CEMGUARD

MATERIAL SAFETY DATA SHEET: CEMGUARD MASONRY PAINT

Health and Safety Information In accordance with Regulation (EC) No 1907/2006 (REACH) as amended by Regulation (EU) No 453/2010

1 - IDENTIFICATION OF THE SUBSTANCE/ MIXTURE AND OF THE COMPANY

1.1 Product identifier

Trade Name: Cemguard Mineral Paint

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

Decorative coating for use on all masonry surfaces. For use on internal and external masonry surfaces including particle board,mineral board and plasterboard applications.

Fire resistant decorative coating, for use on internal and external masonry surfaces including particle board, mineral board and plasterboard applications.

All other uses not mentioned above are advised against.

1.3 Details of the supplier of the safety data sheet

Northern Paints and Coatings Ltd
Unit 3B Berwick Road Industrial Estate
Wooler
Northumberland
NE71 6AH

Customer Services

Tel: 01665 494034
E-mail: info@npc-ltd.co.uk

1.4 Emergency telephone number

Emergency telephone number: 01665 494034
Hours of operation: 09.00 – 17.00 Monday-Friday

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

2.1.1 According to Regulation (EC) No 1272/2008 (CLP)		
Hazard class	Hazard category	Hazard statements
Skin irritation	2	H315: Causes skin irritation
Serious eye damage/eye irritation	1	H318: Causes serious eye damage
Skin sensitisation	1	H317: May cause an allergic skin reaction
Specific target organ toxicity single exposure respiratory tract irritation	3	H335: May cause respiratory irritation

2.2 Label elements

According to Regulation (EC) No 1272/2008 (CLP)
Hazard pictograms

Signal word

Danger

Hazard statements

H318 Causes serious eye damage

H315 Causes skin irritation

H317 May cause an allergic skin reaction

H335 May cause respiratory irritation

Precautionary statements

P102 Keep out of reach of children.

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

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 CENTRE or doctor/physician.

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

P261+P304+P340+P312: Avoid breathing dust. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTRE or doctor/physician if you feel unwell.

P501 Dispose of product by hardening with the application of water and dispose of as concrete waste.

Supplemental Information

Alkaline product. Avoid contact with skin and eyes.

2.3 Other Hazards

The substance does not meet the criteria for PBT or vPvB substance. No other hazards identified.

SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances

Not applicable

3.2 Mixtures

Cement/Lime based paint for outdoor and indoor use, with light resistant, inorganic pigments and mineral fillers.

Trade Name: Cemguard Mineral Paint

Information on ingredients				
Substance	Cas Number	EINECS	Registration Number	Concentration Range
White Portland Cement	65997-15-1	266-043-4	01-2119486767-17-0054	>40%
Calcium di-hydroxide	1305-62-0	215-137-3	01-2119475151-45	>30%
Titanium Dioxide	13463-67-7	236-675-5	01-2119486799-10	>1%

For reference on material hazards see section 2 hazards Identification

SECTION 4 - FIRST AID MEASURES

4.1. Description of first aid measures

General notes

No personal protective equipment is needed for first aid responders. First aid workers should avoid contact with mixed material.

Following contact with eyes

Do not rub eyes in order to avoid possible cornea damage as a result of mechanical stress. Incline head to injured eye, open the eyelid(s) widely and flush eye(s) immediately by thoroughly rinsing with plenty of clean water for at least 20 minutes to remove all particles. Remove contact lenses, if present and easy to do. Continue rinsing. Avoid flushing particles into uninjured eye. If possible, use isotonic water (0.9% NaCl). Contact a specialist of occupational medicine or an eye specialist, preferably an ophthalmologist.

Following skin contact

For dry powder

remove and rinse abundantly with water.

For mixed material

wash skin with plenty of water. Remove contaminated clothing, footwear, watches, etc. and clean thoroughly before re-using them.

Seek medical treatment in all cases of skin irritation (redness, rash, blistering) or burns.

