

1. IDENTIFICATION OF THE PRODUCT AND THE COMPANY

PRODUCT: Ceramic Honeycomb Monoliths, Material: stabilized mullite ceramics "CR30", any dimensions

MANUFACTURER: IBIDEN Porzellanfabrik Frauenthal GmbH

DATE OF ISSUE: 19 FEB 2019

2. COMPOSITION

component	percentage
Alumina Oxide	60-70
Silica Dioxide	25-35
Iron Oxide	0-2
Titanium Dioxide	0-2
Calcium Oxide	0-2
Magnesia Oxide	0-2
Sodium Oxide	0-2
Potassium Oxide	2-6
Barium Oxide	1-5

The ceramic honeycomb Monoliths are not a regulated chemical as they do not release or otherwise result in exposure to a hazardous chemical under normal conditions of use.

3. POSSIBLE DANGER

The ceramic honeycomb monoliths are not a regulated chemical as they do not release or otherwise result in exposure to a hazardous chemical under normal conditions of use.

4. HEALTH, FIRST AID AND MEDICAL DATA

a) INHALATION: In normal use dust creation is not possible. Dust can only be created in case of machining, grinding or similar operations normally not foreseen for this product. If dust is created, there is the possibility of breathing in irritant powders. Prolonged exposure to Silica can lead to silicosis. Silica may be a possible carcinogen. More than 97 % of the Silica in this material is chemically bound as Silicates and glass-phase. The content of Silica the dust of this material is very low.

b) SKIN: **Absorption:** N/A
Handling: These articles are hard and abrasive and may have sharp broken edges.

c) EYE: Dust may cause irritation. Breaking the material may result in fine and sharp fragments.

In case of contact: irrigate with water. Do not wipe away fragments or particles. Call for medical assistance if fragments are in eyes.

d) Ingestion: N/A

5. FIRE AND EXPLOSION HAZARD DATA

As sold the material is inflammable and there is no risk of fire or explosion.

6. ACCIDENTAL RELEASE

No risk for the environment

7. STORAGE AND HANDLING

- a) Stacking height: max. one pallet
- b) Avoid rough handling to avert abrading or crushing the articles.
- c) Minimize dust.
- d) Watch footing if articles fall onto walking surfaces.
- e) Protect against sharp, broken edges.

8. LIMITING EXPOSURE AND PERSONAL SAFETY EQUIPMENT

Respiratory Protection: wear dust masks if dust is created
Ventilation: local ventilation recommended if dust is created
Protective gloves: recommended
Eye protection: recommended
Other equipment: adequate covering to protect from sharp edges. Other equipment as customer's policies dictate

9. PHYSICAL AND CHEMICAL PROPERTIES

State of Aggregation: solid
SPECIFIC GRAVITY: 2.5 g/cm³
WEIGHT/VOLUME: 0.6-1,2 g/cm³
SOLUBILITY: **in water:** insoluble
 in alcohol: insoluble
 other solvents: insoluble
SOFTENING POINT: 1400°C
(Start of softening of a standard cylinder under constant load of 0.2 N/mm²)

10. STABILITY AND REACTIVITY

N/A for general casting filter applications. Silicate Products may react, although not violently, with hydro fluoric acid or active fluorides.

11. INFORMATION ON TOXICOLOGY

Non toxic

12. INFORMATION ON OEKOLOGY

No danger

13. INFORMATION ON DISPOSAL

Waste disposal method: landfill in accordance with local, state and federal regulation. Be guided by extraneous matter to which these articles may have been exposed in the user's process.

14. REGULATIONS FOR TRANSPORT

No restrictions

15. REGULATIONS

R- Label

S- Label

---, for disposal of fractured pieces S 37

16. OTHER INFORMATION

As sold these articles are solid, inert and non-hazardous. If Customers processing introduces hazardous (toxic), flammable or explosive materials to the articles, be guided by their nature.

If manufacturer crushes or grinds the product and generates dust corresponding state regulations apply.

The information given is based on the present state of knowledge and experience according to the law on declaration and preparation of dangerous chemicals.

The information given is intended to describe safety requirements and does not imply any guarantee of particular characteristics.