



MATERIAL SAFETY DATA SHEET

CNP PM NF NATURAL QUICK SETTING CEMENT

Page : 1

Version : 5

Date : 30/8/2013

Supersedes : 13/5/2011

VICAT

SECTION 1 IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

- 1.1. Product identifier** : CNP PM NF cement, known as natural quick setting cement, according to standard NF P 15-314, or natural quick setting cement according to European technical approval ETA-07/0019, also complying with standard NF P 15-317 Cements for works at sea
EC N°: 266-043-4
- 1.2. Relevant identified uses of the substance or mixture and uses advised against** : Concrete, mortar, grout, construction products
- 1.3. Details of the supplier of the safety data sheet** : Manufacturer :
S.A. VICAT
Direction Commerciale Ciments et Liants Hydrauliques
4 rue Aristide Bergès
BP 137
38081 L'ISLE D'ABEAU Cédex
FRANCE
Tel : +33 4 74 27 40 10
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fds.ciment@vicat.fr
- E-mail** : fds.ciments@vicat.fr
- 1.4. Emergency telephone number** : National Poisons Information Service (Birmingham Centre) : +44 870 600 6266

SECTION 2 HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

MOST IMPORTANT HAZARDS

: When cement comes into contact with the skin, when mixing concrete or mortar for example, or when cement is wet, a strongly alkaline solution is produced

Adverse human health effects

Inhalation :

: Frequent inhalation of large quantities of cement dust over a long period increases the risk of the onset of respiratory disease

Eyes :

: Contact of cement (dry or wet) with the eyes may lead to serious eye injuries which are potentially irreversible

Skin :

: Cement may have an irritating effect on damp skin (by transpiration or ambient humidity) after prolonged contact. Prolonged contact of the skin with cement or wet concrete may lead to severe burning because these burns occur without pain, for example, working while kneeling on wet concrete, including through trousers. Repeated contact between the skin and wet concrete may also lead to contact dermatitis

Primary route(s) of entry/exposure :

: Inhalation : yes
Skin : yes
Eyes : yes
Ingestion : no, except accidental

Environmental effects

: Presents no particular risk to the environment, as usually used, provided the recommendations concerning disposal (see section 13) and any applicable national or local regulations are complied with

Physical and chemical hazards

- Fire or explosion

: No particular fire or explosion hazard

Classification of the product

: According to CLP regulation, this product is classified as :
Skin Irrit.2; H315
Skin Sens.1; H317
Eye Dam.1; H318



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SECTION 2 HAZARDS IDENTIFICATION (continued)

STOT SE 3; H335

According to European regulations (67/548/EEC), this product is classified as :
Xi; R37/38 : Irritating to respiratory system and skin.
Xi; R41 : Risk of serious damage to eyes.
R43 : May cause sensitization by skin contact.

Further information :

2.2. Label elements

• Hazard pictograms



• Signal words

• Hazard statements

• Precautionary statements

: CNP PM NF quick setting cement is naturally poor in chromate

: Danger

: H315 : Causes skin irritation

H317 : May cause an allergic skin reaction

H318 : Causes serious eye damage

H335 : May cause respiratory irritation

: P102 : Keep out of reach of children

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

P302 + P352 + P333 + P313 : IF ON SKIN : Wash with plenty of soap and water. If skin irritation or rash occurs : Get medical advice/attention

P305+P351+P338+P310 : IF IN EYES : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.

P260 : Do not breathe dust.

P304+340+312 : IF INHALED : Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell.

P501 : Dispose of contents/container to a suitable waste collection point.

