

Certificate of Analysis

IDENTIFICATION			
Product Name	Zeolite Ultrafine Clay		
Product Code	CLAYZEOL		
Batch Number	4353505		
Best Before End	March 2022		
PHYSICAL & CHEMICAL	CHARACTERISTICS		
	SPECIFICATION R	ANGE	RESULTS
Appearance	Powdered Solid		Conforms
Colour	Beige		Conforms
Odour	Slight Earth-Like Odour		Conforms
Melting Point°C	Approx 1300		Conforms
Bulk Density	0.6 - 0.7 MT/m ³		Conforms
Cation Exchange Capacity	1.5 - 1.9 meq/g		Conforms
Micropore Area	11m²/g		Conforms
Mesopore Area	29m²/g		Conforms
рН	7.0 - 9.0		Conforms
MINERALOGICAL ANAL	(TSIS (TYPICAL)		
Clinoptilolite	ptilolite 85 - 100% Tridymite 0 - 5%		Jymite <mark>0 - 5%</mark>
Other Zeolite 0 - 5%		Cristobalite 0 - 5%	
STORAGE AND SHELF LI	FE		
Storage	Store in tightly closes container with minimum headspace in a cool, dark		
	and dry place		
Shelf Life	24 Months unopened and stored as above.		

This document represents the best of our knowledge and from information received from our supplier. It does not release the buyer from the obligation to carry out an examination of the goods received. All uses made by the buyer are done under their own responsibility.



ZEOLITE ULTRAFINE CLAY PRODUCTION FLOW CHART

Mine Field (open cast site) > Extraction of Clinoptilolite > Transportation of Clinoptilolite > Processing of Clinoptilolite > K201 Jaw Crusher > B201 Track > S201 Silo > First Magnet > B202-B203 Track > K202 Hammer Mill > Second Magnet > B204 Track > E201 Sieve > H201 Helix > H202 Helix > H203 Helix > H204 Helix > Third Magnet > H205 Helix > L201 Elevator > Fourth Magnet > E202 Sieve > S206 Silo > Fifth Magnet > Critical Control Point > Packaging (D201 Sewing Machine) > Storage > Shipment



GMO STATEMENT

Referring to Regulation (EC) No 1829/2003 of 22nd September 2003 on genetically modified food and feed and Regulation (EC) No 1830/2003 of 22nd September 2003 concerning the traceability and labelling of genetically modified organisms and the traceability of food and feed products produced from genetically modified organisms, we can confirm that from information we have received from our suppliers and according to our knowledge we assume that our products have not been produced of nor contain any genetically modified organisms.

However, due to the fact that we do not analyse the batches, we cannot guarantee any explicit assurance.

PRODUCT: Zeolite Ultrafine Clay

07 February 2020



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

1.1. Product identifier

Product name	ZEOLITE CLAY
Product No.	CLAYZEOL
Synonyms, Trade Names	Clinoptilolite Powder, ZeoClin

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

1.3. Details of the supplier of the safety data sheet

Supplier	MADAR Corporation Limited 19-20 Sandleheath Industrial Estate Fordingbridge Hampshire SP6 1PA
Telephone No	01425 655555
Approved Sellers	Mystic Moments, New Directions, World of Moulds

1.4. Emergency telephone number

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Classification (67/548/EEC)

Physical and Chemical Hazards	Not classified.
Human health	Not classified.
Environment	Not classified.
Not classified.	

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

Human health

This product does not meet the criteria for classification as hazardous as defined in the Regulation EC 1272/2008 and Directive 67/548/EEC. Depending on the type of handling and use, airborne respirable crystalline silica may be generated. Prolonged and/or massive inhalation of respirable crystalline silica dust (particles up to 10 microns in size) may cause lung fibrosis, commonly referred to as silicosis. Principal symptoms of silicosis are cough and breathlessness. Environment

This product is not expected to be hazardous to the environment.

