

MATERIAL SAFETY DATA SHEET

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SECTION I

Product Name: Zirconium Silicate (Ceramic Beads)
Chemical Family: ZrO₂ 68.5% SiO₂ 31.5%
Hazardous ingredients: None

SECTION II

Hazards identification

Contains traces of naturally radioactive material (Uranium and Thorium) which is exempt from Federal and State regulations.

SECTION III

First aid measures

General information: none

After contact with eyes: Irritant possible. Remove contact – lenses if necessary. Rinse eyes thoroughly with plenty of water and seek medical advice.

After ingestion: If a large amount is swallowed, seek medical attention.

Hints for the physician: Treat symptomatically.

SECTION IV

Fire-fighting measures

Suitable extinguishing media: Fire extinguishing method of surrounding areas must be discussed.

Special protective equipment: None.

Accidental release measures

Personal precautions: Avoid dust formation. Do not breathe dust.

Environmental precautions: No special measures necessary.

Methods for cleaning up/ taking up: Pick up mechanically and reuse if possible.

SECTION V

Handling and storage

Handling

Advice on safe handling: Avoid dust formation. Risk of slipping due to spillage of product.

Storage

Requirements for storage rooms and vessels: none

Advice on storage compatibility: May not be stored together with explosive, oxidizing agents and infectious materials.

Storage class: 13 (non- combustible solid)

SECTION VI

Exposure controls/personal protection

Additional advice on system design: none

Ingredients with occupational exposure limits to be monitored: none

Personal protective equipment:

Respiratory protection: dust mask

Hand protection: protective gloves

Eye protection: tightly fitting safety glasses

Body protection: working clothes

General protective and hygiene measures: Avoid dust formation. Do not inhale dust. Avoid contact with eyes and skin. Do not eat, drink or smoke during work time. Wash hands before breaks and after work.

Recommended limit of dust in the air for 8 working hours per day = 2.5 mg/m³ (dust derived from the Product).

SECTION VI

Physical and chemical properties

Appearance:

Form: beads

Color: white

Odor: odorless

Data relevant to safety:

Self ignition: not self ignitable

Danger of explosion: none

Melting point / melting area: 2550° C

Density: 4.0 kg/dm³

Bulk weight 2.4 kg/dm³

Solubility: insoluble in all common solvents

Particle size: beads with diameter < 4,0 mm

Stability and reactivity

Stability: The product is stable at room temperature and temperature lower 1300°C

Reactivity: Chemical attack with Fluorhydric acid.

Toxicological information

Breathing border of Zirconium compounds:

-5 mg/m³ of Zr for 8 hour ACGIH, MAK, and OSHA (TWA)

-10 mg/m³ of Zr for 15 minutes ACGIH, OSHA (STEL)

Amorphsilica border:

-4 mg/m³, MAK – 6 mg/m³, OSHA- 10 mg/m³, ACGIH for 8 hour (TWA)

Ecological information

General information: Ecological data not available. No ecological hazards are known to be associated with this product

Disposal consideration:

Product:

Advice: Material should be reused or recycled if possible.

Uncleaned Packaging:

Advice: Uncontaminated packaging may be reused .

Cleaning agent: Water

Transport information

No dangerous goods.

Regulatory information

Zirconium silicate beads are not considered to be hazardous by the EPA under 29 CFR 1910.1200 and the Federal Register, Vol.51, No. 221, pp. 41582-41594. The RCRA status of unused material is not Hazardous according to the list of CERCLA chemicals. It is not on the toxic chemical list in the Committee Print Number 99-169.

National regulations:

Water hazard class: not hazardous

Other information

This information is based on our present state of knowledge. It should not therefore be construed as guaranteeing specific properties of the products described or their suitability for a particular application.

Data sheet issued by:

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