Following inhalation

Move the person to fresh air and keep at rest in a position comfortable for breathing. Dust in throat and nasal passages should clear spontaneously. Contact a physician if irritation persists or later develops or if discomfort, coughing or other symptoms persist.

Following ingestion

Do not induce vomiting. If the person is conscious, wash out mouth with water and give plenty of water to drink. Get immediate medical attention.

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

Eyes:

Eye contact may cause serious and potentially irreversible injuries.

Skin:

May have an irritating effect on moist skin (due to sweat or humidity) after prolonged contact, or may cause contact dermatitis after repeated contact.

Inhalation:

May cause respiratory irritation. Repeated inhalation of dust over a long period of time increases the risk of developing lung diseases.

Medical conditions aggravated by exposure:

Inhaling 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.

4.3 Indication of any immediate medical attention and special treatment needed

When contacting a physician, take this MSDS with you.

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Product is not flammable.

5.2 Special hazards arising from the substance or mixture

Product is non-combustible and non-explosive and will not facilitate or sustain the combustion of other materials.

5.3 Advice for fire-fighters

Product poses no fire-related hazards. No need for special protective equipment for fire fighters.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel

Wear protective equipment as described under Section 8 and follow the advice for safe handling and use given under Section 7.

6.1.2 For emergency responders

Emergency procedures are not required. However, respiratory protection is needed in situations with high dust levels. Contact should be avoided with wet or dry mixture.

6.2 Environmental precautions

Do not wash product down sewage and drainage systems or into bodies of water (e.g. streams).

6.3 Methods and material for containment and cleaning up

Collect the spillage in a dry state if possible.

Dry product

Use clean up methods such as vacuum clean-up or vacuum extraction (Industrial portable units, equipped with high efficiency air filters (EPA and HEPA filters, EN 1822-1:2009) or equivalent technique) which do not cause airborne dispersion. Never use compressed air. Alternatively, wipe-up the dust by mopping, wet brushing or by using water sprays or hoses (fine mist to avoid that the dust becomes airborne) and remove slurry.

If not possible, remove by slurrying with water. When wet cleaning or vacuum cleaning is not possible and only dry cleaning with brushes can be done, ensure that the workers wear the appropriate personal protective equipment and prevent dust from spreading. Avoid inhalation of dry powder and contact with skin. Place spilled materials into a container. Solidify before disposal as described under Section 13.

Wet product

Clean up wet material and place in a container. Allow material to dry and solidify before disposal as described under Section 13.

6.4 Reference to other sections

See Sections 8 and 13 for more details.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Keep receptacles tightly sealed. Avoid contact with skin and eyes. Keep dust levels to a minimum. Minimise dust generation.

For personal protection see section 8.

7.1.1 Protective measures

Follow the recommendations as given under Section 8.
To clean up dry product, see Subsection 6.3.

Measures to prevent fire
Not applicable.

Measures to prevent aerosol and dust generation
Do not sweep. Use dry clean up methods such as vacuum clean-up or vacuum extraction, which do not cause airborne dispersion.

Measures to protect the environment
No special measures required.

7.1.2 Information on general occupational hygiene

Do not handle or store near food and beverages or smoking materials. In dusty environment, wear dust mask and protective goggles. Use protective gloves to avoid skin contact.

7.2 Conditions for safe storage, including any incompatibilities

Keep in the original containers in a cool and dry place.

Store only in unopened original receptacles.

Protect from frost.

Protect from heat and direct sunlight.

7.3 Specific end use(s)

No additional information for the specific end uses (see section 1.2).

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

8.1.1 Exposure limit values (Workplace Exposure Limits (WEL)

WEL 8 hr Time Weighted Average (TWA):

• Total inhalable dust 10 mg/m3

• Respirable dust 4 mg/m3

8.2. Exposure controls

8.2.1 Appropriate engineering controls

Measures to reduce generation of dust and to avoid dust propagating in the environment such as dedusting, exhaust ventilation and dry clean-up methods which do not cause airborne dispersion.

