

SAFETY DATA SHEET

(in accordance with Regulation (EU) 2015/830)



**CHILCHES
MATERIALS**

Version: 1
Revision date: 01/01/2020

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

1.1 Product identifier.

Product Name: MICROZIR OPTIMUM
Chemical Name: zircon
CAS No: 14940-68-2
EC No: 239-019-6
Registration No: Exempt

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

Ceramic use.
Sanitary, foundry and refractory use.

Uses advised against:

Uses other than those recommended.

1.3 Details of the supplier of the safety data sheet.

Company: **CHILCHES MATERIALS, S.A.**
Address: Polígono Industrial Els Plans, Sector Z1
City: 12592 Chilches
Province: Castellón
Telephone: +34 964 584 030
Fax: +34 964 584 031
E-mail: infofdsch@torrecid.com
Web: www.chilchesmaterials.com

1.4 Emergency telephone number: +34 964 584 030 (Only available during office hours; Monday-Friday; 08:00-18:00)

SECTION 2: HAZARDS IDENTIFICATION.

2.1 Classification of the substance.

The product is not classified as hazardous within the meaning of Regulation (EU) No 1272/2008.

2.2 Label elements.

No indication of danger (phrases H) required according to Regulation (EC) No. 1272/2008.

2.3 Other hazards.

The product may have the following additional risks:
Dustiness.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS.

3.1 Substances.

Chemical Name: zircon
CAS No: 14940-68-2
EC No: 239-019-6
Registration No: Exempt

3.2 Mixtures.

Not Applicable.

Additional Information:

The substance 'zircon' (CAS: 14940-68-2) contains less than 0.015% respirable crystalline silica (SCR).

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Likewise, this material is considered a Naturally Occurring Radioactive Material (NORM) (radioactive material according to IAEA if it exceeds 1 Bq /g).

However, it is not considered a radioactive product regarding transport issues; limit of 10 Bq/g for NORM.

Some countries may apply different limits; therefore, local regulations should be consulted to find out the current requirements.

Uranium <340 ppm 3.5 - 4.0 Bq/g

Thorium <150 ppm 0.5 - 0.6 Bq/g

Other daughter nuclides: in secular equilibrium

SECTION 4: FIRST AID MEASURES.

4.1 Description of first aid measures.

Due to the composition and type of the substances present in the product, no particular warnings are necessary.

Inhalation.

Take the victim into open air; keep them warm and calm. If breathing is irregular or stops, perform artificial respiration.

Eye contact.

Remove contact lenses, if present and if it is easy to do. Wash eyes with plenty of clean and cool water for at least 10 minutes while pulling eyelids up, and seek medical assistance. Dont let the person to rub the affected eye.

Skin contact.

Remove contaminated clothing.

Ingestion.

Keep calm. NEVER induce vomiting.

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

No known acute or delayed effects from exposure to the product.

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

In case of doubt or when symptoms of feeling unwell persist, get medical attention. Never administer anything orally to persons who are unconscious.

SECTION 5: FIREFIGHTING MEASURES.

5.1 Extinguishing media.

Suitable extinguishing media:

Extinguisher powder or CO2. In case of more serious fires, also alcohol-resistant foam and water spray.

Unsuitable extinguishing media:

Do not use a direct stream of water to extinguish. In the presence of electrical voltage, you cannot use water or foam as extinguishing media.

5.2 Special hazards arising from the substance.

Special risks.

Fire can cause thick, black smoke. As a result of thermal decomposition, dangerous products can form: carbon monoxide, carbon dioxide. Exposure to combustion or decomposition products can be harmful to your health.

5.3 Advice for firefighters.

Use water to cool tanks, cisterns, or containers close to the heat source or fire. Take wind direction into account.

Fire protection equipment.

According to the size of the fire, it may be necessary to use protective suits against the heat, individual breathing equipment, gloves, protective goggles or facemasks, and boots.

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SECTION 6: ACCIDENTAL RELEASE MEASURES.

6.1 Personal precautions, protective equipment and emergency procedures.

For exposure control and individual protection measures, see section 8.

6.2 Environmental precautions.

Product not classified as hazardous for the environment, avoid spillage as much as possible.

6.3 Methods and material for containment and cleaning up.

Contain and collect spillage with inert absorbent material (earth, sand, vermiculite, Kieselguhr...) and clean the area immediately with a suitable decontaminant.

Deposit waste in closed and suitable containers for disposal, in compliance with local and national regulations

6.4 Reference to other sections.

For exposure control and individual protection measures, see section 8.

For later elimination of waste, follow the recommendations under section 13.

SECTION 7: HANDLING AND STORAGE.

7.1 Precautions for safe handling.

The product does not require special handling measures, the following general measures are recommended:

For personal protection, see section 8.

In the application area, smoking, eating, and drinking must be prohibited.

Follow legislation on occupational health and safety.

Never use pressure to empty the containers. They are not pressure-resistant containers. Keep the product in containers made of a material identical to the original.

