

10.4. Conditions to avoid

Humid conditions during storage may cause lump formation and loss of product quality.

10.5. Incompatible materials

Acids. Ammonium salts. Aluminium and other non-noble metals.

10.6. Hazardous decomposition products

No one in particular.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No. 1272/2008

Acute toxicity

Acute oral toxicity Based on available data, the classification criteria are not met.
Acute dermal toxicity Based on available data, the classification criteria are not met.
Acute inhalation toxicity Based on available data, the classification criteria are not met.

Toxicity details of the ingredients:
Cement, portland, chemicals

Route of exposure	Result/Effect	Species/Test system	Source
Dermal	LD50 > 2000 mg/kg	rabbit	Published data

Calcium oxide

Route of exposure	Result/Effect	Species/Test system	Source
Oral	No adverse effect observed Discriminating dose 2 000 mg/kg bw	rat	ECHA
Inhalation	Adverse effect observed Discriminating conc. 6.04 mg/L air	rat	ECHA
Dermal	-	-	-

Skin corrosion/irritation
Due to the pH of the material, it is assumed that exposure may cause skin irritation.
Corrosion/irritation details of the ingredients:
Calcium oxide

Result/Effect	Species/Test system	Source
Adverse effect observed (irritating)	-	ECHA

Serious eye damage/eye irritation
Due to the pH of the material, it is assumed that exposure may cause severe eye damage.
Eye damage/irritation details of the ingredients:
Calcium oxide

Result/Effect	Species/Test system	Source
Adverse effect observed (irreversible damage)	-	ECHA

Respiratory or skin sensitization
May cause an allergic skin reaction.
Respiratory/Skin sensitization details of the ingredients:
Calcium oxide

Result/Effect	Species/Test system	Source
Skin sensitisation: No adverse effect observed (not sensitising)	-	ECHA
Respiratory sensitisation: No study available		

Germ cell mutagenicity
Based on known data a significant mutagenic potential may be excluded.
Carcinogenicity
Based on available data, the classification criteria are not met.
Carcinogenicity details of the ingredients:
Calcium oxide

Route of exposure	Result/Effect	Species/Test system	Source

Route of exposure	Result/Effect	Species/Test system	Source
Oral	No adverse effect observed NOAEL 391 mg/kg bw/day	chronic, rat	ECHA

Reproductive toxicity
Based on available data, the classification criteria are not met.
Reproductive toxicity details of the ingredients:
Calcium oxide

	Result/Effect	Species/Test system	Source
Effect on developmental toxicity	Oral route: No adverse effect observed NOAEL 440 mg/kg bw/day	subacute, mouse	ECHA

Specific Target Organ Systemic Toxicity (Single Exposure)
Based on available data, the classification criteria are not met.
Specific Target Organ Systemic Toxicity (Repeated Exposure)
Based on available data, the classification criteria are not met.
STOT RE details of the ingredients:
Calcium oxide

Route of exposure	Result/Effect	Species/Test system	Source
Inhalation	No adverse effect observed NOAEC 107 mg/m³	subacute, rat	ECHA

Aspiration Hazard
Not classified (Technical impossibility to obtain the data / the product is not used as an aerosol)

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties
The substance/mixture does not contain any components considered to have endocrine disrupting properties within the meaning of Article 57(f) of REACH or Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.
11.2.2. Other information None available.

SECTION 12: Ecological information

12.1. Toxicity

No expected damaging effects to aquatic organisms.
Ingredients details:
Calcium oxide

Result/Effect	Species/Test system	Source
EC50: 184.57 mg/L	freshwater algae	ECHA
EC10 or NOEC: 48 mg/L	freshwater algae	ECHA
EC50: 300.4 mg/L	microorganisms	ECHA
Long-term EC10 / LC10 / NOEC: 2 g/kg soil dw	terrestrial macroorganisms	ECHA
Long-term EC10 / LC10 / NOEC: 1.08 g/kg soil dw	terrestrial plants	ECHA

12.2. Persistence and degradability

Material is not biodegradable.

12.3. Bioaccumulative potential

No adverse effects expected.