Physical and Chemical Hazards

This product is an inorganic substance and does not meet the criteria for PBT or PvB in accordance with Annex XIII of REACH. This product should be handled with care to avoid dust generation.

2.2. Label elements

Label In Accordance With (EC) No. 1272/2008 No pictogram required.

2.3. Other hazards

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Product name

ZEOLITE POWDER (CLINOPTILOLITE)

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

Inhalation

Move into fresh air and keep at rest. Get medical attention if any discomfort continues.

Ingestion

Immediately rinse mouth and provide fresh air. Get medical attention if any discomfort continues.

Skin contact

Wash skin thoroughly with soap and water. Use suitable lotion to moisturise skin.

Eye contact

Do not rub eye. Immediately flush with plenty of water or eyewash solution for up to 10 minutes. Get medical attention if any discomfort continues.

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

General information

The severity of the symptoms described will vary dependant of the concentration and the length of exposure.

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

No specific first aid measures noted.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Extinguishing media The product is non-combustible.

5.2. Special hazards arising from the substance or mixture

Specific hazards

This product is not combustible. There are no hazardous thermal decomposition products.

5.3. Advice for firefighters

Special Fire Fighting Procedures

No specific fire fighting procedure given. Use an extinguishing agent suitable for the surrounding fire.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Avoid inhalation of dust. Wear personal protective equipment in compliance with national legislation.

6.2. Environmental precautions

No known adverse environmental effects.

6.3. Methods and material for containment and cleaning up

Collect spillage in containers, seal securely and deliver for disposal according to local regulations. Avoid generation and spreading of dust.

6.4. Reference to other sections

Wear protective clothing as described in Section 8 of this safety data sheet.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Avoid inhalation of dust and contact with skin and eyes. Provide good ventilation. Do not eat, drink or smoke when using the product. Always wash hands after handling. Remove and wash contaminated clothing before re-using.

7.2. Conditions for safe storage, including any incompatibilities

Store in tightly closed original container in a dry and cool place. Minimise airborne dust generation and prevent wind dispersal during loading and unloading. Keep containers closed and store packaged products so as to prevent accidental bursting.

7.3. Specific end use(s)

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Ingredient Comments

WEL = Workplace Exposure Limits Respirable Dust = 4 mg/m3, Total inhalable dust = 10mg/m3 Quartz: Workplace Exposure Limit = 0.1 mg/m3

8.2. Exposure controls

Protective equipment



Process conditions	
Provide eyewash station.	
Engineering measures	
Provide adequate ventilation.	
Respiratory equipment	
In case of prolonged exposure to airborne dust concentrations, wear a respiratory protective equipment that complies with the requirements of European or National Regulations. Hand protection	
For prolonged or repeated skin contact use suitable protective gloves.	
Eye protection	
Wear goggles/face shield.	
Hygiene measures	
Good personal hygiene practices are always advisable, especially when working with chemicals / oils.	
Skin protection	
Wear apron or protective clothing in case of contact.	
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES	

9.1. Information on basic physical and chemical properties

Appearance	Powdered Solid
Colour	Beige.
Odour	Characteristic.
Solubility	Insoluble in water
Melting point (°C)	approx 1300c

9.2. Other information

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

No specific reactivity hazards associated with this product.

10.2. Chemical stability

Stable under normal temperature conditions.

10.3. Possibility of hazardous reactions

Not applicable.

10.4. Conditions to avoid

10.5. Incompatible materials

Materials To Avoid Strong oxidising agents. Hydrofluoric Acid

10.6. Hazardous decomposition products

None under normal conditions.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Toxicological information

This product has low toxicity

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

This product is classified as environmentally non hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

12.1. Toxicity

12.2. Persistence and degradability

Degradability: This product is not biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential

The product does not contain any substances expected to be bioaccumulating.

12.4. Mobility in soil

Mobility:

This product is virtually insoluble in water.

12.5. Results of PBT and vPvB assessment

This product does not contain any PBT or vPvB substances.

12.6. Other adverse effects

None known.