7.2 Conditions for safe storage, including any incompatibilities.

The product does not require special storage measures.

As general storage measures, sources of heat, radiation, electricity and contact with food should be avoided.

Keep away from oxidising agents and from highly acidic or alkaline materials.

Store the containers between 5 and 35° C, in a dry and well-ventilated place.

Store according to local legislation. Observe indications on the label.

The product is not affected by Directive 2012/18/EU (SEVESO III).

7.3 Specific end use(s).

For the / relevant uses identified under paragraph 1 must take into account the information referred to in paragraph 7.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION.

8.1 Control parameters.

The product does NOT contain substances with Professional Exposure Environmental Limit Values. The product does NOT contain substances with Biological Limit Values.

8.2 Exposure controls.

Measures of a technical nature:

Concentration:	100 %
Uses:	Ceramic use. Sanitary, foundry and refractory use.
Breathing protection:	
PPE:	Particle filter mask
Characteristics:	«CE» marking, category III. Made of filtering material, it covers nose, mouth and chin.
CEN standards:	EN 149



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Maintenance:	Check for any tears, defects, etc. before use. Since it is disposable individual protection equipment, it should be replaced after use.		
Observations:	Does not protect worker unless properly adjusted. Follow the manufacturer's instructions regarding suitable use of the equipment.		
Filter Type needed:	P3		
Hand protection:			
PPE:	Work gloves.		
Characteristics:	«CE» marking, category I.		
CEN standards:	EN 374-1, En 374-2, EN 374-3, EN 420		
Maintenance:	Keep in a dry place, away from any sources of heat, and avoid exposure to sunlight as much as possible. Do not make any changes to the gloves that may alter their resistance, or apply paints, solvents or adhesives.		
Observations:	Gloves should be of the appropriate size and fit the user's hand well, not being too loose or too tight. Always use with clean, dry hands.		
Material:	PVC (polyvinyl chloride)	Breakthrough time (min.):	> 480
		Material thickness (mm):	0,35
Eye protection:			
PPE:	Protective goggles against particle impacts.		
Characteristics:	«CE» marking, category II. Eye protector against dust and smoke.		
CEN standards:	EN 165, EN 166, EN 167, EN 168		
Maintenance:	Visibility through lenses should be ideal. Therefore, these parts should be cleaned daily. Protectors should be disinfected periodically following the manufacturer's instructions.		
Observations:	Some signs of wear and tear include: yellow colouring of the lenses, superficial scratching of the lenses, scraping etc.		
Skin protection:			
PPE:	Work footwear.		
Characteristics:	«CE» marking, category II.		
CEN standards:	EN ISO 13287, EN 20347		
Maintenance:	This product adapts to the first user's foot shape. That is why, as well as for hygienic reasons, it should not be used by other people.		
Observations:	Work footwear for professional use includes protection elements aimed at protecting users against any injury resulting from an accident		



SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES.

9.1 Information on basic physical and chemical properties.

Appearance: Odourless powder or granules with characteristic colour

Colour: characteristic

Odour: characteristic

Odour threshold: not available

pH: Not applicable due to the nature of the product: solid.

Melting point: not available

Boiling Point: N.A./N.A.

Flash point: N.A./N.A.

Evaporation rate: not available

Inflammability (solid, gas): It does not contain chemical groups associated with flammable properties

Lower Explosive Limit: It does not contain chemical groups associated with explosive properties

Upper Explosive Limit: It does not contain chemical groups associated with explosive properties

Vapour pressure: not available

Vapour density: not available

Relative density: 2,65

Solubility: <2%

Liposolubility: not available

Hydrosolubility: N/A

Partition coefficient (n-octanol/water): not available

Auto-ignition temperature: It does not contain chemical groups associated with flammable properties

Decomposition temperature: not available

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Viscosity: Not applicable due to the nature of the product: solid.
Explosive properties: It does not contain chemical groups associated with explosive properties
Oxidizing properties: It does not contain chemical groups associated with oxidizing properties

N.A./N.A.= Not Available/Not Applicable due to the nature of the product

9.2 Other information.

Dropping point: not available
Blink: not available
Kinematic viscosity: not applicable due to the nature of the product: solid.
N.A./N.A.= Not Available/Not Applicable due to the nature of the product

SECTION 10: STABILITY AND REACTIVITY.

10.1 Reactivity.

The product does not present hazards by their reactivity.

10.2 Chemical stability.

Stable under the recommended handling and storage conditions (see section 7).

10.3 Possibility of hazardous reactions.

The product does not present possibility of hazardous reactions.

10.4 Conditions to avoid.

Avoid any improper handling.

10.5 Incompatible materials.

Keep away from oxidising agents and from highly alkaline or acidic materials in order to prevent exothermic reactions.

10.6 Hazardous decomposition products.

No decomposition if used for the intended uses.

SECTION 11: TOXICOLOGICAL INFORMATION.

11.1 Information on toxicological effects.

Toxicological information.

