

Safety data sheet in accordance with Regulation (EC) No 1907/2006

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Revision date: 14.11.2014
Replacement of version 0004 of 21.10.2013

Version: 0005

KNAUF

KNAUF AQUAPANEL GmbH

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

1.1 Identification of the substance or mixture

Trade name **Perfüller Z; Perfüller F; Perfüller 20; Perfüller 20/50; Perfüller 50**
Product number **depe0005**
Item code **not available**

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

Appropriate use:

The product is used as filler and fine aggregate.

1.3 Company/undertaking identification

KNAUF AQUAPANEL GmbH

Kipperstraße 19

D-44147 Dortmund

Telephone: +49-231-9980-01

Telefax: +49-231-9980-138

e-mail-address of the competent person responsible for this Safety Data Sheet:

urban-finking.gefstoff@t-online.de

Technical contact:

KNAUF AQUAPANEL GmbH, Kipperstraße 19, D-44147 Dortmund

Telephone: +49-231-9980-01

Telefax: +49-231-9980-138

1.4 Emergency telephone number

Giftnotruf Berlin, Advice in German and English

Telephone: +49-30-30686 790

2. Hazards identification

2.1 Classification of the substance or mixture

2.1.1 Classification in accordance with Regulation (EC) No 1272/2008

STOT RE 2; H373 (lung; inhalation)

2.1.2 Classification in accordance with Directive 67/548/EEC

The substance does not meet the criteria for a classification as hazardous in accordance with the current version of Directive 67/548/EEC.

2.2 Label elements in accordance with Regulation (EC) No 1272/2008

Hazard pictogram(s):



Signal word(s):

Warning

Product identifier:

Perfüller Z; Perfüller F; Perfüller 20;
Perfüller 20/50; Perfüller 50
contains quartz (respirable) CAS-No 14808-60-7

Hazard statements:

H373

May cause damage to lungs through prolonged or repeated exposure via inhalation.

Precautionary statements:

P260
P285

Do not breathe dust.
In case of inadequate ventilation wear respiratory protection.

Supplemental label for certain mixtures:

Not required

Trade name:	Perlfüller Z; Perlfüller F; Perlfüller 20; Perlfüller 20/50; Perlfüller 50	
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Telephone	+49-231-9980-01	
Product number:	depe0005	

2.3 *Other hazards*

The product contains quartz as an impurity. Quartz is known to be a silicosis-producing substance to human. Avoid absolutely formation of dust during processing and treatment. According to section 2 of the German TRGS 906: in case of formation of alveolar dust of quartz processing and treatment are considered as carcinogenic activities corresponding with Article 3 paragraph 2 No 3 of the German Ordinance on Hazardous Substances. The dustiness of the product has been determined in accordance with DIN 33897-2 and EN 15051-Method B. Classification of dustiness according to EN 15051-Method B:
Dusting propensity concerning respirable dust
Depending on the fraction low up to moderate.
Dusting propensity concerning inhalable dust
Depending on the fraction moderate up to high.
The criteria for identifying substances as PBT and vPvB set out in Annex XIII of Regulation (EC) No 1907/2006 shall not apply to inorganic substances.

3. Composition/information on ingredients

3.1 *Substances*

REACH registration number:

According to Annex V(7), perlite is exempted from the obligation to register, if it is not chemically modified.

3.1.1 *Main constituent of the substance*

This product is perlite of volcanic origin.

CAS No: 93763-70-3

EC No: Not listed

Index No: Not listed

3.1.2 *Impurity, stabilising additive, or individual constituent*

The product contains quartz. The content of the respirable dust fraction is between 1.11% and 1.91% in the dust fraction of perlite.

CAS No: 14808-60-7

EC No: 238-878-4

Index No: Not listed

3.1.3 *Additional information*

None.

4. First aid measures

4.1 *Description of first aid measures*

4.1.1 *General information*

Take off contaminated clothing immediately and wash before reuse.

Emergency eyewash should be provided in the immediate working surroundings.

4.1.2 *In case of inhalation*

If liberated dust is inhaled, ensure supply of fresh air.

Dust in throat and nasal passages must be removed immediately.

In the event of symptoms take medical treatment.

4.1.3 *In case of contact with skin*

No special measures necessary.

4.1.4 *In case of contact with eyes*

In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

Remove contact lenses, if present and easy to do.

Do not rub eyes, cornea damage is possible by mechanical stress.

4.1.5 *In case of ingestion*

No special measures necessary.

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

If liberated dust is inhaled: irritant effect on the respiratory tract, e.g. burning, coughing.

In case of contact of liberated dust with eyes: burning eyes, tears.

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

Treat symptomatically. No information available.

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5. Firefighting measures

5.1 Extinguishing media

5.1.1 Suitable extinguishing media

Product itself is non-combustible. Fire extinguishing method of surrounding areas must be discussed.

5.1.2 Unsuitable extinguishing media

Product itself is non-combustible. Fire extinguishing method of surrounding areas must be discussed.

5.2 Special hazards arising from the substance or mixture

No special hazards have to be mentioned.

5.3 Advice for firefighters

In case of formation of dust, wear self-contained breathing apparatus.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel

Avoid absolutely formation of dust. Ensure adequate ventilation.

Keep away from unprotected people. In case of formation of dust, wear respiratory protection.

6.1.2 For emergency responders

For suitable fabric for personal protective clothing see Section 8.

6.2 Environmental precautions

No special measures necessary.

6.3 Methods and material for containment and cleaning up

Pick up mechanically. Avoid formation of dust.

