#### ΕN

# VOLTECO S.p.A CALNHL - CALIBRO NHL

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# **Safety Data Sheet**

According to Annex II to REACH - Regulation (EU) 2020/878 and to Annex II to UK REACH

# SECTION 1. Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Code: CALNHL
Product name CALIBRO NHL

UFI: 994V-3VG5-P20J-5KM8

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

Intended use Anti-humidity and anti-salt macroporous plaster

1.3. Details of the supplier of the safety data sheet

Name VOLTECO S.p.A Full address via delle industrie 47

District and Country 31050 Ponzano Veneto (TV)

Italia

Tel. 04229663

e-mail address of the competent person

responsible for the Safety Data Sheet volteco@volteco.it

1.4. Emergency telephone number

For urgent inquiries refer to +39 06 68593726 (CAV "Osp. Pediatrico Bambino Gesù" Dip. Emergenza e

Accettazione DEA - Roma - 00165)

+39 800183459 (Az. Osp. Univ. Foggia - Foggia - 71222) +39 081 7472870 (Az. Osp. "A. Cardarelli" - Napoli - 80131) +39 06 49978000 (CAV Policlinico "Umberto I" - Roma - 161) +39 06 3054343 (CAV Policlinico "A. Gemelli" - Roma - 168)

+39 055 7947819 (Az. Osp. "Careggi" U.O. Tossicologia Medica - Firenze - 50134) +39 0382 24444 (CAV Centro Nazionale di Informazione Tossicologica - Pavia -

27100)

+39 02 66101029 (Osp. Niguarda Ca' Granda - Milano - 20162)

+39 800883300 (Azienda Ospedaliera Papa Giovanni XXII - Bergamo - 24127)

# **SECTION 2. Hazards identification**

# 2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 2020/878.

Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Serious eye damage, category 1 H318 Causes serious eye damage.
Skin irritation, category 2 H315 Causes skin irritation.
Specific target organ toxicity - single exposure, H335 May cause respiratory irritation.

category 3

Skin sensitization, category 1 H317 May cause an allergic skin reaction.

# 2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:



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#### SECTION 2. Hazards identification .../>>

Signal words: Danger

Hazard statements:

H318 Causes serious eye damage. H315 Causes skin irritation.

H335 May cause respiratory irritation. H317 May cause an allergic skin reaction.

Precautionary statements:

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to

do. Continue rinsing.

Wear protective gloves / eye protection / face protection. P280 P310 Immediately call a POISON CENTER / doctor / . . . P261 Avoid breathing dust / fume / gas / mist / vapours / spray.

Contains: CALCIUM HYDROXIDE PORTLAND CEMENT

#### 2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage ≥ than 0,1%.

The product does not contain substances with endocrine disrupting properties in concentration ≥ 0.1%.

# **SECTION 3. Composition/information on ingredients**

#### 3.2. Mixtures

Contains:

Identification x = Conc. % Classification (EC) 1272/2008 (CLP)

**PORTLAND CEMENT** 

 $14 \le x < 19$ Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317 INDFX

EC 266-043-4 CAS 65997-15-1 **NATURAL HYDRAULIC LIME** 

INDEX  $9 \le x < 14$ Substance with a community workplace exposure limit.

FC 285-561-1 CAS 85117-09-5

REACH Reg. 01-2119475523-36-xxx

**CALCIUM HYDROXIDE** 

INDEX  $5 \le x < 9$ Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335

FC 215-137-3 CAS 1305-62-0

REACH Reg. 01-2119475151-45-xxxx

The full wording of hazard (H) phrases is given in section 16 of the sheet.

# **SECTION 4. First aid measures**

#### 4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Wash contaminated clothing before using it again.

INHALATION: Remove to open air. If the subject stops breathing, administer artificial respiration. Get medical advice/attention immediately. INGESTION: Get medical advice/attention immediately. Do not induce vomiting. Do not administer anything not explicitly authorised by a doctor.

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

Specific information on symptoms and effects caused by the product are unknown.

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#### SECTION 4. First aid measures .../>>

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

Information not available

# **SECTION 5. Firefighting measures**

#### 5.1. Extinguishing media

SUITABLE EXTINGUISHING FOUIPMENT

The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.

