

# Safety Data Sheet

according to Regulation (EG) Nr. 1907/2006  
(changed by Regulation (EU) Nr. 453/2010)

INMATEC

## INMAFEED K1015 - Zirconia / black Injection Moulding Feedstock

Print date: 13.06.2018  
Version: 1.2 EN

Product code: -  
Replaces version 1.1 EN

### 1. Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifier:

##### Identification of the substance or preparation:

Use for ceramic injection moulding

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

##### Relevant identified uses

Use for ceramic injection moulding

#### 1.3 Details of the supplier of the safety data sheet:

##### Company/undertaking identification

Company Name: INMATEC Technologies GmbH  
Street: Heerstrassenbenden 11  
Place: D-53359 Rheinbach  
Phone: +49-2226-9087-0  
Responsible Department: INMATEC Technologies GmbH  
Quality management, job safety  
02226/9087-30 + 53  
[info@inmatec-gmbh.com](mailto:info@inmatec-gmbh.com)

#### 1.4 EMERGENCY TELEPHONE NUMBER:

Emergency number: +49-2226-9087-0 (08:00 - 17:00h)

### 2. Hazards identification

#### 2.1 Classification of the substance or mixture:

*Classification in accordance with Regulation (EC) No 1272/2008 (CLP)*  
Aquatic Chronic 2; H411

*Classification in accordance with Directive 67/548/EEC or 1999/45/EC*  
N; R51/53  
The preparation is not dangerous in the sense of Directive 1999/45/EC.

#### 2.2 Label elements

*Labelling according to Regulation (EC) No 1272/2008 (CLP Regulation)*  
Hazard pictograms



GHS09

##### Hazard statements

H411 Toxic to aquatic life with long lasting effects.

##### Hazard statements (EU)

EUH208 Contains cobalt oxide. May produce an allergic reaction.

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### Precautionary statements

P273 Avoid release to the environment.  
P391 Collect spillage.  
P501 Dispose of contents/Container in accordance with local and national regulations.

### 2.3 Other hazards

The usual precautions when handling chemicals should be taken.

## 3. Zusammensetzung / Angaben zu Bestandteilen

### 3.1 Substances

not applicable

### 3.2 Mixtures

#### Description of the mixture:

Ceramic Feedstock on the basis of zirconium oxide

EC No.	CAS No.	Substance name	Concentration	Classification according Regulation (EC) No 1272 (CLP)	REACH
215-227-2	1314-23-4	ZIRCONIUM OXIDE	80 - 85 %		01-2119486976-14
	25322-68-3 68441-17-8	Combination based on polymers	10 - 15 %		
215-233-5	1314-36-9	YTTRIUM OXIDE	5 - 7 %		
235-013-2	12055-23-1	HAFNIUM DIOXID	1 - 2 %		
215-691-6	1344-28-1	ALUMINIUM OXIDE	0 - 1 %		
215-154-6	1307-96-6	COBALT OXIDE	0 - 1 %		
215-222-5	1314-13-2	ZINC OXIDE	0 - 1 %		
215-168-2	1309-37-1	DIIRON TRIOXIDE	1 - 2 %		

\*For more detailed chemical composition, refer to the certificate of analysis of the powder

## 4. First aid measures

### 4.1 Description of first aid measures

#### General informations

In case of accident or if you feel unwell, seek medical advice immediately (show safety data sheet if possible).

#### Following inhalation:

Provide fresh air. In case of irritation of the respiratory tract seek medical advice. In case of allergic symptoms especially in the breathing area, seek medical advice immediately.

#### Following skin contact:

In case of persisting skin irritation consult a doctor. After contact with skin, wash immediately with plenty of water and soap.

#### Following eye contact:

In case of skin irritation consult a doctor. After contact with skin, wash immediately with water and soap.

#### Following ingestion:

Rinse mouth thoroughly with water. Let water be swallowed in little sips (dilution effect). Do not induce vomiting.

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

We have no description of any toxic symptoms.