8.2.2 Individual protection measures such as personal protection equipment

General

During work avoid kneeling in the mixed material wherever possible. If kneeling is absolutely necessary then appropriate waterproof personal protective equipment must be worn. Do not eat, drink or smoke when working with Cemguard to avoid contact with skin or mouth. Before starting to work with Cemguard, apply a barrier cream and reapply it at regular intervals. Immediately after working with Cemguard, workers should wash or shower or use skin moisturisers. Remove contaminated clothing, footwear, watches, etc. and clean thoroughly before re-using them.

Eye/face protection

Wear approved glasses or safety goggles according to EN 166 when handling dry or wet Cemguard to prevent contact with eyes.

Skin protection

Wear watertight and alkali resistant gloves (e.g. Nitrile soaked cotton gloves with CE Marking) internally lined with cotton, boots, closed long-sleeved protective clothing as well as skin care products (including barrier creams) to protect the skin from prolonged contact with wet Cemguard. Particular care should be taken to ensure that wet Cemguard does not enter the boots. For the gloves, respect the maximum wearing time to avoid skin problems.

Respiratory protection

When a person is potentially exposed to dust levels above exposure limits, use appropriate respiratory protection. The type of respiratory protection should be adapted to the dust level and conform to the relevant EN standard, (e.g. EN 149, EN 140, EN 14387, EN 1827) or national standard.

Thermal hazards

Not applicable

8.2.3 Environmental exposure controls

Air

All ventilation systems should be filtered before discharge to atmosphere.

Contain the spillage. Keep the material dry if possible. Cover area if possible to avoid unnecessary dust hazard.

Water

Avoid uncontrolled spills to watercourses and drains (pH rising). Any large spillage into watercourses must be alerted to the Environment Agency or other regulatory body.

Soil and terrestrial environment

No special emission control measures are necessary for the exposure to the terrestrial environment.

For more information please see the relevant exposure scenario, available via your supplier/given in the Appendix, and check section 2.1: Control of worker exposure.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance: White or pigmented fine powder
Odour: Slight cirtus odour
Odour Threshold: Not Applicable
PH: 10-11
Melting Point: >1000oC
Boiling Point: Not Applicable as is not a liquid.
Flash Point: Not Applicable as is not a liquid.
Evapoation Rate: Not Applicable as is not a liquid.
Flammibility: Non-Flammable a solid which is non-combustible and does not cause or contribute to fire through friction.
Explosive Properties: Non Explosive as it is not an explosive gas.
Vapour Pressure: Not Applicable, Melting point above >1000oC
Vapour Density: Not Applicable, Melting point above >1000oC
Relative Density: 2.75-3.20
Bulk Density: 1295 kg/m3
Solubility(ies) in Water: Slight @ 20oC (0.1-1.5 g/l)
Partition Coefficient: Not Applicable inorganic substance
Auto-ignition Temperature: Auto-ignition temperature: Not applicable (no pyrophoricity – no organo-metallic, organo-metalloid or organo-phosphine bindings or of their derivatives, and no other pyrophoric constituent in the composition)
Decomposition Temperature: Not Applicable no organic peroxide present
Viscosity: Not applicable not a liquid
Oxidising Properties: Not applicable as does not cause or contribute to the combustion of other materials.

9.2 Other Information

Not Applicable

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

When mixed with water, will harden into a stable mass that is not reactive in normal environments.

10.2 Chemical Stability

Under normal conditions of use and storage (dry conditions), the product is stable.

Contact with incompatible materials should be avoided. The wet material is alkaline and incompatible with acids, with ammonium salts, with aluminium or other non-noble metals. Cemguard will dissolve in hydrofluoric acid to produce corrosive silicon tetrafluoride gas. Cemguard reacts with water to generate heat and form silicates and calcium hydroxide. Silicates will react with powerful oxidizers such as fluorine, boron trifluoride, chlorine trifluoride, managanese trifluoride, and oxygen difluoride.

10.3 Possibility of Hazardous reactions

Doe not cause hazardous reactions

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 or other non-noble metals. Uncontrolled use of aluminium powder in wet Cemguard should be avoided as hydrogen is produced.