UNSUITABLE EXTINGUISHING EQUIPMENT

None in particular.

#### 5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Do not breathe combustion products.

# 5.3. Advice for firefighters

#### **GENERAL INFORMATION**

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

### **SECTION 6. Accidental release measures**

#### 6.1. Personal precautions, protective equipment and emergency procedures

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. Use breathing equipment if powders are released into the air.

#### 6.2. Environmental precautions

Avoid the formation of powder and dispersion of the product in the air.

#### 6.3. Methods and material for containment and cleaning up

Collect the leaked product and place it in containers for recovery or disposal. Make sure the leakage site is well aired. It may be advisable to wash with water any surfaces contaminated with traces of dust, without contaminating waste water.

#### PORTLAND CEMENT

Dry concrete

Use dry cleaning methods such as vacuum cleaners or extractors (portable industrial units, equipped with high efficiency particulate filters or equivalent techniques), which do not disperse dust into the environment. Never use compressed air.

Ensure workers wear appropriate personal protective equipment (see Section 8) and prevent the spread of cement dust.

Avoid inhaling cement dust and contact with skin.

Deposit the spilled material in containers (e.g. silos, hoppers, etc.) for future use.

Wet concrete

Remove the wet cement and place it in a container. Allow the material to dry and solidify before disposing of it as described in Section 13.

#### 6.4. Reference to other sections

Notify the competent authorities if the product has reached waterways or if it has contaminated the ground or vegetation.

# **SECTION 7. Handling and storage**

# 7.1. Precautions for safe handling

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

# 7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away

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### SECTION 7. Handling and storage .../>>

from any incompatible materials, see section 10 for details.

### PORTLAND CEMENT

Risk of burial: Cement can thicken or stick to the walls of the confined space in which it is stored. Concrete can cave in, collapse or fall unexpectedly. To prevent burial or suffocation, do not enter confined spaces, such as. silos, containers, bulk transport trucks, or other storage containers or containers that store or contain cement, without adopting appropriate safety measures. Do not use aluminum containers for the storage or transport of wet mixtures containing cement due to the incompatibility of the materials.

### 7.3. Specific end use(s)

Information not available

# **SECTION 8. Exposure controls/personal protection**

#### 8.1. Control parameters

Regulatory references:

DEU	Deutschland	Technischen Regeln für Gefahrstoffe (TRGS 900) - Liste der Arbeitsplatzgrenzwerte und
		Kurzzeitwerte. MAK- und BAT-Werte-Liste 2020, Ständige Senatskommission zur Prüfung
		gesundheitsschädlicher Arbeitsstoffe, Mitteilung 56
ESP	España	Límites de exposición profesional para agentes químicos en España 2021
FRA	France	Valeurs limites d'exposition professionnelle aux agents chimiques en France. ED 984 - INRS
HRV	Hrvatska	Pravilnik o izmjenama i dopunama Pravilnika o zaštiti radnika od izloženosti opasnimkemikalijama
		na radu, graničnim vrijednostima izloženosti i biološkim graničnim vrijednostima (NN 1/2021)
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
NLD	Nederland	Arbeidsomstandighedenregeling. Lijst van wettelijke grenswaarden op grond van de artikelen 4.3,
		eerste lid, en 4.16, eerste lid, van het Arbeidsomstandighedenbesluit
ROU	România	Hotărârea nr. 53/2021 pentru modificarea hotărârii guvernului nr. 1.218/2006, precum și pentru
		modificarea și completarea hotărârii guvernului nr. 1.093/2006
SVN	Slovenija	Pravilnik o varovanju delavcev pred tveganji zaradi izpostavljenosti kemičnim snovem pri delu
	•	(Uradni list RS, št. 100/01, 39/05, 53/07, 102/10, 43/11 – ZVZD-1, 38/15, 78/18 in 78/19)
GBR	United Kingdom	EH40/2005 Workplace exposure limits (Fourth Edition 2020)
EU	OEL EU	Directive (EU) 2022/431; Directive (EU) 2019/1831; Directive (EU) 2019/130; Directive (EU)
		2019/983; Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive
		2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 98/24/EC; Directive
		91/322/EEC.
	TLV ACCILI	ACGIH 2022
	TLV-ACGIH	ACGIT 2022