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

No further relevant information available.

## 5. Firefighting measures

### 5.1 Extinguishing media:

#### Suitable extinguishing media:

Extinguishing materials should be selected according to the surrounding area. Water fog. Carbon dioxide (CO<sub>2</sub>). Extinguishing powder. Foam.

#### Unsuitable extinguishing media:

High power water jet.

### 5.2 Special hazards arising from the substance or mixture

In case of fire may be liberated: carbon monoxide; carbon dioxide

### 5.3 Advice for fire-fighters

Wear self-contained breathing apparatus, wearing protective clothing. Contaminated extinguishing water must be collected separately, must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations be.

## 6. Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Ensure sufficient ventilation, avoid exposure, avoid formation of dust, do not inhale the dust. Wear personal protection equipment. (Refer to chapter 8).

### 6.2 Environmental precautions

Do not empty into drains / surface water / ground water

### 6.3 Methods and material for containment and cleaning up

Collect in closed containers for disposal. Avoid generation of dust. Wash with generous amount of water.

### 6.4 Reference to other sections

Wear personal protection equipment. (Refer to chapter 8).

## 7. Handhabung und Lagerung

### 7.1 Precautions for safe handling

#### Precautions for safe handling

Wear suitable protective clothing (Refer to chapter 8).

#### Advice on protection against fire and explosion

Please note: Usual measures für fire prevention.  
Product is combustible  
Under certain conditions dust explosible; Fire-class B

#### Further information on handling

Conditions to avoid: Avoid generation of dust.

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### 7.2 Conditions for safe storage, including any incompatibilities

#### Requirements for storage rooms and vessels

Keep/Store only in original container. Keep container tightly closed. Do not store at temperatures over 30 °C.

#### Advice on storage compatibility

Do not store together with: Sodium nitrate, oxygen difluoride, chlorine trifluoride, ethylene, fluorine; vinyl acetate, hydrogen halides, chlorinated hydrocarbons

#### Further information on storage conditions

Protect from moisture  
Storageclass (VCI): 11

### 7.3 Specific end uses:

For more information, please refer to our "Technical Datasheet" document.

## 8. Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limits:

Zirkonium oxide: CAS-No.: 1314-23-4  
1 mg/m<sup>3</sup> in relation to the respirable fraction.  
Exceeding factor: 1  
Duration 15 min, average; 4 times per shift; a distance 1 h.  
Category I - substances for which the local effect being relevant, or respiratory sensitisers.

### 8.2 Exposure controls

#### Occupational exposure controls

Avoid contact with skin, eye and clothing

#### Protective and hygiene measures

Always close containers tightly after the removal of product.

#### Respiratory protection

Respiratory protection required in case of:  
exceeding critical value  
Suitable respiratory protective equipment:  
Combination filter device (DIN EN 141). Filtertyp: B-P2/P3

#### Hand protection

Pull-over gloves of rubber. DIN EN 374.  
Suitable material:  
CR (polychloroprenes, Chloroprene rubber) - 0.5mm  
NBR (Nitrile rubber) - 0.35mm  
FKM (fluororubber) - 0.4mm  
PVC (Polyvinyl chloride) - 0,5mm  
Butyl rubber - 0.5mm

#### Eye protection

Suitable eye protection. Tightly sealed safety glasses. DIN EN 166.

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### 9. Physical and chemical properties

#### General Information

Physical state: granules (solid)  
Colour : brown  
Odour: faint

### 10. Stability and reactivity

#### 10.1 Reactivity

See Section 10.3

#### 10.2 Chemical stability

See Section 10.3

#### 10.3 Possibility of hazardous reactions

No decomposition if used according to specifications.

#### 10.4 Conditions to avoid:

Temperatures over 60 °C (to preserve the technological properties of the product).

