



## SAFETY DATA SHEET

*In accordance with Regulation (EU) no. 1907/2006 and the related appendices*

**CRUAS plant**

### NATURAL HYDRAULIC LIME NHL

#### SECTION 1 : Identification of the substance and of the company

##### 1.1 Product identifier

Natural hydraulic lime with hydraulic admixtures, HL, stipulated by standard NF EN 459-1 :2012

Trade name: "Nathural", "Crualys", "Ancestral"

	EINECS	CAS	Reach Registration #
Natural Hydraulic Lime	285-561-1	85117-09-5	01-2119475523-36-0004

##### 1.2 Relevant identified uses of the substance and uses advised against

Uses: Render, colorwash, mortar, injection grout.

Table 1, in annex, gives the overview on exposure scenarios and coverage of substance life cycle.

Any use not specified above is advised against.

##### 1.3 Details of the supplier of the safety data sheet

Company name: LAFARGE CIMENTS

Address: 14-16 Boulevard Garibaldi, 92130 Issy-les-Moulineaux.

Telephone: 01 58 00 60 00

Fax: 01 58 00 60 02

Email: [crc@lafarge.com](mailto:crc@lafarge.com)

##### 1.4 Emergency telephone

European Emergency call number: 112

Contact Poison Center:

- France : ORFILA (INRS): +33 (0)1 45 42 59 59, <http://www.centres-antipoison.net/>
- UK: National Poisons Information Service +44 (0) 344 892 0111 (Health professionals only)
- Ireland National Poisons Information Centre : (01) 809 2566
- Switzerland : • Tox Info Suisse ; <http://www.toxinfo.ch> - Emergency number : 145
- Spain : Poison Information Center: +34 915 620 420.
- Belgium : Poison Information Center : + 32 70 245 245
- Italy :

ROMA CAVp "Osp. Pediatrico Bambino Gesù". +39 06 68593726 - FOGGIA Az. Osp. Univ. Foggia: +39 0881 732326

MILANO Ospedale Niguarda Ca' Granda. Tel: +39 02 66101029 - NAPOLI Ospedale Riuniti Cardarelli. Tel: +39 081 7472870

ROMA Policlinico Agostino Gemelli. Tel: +39 06 3054343 - ROMA Policlinico Umberto I. Tel: +39 06 490663

PAVIA CAV Centro Naz. di Informazione Tossicologica. Tel: +39 0382 24444 BERGAMO Azienda Ospedaliera Papa Giovanni XXII. Tel.: +39

800 883300 - FIRENZE Az. Osp. "Careggi" U.O. Tossicologia Medica. Tel.: 0039 055 7947819 - VERONA Azienda Ospedaliera Integrata. Tel: 800011858

- Sweden : Poisons Information Center:+46 8 33 12 31
- Norway : Poisons Information:+ 47 22 591300
- Denmark : Poison Control Hotline: +45 82 12 12 12
- Germany : Poison Center Information Mainz : +49 6131 19240 ; Berlin : +49 030 30686 790
- Luxembourg : Poison Center Information: (+352) 8002 5500

**NATURAL HYDRAULIC LIME NHL****SECTION 2 : Hazards identification****2.1 Classification of the substance**

Classification according to regulation 1272/2008/EC (CLP) and its annexes

- H315 Causes skin irritation  
Corrosion/Skin irritation – category 2
- H 318 Causes serious eye damage  
Serious eye damage/eye irritation – category 1
- H 335 May cause irritation of the respiratory system  
Specific target organ systemic toxicity – Single exposure, category 3, irritation of the respiratory system

**2.2 Label elements**

Labelling in accordance with CLP regulations

Hazard pictograms:



Signal word:

**Danger**

Hazard statements:

H315: Causes skin irritation

H318: Causes serious eye damage

H335: May cause irritation of the respiratory system

Precautionary statement:

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 center or doctor/physician.