NATURAL HYDRAULIC LIME										
Threshold Limit Value										
Type	Country	TWA/8h		STEL/15min		Remarks / Observations				
		mg/m3	ppm	mg/m3	ppm					
OEL	EU	1000		4000		Idrossido di calcio				

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#### SECTION 8. Exposure controls/personal protection ..../>>

Type	
Type         Country         TWA/8h         STEL/15min         Remarks / Observations           AGW         DEU         1         2 (C)         INHAL           MAK         DEU         1         2         INHAL           VLA         ESP         1         4           VLEP         FRA         1         4         RESP           GVI/KGVI         HRV         1         4         RESP           VLEP         ITA         1         2         RESP           TGG         NLD         1         4         RESP           TLV         ROU         1         4         RESP	
Mg/m3         ppm         mg/m3         ppm           AGW         DEU         1         2 (C)         INHAL           MAK         DEU         1         2         INHAL           VLA         ESP         1         4           VLEP         FRA         1         4         RESP           VLEP         ITA         1         2         RESP           TGG         NLD         1         4         RESP           TLV         ROU         1         4         RESP	
AGW       DEU       1       2 (C)       INHAL         MAK       DEU       1       2       INHAL         VLA       ESP       1       4         VLEP       FRA       1       4         GVI/KGVI       HRV       1       4       RESP         VLEP       ITA       1       2       RESP         TGG       NLD       1       4       RESP         TLV       ROU       1       4       RESP	
MAK         DEU         1         2         INHAL           VLA         ESP         1         4           VLEP         FRA         1         4           GVI/KGVI         HRV         1         4         RESP           VLEP         ITA         1         2         RESP           TGG         NLD         1         4         RESP           TLV         ROU         1         4         RESP	
VLA         ESP         1         4           VLEP         FRA         1         4           GVI/KGVI         HRV         1         4         RESP           VLEP         ITA         1         2         RESP           TGG         NLD         1         4         RESP           TLV         ROU         1         4         RESP	
VLEP         FRA         1         4           GVI/KGVI         HRV         1         4         RESP           VLEP         ITA         1         2         RESP           TGG         NLD         1         4         RESP           TLV         ROU         1         4         RESP	
GVI/KGVI         HRV         1         4         RESP           VLEP         ITA         1         2         RESP           TGG         NLD         1         4         RESP           TLV         ROU         1         4         RESP	
VLEP         ITA         1         2         RESP           TGG         NLD         1         4         RESP           TLV         ROU         1         4         RESP	
TGG         NLD         1         4         RESP           TLV         ROU         1         4         RESP	
TLV ROU 1 4 RESP	
MV SVN 1	
IVIV OVIN I 4	
WEL GBR 5 INHAL	
WEL GBR 1 4 RESP	
OEL EU 1 4 RESP	
TLV-ACGIH 5	
Predicted no-effect concentration - PNEC	
Normal value in fresh water 0,49 mg/cm2	
Normal value in marine water 0,32 mg/cm2	
Normal value of STP microorganisms 3 mg/cm2	
Health - Derived no-effect level - DNEL / DMEL	
Effects on consumers Effects on workers	
Route of exposure Acute Acute Chronic Chronic Acute local Acute Chronic	Chronic
local systemic local systemic systemic local	systemic
Inhalation 4 1 4 1	
mg/m3 mg/m3 mg/m3 mg/m3	

#### Leaend

(C) = CEILING; INHAL = Inhalable Fraction; RESP = Respirable Fraction; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified ; LOW = low hazard ; MED = medium hazard ; HIGH = high hazard.

# PORTLAND CEMENT

The time-weighted threshold limit value (TLV-TWA) adopted in working environments by the Association of American Industrial Hygienists (ACGIH) for cement is equal to 1 mg/m³ (respirable fraction).

For the indication of the exposure level (DNEL = Derived no-effect level) we have:

DNEL (respirable fraction): 1 mg/m³

DNEL (skin): not applicable

DNEL (ingestion): not relevant

As regards the environmental risk assessment (PNEC = predictable no-effect concentration), we have:

PNEC (water): not applicable PNEC (sediment): not applicable

PNEC (soil): not applicable

In relation to the possible presence of respirable free crystalline silica, the professional user must respect the professional exposure limits to respirable crystalline silica in 8 working hours (OEL (EU) equal to 0.1 mg/m3 (respirable fraction, 8h) VLEP (IT) equal to 0.1 mg/m3 (respirable fraction, 8h) – Annex XLIII Legislative Decree 81/2008).