Name	Acute toxicity			
	Type	Test	Kind	Value
zircon	Oral	LD50	Rat	10 g/kg
	Dermal			
	Inhalation			
CAS No: 14940-68-2 EC No: 239-019-6				

a) acute toxicity;
Not conclusive data for classification.

b) skin corrosion/irritation;
Not conclusive data for classification.

c) serious eye damage/irritation;
Not conclusive data for classification.

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d) respiratory or skin sensitisation;
Not conclusive data for classification.

e) germ cell mutagenicity;
Not conclusive data for classification.

f) carcinogenicity;
Not conclusive data for classification.

g) reproductive toxicity;
Not conclusive data for classification.

h) STOT-single exposure;
Not conclusive data for classification.

i) STOT-repeated exposure;
Not conclusive data for classification.

j) aspiration hazard;
Not conclusive data for classification.

SECTION 12: ECOLOGICAL INFORMATION.

12.1 Toxicity.

Name	Ecotoxicity			
	Type	Test	Kind	Value
zircon CAS No: 14940-68-2 EC No: 239-019-6	Fish	EC50 [1] OECD 203 Survival	Fish	100 mg/l (96 h) [1]
	Aquatic invertebrates	EC50 [1] OECD 202 Immobilization	Daphnia	100 mg/l (48 h) [1]
	Aquatic plants	EC10 EC50 [1] OECD 201 Chronic Growth Inhibition [2] OECD 201 Acute Growth Inhibition	Algae Algae	1 mg/l (28 d) [1] 100 mg/l (72 h) [2]

12.2 Persistence and degradability.

No information is available regarding the biodegradability.

No information is available on the degradability. No information is available about persistence and degradability of the product.

12.3 Bioaccumulative potential.

No information is available regarding the bioaccumulation.

12.4 Mobility in soil.

No information is available about the mobility in soil.

The product must not be allowed to go into sewers or waterways.

Prevent penetration into the ground.

12.5 Results of PBT and vPvB assessment.

No information is available about the results of PBT and vPvB assessment of the product.

12.6 Other adverse effects.

No information is available about other adverse effects for the environment.

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SECTION 13: DISPOSAL CONSIDERATIONS.

13.1 Waste treatment methods.

Do not dump into sewers or waterways. Waste and empty containers must be handled and eliminated according to current, local/national legislation.

Follow the provisions of Directive 2008/98/EC regarding waste management.

SECTION 14: TRANSPORT INFORMATION.

Transportation is not dangerous. In case of road accident causing the product's spillage, proceed in accordance with point 6.

14.1 UN number.

Transportation is not dangerous.

14.2 UN proper shipping name.

Description:

ADR: Transportation is not dangerous.

IMDG: Transportation is not dangerous.

ICAO/IATA: Transportation is not dangerous.

14.3 Transport hazard class(es).

Transportation is not dangerous.

14.4 Packing group.

Transportation is not dangerous.

14.5 Environmental hazards.

Transportation is not dangerous.

14.6 Special precautions for user.

Not applicable. Transportation is not dangerous.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code.

Transportation is not dangerous.

SECTION 15: REGULATORY INFORMATION.

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

The product is not affected by the Regulation (EC) No 1005/2009 of the European Parliament and of the Council of 16 September 2009 on substances that deplete the ozone layer.

Volatile organic compound (VOC)

VOC content (p/p): 0 %

VOC content: 0 g/l

The product is not affected by Directive 2012/18/EU (SEVESO III).

The product is not affected by Regulation (EU) No 528/2012 concerning the making available on the market and use of biocidal products.

The product is not affected by the procedure established Regulation (EU) No 649/2012, concerning the export and import of dangerous chemicals.

15.2 Chemical safety assessment.

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

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SECTION 16: OTHER INFORMATION.

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Physical hazards	On basis of test data
Health hazards	Calculation method
Environmental hazards	Calculation method

It is recommended that the product only be employed for the purposes advised.

Information on the TSCA Inventory (Toxic Substances Control Act) USA:

CAS No	Name	State
14940-68-2	zircon	Registered8

Abbreviations and acronyms used:

CEN: European Committee for Standardization.
EC50: Half maximal effective concentration.
PPE: Personal protection equipment.
LC50: Lethal concentration, 50%.
LD50: Lethal dose, 50%.

Key literature references and sources for data:

<http://eur-lex.europa.eu/homepage.html>

<http://echa.europa.eu/>

Regulation (EU) 2015/830.

Regulation (EC) No 1907/2006.

Regulation (EU) No 1272/2008.

The information given in this Safety Data Sheet has been drafted in accordance with COMMISSION REGULATION (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.

The information in this Safety Data Sheet on the Preparation is based on current knowledge and on current EC and national laws, as far as the working conditions of the users is beyond our knowledge and control. The product must not be used for purposes other than those that are specified without first having written instructions on how to handle. It is always the responsibility of the user to take the appropriate measures in order to comply with the requirements established by current legislation. The information contained in this Safety Sheet only states a description of the safety requirements for the preparation, and it must not be considered as a guarantee of its properties.