2.3. Other hazards

: None, to our knowledge

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

MIXTURE

Chemical nature

: Natural quick setting cement, that sets and hardens quickly, is produced exclusively by cooking argillaceous limestone of regular composition at moderate temperature (1000 to 1200 °C), extracted from homogenous beds and subject to very fine milling. It is composed mainly of tricalcium silicate (3CaO.SiO₂) (CAS : 12168-85-3, EINECS : 235-336-9), dicalcium silicate (2CaO.SiO₂) (CAS : 10034-77-2, EINECS : 233-107-8), tricalcium aluminate (3CaO.Al₂O₃) (CAS : 12042-78-3, EINECS : 234-932-6) and calcium ferroaluminate (4CaO.Al₂O₃.Fe₂O₃) (CAS : 12068-35-8, EINECS : 235-094-4), calcite (CaCO₃) (CAS : 471-31-1, EINECS : 207-439-9), de spurrite (Ca₅(SiO₄)₂(CO₃)) (CAS : 11140-12-8) and small quantities of lime, magnesia, sodium sulphate, potassium and calcium and traces of other elements. Natural quick setting cement contains small quantities of insolubles in which free silica may possibly be found (CAS: 14808-60-4; EINECS : 238-878-4)

CNP PM NF quick setting cement complies naturally with the requirements of directive 2003/53/CE and as a consequence, does not require the addition of soluble chromium VI reducing agent

* Hazardous constituents

Substance name	Contents	CAS No	EC No	Index No	No registration	Classification
Clinker of natural quick setting cement :	100 %	65997-15-1	266-043-4	-----	----	Xi; R37/38-41 R43 ----- Eye Dam 1 H318 Skin Irrit. 2 H315 STOT SE 3 H335

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SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS (continued)

Skin Sens. 1 H317

SECTION 4 FIRST AID MEASURES

4.1. Description of first aid measures

- Inhalation** : Where significant accidental inhalation occurs, take the individual into the fresh air. The throat and nostrils should clear themselves. Consult a doctor if persistent irritation occurs, or in case the subsequent appearance of discomfort, coughing or any other symptoms
- Skin contact** : If the cement is dry : Wipe off as much as possible
Rinse with plenty of water
If the cement is mixed : Rinse with plenty of water
Remove clothing, shoes, watches and other objects that have become contaminated and clean thoroughly before reuse. In case of irritation, redness or burns, consult a doctor
- Eye contact** : Do not rub in order to avoid further damage to the cornea. If need be, remove contact lenses, then rinse immediately with copious amounts of clean water for at least 15 minutes, keeping the eyelids wide apart in order to eliminate any residue. If possible, use isotonic water (0.9% NaCL). Consult an occupational doctor or ophthalmologist
- Ingestion** : In case of significant accidental ingestion do not induce vomiting. If the person is conscious, rinse their mouth with water. Call a doctor immediately or an anti-poison centre
- 4.2. Most important symptoms and effects, both acute and delayed** : Contact with the skin: of 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
Contact with the eyes: 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
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
On ingestion in large quantities :
Burns to mouth, oesophagus and gastrointestinal tract, nausea, vomiting
- 4.3. Indication of any immediate medical attention and special treatment needed** : Take this SDS when consulting a doctor

SECTION 5 FIRE-FIGHTING MEASURES

- 5.1. Extinguishing media** : Any extinguishing agent can be used
- 5.2. Special hazards arising from the substance or mixture** : Cement is neither combustible, nor explosive and will not aid or feed the combustion of other materials
- 5.3. Advice for fire-fighters** : Do not dispose of fire-fighting water in the environment

SECTION 6 ACCIDENTAL RELEASE MEASURES

- 6.1. Personal precautions, protective equipment and emergency procedures** : Avoid contact with skin and eyes
Do not breathe dust
Personal protective equipment :
- gloves, goggles
- suitable protective clothing

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SECTION 6 ACCIDENTAL RELEASE MEASURES (continued)

- 6.2 Environmental precautions** : - suitable dust-mask
(See Heading 8)
: Do not allow product to spread into the environment
Do not pour down the drains, into the sewer system or into water courses (eg. streams)
- 6.3. Methods and material for containment and cleaning up**
- Recovery** : Clean up dry cement 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
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. Arrange for its collection before disposing of it as indicated in section 13
Recover waste cement and place it in a closed container. Wait until it sets and becomes solid before disposing of it as indicated in section 13
- Cleaning/decontamination** : Wash contaminated area with large amounts of water
- Disposal** : After setting, cement paste may be disposed of as non-hazardous building waste. CNP PM NF cement paste hardens approximately 1 to 20 minutes (depending on the adding of a retarder) after being mixed with water
- 6.4 Reference to other sections** : For further information see section 13