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

P261+P304+P340: Avoid breathing dust. IF INHALED: remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a poison center or doctor/physician if you feel unwell.

P363: Wash contaminated clothing before reuse

P501: Dispose of the contents/packaging in a waste treatment center. Natural hydraulic lime must first be made inert by hardening with water and packaging must be completely emptied.

**2.3 Other hazards**

Not applicable: the substance does not meet the criteria for PBT or vPvB in accordance with Annex XIII of the REACH Regulation.

**NATURAL HYDRAULIC LIME NHL**

No other hazards identified.

**SECTION 3 : Composition/information on ingredients****3.1 Substance**

Natural hydraulic lime: CAS: 85117-09-5; EINECS: 285-561-1, registration number: 01-2119475523-36-0004.

Natural hydraulic lime (NHL) is obtained after combustion (below 1,200°C) of more or less clayey or siliceous natural limestone or chalk, with reduction to powder by extinction, with or without grinding. Natural hydraulic lime has the property of setting and hardening in the presence of water. Carbon dioxide in the air also contributes to the hardening process. Natural hydraulic lime does not contain any additives. The main components are indicated in the table below:

Components	Concentration	EINECS	CAS	
Calcium dihydroxyde	15 - 65%	215-137-3	1305-62-0	
Calcium silicate	10 - 45%	233-107-8	10034-77-2	
Calcium carbonate	10 - 40%	207-439-9	471-34-1	

Impurities: no impurities relevant to classification and labeling.

SCL: Not applicable

M-factor: Not applicable

ATE: Not applicable

**SECTION 4 : First aid measures****4.1 Description of first aid measures**

General advice:

No known delayed effects. Contact a doctor/physician in all cases of severe exposure or if in doubt.

In the event of eye contact:

Do not rub eyes in order to avoid possible cornea damage as a result of mechanical stress.

Remove contact lenses if any. 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. Avoid flushing particles into uninjured eye. If possible, use isotonic water (0.9% NaCl). Contact a specialist of occupational medicine or an eye specialist.

In the event of skin contact:

Remove all traces of product by gently and carefully brushing the affected areas of the body. Rinse the affected area abundantly with running water. Remove contaminated clothing, footwear, etc. and clean thoroughly before re-using them. Seek medical treatment in all cases of irritation or burns.

In the event of inhalation:

Move the person to fresh air. 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.

In the event of 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 or contact the anti-poison center.

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

NHL lime does not have acute toxicity in respect of oral, skin or respiratory exposure.

The substance is classified as irritant for the skin and respiratory ways and presents a risk of serious eyes damage.



<b>SAFETY DATA SHEET</b> <i>In accordance with Regulation (EU) no. 1907/2006 and the related appendices</i>	<b>CRUAS plant</b>
<b>NATURAL HYDRAULIC LIME NHL</b>	

No deadly effects are suspected; the principal danger is restricted to localized effects (pH effect).

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

No immediate medical attention or special treatment is currently indicated. Follow the advice given in Section 4.1  
When contacting a physician, take this SDS with you.

## SECTION 5 : Firefighting measures

### 5.1 Extinguishing media

#### Suitable extinguishing media

Natural hydraulic lime is non-flammable.

Suitable extinguishing media: The product is not combustible. Use a dry powder, foam or CO2 fire extinguisher to extinguish the surrounding fire. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

#### Unsuitable extinguishing media

Do not use water

### 5.2 Special hazards arising from the substance

The product is non-combustible and non-explosive. It poses no special hazard in the event of fire

### 5.3 Advice for firefighters

Avoid dispersion of dust. Use breathing apparatus. Use fire-fighting equipment suitable to the local circumstances and specific environment.  
Do not discharge extinguisher water into the local environment.

**NATURAL HYDRAULIC LIME NHL****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 personnel

Emergency procedures are not required.

However, respiratory protection is needed in situations with high dust levels.

