

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

1.1. Product identifier

Product form : Mixtures
Product name : Cafco FENDOLITE® MII
Product group : Fire protective spray.

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

1.2.1. Relevant identified uses

Main use category : Professional use
Use of the substance/mixture : Fire protection on structures and vessels in the oil, gas, petrochemical industry, in tunnels and in the construction industry.

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Promat Fire Protection LLC
Plot No 597-921, Dubai Investment Park 2,
123945 Dubai - United Arab Emirates
T +97148853070 - F +97148853588
info@promatfp.ae - www.promatmiddleeast.com

1.4. Emergency telephone number

Emergency number : +971 4 885 3070
During office hours:
Sunday-Thursday: 8.00 a.m. - 5.30 p.m. (UTC+4.00).
Language
English

Please contact a regional poison center or emergency telephone number.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Skin corrosion/irritation, Category 2 H315
Serious eye damage/eye irritation, Category 1 H318
Skin sensitisation, Category 1 H317
Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation H335

Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

May cause respiratory irritation. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye damage.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS05

GHS07

Signal word (CLP) : Danger
Hazardous ingredients : Portland cement
Hazard statements (CLP) : H315 - Causes skin irritation.
H317 - May cause an allergic skin reaction.
H318 - Causes serious eye damage.
H335 - May cause respiratory irritation.
Precautionary statements (CLP) : P261 - Avoid breathing dust, mist, spray.
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.

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P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P501 - Dispose of contents/container to an approved waste disposal plant

Extra phrases : Skin contact with wet cement, fresh concrete or mortar may cause irritation, dermatitis or burns. May cause damage to products made of aluminium or other non-noble metals.

2.3. Other hazards

Other hazards not contributing to the classification : Depending upon the source of the Portland cement, the product could be contaminated with chromium VI. - In several countries, the soluble chromium VI is legally limited to 0.0002% of the total dry weight. If soluble chromium VI is present in the Portland cement above the 0.0002%, a reduction agent has been added to it to keep the content of soluble chromium VI under the 0.0002%. The activity of this reduction agent is limited in time, what limits the shelf life of the product. The product should be used within 1 year after its production date. Natural contamination of some substances of the preparation with crystalline silica could occur. No crystalline silica is added to the preparation. According to IARC, crystalline silica inhaled in the form of quartz dust is carcinogenic to humans (Group 1). The inhalation of quartz containing dust, in particular the fine dust fraction (respirable size), in high concentrations or over repeated or prolonged periods of time can be hazardous to health and may lead to chronic lung disease and an increased risk of lung cancer. This risk will be minimal if correct working practices are observed and applied. (Refer to Section 8).

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Portland cement	(CAS-No.) 65997-15-1 (EC-No.) 266-043-4	40 - 60	Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 STOT SE 3, H335
Calcium carbonate	(CAS-No.) 471-34-1	< 30	Eye Irrit. 2, H319
Crystalline silica (quartz) substance with a Community workplace exposure limit	(CAS-No.) 14808-60-7 (EC-No.) 238-878-4	0 - 1	STOT RE 1, H372
Cristobalite substance with a Community workplace exposure limit	(CAS-No.) 14464-46-1 (EC-No.) 238-455-4	< 0,1	STOT RE 1, H372
Tin sulphate substance with a Community workplace exposure limit	(CAS-No.) 7488-55-3 (EC-No.) 231-302-2 (REACH-no) 01-2119560591-39	< 0,1	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 STOT SE 3, H335 STOT RE 2, H373 Aquatic Acute 1, H400

Specific concentration limits:

Name	Product identifier	Specific concentration limits
Crystalline silica (quartz)	(CAS-No.) 14808-60-7 (EC-No.) 238-878-4	(1 < C < 10) STOT RE 2, H373 (C >= 10) STOT RE 1, H372

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : In case of allergy, inflammation or irritation, seek medical advice.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Rinse throat with water and blow nose to evacuate dust.

First-aid measures after skin contact : Remove all dust as much as possible. Take off contaminated clothing. Wash skin thoroughly with mild soap and water.

First-aid measures after eye contact : Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Do not rub the eye. Get immediate medical advice/attention.

First-aid measures after ingestion : Rinse mouth thoroughly with water. Do not induce vomiting without medical advice. Get immediate medical advice/attention.

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

Symptoms/effects after inhalation : May cause irritation to the respiratory tract and to other mucous membranes.