10.6. Hazardous decomposition products

will not decompose into any hazardous products.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Hazard Class	Cat	Effect	Reference
Acute toxicity - dermal	-	No lethality. Based on available data, the classification criteria are not met.	2
Acute toxicity- inhalation	-	No acute toxicity by inhalation observed. Based on available data, the classification criteria are not met.	9
Acute toxicity - oral	-	No indication of oral toxicity. Based on available data, the classification criteria are not met.	Literature Survey
Skin corrosion/ irritation	2	Contact with wet skin may cause thickening, cracking or fissuring of the skin. Prolonged contact in combination with abrasion may cause severe burns.	(2) Human Experience
Serious eye damage/ irritation	1	Direct contact may cause corneal damage by mechanical stress, immediate or delayed irritation or inflammation. Direct contact by larger amounts of dry cement or splashes of wet cement may cause effects ranging from moderate eye irritation (e.g. conjunctivitis or blepharitis) to chemical burns and blindness.	10, 11
Skin sensitisation	1	Some individuals may develop eczema upon exposure to wet powder, caused either by the high pH which induces irritant contact dermatitis after prolonged contact, or by an immunological reaction to soluble Cr (VI) which elicits allergic contact dermatitis. The response may appear in a variety of forms ranging from a mild rash to severe dermatitis and is a combination of the two above mentioned mechanisms.	3, 4
Respiratory sensitisation	-	There is no indication of sensitisation of the respiratory system. Based on available data, the classification criteria are not met.	1
Germ cell mutagenicity	-	Based on available data, the classification criteria are not met.	12, 13
Carcinogenicity	-	Based on available data, the classification criteria are not met.	1, 14
Reproductive toxicity	-	Based on available data, the classification criteria are not met.	No evidence from human experience
STOT-single exposure	3	May irritate the throat and respiratory tract. Coughing, sneezing, and shortness of breath may occur following exposures in excess of occupational exposure limits. Evidence indicates that occupational exposure has produced deficits in respiratory function. However, evidence available at the present time is insufficient to establish with any confidence the dose-response relationship for these effects.	1
STOT-repeated exposure	-	There is an indication of COPD. The effects are acute and due to high exposures. No chronic effects or effects at low concentration have been observed. Based on available data, the classification criteria are not met.	15
Aspiration hazard	-	Not applicable as the powder not used as an aerosol.	

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

The product is not hazardous to the environment. Eco-toxicological tests on Daphnia magna [Reference (5)] and Selenastrum coli [Reference (6)] have shown little toxicological impact. Therefore LC50 and EC50 values could not be determined [Reference (7)]. There is no indication of sediment phase toxicity [Reference (8)]. The addition of large amounts of the material to water may however cause a rise in pH and may, therefore, be toxic to aquatic life under certain circumstances.

12.2 Persistence and degradability

Not relevant. After hardening, presents no toxicity risks.

12.3 Bioaccumulative potential

Not relevant. After hardening, presents no toxicity risks.

12.4 Mobility in soil

Not relevant. After hardening, presents no toxicity risks.

12.5 Results of PBT and vPvB assessment

Not relevant. After hardening, presents no toxicity risks.

12.6 Other adverse effects

Not relevant.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Do not dispose of into sewage systems or surface waters.

Product - that has exceeded its shelf life

EWC entry: 10 13 99 (Wastes not otherwise specified)

Shall not be used/sold other than for use in controlled closed and totally automated processes or should be recycled or disposed of according to local legislation or treated again with a reducing agent.

Product - unused residue or dry spillage

EWC entry: 10 13 06 (other particulates and dust)

Pick up dry unused residue or dry spillage as is. Mark the containers. Possibly reuse depending upon shelf life considerations and the requirement to avoid dust exposure. In case of disposal, harden with water and dispose according to “Product – after addition of water, hardened”

Product – slurries

Allow to harden, avoid entry in sewage and drainage systems or into bodies of water (e.g. streams) and dispose of as explained under “Product - after addition of water, hardened”.

