



Graphenstone®
Biosphere Premium

SECTION 1: IDENTIFICATION OF THE MIXTURE AND OF PARTNERSHIP OF THE COMPANY

- 1.1 Product identifier:** Biosphere Premium
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**
Relevant use: Architectural paint
Uses advised against: All uses not specified in this section or in section 7.3
- 1.3 Details of the supplier of the safety data sheet:**
Industria Española para el Desarrollo e Investigación 2100, S.A. (IEDISA)
c/ Carpintero, 25 41520 El Viso del Alcor - Sevilla - SPAIN
Tel.: +34 955 292 068 / +34 693 026 242
Email: info@graphenstone.com
Web: <http://www.graphenstone.com>
- 1.4 Emergency telephone number:** +34 693 026 242

SECTION 2: HAZARDS IDENTIFICATION

- 2.1 Classification of the substance or mixture: CLP Regulation (EC) n° 1272/ 2008:**
Classification of this product has been carried out in accordance with CLP Regulation (EC) n° 1272/ 2008.
Eye Dam. 1: Serious eye damage, Category 1, H318
Skin Irrit. 2: Skin irritation, Category 2, H315
- 2.2 Label elements:**
CLP Regulation (EC) n° 1272/ 2008:
DANGER

Hazard statements:
Eye Dam. 1: H318 Serious eye damage
Skin Irrit. 2: H315 Causes skin irritation.
Precautionary statements:
P101: If medical advice is needed, have product container or label at hand
P102: Keep out of reach of children
P264: Wash thoroughly after handling
P280: Wear protective gloves/ protective clothing/ eye protection/ face protection
P302+P352: IF ON SKIN: Wash with plenty of soap and water.
P305+P351+P338: IN CASE OF CONTACT WITH EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P332+P313: If skin irritation occurs: get medical advice/attention.
P501: Dispose of contents and / or their container according to the separated collection system used in your municipality.
Substances that contribute to the classification:
Calcium dihydroxide
- 2.3 Other hazards:**
Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

- 3.1 Substance:**
Non-applicable
- 3.2 Mixture:**
Chemical description: Mineral based mixture.
Components: In accordance with Annex II OF Regulation (EC) n° 1907/2006 (point 3), the product contains:

Identification	Chemical name / classification		Concentration
CAS: 1305-62-0 EC: 215-137-3 Index: Non-applicable REACH: 01-2119475151-45-XXXX	Calcium dihydroxide	Self-classified	10 - < 25 %
	Regulation 1272/2008	Eye Dam. 1: H318; Skin Irrit. 2: H315; STOT SE 3: H335 – DANGER	



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Biosphere Premium

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures:

Symptoms as a result of intoxication can occur after exposure, so in case of doubt, direct exposure to the chemical or persistence of discomfort request medical attention, showing the SDS of this product.

By inhalation: This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact: Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burn or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact: Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close eyes. In case the accident victim wears contact lenses, they should be removed as long as they are not attached to the eyes, otherwise there could be additional damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/ aspiration: Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and its inhalation, to the respiratory system. In the event that vomiting occurs, keep head tilted forward to avoid aspiration. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administer anything orally unless supervised by a doctor. Keep the person affected at rest.

4.2 Main symptoms and effects, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

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

Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Extinguishing media:

Product is non-flammable under normal conditions of storage, manipulation and use. In case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), according to the regulation of fire protection installations (R.D. 1942/1993 and subsequent modifications). IT IS NOT RECOMMENDED to use tap water as an extinguishing agent

5.2 Special hazards arising from the substance or mixture:

Due to its flammability characteristics, the product presents no risk of fire under normal conditions of storage, handling and use.

5.3 Advice for firefighters:

Depending on the magnitude of the fire it may be necessary to wear full protective clothing and self-contained breathing apparatus. Have a minimum of emergency facilities or performance elements (fire blankets, portable first aid kit ...) according to R.D.486 / 1997 and subsequent modifications

Additional provisions:

Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

Isolate leakage as long as it does not pose an additional risk to people who perform this function. In the event of potential exposure with the spilled product, the use of personal protection elements is mandatory. (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Precautions relating to environment:

This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 Methods and material for containment and cleaning:



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Biosphere Premium

It is recommended: absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:

A.- General precautions

Comply with the current legislation concerning the prevention of industrial risks. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions.

Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks.

For exposure control consult section 8. Do not eat, drink or smoke in the work areas; Wash your hands after each use and remove contaminated clothing and protective equipment before entering the eating areas.

