mec Enersi Madencilik İnsaat Nak. San. Je Tic. A.S. adıncı "Zeolit - Klinoptiloit" isimli Jrün iqin hazırlanmıştır.







Certificate DİLSUN KARABULUT SEFER

has obtained the certification as

Material Safety Data Sheet Preparing Personnel

after satisfying the evaluation and the examination on in ISTANBUL organized by

TURKISH STANDARDS INSTITUTION PERSONNEL CERTIFICATION CENTER

in accordance with TSE Material Safety Data Sheet Preparing Personnel Certification Scheme (*)

The certification is in the line with the requirements of ISO 17024:2012 "General Requirements for bodies operating certifications of persons"

Belge Tarihi : 24.01.2018 Geçerlilik Tarihi : 24.01.2021 Sertifika No: GBF-A-0-2713

E-Signed

Muzaffer ÖZEN

Turkish Standards Institution

Director of Personnel Certification Center

(*)Certification Scheme has been issued to be predicated on "Regulation on the Material Safety Data Sheets <u>regarding hazardous materials and mixtures</u>—Official Gazette <u>13 December 2014–29204</u>.

Personnel Certification Center of Turkish Standards Institution is accredited by Turkish Accreditation Agency in the field of "Certification of Material Safety Data Sheet Preparing Personnel" according to TS EN ISO/IEC 17024 with accreditation number of AB-0001-P.

Necatibey Caddesi 112 Bakanlıklar ANKARA Tel: (312) 416 63 20 Faks: (312) 4166598 e-posta: pbm@tse.org.tr





It is issued according to 1907/2006 EC (REACH). Annex II - 1272/2008 CLP; 453/2010' and the Regulation on Safety Data Sheets Regarding Hazardous Substances and Mixtures" (dated 13.12.2014" and numbered 29204)

ZEOLITE - CLINOPTILOLITE

Date of Preparation:

11.06.2019

Version: MSDS No:

GBF-MEC-0000001

Updated on: Release Date:

12.06.2019

Page:

1/8

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE PRODUCT AND THE COMPANY

1.1 Information About the Substance

Product Identifier: ZEOLITE - CLINOPTILOLITE

1.2 Product Use

It is used as paper additive, prefabricated structural component, in energy, health and textile industry, as deodorizer and desiccant, fertilizer additive, asphalt additive, in agriculture, livestock farming, lanscape, as cement additive, filtration material, feed additive, animal litter material, petroleum and waste oil cleaning material.

1.3 Company Introduction

1.3.1 Manufacturer

Company Name:

Mec Enerji Madencilik İnş. Nak. San. Tic. A.Ş.

Address:

REŞİT GALİP CAD. 85/2 G.O.P. ÇANKAYA / ANKARA

Phone: Fax:

+90 312 437 51 59 +90 312 437 51 63

Web site:

www.zeomec.com

e-mail:

info@zeomec.com

1.4 Providing Information About The Safety Data Sheet

Cemal Kılıç - Elif Dereci- MEC -<u>cemal.kilic@zeomec.com</u> - <u>elif.dereci@zeomec.com</u> +90 312 437 51 59



Company Emergency Advisory

+90 312 437 51 59

Emergency First Aid Center

112

National Poison Information Centre Fire

114 110

2. HAZARD IDENTIFICATION

2.1 Classification of the Substance or Mixture

Hazardous classes and category codes according to EC 1272/2008 (CLP):

The classification of this chemical substance has been made by the manufacturer. Not classified as hazardous.

2.2 Labeling

2.2.1 Labeling pursuant to SEA and CLP

2.2.1.1 Hazard Pictograms

Not classified as hazardous.

2.2.1.2 Detriment expressions and Hazard warnings

2.2.1.3 Precautionary Statements

General:

P101 If medical advice is required, store the packaging or label. P102

7103

Keep out of reach of children.

P405

Read the label before using it.

Store under lock.

P501

Dispose of contents / container according to the procedure.

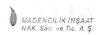
2.3 Other Hazards

There is no known hazard other than the one listed in the labeling section.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient Name	%	CAS No	EC No	Hazard classification
Silicon dioxide	70 - 75	7631-86-9	231-545-4	According to the notifications provided by companies to ECHA in REACH registrations no hazards have been classified.