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Symptoms/effects after skin contact	: When moistened by water or sweat, the Portland cement component may lead to skin inflammation, contact dermatitis or even delayed onset burns due to high alkalinity. May cause an allergic skin reaction.
Symptoms/effects after eye contact	: Risk of serious damage to eyes. The material is strongly alkaline and may result in chemical burns in case of contact with eyes.
Symptoms/effects after ingestion	: Not expected to present a significant ingestion hazard under anticipated conditions of normal use.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : All extinguishing media can be used.

5.2. Special hazards arising from the substance or mixture

Reactivity in case of fire : Product is not explosive. The product is non-combustible.
Hazardous decomposition products in case of fire : Toxic fumes may be released. Carbon oxides (CO, CO₂).

5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Evacuate and limit access. Do not breathe dust. Dampen down any dust or use vacuum cleaner with correct filter. Do not get in eyes, on skin, or on clothing.

6.1.1. For non-emergency personnel

Measures in case of dust release : Prevent spread of dust.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Do not allow entry to drains, sewers, water courses or soil.

6.3. Methods and material for containment and cleaning up

For containment : Use closed containers to avoid dust release.
Methods for cleaning up : Minimize generation of dust. Clear up rapidly by scoop or vacuum. Dampen down any dust or use vacuum cleaner with correct filter. Dispose in a safe manner in accordance with local/national regulations.

6.4. Reference to other sections

See sections 7, 8 and 11.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Avoid dust formation.
Precautions for safe handling : Both local exhaust and general room ventilation are usually required. By generation of dust during processing, the regulatory Occupational Exposure Limits or Workplace Exposure Limits in the UK, for total and respirable dust must be respected. Work in a well ventilated area. Use tools with appropriate dust exhaust equipment. Collect dust with a vacuum cleaner or soak with water before sweeping up. Use always respiratory protective equipment when exposures are likely or can be foreseen to exceed the Occupational Exposure Limits or Workplace Exposure Limits in the UK (refer to local regulations). Avoid contact with skin and eyes. Ensure prompt removal from eyes, skin and clothing.
Hygiene measures : Use good housekeeping practices to avoid rendering dust airborne. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store locked up. Store in a well-ventilated place. Store in dry, covered and frost proof area. Protect from moisture. Keep bags closed when not in use. Keep away from food, drink and animal feeding stuffs.
Incompatible materials : Avoid contact with aluminium.
Maximum storage period : 12 months

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Storage temperature : 5 - 45 °C
Information on mixed storage : Away from' ammonium salts. 'Separated from' acids.

7.3. Specific end use(s)

Fire protection on structures and vessels in the oil, gas, petrochemical industry.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Crystalline silica (quartz) (14808-60-7)		
EU	Local name	Silica crystalline (Quartz)
EU	Notes	SCOEL Recommendations (2003)
Cristobalite (14464-46-1)		
EU	Local name	Silica crystalline (Cristobalite)
EU	Notes	SCOEL Recommendations (2003)
Tin sulphate (7488-55-3)		
EU	Local name	Tin sulphate
EU	Notes	SCOEL Recommendations (2003)

Occupational Exposure Limits / Workplace Exposure Limits for particles not otherwise classified or regulated (nuisance dust) : - in UK: Inhalable: 10 mg/m³. Respirable: 4 mg/m³
- in Ireland: Inhalable: 10 mg/m³. Respirable: 4 mg/m³

Additional information : Exposure limit values have been established by many authorities. Check on limit values that apply in your local situation. Ensure all national/local regulations are observed.

8.2. Exposure controls

Appropriate engineering controls:

Ensure adequate ventilation.

Hand protection:

Use alkali resistant gloves.

Eye protection:

Safety glasses with side shields. Use splash goggles when eye contact due to splashing is possible. Foresee eye cleaning on the workplace.

Skin and body protection:

Wear protective waterproof clothing and boots. Use loose work clothes with closed sleeves. Preventive skin protection creams can be used, but not after skin contact with the product.

Respiratory protection:

Use appropriate respiratory equipment when exposures are likely or can be foreseen to exceed the Occupational Exposure Limits or Workplace Exposure Limits for the UK (e.g. for exposures up to 10 times the OEL (WEL) use at least a P2 type duct mask. For higher exposure, use a P3 type mask). Respiratory equipment required during spraying.