D.- Technical recommendations to prevent environmental risks.

It is recommended to have absorbent material available at close proximity to the product (See section 6.3)

7.2 Conditions for safe storage, including any incompatibilities:

A.- Technical measures for storage

ITC (R.D.379/2001): MI E-APQ-6

Classification b)

Minimum Temp: 5 °C

Maximum Temp: 30 °C

Maximum Time: 12 months

B.- General conditions for storage.

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see section 10.5

7.3 Specific end users:

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

Substances whose occupational exposure limit values are to be controlled in the work environment (I NSHT 2017):

Identification	Environmental limits	
Calcium dihydroxide CAS: 1305-62-0 EC: 215-137-3	VLA-ED	5 mg/m ³
	VLA-EC	
	YEAR	2016

DNEL (Workers):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Calcium dihydroxide CAS: 1305-62-0 EC: 215-137-3	Oral	Not relevant	Not relevant	Not relevant	Not relevant
	Dermal	Not relevant	Not relevant	Not relevant	Not relevant
	Inhalation	Not relevant	4 mg/m ³	Not relevant	1 mg/m ³

DNEL (Population):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Calcium dihydroxide CAS: 1305-62-0 EC: 215-137-3	Oral	Not relevant	Not relevant	Not relevant	Not relevant
	Dermal	Not relevant	Not relevant	Not relevant	Not relevant
	Inhalation	Not relevant	4 mg/m ³	Not relevant	1 mg/m ³

PNEC:



**Graphenstone®
Biosphere Premium**

Identification				
Calcium dihydroxide CAS: 1305-62-0 EC: 215-137-3	STP	3 mg/l	Fresh water	0.49 mg/l
	Soil	1080 mg/kg	Marine water	0.32 mg/l
	Intermittent	0.49 mg/l	Sediment (Fresh water)	Not relevant
	Oral	Not relevant	Sediment (Marine water)	Not relevant

8.2 Exposure controls:

A.- General security and hygiene measures in the work place

As a preventive measure, the use of basic personal protective equipment is recommended, with the corresponding "CE marking" according to R.D.1407 / 1992 and subsequent modifications. For more information on personal protection equipment (storage, use, cleaning, maintenance, protection class...) consult the information leaflet provided by the EPI manufacturer. The indications contained in this point refer to the pure product. The protection measures for the diluted product may vary depending on its degree of dilution, use, method of application, etc. To determine the obligation to install emergency showers and/or eyewash in the warehouses will be taken into account the regulations regarding the storage of chemical products applicable in each case. For more information see section 7.1 and 7.2.

All information contained herein is a recommendation which needs some specification from the labour risk prevention services as it is not known whether the company has additional measures at its disposal.

B.- Respiratory protection

Pictogram	PPE	Labeling	CEN Standard	Remarks
 Mandatory respiratory protection	Self-filtering mask for gases and vapors	 CAT III	EN 405:2001+A1:2009	Replace when odor or taste of contaminant is detected inside the face mask or adapter. When the contaminant does not have good warning properties, the use of insulating equipment is recommended.

C.- Specific protection of hands.

Pictogram	PPE	Labeling	CEN Standard	Remarks
 Mandatory hand protection	NON-disposable chemical protective gloves	 CAT III	EN 374-1:2003 EN 374-3:2003/AC:2006 EN 420: 2003+A1:2009	The Breakthrough Time indicated by the manufacturer must exceed the period during which the product is being used. Do not use protective creams after the product has come into contact with skin.

Since the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and therefore to be checked prior to the application.

D.- Ocular and facial protection

Pictogram	PPE	Labeling	CEN Standard	Remarks
 Mandatory face protection	Face mask	 CAT II	EN 166:2001 EN 167:2001 EN 168:2001 EN I SO 4007:2012	Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing.

E.- Corporal protection

Pictogram	PPE	Labeling	CEN Standard	Remarks
 Mandatory body protection	Garment of protection against chemical risks	 CAT III	EN 13034:2005+ A1:2009 EN 168:2001 EN I SO 13982-1:2004/ A1:2010 EN I SO 6529:2001 EN I SO 6530:2005 EN 464:1994	Exclusive use at work. Clean periodically according to the manufacturer's instructions.
 Mandatory foot protection	Safety footwear for protection against chemical risk	 CAT III	EN ISO 20345:2011 EN 13832-1:2006	Replace boots at any sign of deterioration.