**6.2 Environmental precautions**

Collect the spillage. Maintain the material in a dry state if possible. If possible, cover the area to prevent any unnecessary hazard caused by dust. Do not wash uncontrolled residues into groundwater networks or down drainage systems (increases pH). Any significant spillage into groundwater networks must be notified to the Environment Agency or any other competent body.

**6.3 Methods and material for containment and cleaning up**

Collect the product and place in a suitably labeled emergency container.

Prevent or limit the formation and spreading of dust.

Maintain the material in a dry state if possible.

Collect the product mechanically, in a dry state. Use cleanup methods which do not cause airborne dispersion of the product, such as vacuum clean-up or vacuum extraction (portable industrial systems equipped with high-efficiency air filters - EPA and HEPA - according to standard NF EN 1822-1:2010 - or equivalent technique). Never use compressed air.

**6.4 Reference to other sections**

See Sections 8 and 13 for more details on exposure controls/personal protection and disposal considerations.

**SECTION 7 : Handling and storage****7.1 Precautions for safe handling**7.1.1. Protective measures

Avoid contact with skin, eyes and mucous membranes. Wear appropriate protective equipment (refer to section 8 of this Safety Data Sheet).

Do not wear contact lenses when handling this product. It is also advisable to have individual pocket eyewash.

Avoid the formation and spreading of dust. Close sources of dust and use extraction fans (dust collector at handling points). Also include transportation systems.

Comply with Directive 90/269/CEE when handling bags of natural hydraulic lime.

7.1.2. Advice on general occupational hygiene

Avoid inhalation, ingestion, as well as contact with your skin and eyes.

Barrier creams may be used.

Wash your hands after any handling.

General occupational hygiene measures are required to ensure a safe handling of the substance. These measures involve good personal and housekeeping practices, regular cleaning of the workplace, no eating, drinking or smoking in the workplace.

Shower and change clothes at the end of work. Do not wear contaminated clothes at home.

Separate work clothes from street clothes. Clean them separately.

<b>SAFETY DATA SHEET</b> <i>In accordance with Regulation (EU) no. 1907/2006 and the related appendices</i>	<b>CRUAS plant</b>
<b>NATURAL HYDRAULIC LIME NHL</b>	

## 7.2 Conditions for safe storage, including any incompatibilities

### Conditions for safe storage:

Keep out of reach of children.  
Store in a dry place.

Do not use aluminum for transportation and storage if there is a risk of contact with water.

Bulk storage must be in dedicated silos.

### Incompatible materials:

Strong acids and nitrogen compounds.

Organic materials.

Avoid contact with the air and humidity.

## 7.3 Specific end use(s)

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

# SECTION 8 : Exposure controls/personal protection

## 8.1 Control parameters

### 8.1.1. DNEL and PNEC

DNEL inhalation (8hr), cement: 3 mg/m<sup>3</sup> (respirable dust).

Recommendations of the scientific committee on occupational exposure limits (SCOEL [reference 8]):

- Acute effects: DNEL: 4 mg/m<sup>3</sup> (respirable dust),
- Long-term effects: DNEL: 1 mg/m<sup>3</sup> (respirable dust).

Calcium dihydroxide (CAS 1305-62-0):

- PNEC Aquatic environment: 490 µg/l
- PNEC Sun/groundwater: 1080 mg/l

### 8.1.2. Limit values for occupational exposure

France:

	Type of limit value	VME	Unit	Legal base
Natural hydraulic lime	VLEP	3.5	mg/m <sup>3</sup>	Article R.4222-10 of the French Labor Code
Dust deemed to have no specific effect	VLEP Total dust	7	mg/m <sup>3</sup>	Article R.4222-10 of the French Labor Code
Dust deemed to have no specific effect	VLEP Respirable dust	3.5	mg/m <sup>3</sup>	Article R.4222-10 of the French Labor Code

## 8.2 Exposure controls

To control potential risks, generation of dust must be avoided. Appropriate protective equipment must be worn. Eye protection (e.g. goggles or visors) are required, unless all contact with eyes can be ruled out due to the nature and type of application (closed process). Where relevant, face protection, protective clothing and safety boots must be worn.