SECTION 7 HANDLING AND STORAGE

- 7.1. Precautions for safe handling**
- Precautions** : Avoid the formation or spread of dust in the atmosphere
Avoid contact with skin and eyes
Do not breathe dust
- Safe handling advice** : In case of insufficient ventilation, wear suitable respiratory equipment
Comply with instructions for use (refer to technical sheet)
In order to limit the emission of dust:
For cement in bags used in an open mixer: pour in the water first, followed by the cement. Do not pour from a great height and commence mixing slowly and regularly
- Hygiene measures** : Do not eat, drink or smoke while handling cement in order to avoid all contact with the skin or mouth. Wash your hands immediately after handling cement or products containing cement. Remove clothing, shoes, watches and other contaminated objects and wash them separately and thoroughly before reuse
- 7.2. Conditions for safe storage, including any incompatibilities**
- Storage conditions** : Bulk cement must be stored in silos that are watertight, dry, clean and protected from all contamination. Cement in bags must be stored with the bags closed, off the ground, and in a cool and dry atmosphere, protected from excessive draught which would lead to a deterioration of the quality of the product
Do not use aluminium silos due to incompatibility of the materials
- 7.3. Specific end use(s)** : No information available



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SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control parameters

Occupational exposure limits

- France : Dust without specific effect :
Total dust - VME : 10 mg/m³
Inhalable dust - VME : 5 mg/m³

8.2. Exposure controls

Engineering measures

- : Ensure good ventilation of the work station

Personal protective equipment

- Respiratory protection

- : Suitable anti-dust mask
Filter type FFP2

- Hand protection

- : Protective gloves made from waterproof nitrile rubber or neoprene, using material containing little soluble Cr (VI), with a cotton lining. These gloves must be waterproof and resistant to wear and alkalis
Gloves are only effective as long as cement particles do not penetrate between the gloves and the skin
The protective gloves to be used must comply with the specifications of EC directive 89/686/EEC and the resultant standard EN 374

- Eye protection

- : Handling of dry or mixed cement:
Approved goggles or watertight goggles complying with NF EN 166

- Skin and body protection

- : Protective clothing with long elasticated cuffs and closed neck
Boots . Take care that mixed cement does not penetrate inside your boots
For work where kneeling is involved, waterproof knee-pads are required.
As far as possible, avoid kneeling on mortar or fresh concrete (eg: when concreting a floor, laying screed, ...)

Environmental exposure controls

- : Take all necessary precautions to avoid the accidental release of the product outside, due to the rupture of containers or transfer systems

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

- Physical state** : Dry cement is a fine inorganic substance (powder)
- Colour** : buff
- Odour** : none
- Odour threshold** : Not determined
- pH** : 11-13,5 (Aqueous solution)
- Specific temperatures**
- **Boiling** : Not applicable
- **Melting point** : > 1000 °C
- Decomposition temperature** : Not determined
- Flammability characteristics**
- **Flash point** : Not applicable (non-flammable solid)
- **Auto-ignition temperature** : Not applicable
- Oxidizing properties** : Non oxidizing material according to EC criteria
- Explosive limits in air** : Not determined
- Vapour pressure** : Not determined
- Vapour density (air = 1)** : Not applicable
- Apparent specific gravity :** : 0,8 - 1,1 g/cm³ (20 °C)



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SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES (continued)

Absolute specific gravity :	: 2,80 - 3,20 g/cm ³ (20 °C)
Solubility	
- in water	: Slightly soluble : 0.1 - 1.5 g/l (20 °C)
Octanol/water partition coefficient	: Not applicable (inorganic substance)
Kinematic viscosity	: Not applicable
Evaporation rate	: Not applicable
9.2 Other information	
Diameter	: 30-35 % fine < 5 µm