Product - after addition of water, hardened

EWC entries: 10 13 14 (waste from manufacturing of cement – waste concrete or concrete sludge) or 17 01 01 (construction and demolition wastes - concrete).

Dispose of according to the local legislation. Avoid entry into the sewage water system. Dispose of the hardened product as concrete waste. Due to the inertisation, Cemguard waste is not a dangerous waste.

Packaging

EWC entries: 15 01 01 (waste paper and cardboard packaging).15 01 02 (Plastic packaging) completely empty the packaging and process it according to local legislation.

SECTION 14: TRANSPORT INFORMATION

No special precautions are needed apart from those mentioned under Section 8.

14.1 UN number

Not relevant

14.2 UN proper shipping name

Not relevant

14.3 Transport hazard class(es)

Not relevant

14.4 Packing group

Not relevant

14.5 Environmental hazards

Not relevant

14.6 Special precautions for user

Not relevant

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not relevant

SECTION 15: REGULATORY INFORMATION

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

Not subject to registration.

Cement clinker is exempt from registration (Art 2.7 (b) and Annex V.10 of REACH).

The marketing and use of cement is subject to a restriction on the content of soluble Cr (VI) (REACH Annex XVII point 47 Chromium VI compounds)

National regulatory information

CONIAC Health Hazard Information Sheet No 26 (CEMENT)

Health & Safety at Work, etc. Act 1974

Control of Substances Hazardous to Health Regulations (COSHH) 2002

Control of Substances Hazardous to Health (Amendment) Regulations 2004

Environmental Protection Act 1990

HSE Guidance Note EH40 (Workplace Exposure Limits)

Any authorised manual on First Aid by St. John's/St. Andrews/Red Cross Manual Handling Operations Regulations 1992 (as amended)

PORTLAND CEMENT DUST – criteria document for an occupational exposure limit. June 1994 (ISBN 07176 – 0763 – 1)

HSE Guidance Notes EH26 (Occupational Skin Diseases – Health and Safety Precautions)

15.2 Chemical Safety Assessment

No chemical safety assessment has been carried out for this mixture by the supplier.

SECTION 16: OTHER INFORMATION

16.1 Indication of changes

N/A.

16.2 Identified uses and use descriptors and categories

No chemical safety assessment has been carried out for this mixture by the supplier. A chemical safety report has not been compiled. Therefore, no use descriptors and categories have been identified.

16.3 Abbreviations and acronyms

ACGIH American Conference of Governmental Industrial Hygienists ADR/RID European Agreements on the transport of Dangerous goods by

Road/Railway

APF Assigned protection factor

CAS Chemical Abstracts Service

CLP Classification, labelling and packaging (Regulation (EC) No 1272/2008)

COPD Chronic Obstructive Pulmonary Disease

DNEL Derived no-effect level

EC50 Half maximal effective concentration

ECHA European Chemicals Agency

EINECS European Inventory of Existing Commercial chemical Substances

EPA Type of high efficiency air filter

ES Exposure scenario

EWC European Waste Catalogue

FF P Filtering face piece against particles (disposable)

FM P Filtering mask against particles with filter cartridge

GefStoffV Gefahrstoffverordnung

HEPA Type of high efficiency air filter

H&S Health and Safety

IATA International Air Transport Association

IMDG International agreement on the Maritime transport of Dangerous GoodsLC50 Median lethal dose

MEASE Metals estimation and assessment of substance exposure, EBRC Consulting GmbH for Eurometaux, http://www.ebrc.de/industrial-chemicals-reach/projects-and-references/mease.php

MS Member State

MSDS Material safety Data Sheet

OELV Occupational exposure limit value

PBT Persistent, bio-accumulative and toxic

PNEC Predicted no-effect concentration

PROC Process category

RE Repeated exposure

REACH Registration, Evaluation and Authorisation of Chemicals

RPE Respiratory protective equipment

SCOEL Scientific Committee on Occupational Exposure Limit Values

SDS Safety Data Sheet

SE Single exposure

STP Sewage treatment plant

STOT Specific Target Organ Toxicity

TLV-TWA Threshold Limit Value-Time-Weighted Average

TRGS Technische Regeln für Gefahrstoffe

VLE-MP Exposure limit value-weighted average in mg by cubic meter of air

vPvB Very persistent, very bio-accumulative

WEL Workplace exposure limit

w/w Weight by weight

WWTP Waste water treatment plant

16.4 Key literature references and sources of data

(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). http://ec.europa.eu/health/archive/ph_risk/committees/sct/documents/out158_en.pdf.