The American Conference of Governmental Industrial Hygienist (ACGIH) recommends a threshold value of 0.025 mg/m3.

# 8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

#### HAND PROTECTION

In the case of prolonged contact with the product, protect the hands with penetration-resistant work gloves (see standard EN 374). Work glove material must be chosen according to the use process and the products that may form. Latex gloves may cause sensitivity reactions

#### SKIN PROTECTION

Wear category II professional long-sleeved overalls and safety footwear (see Regulation 2016/425 and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

#### EYE PROTECTION

Wear airtight protective goggles (see standard EN 166).

# RESPIRATORY PROTECTION

None required, unless indicated otherwise in the chemical risk assessment.

# ENVIRONMENTAL EXPOSURE CONTROLS

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

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# SECTION 8. Exposure controls/personal protection ..../>>

#### PORTLAND CEMENT

General: In plants where cement is handled, transported, loaded and unloaded and stored, suitable measures must be adopted for the protection of workers and for the containment of releases into the

workplaces. If possible, avoid kneeling on fresh mortar or concrete. However, if it is absolutely necessary, suitable waterproof personal protective equipment must be worn.

Do not eat, drink or smoke while handling the cement to avoid contact with your skin or mouth.

Immediately after handling/manipulating the cement or materials containing it, it is necessary to wash with neutral soap or an adequate light detergent or use moisturizing creams. Dispose of clothes

contaminated, footwear, glasses, etc. and clean them completely before using them again.

a) Eye/face protection

Wear safety glasses or masks compliant with UNI EN 166 when handling dry cement or its wet preparations to prevent contact with eyes.

b) Skin protection

Use gloves with mechanical resistance to abrasion according to EN ISO 388 with nitrile or neoprene coating, preferably ¾ or totally in case of more demanding activities. In the event of possible contact with the wet mixture, use a glove with specific chemical protection according to EN ISO 374 with specific thickness and degree of permeation (in particular to alkalis) based on the type of use (immersion or possible accidental contact). Always change damaged or soaked gloves immediately. In some circumstances, such as when laying concrete or screed, waterproof trousers or knee pads are required.

c) Respiratory protection

When a person is potentially exposed to dust levels above the exposure limits, use appropriate respiratory protection commensurate with the level of dustiness and compliant with the relevant EN standards (for example filtering facepiece certified according to UNI EN 149).

# **SECTION 9. Physical and chemical properties**

# 9.1. Information on basic physical and chemical properties

Properties Appearance Colour	<b>Value</b> powde grey	er		Information
Odour	not av	ailable		
Melting point / freezing point	> 1250	°C		Reason for missing data:non pertinente
Initial boiling point	> 1250	°C		•
Boiling range	not ap	plicable		
Flammability	not ap	plicable		
Lower explosive limit	not ap	plicable		
Upper explosive limit		plicable		
Flash point	not ap	plicable		Reason for missing data:la sostanza non è infiammabile
Auto-ignition temperature	not av	ailable		
Decomposition temperature	not av	ailable		
pH	11 - 13	3,2		Remark:prodotto impastato
				Concentration: 25 %
Kinematic viscosity	not ap	plicable		
Solubility	slightly	/ soluble		Remark:indurisce al contatto con acqua
Partition coefficient: n-octanol/water	not ap	plicable		
Vapour pressure	not ap	plicable		
Density and/or relative density	2,9 - 3	,2	g/cm3	
Relative vapour density	not av	ailable		
Particle characteristics				
Median equivalent diameter				
Median equivalent diameter	5 - 50		μm	

#### 9.2. Other information

9.2.1. Information with regard to physical hazard classes

Information not available

9.2.2. Other safety characteristics

Information not available

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# **SECTION 10. Stability and reactivity**

#### 10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

#### PORTLAND CEMENT

When mixed with water, cement hardens into a stable mass that does not react with the environment.

#### 10.2. Chemical stability

The product is stable in normal conditions of use and storage.