Environmental exposure controls:

Avoid release to the environment. Do not allow to enter drains or water courses.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Solid
Appearance : Flaky powder.
Colour : Off-white.
Odour : odourless.
Odour threshold : No data available
pH : No data available
pH solution : 12 - 13
Relative evaporation rate (butylacetate=1) : No data available
Melting point : No data available
Freezing point : No data available
Boiling point : No data available
Flash point : No data available
Auto-ignition temperature : No data available
Decomposition temperature : No data available

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Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Solubility	: Water: Slightly soluble
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reacts with water.

10.2. Chemical stability

Stable under normal conditions. Shelf life is maximum 12 months.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Humidity during storage.

10.5. Incompatible materials

Acids. Strong oxidizing agents. ammonium salts. Avoid contact with aluminium.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Alkaline mixture.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Calcium carbonate (471-34-1)	
LD50 oral rat	6450 mg/kg
Portland cement (65997-15-1)	
LD50 oral rat	> 2000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
Tin sulphate (7488-55-3)	
LD50 oral rat	2207 mg/kg

Skin corrosion/irritation	: Causes skin irritation.
Additional information	: Cement powder or a mixture of cement with water can cause irritant contact dermatitis, and/or delayed onset of skin burns. These burns can be very serious in prolonged contact with skin.
Serious eye damage/irritation	: Causes serious eye damage.
Respiratory or skin sensitisation	: May cause an allergic skin reaction.
Additional information	: May cause sensitisation of susceptible persons by skin contact May cause irritation to the respiratory tract. Contains : Glyoxal Tin sulphate Content of soluble chromium VI : < 0.0002%
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: May cause respiratory irritation.
STOT-repeated exposure	: Not classified

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Additional information	: The inhalation of dust containing crystalline silica, in particular the fine (respirable) dust fraction, in high concentrations or over a prolonged period of time may lead to lung disease (silicosis) and an increased risk of lung cancer.
Aspiration hazard	: Not classified
Potential adverse human health effects and symptoms	: Inhaling cement dust may aggravate existing respiratory system disease(s) and/or medical conditions such as emphysema or asthma and/or existing skin and/or eye conditions.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
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Tin sulphate (7488-55-3)	
EC50 72h algae (1)	18,2 mg/l
NOEC chronic algae	9,1 mg/l

12.2. Persistence and degradability

Cafco FENDOLITE® MII	
Persistence and degradability	Not readily biodegradable.

12.3. Bioaccumulative potential

Cafco FENDOLITE® MII	
Bioaccumulative potential	Not expected to bioaccumulate.

Tin sulphate (7488-55-3)	
Bioaccumulative potential	No bioaccumulation.

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

Additional information	: Accidental spillage of cement powder in waste water, results in a low increase in the pH. Hydrated cement is a stable material that definitely sets its compounds and makes them insoluble.. Do not allow entry to drains, sewers, water courses or soil.
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SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods	: In case of disposal, harden with water. Dispose the hardened product as concrete waste.
European List of Waste (LoW) code	: 10 13 14 - waste concrete and concrete sludge 17 01 01 - concrete

SECTION 14: Transport information

In accordance with ADN / ADR / IATA / IMDG / RID

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.2. UN proper shipping name				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.4. Packing group				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.5. Environmental hazards				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
No supplementary information available				

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14.6. Special precautions for user

- Overland transport

Not regulated

- Transport by sea

Not regulated

- Air transport

Not regulated

- Inland waterway transport

Not regulated

- Rail transport

Not regulated

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:

47. Chromium VI compounds	Cafco FENDOLITE® MII
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Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Other information, restriction and prohibition regulations : REGULATION (EC) n° 1907/2006 - REACH - Annex XVII, RESTRICTIONS ON THE MANUFACTURE, PLACING ON THE MARKET AND USE OF CERTAIN DANGEROUS SUBSTANCES, PREPARATIONS AND ARTICLES, 47:
1.- Cement and cement-containing preparations shall not be used or placed on the market, if they contain, when hydrated, more than 0,0002 % soluble chromium VI of the total dry weight of the cement.
2.- If reducing agents are used the packaging of cement or cement-containing preparations shall be legibly and indelibly marked with information on the packing date, as well as on the storage conditions and the storage period appropriate to maintaining the activity of the reducing agent and to keeping the content of soluble chromium VI below the limit indicated in paragraph 1.

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes:

All chapters have been modified since the previous version.

Full text of H- and EUH-statements:

Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
STOT RE 1	Specific target organ toxicity — Repeated exposure, Category 1
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.

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H335	May cause respiratory irritation.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.

SDS EU (REACH Annex II)

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