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ZEOLITE - CLINOPTILOLITE

Date of Preparation:

11.06.2019

Version: MSDS No:

GBF-MEC-0000001

Updated on: Release Date:

12.06.2019

Page:

2/8

Aluminum oxide	10 - 15	90669-62-8	618-619-5	STOT SE 3; H335
Magnesium oxide	0 - 5	1309-48-4	215-171-9	Eye Irr. 2; H319
Sodium oxide	0 - 5	12401-86-4	235-641-7	Met. Corr. 1; H290 Skin Corr. 1A; H314 Eye Dam. 1; H318 STOT SE 3; H335
Calcium oxide	0 - 5	1305-78-8	215-138-9	Skin Corr./Irrit. 2; H315 Eye Dam.1 1; H318 STOT SE 3 (irritating to respiratory system); H335
Titanium oxide (TiO₂)	0 - 5	98084-96-9	619-318-1	According to the majority of notifications provided by companies to ECHA in CLP notifications no hazards have been classified.
Manganese oxide	0 - 5	1344-43-0	215-695-8	According to the majority of notifications provided by companies to ECHA in CLP notifications no hazards have been classified.
Iron oxide	0 - 5	1345-25-1	215-721-8	According to the majority of notifications provided by companies to ECHA in CLP notifications no hazards have been classified.
Phosphate	0 - 5	14265-44-2	604-302-9	According to the majority of notifications provided by companies to ECHA in CLP notifications no hazards have been classified.

^{*} The classification of this chemical substance has been made by the manufacturer.

4. FIRST AID MEASURES

- 4.1 First Aid Measures
- 4.1.1 General Warnings: Please avoid all kinds of unnecessary exposure.
- **4.1.2 Inhalation:** Smoke or dust may cause irritation in upper respiratory tract.
- **4.1.3 Contact with skin:** It does no harm; immediately seek medical advice, if it indicates an irritant feature.
- **4.1.4 Contact with eye:** Immediately keep eye lids open and wash with plenty of water. If an irritating case develops, consult a doctor. Keep rinse out.
- 4.1.5 Ingestion: Since magnesium is a product having acute toxicity, it may cause irritation in case of being



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ZEOLITE - CLINOPTILOLITE

Date of Preparation:

11.06.2019

Version:

1

Updated on:

_

MSDS No:

GBF-MEC-0000001

Release Date:

12.06.2019

Page:

3/8

swallowed.

Long-term effects: No data available.

4.2 Most important symptoms / effects, acute & delayed:

See Section 11.

4.3 Symptoms requiring medical emergency and special treatment

No data available.

5. FIRE FIGHTING MEASURES

5.1 Suitable Extinguishers

In the event of fire, adapt fire extinguishing measures to the environment.

5.2 Unsuitable Extinguishers

No data available.

5.3 Hazardous Decomposition / Combustion Products

As long as it is not kept out of its original package, it does not lead to the explosion.

5.4 Personal Protection Initiative and Personal Protective Equipment for Firefighters

In case of fire wear protective equipment and MSHA / NIOSH approved respiratory protection apparatus recommended for fire-fighters.

5.5 Other Information

Avoid breathing gases that are released during the fire, which can be harmful to health.

Evacuate the staff chemical where the danger is inaccessible.

Cool the packages in the fire area and drain them safely.

Avoid polluting the environment by using more fire extinguishers than necessary.

Fire fighting residues should not be allowed to reach sewage and groundwater.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal Measures, Protective Equipment and Emergency Procedures

Wear protective equipment. Keep away from ignition sources. Do not breathe fumes/vapor. Avoid contact with skin and eyes. Exposure controls and personal protective measures as described in section 8. Provide adequate ventilation. Do not bring unprotected persons closer.

6.2 Environmental Measures

Unsuitable discharge into the environment can cause soil and 3ort contamination. Do not mix with sewerage / surface 3ort / underground 3ort . Inform authorities in case of 3ort or sewer disposal.

6.3 Methods and items related to restraint and cleaning

Comply with local regulations. Collect harmful material with appropriate liquid binding material (e.g. sand, earth, vermiculite). Place it in an appropriate container and dispose of it according to the 13th division.

6.4 Additional Warnings

Information related to safe use is available in Section 7.

Information related to personal protective equipment is available in Section 8.

Information related to disposal is available in Section 13.

7. HANDLING AND STORAGE

7.1 Use / Handling

In accordance with the provisions of the "Regulation on Health and Safety Precautions in Chemical Matters and Procedures" published in the Official Gazette dated 26/12/2003 and numbered 25328 concerning the measures to be taken in the 3ort and workplaces that are working with hazardous 3ort he3o, in order to protect health, safety and environment, care should be taken to ensure that the work procedures in the workplace are planned and that organizational measures are taken.