<b>SAFETY DATA SHEET</b> <i>In accordance with Regulation (EU) no. 1907/2006 and the related appendices</i>	<b>CRUAS plant</b>
<b>NATURAL HYDRAULIC LIME NHL</b>	

### 8.2.1. Appropriate technical controls

If use of the product generates dust, use closed premises, local ventilation or other technical measures to maintain airborne dust levels below recommended exposure limits.

See table in paragraph 8.2.2.3 setting out the operational conditions to adhere to according to process categories.

### 8.2.2. Individual protection measures, such as personal protective equipment

#### 8.2.2.1 Eye/face protection

Do not wear contact lenses.

Wear thick goggles fitted with side shields or wide vision goggles. It is also advisable to have individual pocket eyewash.

#### 8.2.2.2 Skin protection

Since natural hydraulic lime is classified as a skin irritant, skin exposure should be kept to a minimum whenever technically possible.

Wear protective gloves made out of nitrile rubber (break-up time (min) > 480). Gloves used must comply with directive 89/686/EEC and corresponding standard NF EN 374.

Use clothing fully covering skin (full length pants, long sleeved overalls, clothing with close fittings at openings) and footwear resistant to caustic products.

#### 8.2.2.3 Respiratory protection

When a person is potentially exposed to dust levels above Exposure Limits (see 8.1), use appropriate respiratory protection. The type of respiratory protection should be adapted to the dust level and conform to the relevant European standards. (NF EN 143, NF EN 149, NF EN 140 and NF EN 14387, NF EN 1827)

Depending on process categories, the following operational conditions and measures must be complied with:

Use	PROC(3)	Exposure	Respiratory protection required	Effectiveness of respiratory protection - Assigned protection factor	Localized controls	Effectiveness
Manufacturing and Industrial uses of dry hydraulic building materials	1	no restriction	not required	not required	not required	not required
	2, 3	no restriction	not required	not required	general ventilation	17%
	5, 8b, 9,	no restriction	FFP2 mask	FPA = 10	localized vacuum extraction system	78%
	8a	<=240 min	FFP2 mask	FPA = 10	localized vacuum extraction system	78%
	4	no restriction	FFP1 mask	FPA = 4	localized vacuum extraction system	78%
	19	<=240 min	FFP3 mask	FPA = 20	not required	not required
Manufacturing and industrial uses of dry hydraulic building materials in suspension	2, 3	no restriction	not required	not required	general ventilation	17%
	5, 8b, 9	no restriction	FFP2 mask	FPA = 10	generic vacuum localized extraction system	78%
	1, 4, 8a, 19	no restriction	not required	not required	generic vacuum localized extraction system	78%
Professional uses of dry hydraulic building materials	5, 4, 8a, 8b	<=240 min	FFP2 mask	FPA = 10	generic vacuum localized extraction system	72%
	9	<=240 min	FFP1 mask	FPA = 4	generic vacuum localized extraction system	72%
	19	<=240 min	FFP3 mask	FPA = 20	not required	not required
	1, 2, 3	no restriction	FFP2 mask	FPA = 10	not required	not required
Professional uses of hydraulic building materials in suspension	1, 2, 3, 4, 5, 8a, 8b, 9, 19	no restriction	not required	not required	not required	not required

**NATURAL HYDRAULIC LIME NHL**

(3) PROC: Categories of processes (uses) defined in sub-section 1.2.

#### 8.2.2.4 Thermal hazards

The product does not pose any thermal hazard.

#### 8.2.3. Appropriate environmental exposure control

Air from dust extraction or ventilation systems must be filtered before being discharged into the atmosphere.