#### PORTLAND CEMENT

Concrete as it is is stable for longer the more it is stored appropriately (see Section 7) and is compatible with almost all construction materials. It must be kept dry. Contact with incompatible materials must be avoided.

Wet cement is alkaline and incompatible with acids, ammonium salts, aluminum and other non-noble metals.

Cement, in contact with hydrofluoric acid, decomposes producing corrosive silicon tetrafluoride gas.

Cement reacts with water and forms silicates and calcium hydroxide. Silicates react with powerful oxidants such as fluorine, boron trifluoride, chlorine trifluoride, manganese trifluoride and oxygen bifluoride.

The integrity of the packaging and compliance with the storage methods mentioned in Section 7 (special closed containers, cool, dry place and absence of ventilation) are essential conditions for the

maintenance of the effectiveness of the reducing agent in the storage period specified on the DDT or on the individual bag.

#### 10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

#### PORTLAND CEMENT

Cement does not cause dangerous reactions

# NATURAL HYDRAULIC LIME

As a result of the heat or in the event of fire, carbon oxides and vapors can be released which can be harmful to health.

Natural hydraulic lime reacts exothermically with acids to form salts. In the presence of humidity, it reacts in contact with aluminum and brass, leading to the formation of hydrogen:  $Ca(OH)2 + 2 AI + 6 H2O \rightarrow Ca(AI (OH)4)2 + 3 H2$ 

# CALCIUM HYDROXIDE

Develops: carbon oxides.

# 10.4. Conditions to avoid

None in particular. However the usual precautions used for chemical products should be respected.

#### PORTLAND CEMENT

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

### NATURAL HYDRAULIC LIME

Avoid proximity to heat sources.

# 10.5. Incompatible materials

### PORTLAND CEMENT

Wet cement is alkaline and incompatible with acids, ammonium salts, aluminum and other metals not noble.

### NATURAL HYDRAULIC LIME

See point 10.3

#### CARBONATO DI CALCIO

Incompatible with: acids,aluminium,magnesium.

# 10.6. Hazardous decomposition products

# PORTLAND CEMENT

Cement does not decompose into any hazardous products.

# NATURAL HYDRAULIC LIME

See point 5.2

# CARBONATO DI CALCIO

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In decomposition develops: calcium oxides.

# **SECTION 11. Toxicological information**

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

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

#### **ACUTE TOXICITY**

ATE (Inhalation) of the mixture:

ATE (Oral) of the mixture:

Not classified (no significant component)

Not classified (no significant component)

ATE (Dermal) of the mixture:

Not classified (no significant component)

NATURAL HYDRAULIC LIME

LD50 (Oral): > 2000 mg/kg Ratto

**CALCIUM HYDROXIDE** 

LD50 (Dermal): > 2500 mg/kg Coniglio LD50 (Oral): > 2000 mg/kg Ratto

# PORTLAND CEMENT

Acute toxicity - dermal - Limit test on rabbit, 24 hour contact, 2,000 mg/kg body weight - non-lethal. Based on available data, it does not meet the classification criteria.

Acute toxicity - inhalation - No acute inhalation toxicity observed. Based on available data, it does not meet the classification criteria. Acute toxicity - oral - No indications of oral toxicity from studies with cement kiln dust. Based on available data, it does not meet the classification criteria

### SKIN CORROSION / IRRITATION

Causes skin irritation

# PORTLAND CEMENT

Cement in contact with moist skin can cause thickening, cracking and splitting of the skin. Prolonged contact in combination with existing abrasions can cause severe burns.

Some individuals may develop eczema following exposure to moist cement dust, caused by the high pH which can induce irritant contact dermatitis after prolonged contact.

### NATURAL HYDRAULIC LIME

Natural hydraulic lime does not show acute toxicity. Studies for acute dermal or inhalation toxicity with natural hydraulic lime are considered scientifically unjustified. Classification for acute toxicity is not justified. Calcium dihydroxide is irritating to the skin. These results, by analogy with the read across method, are also applicable to hydraulic lime. Based on experimental results on a similar substance used, via the read-across method, natural hydraulic lime requires classification as a skin irritant [Skin Irritation 2 (H315 - Causes skin irritation)].

# SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

### PORTLAND CEMENT

Portland cement clinker caused a mix of heterogeneous effects on the cornea and the calculated irritation index was 128. Direct contact with the cement can cause corneal lesions due to mechanical stress, immediate or delayed irritation or inflammation. Direct contact with large quantities of dry concrete or splashes of wet concrete can cause effects ranging from moderate eye irritation (e.g. conjunctivitis or blepharitis) to chemical burns and blindness.

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#### **SECTION 11. Toxicological information** .../>>

#### NATURAL HYDRAULIC LIME

Calcium hydroxide carries a risk of serious eye damage (eye irritation studies, in vivo, rabbit). By analogy (readacross method) the results are also applicable to natural hydraulic lime. Based on experimental results on a similar substance used (read across method), natural hydraulic lime requires classification as severely irritating to eyes [eye damage 1 (H318 – Causes serious eye damage)].

#### RESPIRATORY OR SKIN SENSITISATION

#### Sensitising for the skin

#### NATURAL HYDRAULIC LIME

There is no data available. Calcium magnesium oxide is not considered a skin sensitizer, based on the nature of the effects (pH change) and the importance of calcium for nutrition.

Furthermore, none of the compounds constituting the other main components or impurities, i.e. calcium carbonate, calcium silicate, clay mineral and calcined, are known to pose any sensitization risk. Classification based on sensitization is not justified.

### Respiratory sensitization

#### PORTLAND CEMENT

There are no indications of sensitization of the respiratory system. Based on available data, it does not meet the classification criteria.

#### Skin sensitization

#### PORTLAND CEMENT

Some individuals may develop eczema following exposure to wet concrete dust, caused by an immunological reaction to water-soluble Cr(VI) that causes allergic contact dermatitis.

The response can appear in a variety of forms that can range from a mild rash to severe dermatitis.

No sensitizing effect is expected if the cement contains a water-soluble Cr(VI) reducing agent until the indicated period of effectiveness of such reducing agent is exceeded

#### **GERM CELL MUTAGENICITY**

Does not meet the classification criteria for this hazard class

# PORTLAND CEMENT

No indication. Based on available data, it does not meet the classification criteria.

# NATURAL HYDRAULIC LIME

Bacterial reverse mutation test (Ca(OH)2 and CaO, Ames test, OECD 471): negative. Mammals: Chromosome aberration test (Ca(OH) 2): negative. These results are applicable to natural hydraulic lime via the read-across method. Hydraulic lime does not contain any major components or impurities known to be genotoxic. The effect on pH produced by hydraulic lime does not give rise to any mutagenic risk. Human epidemiological data show lack of support for any mutagenic potential for natural hydraulic lime. In conclusion, hydraulic lime does not possess any genotoxic potential, including genetic mutations in bacteria. Classification based on mutagenicity is not justified.

### **CARCINOGENICITY**

Does not meet the classification criteria for this hazard class

#### PORTLAND CEMENT

No causal association has been established between exposure to Portland cement and cancer. The epidemiological literature does not support the identification of Portland cement as a suspected human carcinogen. Portland cement is not classifiable as a human carcinogen (according to ACGIH A4: Agents which cause concern about being carcinogenic to humans but which cannot be definitively assessed due to lack of data. In vitro studies or on animals do not provide indications of carcinogenicity that are sufficient to classify the agent with one of the other notations). Based on available data, it does not meet the classification criteria.

#### NATURAL HYDRAULIC LIME

Calcium (administered in the form of Ca lactate) is not carcinogenic (experimental result, rat). The effect on the pH produced by natural hydraulic lime does not give rise to any carcinogenic risk. Epidemiological data obtained on humans confirm that hydraulic lime is devoid of any carcinogenic potential. Classification based on carcinogenicity is not justified.

### REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

# PORTLAND CEMENT

Based on available data, it does not meet the classification criteria.

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### SECTION 11. Toxicological information .../>>

#### NATURAL HYDRAULIC LIME

Calcium (administered in the form of Ca carbonate) is not toxic to reproduction (experimental result, mouse). The effect on pH does not give rise to any reproductive risk. Epidemiological data obtained on humans confirm that natural hydraulic lime is devoid of any potential reproductive toxicity. In both animal studies and human clinical studies conducted on various calcium salts, no effect on reproductive and developmental toxicity was identified. v. also the Scientific Committee for Human Food (section 16.6). Therefore, hydraulic lime is not toxic for reproduction and/or development. Classification according to reproductive toxicity according to Regulation (EC) 1272/2008 is not necessary.

