

SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name **ZIRCOSIL 5**
Product number **P3365**

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

Identified uses Component used in the formulation of ceramic frits glazes and inorganic pigments used for the manufacture of tableware and sanitary-ware and other ceramic articles

1.3. Details of the supplier of the safety data sheet

Supplier Potterycrafts Ltd
Campbell Road,
Stoke,
Stoke-on-Trent
ST4 4ET
Tel 44 (0)1782 745000
sales@potterycrafts.co.uk

1.4. Emergency telephone number

Emergency telephone +44(0)1782 745000 (Office hours 08:30 – 16:30 Monday- Friday)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification

Physical hazards Not Classified
Health hazards Not Classified
Environmental hazards Not Classified

2.2. Label elements

Hazard statements NC Not Classified
Precautionary statements EUH210 Safety data sheet available on request.

2.3. Other hazards

SECTION 3: Composition/information on ingredients

3.2. Mixtures

ZIRCONIUM SILICATE	95 - 100%
CAS number: 14940-68-2 EC number: 239-019-6	
Classification	
Not Classified	

Fine Fraction Crystalline Silica	0.5 - 1%
CAS number: 14808-60-7 EC number: 238-878-4	
Classification	
STOT RE 1 - H372	

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

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

Inhalation	Move affected person to fresh air at once.
Ingestion	Rinse mouth thoroughly with water. Drink a few glasses of water or milk.
Skin contact	Remove contaminated clothing. Rinse with water.
Eye contact	Rinse immediately with plenty of water. Continue to rinse for at least 10 minutes. Remove any contact lenses and open eyelids wide apart.

4.2. Most important symptoms and effects, both acute and delayed**4.3. Indication of any immediate medical attention and special treatment needed**

Notes for the doctor No specific recommendations.

SECTION 5: Firefighting measures**5.1. Extinguishing media**

Suitable extinguishing media The product is non-combustible. Use fire-extinguishing media suitable for the surrounding fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards	No unusual fire or explosion hazards noted.
Hazardous combustion	No known hazardous decomposition products
Products	

5.3. Advice for firefighters

Protective actions during firefighting	No specific firefighting precautions known.
Special protective equipment for firefighters	Use protective equipment appropriate for surrounding materials.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Personal precautions Ensure suitable respiratory protection is worn during removal of spillages in confined areas.
For personal protection, see Section 8.

6.2. Environmental precautions

Environmental precautions Do not discharge into drains or watercourses or onto the ground.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Remove spillage with vacuum cleaner. If not possible, collect spillage with shovel, broom or the like.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8.

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

Usage precautions Good personal hygiene procedures should be implemented. Use mechanical ventilation if there is a risk of handling causing formation of airborne dust. Do not eat, drink or smoke when using the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container. Keep container dry.

7.3. Specific end use(s)

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Occupational exposure limits

ZIRCONIUM SILICATE

Long-term exposure limit (8-hour TWA): 5 mg/m³ total dust

Short-term exposure limit (15-minute): 10 mg/m³ total dust

8.2. Exposure controls

Protective equipment



Appropriate engineering

Provide adequate general and local exhaust ventilation. Observe any occupational exposure limits for the product or ingredients.

Controls

Eye/face protection

Wear tight-fitting, dust-resistant, chemical splash goggles if airborne dust is generated.

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible.

Hygiene measures

Wash hands at the end of each work shift and before eating, smoking and using the toilet.

Respiratory protection

If ventilation is inadequate, suitable respiratory protection must be worn.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance Dusty powder.

Colour White/off-white.

Melting point 2550°C

Relative density 4.66 g/cm³ @ °C

9.2. Other information

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity There are no known reactivity hazards associated with this product.

10.2. Chemical stability

Stability No particular stability concerns.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Not known. Will not polymerise

reactions

10.4. Conditions to avoid

Conditions to avoid There are no known conditions that are likely to result in a hazardous situation.

10.5. Incompatible materials

Materials to avoid No specific material or group of materials is likely to react with the product to produce a hazardous situation.

10.6. Hazardous decomposition products

Hazardous decomposition products No known hazardous decomposition products.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

General information

Zirconium Silicate contains small quantities of radioactive isotopes of Uranium and Thorium. The average concentrations in Endeka Ceramics' Zirconium Silicate are 300 ppm of Uranium and 180 ppm of Thorium. The radioactivity of Zirconium Silicate is due to its natural radionuclides which are not processed, and which have not been processed, in view of their radioactive, fissile or fertile properties.

Work activities involving Zirconium Silicates are regulated under a specific regulation (Council Directive 96/29/EURATOM of 13 May 1996), which is different to that concerning radioactive substances. This Directive, establishes the need to assess the radiation exposure to which workers are or may be exposed. The radiation level established by the International Commission on Radiological Protection (ICRP) sets an annual radiation dose of 1 mSv over which physical surveillance of workers becomes required. This value has been adopted by the Commission of the European Communities.

Studies commissioned by Endeka Ceramics have concluded that when workers exposure to Zirconium Silicate is continuous (2000 hours per year), the radiation dose may reach 1 mSv over the year.

Inhalation

Prolonged and/or massive exposure to respirable crystalline silica-containing dust may cause silicosis, a nodular pulmonary fibrosis caused by deposition in the lungs of fine respirable particles of crystalline silica.

Ingestion

No harmful effects expected from quantities likely to be ingested by accident.

Skin contact Skin irritation should not occur when used as recommended.

Eye contact

May cause temporary eye irritation.

SECTION 12: Ecological Information

Ecotoxicity

There are no data on the ecotoxicity of this product. The product components are not classified as environmentally hazardous. However, large or frequent spills may have hazardous effects on the environment.

12.1. Toxicity

Toxicity

Not considered toxic to fish.

Acute toxicity - aquatic invertebrates

Not available.

Acute toxicity - aquatic plants

Not available.

Acute toxicity - microorganisms

Not available.

Acute toxicity – terrestrial

Not available.

12.2. Persistence and degradability

Persistence and degradability

Inorganic Substance.

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

12.4. Mobility in soil

Mobility Not Known

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment N/A

12.6. Other adverse effects

Other adverse effects Not available.

SECTION 13: Disposal considerations**13.1. Waste treatment methods**

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

SECTION 14: Transport information

General The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

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**

National regulations The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No. 716).

EU legislation Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

Directive 96/29/EURATOM concerning workers and general public protection against ionizing radiations.

Commission Directive 2000/39/EC of 8 June 2000 establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work (as amended).

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information**Revision date** 13/08/2015**Revision** 14**Supersedes date** 10/02/2015**SDS number** 15**Hazard statements in full**

H372 Causes damage to organs (Respiratory system, lungs) through prolonged or repeated exposure if inhaled.

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.