SECTION 10 STABILITY AND REACTIVITY

10.1. Reactivity	: To our knowledge, the product does not present any particular risk When mixed with water, the product will harden into a stable mass that is not reactive in normal environments
10.2. Chemical stability	: Dry cement remains stable as long as it is stored correctly (see section 7) and is compatible with most other building materials. When mixed with water, cement hardens into a stable mass which does not react in ordinary environments Wet cement is alkaline and incompatible with acids, with ammonium salts, with aluminium or other non-noble metals. Cement dissolves in hydrofluoric acid to produce corrosive silicon tetrafluoride gas. Cement reacts with water to form silicates and calcium hydroxide. Silicates in cement react with powerful oxidizers such as fluorine, boron trifluoride, chlorine trifluoride, manganese trifluoride, and oxygen difluoride
10.3. Possibility of hazardous reactions	: None, to our knowledge
10.4. Conditions to avoid	: Damp may cause cement to harden (formation of lumps) and a loss of quality of the product
10.5. Incompatible materials	: Aluminium (Formation of hydrogen in mixed cement in case of uncontrolled used) Acids Ammonium salts
10.6. Hazardous decomposition products	: None, to our knowledge Cements do not break down into dangerous sub-products and are not subject to polymerization

SECTION 11 TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects	
Acute toxicity	Skin : : LD 50 skin (Rabbit) : > 2000 mg/kg (published data)
Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye damage.
Respiratory or skin sensitization	: Some individuals may develop eczema after exposure to the mixed cement, caused either by its high pH leading to irritated dermatitis, or by an immune reaction to soluble Cr (VI) causing allergic dermatitis. Reactions range from slight erythema to aggravated dermatitis involving the participation of both these mechanisms. It is often difficult to reach a precise diagnosis. As CNP PM NF cement is naturally poor in chromate, no sensitivity should occur as long as the cement is handled and stored correctly



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SECTION 11 TOXICOLOGICAL INFORMATION (continued)

- Carcinogenicity** : The cement is not listed as being carcinogenic by the CIRC
No causal association between exposure to cement and the appearance of cancers has been established
- Germ cell mutagenicity** : No mutagenic effects were noted
- Reproductive toxicity** : No additional information available
- STOT - single exposure** : May cause respiratory irritation.
- STOT - repeated exposure** : States of health aggravated by exposure :
Repeated exposure to inhalable dust in excess of the limit value for occupational exposure may cause coughs, sneezing and respiratory discomfort and the appearance of chronic obstructive broncho pulmonary disorder (COPD)
Inhaling cement dust may aggravate a pre-existing disease of the respiratory tract and/or pathologies such as emphysema or asthma and/or other pre-existing conditions linked to the eyes or skin
- Aspiration hazard** : Not applicable

SECTION 12 ECOLOGICAL INFORMATION

- 12.1. Toxicity** : A priori the product presents no danger to the environment. However, the addition of large quantities of cement to water may cause an increase in pH and therefore prove to be toxic to aquatic organisms in some circumstances
- 12.2. Persistence and degradability** : Not biodegradable
- 12.3. Bioaccumulative potential** : Not relevant (inorganic substance)
- 12.4. Mobility in soil** : Not relevant as the cement is an inorganic material. After hydration, the cement lumps present no toxicity risks
- 12.5. Results of PBT and vPvB assessment** : Not relevant (inorganic substance)
- 12.6. Other adverse effects** : Not relevant as the cement is an inorganic material. After hydration, the cement lumps present no toxicity risks

SECTION 13 DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

WASTE FROM PRODUCT

- Destruction/Disposal** : Product - residue or spillage in dry form:
Cause the cement to set by adding water and dispose of it according to local by-laws
Product - slurry:
Leave to harden, avoid its introduction into drains, sewer systems or water courses (eg streams) and dispose of according to local by-laws
Product - after the addition of water and setting has occurred:
Dispose of according to local by-laws. Avoid its introduction into waste water disposal networks. Dispose of the hardened product as for waste concrete. In view of concrete's inert properties, waste is not considered as being hazardous waste
Entries in the European waste catalogue: 10 13 14 (Waste arising from the manufacture of cement - cement waste or cement slurry) or 17 01 01 (Construction and demolition waste - cement)

CONTAMINATED PACKAGING

- Destruction/disposal** : Empty packaging completely and process according to local by-laws. Entries in the European waste catalogue: 15 01 01 (Paper waste and cardboard packaging)