#### STOT - SINGLE EXPOSURE

May cause respiratory irritation

#### PORTLAND CEMENT

Cement dust can irritate the throat and respiratory system. Coughing, sneezing and shortness of breath may occur following exposures above the occupational exposure limits. Overall, the evidence collected clearly indicates that occupational exposure to cement dust has produced deficits in respiratory function. However, the available evidence is currently insufficient to establish with certainty the dose-response relationship for these effects.

#### NATURAL HYDRAULIC LIME

From human data based on calcium oxide and hydroxide it can be deduced, with a read-across method (taking into consideration the worst case), that natural hydraulic lime is irritating to the respiratory tract. As collected and evaluated by SCOEL (Anonymous, 2008), based on human data, natural hydraulic lime is classified as an irritant to the respiratory system via the read-across method for CaO and Ca(OH)2

[STOT SE 3 (H335 - may irritate the respiratory tract)]

#### STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

#### PORTLAND CEMENT

Long-term exposure to respirable cement dust above the occupational exposure limit can lead to coughing, shortness of breath and chronic obstructive changes in the respiratory tract. No chronic effects were observed at low concentrations. Based on available data, the classification criteria are not met.

# NATURAL HYDRAULIC LIME

The toxicity of calcium through the oral exposure route is demonstrated by the increase in the tolerable maximum intake levels (UL) for adults determined by the Scientific Committee on Human Food (SCF), where UL = 2500 mg/day, equal to 36 mg /kg of weight/day (individual weighing 70 kg) for calcium. The toxicity of natural hydraulic lime through contact with the skin is not considered relevant due to the expected insignificant absorption through the skin and the fact that local irritation is the primary health effect (change in pH). The toxicity of natural hydraulic lime by inhalation (local effect, mucosal irritation), taking into account a weighted average time for an 8-hour shift, was determined by the Scientific Committee for Occupational Exposure Limits (SCOEL) on the basis of CaO and of Ca(OH)2 in 1 mg/m³ of respirable dust (read.acorss with CaO and Ca(OH)2 see section 8.1). Therefore, classification of natural hydraulic lime on the basis of toxicity following prolonged exposure is not necessary.

### **ASPIRATION HAZARD**

Does not meet the classification criteria for this hazard class

# PORTLAND CEMENT

Not applicable as cement is not used as an aerosol.

# 11.2. Information on other hazards

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with human health effects under evaluation.

CALCIUM HYDROXIDE

Questa sostanza non ha proprietà di interferenza con il sistema endocrino

# **SECTION 12. Ecological information**

# 12.1. Toxicity

CALCIUM HYDROXIDE LC50 - for Fish EC50 - for Crustacea EC50 - for Algae / Aquatic Plants Chronic NOEC for Crustacea

50,6 mg/l/96h 49,1 mg/l/48h 184,57 mg/l/72h 32 mg/l 14d

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# SECTION 12. Ecological information .../>>

Chronic NOEC for Algae / Aquatic Plants 48 mg/l 72h

NATURAL HYDRAULIC LIME

LC50 - for Fish 506 mg/l/96h Acqua dolce
EC50 - for Crustacea 49,1 mg/l/48h Acqua dolce

Chronic NOEC for Fish 1080 mg/l

Chronic NOEC for Crustacea 32 mg/l Acqua dolce Chronic NOEC for Algae / Aquatic Plants 48 mg/l Acqua dolce

#### 12.2. Persistence and degradability

CALCIUM HYDROXIDE

Solubility in water 1000 - 10000 mg/l

# 12.3. Bioaccumulative potential

Information not available

### 12.4. Mobility in soil

Information not available

### 12.5. Results of PBT and vPvB assessment

#### **CALCIUM HYDROXIDE**

In base ai dati disponibili, il prodotto non contiene sostanze PBT/vPvB in percentuale ≥ a 0.1%

On the basis of available data, the product does not contain any PBT or vPvB in percentage ≥ than 0,1%.