SECTION 13: DISPOSAL CONSIDERATIONS

General information

This mineral can be disposed of as a non toxic/inactive material in approved landfill sites in accordance with local regulations.

13.1. Waste treatment methods

Dispose of in compliance with all local and national regulations.

SECTION 14: TRANSPORT INFORMATION

<u>General</u>

Not regulated.

- 14.1. UN number
- 14.2. UN proper shipping name
- 14.3. Transport hazard class(es)
- 14.4. Packing group
- 14.5. Environmental hazards
- 14.6. Special precautions for user

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

SECTION 15: REGULATORY INFORMATION

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

15.2. Chemical Safety Assessment

SECTION 16: OTHER INFORMATION

SDS No. 20501 Risk Phrases In Full NC Not classified.

Hazard Statements In Full

Disclaimer

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.



Product Specification

PRODUCT DETAILS			
Product Name	ZEOLITE ULTRAFINE C	LAY	
Product Code	CLAYZEOL		
Tariff Number	25309000		
Country of Origin	Turkey		
Synonyms	ZeoClin Powder, Zeolite Powder, Clinoptilolite Powder		
Food Grade Status	NO		
GMO Declaration	To the best of our knowledge and from information received from our supplier, this product does not derive from genetically modified starting raw material, or additives that are derived from genetically modifed organisms.		
Identification	CAS No: 1318-02-1	EINECS No: 215-283-8	
PHYSICAL AND CHEMICAL CH	HARACTERISTIC		
Appearance	Powdered Solid		
Colour	Beige		
Odour	Slight Earth-Like Odour		
Melting Point°C	Approx 1300		
Bulk Density	0.6 - 0.7 MT/m ³		
Cation Exchange Capacity	1.5 - 1.9 meq/g		
Micropore Area	11m²/g		
Mesopore Area	29m²/g		
рН	7.0 - 9.0		
MINERALOGICAL ANALYTSIS	(TYPICAL)		
Clinoptilolite <mark>85</mark> - 1	100%	Tridymite <mark>0 - 5%</mark>	
Other Zeolite <mark>0</mark> -	5%	Cristobalite 0 - 5%	
FRAGRANCE ALLERGENS			
NONE PRESENT			
FOOD ALLERGENS	,		
NONE PRESENT			
IFRA			
NONE PRESENT			
STORAGE AND SHELF LIFE			
Storage	Store in tightly closes container with minimum headspace in a cool, dark and dry place		
Shelf Life	24 Months unopened and stored as above. designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to		

DISCLAIMER: This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the Company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the users responsibility to satisfy himself as to the suitability of such information for his own particular use. Where we make a declaration that allergenic material are not present in any product, this statement is made assuming reasonable levels of detection. It is impossible to guarantee the "absolute absence" of any material. It is the ultimate responsibility of the customer to ensure the safety of the intended final product containing this material, by carrying out additional tests if necessary.

BiOrigins, 19-20 Sandleheath Industrial Estate, Fordingbridge, Hampshire, SP6 1PA, UK Tel: 01425 655555 Email: technical@madarcorporation.co.uk



Vegan and Vegetarian Statement

IDENTIFICATION		
Product:	ZEOLITE ULTRA CLAY (ZEOLIT1000)	
Cas No:	1318-02-1	
EINECS No:	215-283-8	
	STATEMENT	
	poration Limited, from information received from our supplier, hereby declare Il listed above is suitable for the following:	
Vegans (Exclude (beeswax and he	s all animal derived products, including dairy, eggs, leather, bee products oney).	
Lacto Vegetaria	ns (Same as vegan but allows milk products and bee products.	
Ovo Vegetarians	s (Same as vegan but allows egg products and bee products)	
	ain any animal ingredients or animal by products. No animal ingredients or by ed in the manufacturing process.	
does not release th	presents to the best of our knowledge and from information received from our supplier. It ne buyer from the obligation to carry out an examination of the goods received. All uses r are done under their own responsibility.	