- NOTE** : The user's attention is drawn to the possible existence of specific European, national or local regulations regarding disposal



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SECTION 14 TRANSPORT INFORMATION

- 14.1. UN number : Not restricted
14.2. UN proper shipping name : Not restricted
14.3. Transport hazard class(es) : Not restricted
14.4. Packing group : Not restricted
14.5. Environmental hazards : Not restricted
14.6. Special precautions for user : No information available
14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code : No information available

NOTE : The above regulatory prescriptions are those valid on the date of publication of this sheet
Given the possible evolution of transport regulations for hazardous materials, in case the date of issue is older than 12 months, compared to the current one, it would be advisable to check their validity with your commercial agency

SECTION 15 REGULATORY INFORMATION

- 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture : Cement clinker is exempt from registration (Art 2.7 (b) and Annex V.10 of REACH)
France :
Occupational diseases (table(s) n° 8-25) concerned
Decree no. 2005-577 of 26 May 2005 regarding the conditions of sale and use of cement containing hexavalent chromium or chromium VI prohibits, under article 3, the sale and use of cement and preparations containing cement, if when hydrated, they contain more than 0.0002 % of soluble hexavalent chromium in relation to the total weight of the cement
- 15.2. Chemical Safety Assessment : Not realized
Further information: : The regulatory information given above only indicate the principal regulations specifically applicable to the product described in the MSDS
The user's attention is drawn to the possible existence of additional provisions which complete these regulations
Refer to all applicable international, national and local regulations or provisions

SECTION 16 OTHER INFORMATION

- Further information : CNP PM NF natural quick setting cement covered by standard NF P 15-314, in accordance with the decree of 03/12/92, modified by the decree of 01/03/94 and the order of 05/01/93; or natural quick setting cement according to European Technical Approval ETA-07/0019 (notice dated August 2007)
Abbreviations :
- IMDG : International Maritime Dangerous Goods
- IATA : International Air Transport Association
- ADR/RID : Agreement on the transport of dangerous goods by road/Regulations on the international transport of dangerous goods by rail
- DL50 pc : Lethal Dose cutaneous : 50% of tested animals die
- Bibliography references : (1) Portland Cement Dust - Hazard assessment document EH75/7, UK Health and Safety Executive, 2006. Available from: <http://www.hse.gov.uk/pubns/web/portlandcement.pdf>
(2) Observations on the effects of skin irritation caused by cement, Kietzman et al, Dermatosen, 47, 5, 184-189 (1999)
(3) European Commission's Scientific Committee on Toxicology, Ecotoxicology and the Environment (SCTEE) opinion of the risks to health from Cr (VI) in cement (European Commission, 2002)
(4) Epidemiological assessment of the occurrence of allergic dermatitis in workers in the construction industry related to the content of Cr (VI) in cement, NIOH, Page



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SECTION 16 OTHER INFORMATION (continued)

- 11, 2003
- * Update :** : This sheet was updated (refer to the date at the top of this page)
: Texts which have been modified since the previous version are marked with an asterisk (*)
- Safety data sheet established by** : LISAM SERVICES - TELEGIS
: 6 rue des Boucheries - F-60400 NOYON
- Sources of data :** : INRS (Institut National de Recherche et de Sécurité)
: Conseil Supérieur d'Hygiène Publique de France
: Joint Research Centre (JRC)
: IUCLID (International Uniform Chemical Information Data Base)
: IARC (International Agency for Research on Cancer).

This sheet complements the technical sheets but does not replace them. The information given is based on our knowledge of the product, at the time of publication. It is given in good faith.

Besides, the attention of the user is drawn to the possible risk incurred by using the product for any other use than that for which it was intended.

In no way does this exempt the user from knowing and applying all the regulations controlling his activity. The user alone will take on the responsibility for taking the precautions involved by the use of the product.

The aim of all the mandatory regulations mentioned is just to help the user to fulfill his obligations regarding the use of hazardous products.

This information must not be considered exhaustive. It does not exempt the user from ensuring that other obligations than those mentioned could apply, related to the storage and use of the product, this being his sole responsibility.

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