### 12.6. Endocrine disrupting properties

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with environmental effects under evaluation.

# 12.7. Other adverse effects

Information not available

# **SECTION 13. Disposal considerations**

### 13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

# **SECTION 14. Transport information**

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

#### 14.1. UN number or ID number

not applicable

# 14.2. UN proper shipping name

not applicable

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# SECTION 14. Transport information .../>>

# 14.3. Transport hazard class(es)

not applicable

#### 14.4. Packing group

not applicable

#### 14.5. Environmental hazards

not applicable

# 14.6. Special precautions for user

not applicable

#### 14.7. Maritime transport in bulk according to IMO instruments

Information not relevant

# **SECTION 15. Regulatory information**

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

Seveso Category - Directive 2012/18/EU:

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006

None

Contained substance

Point 7:

Regulation (EU) 2019/1148 - on the marketing and use of explosives precursors

not applicable

#### Substances in Candidate List (Art. 59 REACH)

On the basis of available data, the product does not contain any SVHC in percentage ≥ than 0,1%.

Substances subject to authorisation (Annex XIV REACH)

None

Substances subject to exportation reporting pursuant to Regulation (EU) 649/2012:

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None

### Healthcare controls

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

# 15.2. Chemical safety assessment

A chemical safety assessment has not been performed for the preparation/for the substances indicated in section 3.

### **SECTION 16. Other information**

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

**Eye Dam. 1** Serious eye damage, category 1

**Skin Irrit. 2** Skin irritation, category 2

STOT SE 3 Specific target organ toxicity - single exposure, category 3

Skin Sens. 1 Skin sensitization, category 1 H318 Causes serious eye damage.

# **VOLTECO S.p.A**

# **CALNHL - CALIBRO NHL**

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#### SECTION 16. Other information .../>>

H315 Causes skin irritation.

H335 May cause respiratory irritation.H317 May cause an allergic skin reaction.

#### LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- ATE: Acute Toxicity Estimate
- CAS: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE: Identifier in ESIS (European archive of existing substances)
- CLP: Regulation (EC) 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: Regulation (EC) 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA: Time-weighted average exposure limit
- TWA STEL: Short-term exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

# GENERAL BIBLIOGRAPHY

- 1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
- 2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
- 3. Regulation (EU) 2020/878 (II Annex of REACH Regulation)
- 4. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
- 5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
- 6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
- 7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
- 8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
- 9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
- 10. Regulation (EÚ) 2015/1221 (VII Atp. CLP) of the European Parliament
- 11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
- 12. Regulation (EU) 2016/1179 (IX Atp. CLP)
- 13. Regulation (EU) 2017/776 (X Atp. CLP)
- 14. Regulation (EU) 2018/669 (XI Atp. CLP)
- 15. Regulation (EU) 2019/521 (XII Atp. CLP)
- 16. Delegated Regulation (UE) 2018/1480 (XIII Atp. CLP)
- 17. Regulation (EU) 2019/1148
- 18. Delegated Regulation (UE) 2020/217 (XIV Atp. CLP)
- 19. Delegated Regulation (UE) 2020/1182 (XV Atp. CLP)
- 20. Delegated Regulation (UE) 2021/643 (XVI Atp. CLP)
- 21. Delegated Regulation (UE) 2021/849 (XVII Atp. CLP) 22. Delegated Regulation (UE) 2022/692 (XVIII Atp. CLP)
- The Merck Index. 10th Edition
- Handling Chemical Safety
- INRS Fiche Toxicologique (toxicological sheet)
- Patty Industrial Hygiene and Toxicology
- N.I. Sax Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals Ministry of Health and ISS (Istituto Superiore di Sanità) Italy

#### ΕN

# VOLTECO S.p.A CALNHL - CALIBRO NHL

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### SECTION 16. Other information .../>>

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

#### CALCULATION METHODS FOR CLASSIFICATION

Chemical and physical hazards: Product classification derives from criteria established by the CLP Regulation, Annex I, Part 2. The data for evaluation of chemical-physical properties are reported in section 9.

Health hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 3, unless determined otherwise in Section

Environmental hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 4, unless determined otherwise in Section 12.

Changes to previous review: The following sections were modified: 02 / 11 / 12.