Ingredients details:

Calcium oxide

	Results/Summaries	Source
Bioaccumulation	No bioaccumulation potential	ECHA

12.4. Mobility in soil

No adverse effects expected.

12.5. Results of PBT and vPvB assessment

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII.This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII.

12.6. Endocrine disrupting properties

None known.

12.7. Other adverse effects

According to present knowledge no adverse influence to environment expected.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Containers may be recycled or re-used. Completely discharge containers (no tear drops, no powder rest, scraped carefully). Product residues to be considered non-hazardous waste. Recommended cleaning agent for packaging: water.

SECTION 14: Transport information

14.1. UN number or ID number	Not regulated for transport.
14.2. Proper shipping name	Not regulated for transport.
14.3. Transport hazard class(es)	Not regulated for transport.
14.4. Packing group	Not regulated for transport.
14.5. Environmental hazards	Not Hazardous to the environment.
14.6. Special precautions for user	Relevant information in other sections has to be considered.
14.7. Maritime transport in bulk according to IMO instruments	Bulk transport in tankers is not intended.

SECTION 15: Regulatory Information

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

Other safety, health and environmental regulations/legislation specific for the substance or mixture: None available

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for this substance/mixture.

SECTION 16: Other information

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) No 1272/2008

The information contained in this Safety Data Sheet is derived from the data provided by the suppliers of the components of the mixture, that we verified adequate and reliable by analogy with similar products and with the information provided by ECHA.

Full text of H-Statements referred to under sections 2 to 15.

H315	Causes skin irritation.
H318	Causes serious eye damage.
H317	May cause an allergic skin reaction.
H335	May cause respiratory irritation.

Full text of P-Statements referred to under sections 2 to 15.

P260	Do not breathe dust.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302 + P352	IF ON SKIN: Wash with plenty of water and soap.
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.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.

Legend

CLP	Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures
ECHA	European Chemicals Agency
EC No.	European Community number
EWC	European Waste Catalogue
GHS	Globally Harmonized System
IC50	Half maximal inhibitory concentration
IMO	International Maritime Organization
LC50	Lethal Concentration to 50 % of a test population
LD50	Lethal Dose to 50% of a test population (Median Lethal Dose)
NOAEL	No Observed Adverse Effect Level
OECD	Organisation for Economic Co-operation and Development
PBT	Persistent, Bioaccumulative and Toxic substance
REACH	Regulation (EC) No 1907/2006 of the European Parliamentand of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals
SDS	Safety Data Sheet
TWA	Time Weighted Average
UN	United Nations
VOC	Volatile Organic Compounds
vPvB	Very Persistent and Very Bioaccumulative

Skin Irrit. 2	Skin corrosion/irritation
Eye Dam. 1	Serious eye damage/eye irritation
Skin Sens. 1B	Respiratory/skin sensitization
STOT SE 3	Specific target organ toxicity — single exposure

Bibliography

- Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
- Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006
- Commission Regulation (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
- European Chemical Agency (https://echa.europa.eu/)
- Regulation (EC) No 1005/2009 of the European Parliament and of the Council of 16 September 2009 on substances that deplete the ozone layer
- Regulation (EU) 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants
- Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals
- Directive 2004/42/CE of the European Parliament and of the Council of 21 April 2004 on the limitation of emissions of volatile organic compounds due to the use of organic solvents in certain paints and varnishes and vehicle refinishing products and amending Directive 1999/13/EC
- EN ISO 374-5:2016 - Protective gloves against dangerous chemicals and micro-organisms
- DIRECTIVE 2012/18/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on the control of major-accident hazards involving dangerous substances, amending and subsequently repealing Council Directive 96/82/EC
- Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directive

Changes made to the previous version:

Section 1, 3
The information contained in this sheet is based on the knowledge available to us at the date of the latest version. The user must ensure the suitability and completeness of the information in relation to the specific use of the product.
This document should not be construed as a guarantee of any specific property of the product.
Since the use of the product does not fall under our direct control, it is the user s obligation to observe the laws and regulations in force regarding hygiene and safety under his own responsibility. No responsibility is assumed for improper use.
Provide adequate training to personnel assigned to the use of chemical products.
End of safety datasheet