Collect the discharge. Any significant discharge into bodies of water must be notified to the regulatory authority responsible for environmental protection.

## SECTION 9 : Physical and chemical properties

### 9.1 Information regarding essential physical and chemical properties

Appearance	: Physical state: Powder
Average size of particles	: 20-30%: < 5 µm
Color	: white or gray
Odor	: none
Odor threshold	: None
pH	: 12-13
Melting point/ freezing point	: Melting point > 1000°C
Initial boiling point and boiling range	: Not applicable
Flash point	: Not applicable (non-flammable solid)
Evaporation rate	: Not applicable (non-flammable solid)
Flammability (solid, gas)	: Not applicable (non-flammable solid)
Upper/lower flammability or explosive limits	: Not applicable (non-flammable solid)
Vapor pressure	: Not applicable (non-flammable solid)
Vapor density	: Not applicable (non-flammable solid)
Bulk specific density	: 0.5 – 0.9 g/cm <sup>3</sup> at 20°C
True specific density	: 2.4 – 2.8 g/cm <sup>3</sup> at 20°C
Relative density	: 2.6
Solubility	: in water: 1.5 g/l at 20°C
Partition coefficient: (n-octanol/water)	: Not applicable
Auto-ignition temperature	: Not applicable (non-flammable solid)
Decomposition temperature	: Not available
Viscosity	: Not applicable (mineral solid)
Explosive properties	: Not applicable (non-flammable solid)
Oxidizing properties	: Not applicable (non-oxidizing substance)

### 9.2 Other information

No data relating to the miscibility or fat solubility (oil solvency) of the substance is available.

## SECTION 10 : Stability and reactivity

### 10.1 Reactivity

No data is available for the substance.

### 10.2 Chemical stability

The product is stable at ambient temperature and under normal conditions of use and storage.

### 10.3 Possibility of hazardous reactions

No data is available for the substance.

### 10.4 Conditions to avoid

Minimize exposure to air and humidity to avoid deterioration.

### 10.5 Incompatible materials

Natural hydraulic lime reacts exothermically with acids to form salts.



**NATURAL HYDRAULIC LIME NHL**

In the presence of humidity, natural hydraulic lime reacts with aluminum and brass to produce hydrogen, according to the reaction:  
$$\text{Ca(OH)}_2 + 2\text{Al} + 6\text{H}_2\text{O} \rightarrow \text{Ca[Al(OH)}_4\text{]}_2 + 3\text{H}_2$$

**10.6 Hazardous decomposition products**

There is no hazardous decomposition product to our knowledge.

Additional information: Calcium dihydroxide reacts with carbon dioxide to form calcium carbonate, which is a common material in nature.

**SECTION 11 : Toxicological information****11.1 Acute toxicity:**

No acute toxicity was observed for natural hydraulic lime. An acute skin toxicity study or an inhalation toxicity study for natural hydraulic lime is considered scientifically unjustified.

11.1.1. Oral:

DL50 (rat) > 2000 mg/kg (OCDE 425, test substance Ca(OH)<sub>2</sub>, rat). By cross-referencing, this data is also applicable to natural hydraulic lime.

11.1.2. Skin:

No data available.

11.1.3. Inhalation:

No data available.

"Acute toxicity" classification criteria justifying classification are not met.

See below for irritating effects on respiratory system.

**11.2 Skin corrosion/irritation:**

Calcium Dihydroxide is irritant for the skin. By cross-referencing, this result is applicable to NHLs. On the basis of experimental tests on similar substances the NHLs are classified as irritant for the skin [skin Corrosion/Irritation, category 2 (H315- Cause skin irritation)].

**11.3 Serious eye damage/eye irritation:**

Calcium Dihydroxide has a risk of causing serious eyes damage (live studies in vivo, rabbit). By cross reference these results are applicable to NHLs.