#### 10.5 Incompatible materials:

None known

#### 10.6 Hazardous decomposition products

in case of fire may be liberated:  
Carbon monoxide (CO), carbon dioxides (CO<sub>2</sub>)

### 11. Toxicological information

#### 11.1 Information on toxicological effects

None toxicological results known

#### Acute toxicity

Not available

#### Irritation

Not available

#### Local effects

Not available

#### Carcinogenicity

Not available

#### Germ cell mutagenicity Mutagenität

Not available

#### Reproductive toxicity

Not available

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### 12. Ecological information

#### 12.1 Toxicity:

Acute fish toxicity:	LC50>10g/l
Bacterial toxicity:	EC0>1.000mg/l
Method:	OECD 209

#### 12.2 Persistence and degradability

Product is difficult to biodegrade.  
Method: Zahn-Wellens-Test

#### 12.3 Bioaccumulative potential

Not available

#### 12.4 Mobility in soil

Not available

#### 12.5 Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

#### 12.6 Other adverse effects

None known

### 13. Disposal considerations

#### 13.1 Waste treatment methods

##### Advice on disposal

Waste disposal according to official state regulations.  
Consult the local waste disposal expert about waste disposal.

##### Waste disposal number of waste from residues / unused products

060316 WASTES FROM INORGANIC CHEMICAL PROCESSES;  
Wastes from the MFSU of salts and their solutions and metallic oxides; metallic oxides other than those mentioned in 060315

##### Contaminated packaging

Cleaned containers may be recycled.

### 14. Transport information

#### 14.1 Transport (ADR/RID/ADN)

Class	9
Classification code	M7
Packing group	III
Hazard identification no.	90
UN number	UN3077
Technical name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
Danger releasing substance	cobalt oxide zinc oxide
Tunnel restriction code	E
Label	9
Environmentally hazardous substance mark	Symbol "fish and tree" GHS09

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### 14.2 Transport IMDG (sea transport)

Class	9
Packing group	III
UN number	UN3077
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
Danger releasing substance	cobald oxide zinc oxide
EmS	F-A+S-F
Label	9
Marine pollutant mark	Symbol "fish and tree" GHS09

### 14.3 Transport ICAO-TI / IATA (air transport)

Class	9
Packing group	III
UN number	UN3077
Proper shipping name	Environmentally hazardous substance, solid, n.o.s.
Danger releasing substance	cobald oxide zinc oxide
Label	9
Environmentally hazardous substance mark	Symbol "fish and tree" GHS09

### 14.4 Packing group

Not applicable

### 14.5 Environmental hazards

Not applicable

### 14.6 Special precautions for user

Not applicable

### 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

## 15. Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

#### Labelling

S phrases Do not breathe dust.

#### National regulations

Council directive 96/82/EC on the control of major-accident hazards involving dangerous substances

Remarks Annex I, part 2, category 9b

### 15.2 Chemical Safety Assessment

For this substance a chemical safety assessment is not required.

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### 16. Other information

#### Further information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

#### Full text of the R-, H- and EUH-phrases drawn up in sections 2 and 3 (provided not already drawn up in these sections)

R22	Harmful if swallowed.
R43	May cause sensitisation by skin contact.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
H302	Harmful if swallowed.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

#### Changes

Rev.: 1.1 - updated new TUV Logo !

***The data for the hazardous ingredients were taken each from the last version of the sub-contractor's safety data sheet.***

INMATEC Technologies GmbH  
Heerstrassenbenden 10, D-53359 Rheinbach  
[www.inmatec-gmbh.com](http://www.inmatec-gmbh.com)  
[info@inmatec-gmbh.com](mailto:info@inmatec-gmbh.com)

Geschäftsführer: Dr. Moritz von Witzleben  
Amtsgericht bonn HRB 12582

Ust-Identnr.: DE230418018, St.Nr. 222/5708/1896



**Commerzbank AG**  
Kto: 324 999 200 - BLZ: 380 400 07  
IBAN DE24 3804 0007 0324 9992 00  
SWIFT/BIC Code: CO BA DE FF 383  
**Kölnener Bank**  
Kto: 930 354 007 - BLZ 371 600 87