F.- Additional emergency measures

Emergency measure	Standards	Marked	Standards
 Emergency shower	ANSI Z358-1 ISO 3864-1: 2002	 Eyewash stations	DIN 12 899 ISO 3864-1:2002

Environmental exposure controls:

Under Community legislation for the protection of the environment, it is recommended to avoid spilling both the product and its packaging into the environment. For additional information see section 7.1.D



**Graphenstone®
Biosphere Premium**

Volatile organic compounds:

In application of R.D.117 / 2003 and subsequent modification (Directive 2010/75 / EU), this product has the following characteristics:

V.O.C. (Supply): 0% by weight
V.O.C. density at 20°C: 0.01

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

To complete the information, see the technical sheet/ product specification sheet

Physical appearance:

Appearance: Dense liquid
Odor: Undetermined

Volatility:

Boiling point at atmospheric pressure: 100 °C
Vapour pressure at 20 °C: 2350 Pa
Vapour pressure at 50 °C: 12381 Pa (12 kPa)
Evaporation rate at 20 °C: Not relevant*

Product description:

Density at 20 °C: 1370kg/m³
Relative density at 20 °C: 1,37
Dynamic viscosity at 20 °C: 800 cP
pH: 12.5
Vapour density at 20 °C: Not relevant*
Partition coefficient n-octanol/water at 20 °C: Not relevant*
Solubility in water at 20 °C: Not relevant*
Solubility properties: Not relevant*
Explosive properties: Not relevant*
Oxidizing properties: Not relevant*
Flammability:
Flashpoint: Non-inflammable (>60 °C)
Flammability (solid, gas): Not relevant*

**Not relevant due to the nature of the product, not providing information property of its hazards.*

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

Hazardous reactions are not expected if the technical instructions for the storage of chemical products are met. See section 7.

10.2 Chemical stability:

Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressures are not expected.

10.4 Conditions to avoid:

Applicable for handling and storage at room temperature:

Shock and friction	Contact with air	Increase in temperature	Sunlight	Humidity
Not applicable	Avoid direct impact	Avoid direct impact	Avoid direct impact	Avoid direct impact

10.5 Incompatible materials:

Acids	Water	Combustive materials	Combustible materials	Others
Can react violently	Not applicable	Precaution	Not applicable	Avoid alkalis or strong bases

10.6 Hazardous decomposition products:

See section 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO₂), carbon monoxide and other organic compounds.



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SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:

The experimental information related to the toxicological properties of the product itself is not available

Dangerous effects for health:

In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A.- Ingestion (acute effect):

- Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: Corrosive product, its ingestion causes burns destroying tissues throughout its thickness. For more information on side effects from skin contact see section 2.

B- Inhalation (acute effect):

- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: In case of prolonged inhalation the product is destructive to the tissues of the mucous membranes and the upper airways.

C- Contact with the skin and the eyes (acute effect):

- Contact with the skin: Mainly contact with the skin destroys the tissues throughout its thickness, causing burns. For more information on side effects from skin contact see section 2.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, not presenting substances classified as dangerous with sensitizing effects above the limits set out in point 3.2 of Regulation (EC) 2015/ 830. For more information see section 2, 3 and 15.
- Cutaneous: Prolonged skin contact can lead to episodes of allergic contact dermatitis.

F- Specific target organ toxicity (STOT) - single exposure:

- Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

- Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Additional information:

Non-applicable

Specific toxicology information on the substances:

Identification	Acute toxicity		Species
	LD50 oral	LD50 dermal	
Calcium dihydroxide	7340 mg/kg	Non-applicable	Rat
CAS: 1305-62-0	Non-applicable	Non-applicable	
EC: 215-137-3	Non-applicable	Non-applicable	

SECTION 12: ECOLOGICAL INFORMATION

The Experimental information related to the eco-toxicological properties of the product itself is not available:

12.1 Toxicity:

Identification	Acute toxicity		Species	Genus
	LC50	EC50		
Calcium dihydroxide	160 mg/l (96 h)	Non-applicable	Gambusia affinis	Fish
CAS: 1305-62-0	Non-applicable	Non-applicable		
EC: 215-137-3	Non-applicable	Non-applicable		



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Biosphere Premium**

12.2 Persistence and degradability:
Not available

12.3 Bio-accumulative potential:
Undetermined

12.4 Mobility in soil:
Undetermined

12.5 Results of PBT and vPvB assessment:
Non-applicable

12.6 Other adverse effects:
Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:

Code	Description	Waste class (Regulation (EU) No 1357/ 2014)
1709 04	Mixed construction and demolition wastes other than those specified in codes 17 09 01, 17 09 02 and 17 09 03	No dangerous

Type of waste (Regulation (EU) n° 1357/ 2014):
Non-applicable

Waste management (disposal and evaluation)

Consult the authorized waste service manager on assessment and disposal operations in accordance with Annex 1 and Annex 2 (Directive 2008/ 98/ EC, Law 22/ 2011). As under 15 01 (2014/ 955/ EU) of the code and in case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See section 6.2.