Technical Measures

Do not store near food, drinks, medicines, cosmetics or fertilizers.

Keep away from children.

Measures 3ort he environment

Prevent mixing into sewer / surface 3ort / groundwater. Notify authorities and inform authorities if 3ort or sewerage is involved.

Custom Rules for Manual Handling

Prevent direct contact with the substance. Do not smoke.



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ZEOLITE - CLINOPTILOLITE

Date of Preparation:

11.06.2019

Version: MSDS No:

GBF-MEC-0000001

Updated on: Release Date:

12.06.2019

Page:

4/8

Warnings for protection against fire and explosion

Avoid open flames, direct sunlight and other sources of ignition-No smoking.

Use explosion-proof equipment.

Protect against electrostatic charges.

Additional information

You take precautions to avoid damage to the original packaging.

7.2 Storage

Features required warehouses

warehouses

Store only in its original packaging.

ONLY keep it in its PE, PVC, CPVC and/or PP

package.

and

Alerts on co-storage

Store it in its original package and cool, dry and moisture free and well-ventilated areas by keeping it out of acid and oxidizing agents and/or substances. Protect from excessive heat and frost.

Keep container tightly closed.

Do not store in unlabeled containers.

See Chapter 10 before handling or using

incompatible materials.

7.3. Specific end use(s)

No data available.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Further information on storage conditions

8.1 Control Parameters

No data available.

8.2 Exposure Controls

Exposure Limit Values:

No data available.

Exposure Controls:

Occupational Exposure Controls: Equipment to be used where personal protection is required and appropriate protection methods are defined in accordance with "Personal Protective Equipment Regulation" dated 9.2.2004 and numbered 25368. Make sure that personal protective equipment is used in accordance with applicable regulations.

Keep away from foodstuffs, drinks and feedstuffs.

Remove contaminated, contaminated clothing immediately.

Wash your hands before and during the breaks.

Keep protective clothing in a separate place.

Avoid touching your eyes and skin.

After contact with the body, please clean it with enough 4ort and soap or use appropriate cleaning products if necessary.

8.2.1 Personal Protection Measures

8.2.1.1 Respiration: Sufficient ventilation should be provided in the work area. If not, half dust mask of FFP1S class according to EN 149 must be used.

8.2.1.2 Hand protection: During the use of this product, wearing protective gloves are recommended. Vinly, latex or nitryl gloves should not be used. If any deformation is seen, gloves should be replaced with new ones.

Glove material must be impermeable and resistant to the product / material / preparation. Selection of materials used for glove manufacturing requires consideration of perforation times, permeability rates and degradation.

Glove material

In selecting the appropriate gloves, not only the manufacturing material but also other quality features must be taken into consideration and these vary from manufacturer to manufacturer. Since each product comes from a combination of many materials, the durability of gloves can not be calculated in advance and therefore every glove must be checked before use.

Penetration time to glove material

The exact puncture should be learned from the manufacturer of the gloves and this time must be respected.

8.2.1.3 Eye protection: Goggles conforming to EN 166 must be used.

8.2.1.4 Skin protection: Protective workwear should be preferred.

8.2.2 Environmental exposure controls

To avoid effects on people and the environment, work in accordance with the instructions.



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ZEOLITE - CLINOPTILOLITE

1

Date of Preparation: 11.06.2019 Version:
Updated on: - MSDS No: GBF-MEC-00000

 Updated on:
 MSDS No:
 GBF-MEC-0000001

 Release Date:
 12.06.2019
 Page:
 5 / 8

8.3 Other Information

See chapters 6, 7, 12, 13.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Solid
Color	Off-white
Odor	None
Odor Threshold	Not determined
pH	5.64
Melting point/Melting range	1300 °C
Boiling point/Boiling range	Not determined
Density	Not determined
Flash Point	Not determined
Vapor Pressure	Not determined
Porosity	33%
Relative Density (water=1)	Not determined
Solubility in Water	Insoluble
Min ignition temperature	Not determined
Min ignition energy	Not determined

9.2 Other Information

No further information is available.

10. STABILITY AND REACTIVITY

10.1 Reactivity

Stable under normal storage, handling and handling conditions.

10.2 Chemical Stability

Stable under recommended storage, handling and handling conditions.

10.3 Possibility of Hazardous Reactions

No information found

10.4 Conditions to Avoid

Keep away from all ignition sources.

10.5 Incompatible Materials

Acids, bases, oxidizing agents/substances.