On the basis of experimental tests on similar substances the NHLs are classified as severe irritants for the eyes [serious eyes damage/irritation category 1 (H318 – Causes serious eye damage)].

**11.4 Skin or respiratory sensitivity:**

No data available. Natural hydraulic lime is considered not to be a skin sensitizer, based on the nature of the effect (pH shift) and the essential requirement of calcium for human nutrition. Furthermore, none of the compounds making up the other main constituents or impurities, i.e. calcium carbonate, calcium silicate, and calcined clay minerals, are known to entail any sensitization potential. Classification for sensitization is not warranted.

**11.5 Germ cell mutagenicity:**

Bacterial assay for gene mutation (Ca(OH)<sub>2</sub> and CaO, Ames tests, OCDE 471): negative.

Mammal chromosome aberration test (Ca(OH)<sub>2</sub>): negative.

By cross-referencing, these results are applicable to natural hydraulic lime.

No constituents of natural hydraulic lime or cement are known to be genotoxic.

The pH effect of natural hydraulic lime does not present a mutagenic risk.

There is a complete lack of epidemiological data to show the mutagenic potential of natural hydraulic lime.

The classification "genotoxic" is not justifiable.

**11.6 Carcinogenicity:**

Calcium (administered as Ca-lactate) is not carcinogenic (experimental result rat).

The pH effect does not present a carcinogenic risk.

There is a complete lack of epidemiological data to show the carcinogenic potential of natural hydraulic lime

**NATURAL HYDRAULIC LIME NHL**

The classification "carcinogenic" is not justifiable.

**11.7 Reproductive toxicity:**

Calcium (administered as Ca-carbonate) is not toxic to reproduction (experimental studies on mice).

The pH effect does not present a risk to reproduction. A lack of epidemiological data remains in terms of reproductive toxicity of natural hydraulic lime. Clinical studies on humans and animals [2] with different calcium slats have not shown any effect on reproduction or development.

Natural hydraulic lime is not toxic for reproduction or development.

The classification "toxic to reproduction" conforming to Regulation (CE) 1272/2008 is not justifiable.

**11.8 Specific target organ toxicity – single exposure:**

From human data on calcium oxide and calcium dihydroxide, it is concluded by cross-referencing that natural hydraulic lime may cause irritation to the respiratory system

Based on data for humans (according to SCOEL recommendations) and by cross-referencing based on similar substances CaO and Ca(OH)<sub>2</sub>, natural hydraulic lime is classed as an irritant to the respiratory system. [Specific target organ toxicity – Single exposure, category (H335 – May cause irritation to the respiratory system)].

**11.9 Specific target organ toxicity – repeated exposure:**

The toxicity of Calcium ingested is specified by the maximum tolerable limit (UL) for adults: UL = 2500 mg of Ca per day for adults over their lifetime corresponding to 36 mg of Ca per kg of bodyweight for an adult weighing 70kg (Data from CSAH: Comité scientifique de l'Alimentation Humaine).

The toxicity of natural hydraulic lime by skin absorption is not considered pertinent due to its insignificant absorption and the primary effect of local irritation (modification of pH).

The toxicity of natural hydraulic lime due to inhalation (localized effects, mucous irritation ) due to the CaO and the Ca(OH)<sub>2</sub> is determined by SCOEL as follows: DNEL = 1 mg/m<sup>3</sup> breathable dust (see section 8.1) and VLEP (8 hrs) = 1 mg/m<sup>3</sup>.

The classification "toxic after repeated exposure" is not justifiable.

**11.10 Ingestion hazard:**

If large amounts are swallowed: burns to the mouth, the esophagus, the digestive tract, nausea and vomiting.

**11.11 Information on other hazards**

- 11.2.1 Endocrine disrupting properties  
Not applicable

**SECTION 12 : Ecological information****12.1 Toxicity**

In water environment and in the soil, exposure to NHLs means exposure to Calcium and hydroxide ions.

