

Safety Data Sheet

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



INMAFEED K1009, K1012 - Zirconia 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:

Zirconia Feedstock on the basis of INMAFEED bindersystem

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

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:

The preparation is not dangerous in the sense of Directive 1999/45/EC.

2.2 Label elements

Labelling according to Regulation (EC) No 1999/45/EC

Hazard pictograms: not applicable
Signal word: not applicable
Hazard statements: not applicable
Precautionary statements: not applicable

2.3 Other hazards

The usual precautions when handling chemicals should be taken.

3. Composition / information on ingredients

3.1 Substances

not applicable

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3.2 Mixtures

Description of the mixture:

Ceramic Feedstock on the basis of alumina oxide and thermoplastic binder system

EC No.	CAS No.	Substance name	Concentration	Classification according Regulation (EC) No 1272 (CLP)	REACH
215-227-2	1314-23-4	ZIRCONIUMDIOXID	80 - 85 %	not applicable	01-2119486976-14
-	25322-68-3 68441-17-8	Combination based on polymers	15 - 20 %	not applicable	-
215-227-2	1314-36-9	YTTRIUMOXID	1 - 5 %	not applicable	-
235-013-2	12055-23-1	HAFNIUMDIOXID	1 - 5 %	not applicable	-

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

Additional information:

The preparation is not dangerous in the sense of Directive 1999/45/EC.

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:

Rinse immediately carefully and thoroughly with eye-bath or water. In case of troubles or persistent symptoms, consult an ophthalmologist.

Following ingestion:

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

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 (CO₂). Extinguishing powder. Foam.

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Unsuitable extinguishing media:

High power water jet.

5.2 Special hazards arising from the substance or mixture

Can be released in case of fire: Carbon monoxide (CO). Carbon dioxide (CO₂)

5.3 Advice for fire-fighters

Wear breathing apparatus with own air supply.

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

Leakage into the environment must be prevented

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. Handling and storage

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.

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

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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:

CAS-No.	Chemical name	mi/m ³	mg/m ³	F/m ³	Category	Origin
1314-23-4	Zirconiumoxid		1		I	AGW

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.

9. Physical and chemical properties

General Information

Physical state: granules (solid)
Colour : white to light greyish
Odour: faint

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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

Thermal decomposition will evolve toxic and caustic vapours:
Carbon monoxide, ammonia, aminated derivatives, carbon oxides, hydrogen cyanides.

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

12. Ecological information

12.1 Toxicity:

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

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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 UN No.

Not applicable

14.2 UN Proper shipping name

Not applicable

14.3 Transport hazard class(es)

Not applicable

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

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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

VbF classification The products are not subject to the German "Flammable Liquids Ordinance" (VbF).

Technical Instructions (air 1): 5.2.1: Total dust, including fine dust with $m > 0,2 \text{ kg/h}$
Conc. 20 mg/m^3 respectively with $\leq 0,2 \text{ kg/h}$: Conc. $0,15 \text{ g/m}^3$

Quantity:
Technical Instructions (air 3): 5.2.1: Total dust, including fine dust with $m > 0,2 \text{ kg/h}$
Conc. 20 mg/m^3 respectively with $\leq 0,2 \text{ kg/h}$: Conc. $0,15 \text{ g/m}^3$

Quantity:
Water hazard class 1 - slightly hazardous to water
Status: Mixture rules in German VwVwS regulation annex 4, No. 3

15.2 Chemical Safety Assessment

For this substance a chemical safety assessment is not required.

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.

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.

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