10.6 Hazardous Decomposition Products

In case of combustion, it releases fumes of magnesium oxide and in case of reaction with acids, explosive hydrogen gas.

11. TOXICOLOGICAL INFORMATION

11.1 Acute Toxicity

No data available.

11.2 Effect of Abrasion and Irritation (Corrosivity and Irritation)

Skin corrosion / irritation

No data available.

Serious eye damage / irritation

No data available.

Respiratory or skin sensitization Rash or allergic reaction may be seen.

11.3 Chronic Toxicity (Toxic Effect on Carcinogenic, Mutagenic and Reproductive)

Carcinogenicity	No data available.	
Mutagenic Effect	No data available.	
Reproductive toxicity	No data available.	

11.4 Other Toxicological Effects

Eye Contact	It may cause eye bleariness and lachrymation.	
Skin Contact	No data available.	
Inhaling	It may cause irritation in respiratory tracts in case of inhalation.	
Ingestion	It does not lead to any ailment.	
Target Organ	No data available.	
Medical Symptoms	No data available.	
Medical Warnings	No data available.	



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ZEOLITE - CLINOPTILOLITE

Date of Preparation:

11.06.2019

Version:

1

Updated on:

._

MSDS No:

GBF-MEC-0000001

Release Date:

12.06.2019

Page:

6/8

Aspiration damage	No data available.	
Additional info	No data available.	

12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity

It does not an environmentally hazardous product. Information given below is based upon data concerning detail sections.

12.2 Persistence and Degradability

No data available.

12.3 Bioaccumulative Potential

Surface active agents included in this mixture are the same of surface active agents within the scope of European Union and comply with the biodegradability criteria stated under the law numbered 648/2004 of FII

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPVB evaluation

No data available.

12.6 Other Inverse

Do not allow its release to the environment. Please see sections 6, 7, 13, 14 and 15 for information on measures against accidental release to the environment, transport., and waste disposal

13. DISPOSAL CONSIDERATIONS

13.1 Suggestion for Product Disposal

- · Dispose of the absorbed material by burning it in an appropriate facility with a license.
- · Waste and used packaging should be disposed of in accordance with official regulations.
- \cdot Prevent surface and underground waters, sources of drinking 6ort , standing and running 6ort from mixing with sewer.

13.2 Safe Disposal

- · The product must be disposed of in accordance with official regulations.
- · Do not allow the product to be disposed of with household garbage.
- · It is strictly forbidden to mix the product with sewerage and groundwater.
- \cdot Inform the authorities in such cases.

13.3 European Waste Catalog and Hazardous Waste List Number

 \cdot Identification of waste identification numbers / waste definitions should be made according to the EWC as specific to industry and processes.

Legislations concerning wastes (2001/573/EC Decision, 2006/12/EEC

Directive, 94/31/EEC Directive for hazrdous wastes): $18\ 01\ 6^*$ chemicalsconsisting of or containing dangerous substances

For detailed information:

18=wastes resulted from collaborative researches and / or in medikal or veterinary respects

(Apart from kitchen wastes and wastes produced by estaurant management , which are not directly resulted from medical respects)

Waste code should be provided by the user, according to the application of product.

13.4 Uncleaned Packages

· RECOMMENDATION: It is suggested to dispose in accordance with official regulations.

13.5 Recommended Cleansing Material:

 \cdot Deliver the used packaging to institutions or organizations that provide 6ort he6onal waste disposal services.

13.6 Additional Information:

- · See national and international legislation on waste.
- \cdot Do not dispose of the product without checking the waste regulations.
- · For safe handling methods, see Chapter 7.

14.TRANSPORT INFORMATION

14.1 UN number



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ZEOLITE - CLINOPTILOLITE

Date of Preparation:

11.06.2019

Version:

Updated on:

MSDS No:

GBF-MEC-0000001

Release Date:

12.06.2019

Page:

7/8

1

ADR/RID, IMDG, IATA

Not classified.

14.2 Proper UN transport name

ADR/RID, IMDG, IATA

No data available

14.3 Transport hazard class (es)

Class

ADR/RID, IMDG, IATA

No data available

14.4 Packaging group ADR/RID, IMDG, IATA

No data available

14.5 Environmental hazards

Marine pollutant

No data available

14.6 Special precautions 7ort he user

See Chapters 6, 7, and 8.

14.7 Transportation in bulk according to MARPOL 73/78 and IBC code

Not applicable

15. REGULATORY INFORMATION

15.1 Safety, Health and Environment Legislation for the Substance or Mixture

See Section 2 for information on classification and labeling.