Acute/chronic toxicity to fish

LC50 (96h) for fresh water fish: 50.6 mg/l

LC50 (96h) for salt water fish: 457 mg/l

Acute/chronic toxicity to aquatic invertebrates

EC50 (48h) for fresh water invertebrates: 49.1 mg/l

LC50 (96h) for salt water invertebrates: 158 mg/l

Acute/chronic toxicity to aquatic plants

EC50 (72h) for fresh water seaweed: 184.57 mg/l

NOEC (72h) for fresh water seaweed: 48 mg/l



## SAFETY DATA SHEET

*In accordance with Regulation (EU) no. 1907/2006 and the related appendices*

**CRUAS plant**

### NATURAL HYDRAULIC LIME NHL

#### Toxicity to micro-organisms such as bacteria

In high concentration because of increases in temperature and pH, calcium oxide is used for the disinfection of sewage sludges.

#### Chronic toxicity to aquatic organisms

NOEC (14d) for salt water invertebrates: 32 mg/l

#### Toxicity to organisms in the soil

EC10/LC10 or NOEC for macro organisms in the soil: 2000 mg/kg of dry soil

EC10/LC10 or NOEC for micro organisms in the soil: 12000 mg/kg of dry soil

#### Toxicity to terrestrial flora

NOEC (21d) terrestrial plants: 1080 mg/kg

#### **12.2 Persistence and degradability**

Not relevant (inorganic substance).

#### **12.3 Potential bio-accumulation**

Not relevant (inorganic substance).

#### **12.4 Mobility in soil**

Not relevant (inorganic substance).

#### **12.5 Results of PBT and vPvB evaluations**

Not relevant (inorganic substance).

#### **12.6 Endocrine disrupting properties**

Not relevant.

#### **12.7 Other adverse effects**

Not applicable.

### **SECTION 13 : Disposal considerations**

#### **13.1 Waste treatment methods**

Dispose of unused bags and contents in accordance with applicable local and national legislation.

Bags are exclusively for containing the product and must not be utilized for any other use.

Dispose of the contents/packaging in a waste treatment center. Natural hydraulic lime must first be made inert by hardening with water and packaging must be completely emptied.

### **SECTION 14 : Transport information**

The product is not classified as hazardous by the international transport regulations ADR/RID (road), OMI/IMDG (sea) and OACI/IATA (air).

#### **14.1 United Nations Number**

Not regulated.

#### **14.2 United Nations Shipping name**

Not regulated.

#### **14.3 Transport hazards class(es)**

Not regulated.

#### **14.4 Packing group**

Not regulated.



## SAFETY DATA SHEET

*In accordance with Regulation (EU) no. 1907/2006 and the related appendices*

**CRUAS plant**

### NATURAL HYDRAULIC LIME NHL

#### 14.5 Environmental hazards

Not regulated.

#### 14.6 Special precautions for user

Avoid any external discharge of dust during transport.

#### 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not regulated.

## SECTION 15 : Regulatory information

### 15.1 Specific safety, health and environmental regulations/legislation for the substance or substance

Natural hydraulic lime is a substance in accordance with the REACH. As such it is not subject to registration.

Authorizations : Not required

Use restrictions : None

Other EU regulations : Natural hydraulic lime is not:  
- a SEVESO substance,  
- an ozone layer depleting substance,  
- a persistent organic pollutant

National regulations (France): Labor Code: Articles L4411-1 et seq.

### 15.2 Chemical safety assessment

No chemical safety assessment has been carried out.

## SECTION 16 : Other information

All data is based on our current knowledge but does not constitute a guarantee for the properties of the product and does not form a contractual relationship.

Hazard and precautionary statements and risk phrases are set out in section 2.

### 16.1 Reasons for revision

April 2023: Updating commercial name : Ancestral

Replaces the version dated January 2023.