(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 11, 2003.

(5) U.S. EPA, Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, 3rd ed. EPA/600/7-91/002, Environmental Monitoring and Support Laboratory, U.S. EPA, Cincinnati, OH (1994a) and 4th ed. EPA-821-R-02-013, US EPA, office of water, Washington D.C. (2002).

(6) U.S. EPA, Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, 4th ed. EPA/600/4-90/027F, Environmental Monitoring and Support Laboratory, U.S. EPA, Cincinnati, OH (1993) and 5th ed. EPA-821-R-02-012, US EPA, office of water, Washington D.C. (2002).

(7) Environmental Impact of Construction and Repair Materials on Surface and Ground Waters. Summary of Methodology, Laboratory Results, and Model Development. NCHRP report 448, National Academy Press, Washington, D.C., 2001.

(8) Final report Sediment Phase Toxicity Test Results with Corophium volutator for Portland clinker prepared for Norcem A.S. by AnalyCen Ecotox AS, 2007.

(9) TNO report V8801/02, an acute (4-hour) inhalation toxicity study with Portland Cement Clinker CLP/GHS 03-2010-fine in rats, August 2010.

(10) TNO report V8815/09, Evaluation of eye irritation potential of cement clinker G in vitro using the isolated chicken eye test, April 2010.

(11) TNO report V8815/10, Evaluation of eye irritation potential of cement clinker W in vitro using the isolated chicken eye test, April 2010.

(12) Investigation of the cytotoxic and proinflammatory effects of cement dusts in rat alveolar macrophages, Van Berlo et al, Chem. Res. Toxicol., 2009 Sept; 22(9):1548- 58.

(13) Cytotoxicity and genotoxicity of cement dusts in A549 human epithelial lung cells in vitro; Gminski et al, Abstract DGPT conference Mainz, 2008.

(14) Comments on a recommendation from the American Conference of governmental industrial Hygienists to change the threshold limit value for Portland cement,Patrick A. Hessel and John F. Gamble, EpiLung Consulting, June 2008.

(15) Prospective monitoring of exposure and lung function among cement workers, Interim report of the study after the data collection of Phase I-II 2006-2010, Hilde Notø, Helge Kjuus, Marit Skogstad and Karl-Christian Nordby, National Institute of Occupational Health, Oslo, Norway, March 2010.

(16) MEASE, Metals estimation and assessment of substance exposure, EBRC Consulting GmbH for Eurometaux, http://www.ebrc.de/industrial-chemicals-reach/projects-and-references/mease.php

(17) Occurrence of allergic contact dermatitis caused by chromium in cement. A review of epidemiological investigations, Kåre Lenvik, Helge Kjuus, NIOH, Oslo, December 2011.

16.5 Relevant H-Statements

H318: Causes serious eye damage

H315: Causes skin irritation

H317: May cause an allergic skin reaction

H335: May cause respiratory irritation

16.6 Training advice

In addition to health, safety and environmental training programs for their workers, companies must ensure that workers read, understand and apply the requirements of this SDS.

16.7 Further information

The data and test methods used are given or referred to in section 11.1.

16.8 Disclaimer

The information on this data sheet reflects the currently available knowledge and is reliable provided that the product is used under the prescribed conditions and in accordance with the application specified on the packaging and/or in the technical guidance literature. Any other use of the product, including the use of the product in combination with any other product or any other process, is the responsibility of the user.

It is implicit that the user is responsible for determining appropriate safety measures and for applying the legislation covering his/her own activities.