Regulation on Classification, Labeling and Packaging of Substances and Mixtures

Regulation on Safety Data Sheets Regarding Hazardous Substances and Mixtures

Regulation on Limitations Related to the Production, Placing on the Market and Use of Some Hazardous Substances, Preparations and Goods

Regulation on Occupational Health and Safety

Regulation of Health and Safety Measures for the Works with Carcinogenic and Mutagen Substances

Regulation of Health and Safety Measures for the Works with Chemical Substances

Regulation on the Use of Personal Protective Equipment at the Workplaces

Regulation on Controlling the Hazardous Wastes

15.2 Chemical Security Assessment

There is no chemical security assessment available.

16. OTHER INFORMATION

16.1 Related H-phrases (Section 3)

H290 May be corrosive to metals

Causes severe skin burns and eye damage. H314

Causes skin irritation. H315

H318 Causes serious eye damage

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

16.2 Prepared for the Safety Data Sheet/Edited by/Published

Mec Enerji Madencilik İnş. Nak. San. Tic. A.Ş. Behalf Başkent Danışmanlık Chemical Engineer Dilsun KARABULUT SEFER (dilsun_karabulut@yahoo.com)

Expert Accreditation No: TSE GBF-A-0-2713 (24.01.2018)

www.baskent.com.tr; dilsun@baskent.com.tr; +90 312 231 00 22

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16.3 Issue Date

12.06.2019

16.4 Regulation No

1





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ZEOLITE - CLINOPTILOLITE

 Date of Preparation:
 11.06.2019
 Version:
 1

 Updated on:
 MSDS No:
 GBF-MEC-0000001

 Release Date:
 12.06.2019
 Page:
 8 / 8

16.5 Safety Data Sheet No

GBF-MEC-000001

16.6 Other Matters

- \cdot Please contact with our sales department for our training recommendations related to the safe use of the product.
- \cdot Please contact with our sales department for recommended limitations and recommendations, which are not legally obligated, related to the use of the product.
- This MSDS is based on information and documents received from the manufacturer. As these information and documents are incomplete or inaccurate, the MSDS preparer cannot be held responsible for the erroneous regulation of the prepared MSDS and therefore for the material damages and non-pecuniary damages that the product owner will face.
- · Key information sources used for issuing this safety data sheet;
 - Information given by MEC for the product
 - "Regulation on Preparation and Distribution of Safety Data Sheets Related to Hazardous Substances and Preparations" and annexes thereof,
 - "Regulation on Safety Data Sheets Regarding Hazardous Substances and Mixtures" and annexes thereof,
 - UN ADR, IMDG, IATA lists, ECHA and relevant EU directives,
 - Other supplementary resources.

16.7 Additional Information

- \cdot The information provided in this Safety Data Sheet is prepared based on our best experience, knowledge and belief as of the date the information is prepared. The information given is designed for providing a guidance on safe handling, use, processing, storage, transportation, destruction and disposal.
- Unless otherwise stated in the document, this information only applies for the given substance and might not be valid if this substance is used with other substances or used in any other process.
- · Please take the information provided in the Safety Data Sheet into account for use.
- · This information is based on our existing knowledge.
- \cdot This Safety Data Sheet defines the product according to the suitable safety regulations, but does not guarantee the assurance of product specifications.
- \cdot It does not constitute any kind of guarantee and does not establish a legally valid agreement related to the product specifications.

16.8 Abbreviations

CAS No Chemical Abstract Service Number

CERCLA Comprehensive Environmental Response, Compensation And Liability Act

CFR Code Of Federal Regulation
DOT U.S. Department Of Transportation

EC Exposure Concentration

E.I.N.E.C.S. European Inventory Of Existing Cemmercial Chemical Substances

HMIS Hazardous Material Information System
IARC International Agency For Research On Cancer

LD50 (Lethal Dose 50) İs The Dose Of Chemical, Which Kills 50% Of A Sample Polulation

NFPA The International Fire Protection Association

NIOSH National Institute For Occupational Safety And Health

NTP National Toxicology Program

OSHA Occupational Safety And Health Administration

PEL Permissible Exposure Limit

SARA Superfund Amendments And Reauthorizantion Act

TDG Transportation Of Dangerous Goods

TLV Threshold Limit Value

TSCA Toxic Substances Control Act
TWA Time Weight Average (8 Hour)

WHMIS Workplace Hazardous Material Information System

Chemical Engineer

OHISUN KARABULUT SEEER
Material Safety Data Sheet
Peparing Personnel
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