**NATURAL HYDRAULIC LIME NHL**
**16.2 Abbreviations and acronyms**

ACGIH	American Conference of Governmental Industrial Hygienists
ADR/RID	European Agreements on the transport of Dangerous goods by Road/Railway
APR	Respiratory protection apparatus ( <i>Appareil de Protection Respiratoire</i> )
CAS	Chemical Abstracts Service
CLP	Classification, labelling and packaging (Regulation (EC) No 1272/2008)
COPD	Chronic Obstructive Pulmonary Disease
CAS	Chemical Abstracts Service
C&E	Classification and Labeling ( <i>Classification &amp; Etiquetage</i> )
CED	European Waste Catalogue ( <i>Catalogue Européen des Déchets</i> )
LD50	Lethal dose: 50% of animals tested die
DNEL	Derived No-Effect Level
EC50	Effective Concentration at 50% (concentration of pollutant at which 50% of organisms exposed to tests present the tested effect, or concentration producing a maximum response among 50% of the population tested for a given exposure period)
EINECS	European INventory of Existing Commercial chemical Substances
SDS	Safety Data Sheet
EPA	Efficient Particulate Air filter
FFP	Filtering Facepiece Particles (filtration class P1 to P3)
FFP	Filtering Mask against Particles (filtration class P1 to P3)
APF	Assigned Protection Factor
ATE	Acute toxicity estimate
BOELV	Binding Occupational Exposure Limit Value
HEPA	High Efficiency Particulate Air filter
H&S	Health and Safety
IATA	International Air Transport Association
IMDG	International agreement on the Maritime transport of Dangerous Goods
LC50	Lethal Concentration: 50% of animals tested die.
LEP	Limit value for occupational exposure (Limite d'Exposition Professionnelle)
m/m	mass/mass
M-Factor:	Multiplying factor
MEASE	Metals Estimation and Assessment of Substance Exposure, EBRC Consulting GmbH for Eurometaux. <a href="http://www.ebrc.de/ebrc/ebrc-mease.php">http://www.ebrc.de/ebrc/ebrc-mease.php</a> (Method for assessing risks of exposure to substances developed for metals)
OELV	Occupational Exposure Limit Value
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
PROC	PROcess Category (uses)
RCS	Respirable Crystalline Silica
ES	Exposure Scenario
STOT	Specific Target Organ Toxicity
RE:	Repeated Exposure
REACH	Registration, Evaluation and Authorisation of Chemicals
SCL	Specific concentration limits
SE	Single Exposure
TWA	Time Weighted Average
UFI	Unique Formula Identifier
vPvB :	very Persistent, very Bioaccumulative : très persistant, très bioaccumulable

**16.3 Principal bibliography and Sources:**

INRS	French National research and Safety Institute ( <i>Institut National de Recherche et de Sécurité</i> )
ECB	European Chemicals Bureau
ECHA	European CHemicals Agency
IUCLID	(International Uniform Chemical Information data Base)
RTECS	(Registry of Toxic effects of Chemical Substances)
OCDE 425,	substance tested Ca(OH) <sub>2</sub> , rat.
SCOEL :	2, 2008 Recommendation from the Scientific Committee on Occupational Exposure Limits (SCOEL) for calcium oxide (CaO) and calcium dihydroxide (Ca(OH) <sub>2</sub> ), European Commission, DG Employment, Social Affairs and Equal Opportunities, SCOEL/SUM/137 February 2008
Anonymous,	2006: Tolerable upper intake levels for vitamins and minerals Scientific Committee on Food, European Food Safety Authority, ISBN: 92-9199-014-0 [SCF document]



<b>SAFETY DATA SHEET</b> <i>In accordance with Regulation (EU) no. 1907/2006 and the related appendices</i>	<b>CRUAS plant</b>
<b>NATURAL HYDRAULIC LIME NHL</b>	

**16.4 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.

**16.5 Further information**

See Annex for the Exposure Scenario.

**16.6 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.