Legislative provisions related to waste management:

In accordance with Annex II of Regulation (EC) n° 1907/ 2006 (REACH) the community or state provisions related to waste management are stated.

Community legislation: Directive 2008/ 98/ CE, 2014/ 955/ UE, Regulation(UE) n° 1357/ 2014

National legislation: Law 22/ 2011

SECTION 14: TRANSPORT INFORMATION

14.1. Transport of dangerous goods by land:
With regard to ADR 2015 by RID 2015: Exempt

14.1. Transport of dangerous goods by sea:
With regard to IMDG 38-16: Exempt

14.2. Transport of dangerous goods by air:
With regard to IATA/ICAO 2017: Exempt

SECTION 15: REGULATORY INFORMATION

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

Candidate substances for authorization under the Regulation (EC) 1907/ 2006 (REACH): Non-applicable

Substances included in Annex XI V of REACH (Authorization list) and of expiration: Non-applicable

Regulation (EC) 1005/2009, about substances that deplete the ozone layer: non-applicable.

Active Substances which have been included in Article 95 of Regulation (EU) No. 528/2012: Calcium dihydroxide (included for product type 2, 3)

REGULATION (EU) No 649/2012, in relation to the import and export of the hazardous chemical products: Non-applicable.

Limitation to commercialization and the use of certain dangerous substances and mixtures (Annex XVII I REACH, etc.):
Non-relevant

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the handling, use, storage and disposal of this product.



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Biosphere Premium

Other legislation:

Regulation (EC) n° 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labeling and packaging of Substances and mixtures, and amending and repealing Directives 67/548 / EEC and 1999/45 / EC and amending Regulation (EC) n° 1907/ 2006

15.2 Chemical safety assessment:

The supplier has not carried out evaluation of chemical safety.

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:

This safety data sheet has been designed in accordance with ANNEX II -Guide to the compilation of safety data sheets of Regulation (EC) N° 1907/ 2006 (Regulation (EC) N° 2015/ 830)

Modifications related to the previous Safety Data Sheet which concerns the ways of managing risks:

Regarding the Version October 2017, version 2, SECTION 2 has been modified: identification of the hazards, point 2.2. Eye Dam. 1: H318 Serious eye damage. Skin Irrit. 2: H315 Causes skin irritation.

Texts of the legislative phrases mentioned in section 2:

H318: Serious eye damage

H315: Causes skin irritation.

Texts of the legislative phrases mentioned in section 3:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

CLP Regulation (EC) n° 1272/ 2008:

Eye Dam. 1: H318 - Causes serious eye damage

Skin Irrit. 2: H315 - Causes skin irritation

Classification procedure:

Skin Irrit. 2: Calculation method

Eye Dam. 1: Calculation method

Advice related to training:

Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:

[http:// esis.jrc.ec.europa.eu](http://esis.jrc.ec.europa.eu)

[http:// echa.europa.eu](http://echa.europa.eu)

[http:// eur-lex.europa.eu](http://eur-lex.europa.eu)

Abbreviations and acronyms:

ADR: European agreement concerning the international carriage of dangerous goods by road | MDG: International maritime dangerous goods code

IATA: International Air Transport Association

ICAO: International Civil Aviation Organization

COD: Chemical Oxygen Demand

BOD5: 5-days biochemical oxygen demand

BCF: Bioconcentration factor

LD50: Lethal Dose 50

LC50: Lethal Concentration 50

EC50: Effective concentration 50

Log-POW: Octanol–water partition coefficient

Koc: Partition coefficient of organic carbon

The information contained in this safety data sheet is based on sources, technical knowledge and current legislation at European and state level, without being able to guarantee its accuracy. This information cannot be considered a guarantee of the properties of the product, it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within our awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information on this safety data sheet only refers to this product, which should not be used for needs other than those specified.