Do not use compressed air for cleaning surfaces or clothing.

Use approved industrial vacuum cleaner for removal.

6.4 Reference to other sections

For personal protective equipment see also Section 8.

For disposal considerations see also Section 13.

7. Handling and storage

7.1 Precautions for safe handling

7.1.1 Advice on safe handling

Avoid formation of dust. When filling, transferring, or emptying of containers, adequate suctioning close to work place necessary.

Do not compress empty bags, except when contained in another clean bag.

Dust deposits that cannot be avoided must be taken up regularly.

Comply with the minimum standards in accordance with TRGS 500.¹ In case of release of mineral dust, comply with the protective measures in accordance with TRGS 559.¹

In case of dust formation and release of only small amounts of dust (range of grams) the model solutions of the protection guidelines 100¹ and 110¹, 200¹, 208¹ and 240¹ must be taken into consideration.

In case of dust formation and release of medium to large amounts of dust (range of kilograms up to tons) the model solutions of the protection guideline 300¹ (closed system) must be additionally taken into consideration.

The consideration of the Good Practice Guide on Workers Health Protection through the Good Handling and Use of Crystalline Silica and Products Containing it⁵ is recommended.

7.1.2 Advice on general occupational hygiene

Do not inhale dust. After worktime and before breaks the affected skin areas must be thoroughly cleaned.

Take off contaminated clothing immediately and wash before reuse. Store work clothing separately.

Emergency eyewash should be provided in the immediate working surroundings.

7.2 Conditions for safe storage, including any incompatibilities

7.2.1 Advice on protection against fire and explosion

No special measures necessary.

7.2.2 Requirements for storage rooms and vessels

Keep only in the original container. Keep container tightly closed.

7.2.3 Advice on storage compatibility

Do not store together with hydrofluoric acid.

The information about joint storage given in Table 2 of TRGS 510¹ must be observed.

7.2.4 Further information on storage conditions

Store in a dry place.

7.2.5 Storage class (for Germany only)

LGK 13 (non-combustible solids) in accordance with TRGS 510¹.

7.3 Specific end use(s)

The product is only intended for the uses mentioned under subsection 1.2.

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8. Exposure controls/Personal protection

8.1 Exposure limit values

CAS number	Identification	Limit values	Remarks
93763-70-3	perlite	5 mg/m ³ inhalable aerosol 10 mg/m ³ 4 mg/m ³ 10 mg/m ³ inhalable aerosol	National limit values – eight hours Austria Belgium Latvia National limit values – short term Austria
14808-60-7	quartz	0.15 mg/m ³ respirable aerosol 0.1 mg/m ³ 0.3 mg/m ³ inhalable aerosol 0.1 mg/m ³ respirable aerosol 0.1 mg/m ³ 0.05 mg/m ³ respirable fraction 0.1 mg/m ³ respirable aerosol 0.15 mg/m ³ respirable aerosol 0.1 mg/m ³ respirable fraction 0.1 mg/m ³ 0.1 mg/m ³ 0.1 mg/m ³ respirable fraction 0.1 mg/m ³ respirable aerosol 0.075 mg/m ³ respirable dust 0.6 mg/m ³ inhalable aerosol 0.2 mg/m ³ respirable aerosol	National limit values – eight hours Austria Belgium Denmark Denmark Estonia Finland France Hungary Ireland Lithuania Slovakia Spain Sweden The Netherlands National limit values – short term Denmark Denmark

The methods for measuring chemical agents in workplace atmosphere must meet the general requirements of EN 481, EN 482 and EN 689.

8.2 Exposure controls

8.2.1 Appropriate engineering controls

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

See also subsection 7.1.

In case of dust formation exhaust ventilation at the object (initiation point) is necessary.

In case of release of dust, additionally comply with the protective measures in accordance with TRGS 559.¹

The effectiveness of suitable protective measures must be controlled.

Suitable assessment methods are described in the German TRGS 402¹.

8.2.2 Individual protection measures, such as personal protective equipment

Personal protective equipment needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled. In the cases of special applications, it is recommended to check the chemical resistance with the manufacturer/supplier of the personal protective equipment.

8.2.2.1 Eye/face protection

Tightly fitting safety glasses in accordance with EN 166 (in case of dust formation).

8.2.2.2 Skin protection

Hand protection:

Work gloves for protection against mechanical damage.

Body protection:

Closed work clothing.

8.2.2.3 Respiratory protection

Filtering half mask to protect against particles FFP1 – FFP3 in accordance with EN 149 (in dust-laden atmosphere).

Maximum use concentration for substances with occupational exposure limit values (OELV):

P1-filter up to max. 4 x OELV;

P2-filter up to max. 10 x OELV;

P3-filter up to max. 30 x OELV.

These values are only valid for Germany in accordance with the German DGUV Regel 112-190².

The limitations in wearing time according to the DGUV Regel 112-190² (rule of the German employers' liability insurance association) for the use of respirators have to be observed.

8.2.2.4 Thermal hazards

Not relevant.

8.2.3 Environmental exposure controls

See Section 6.

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9. Physical and chemical properties**9.1 Information on basic physical and chemical properties**

Physical state: solid (granulation 0 – 200 µm)
 Colour: greyish brown
 Odour: odourless
 pH (as supplied): 6 – 8.5
 pH (of an aqueous solution): not relevant
 Melting point/freezing point (°C): approx. 1400
 Boiling point and boiling range (°C): not relevant
 Flash point (°C), closed cup: not relevant
 Evaporation rate: not relevant
 Flammability (solid, gas): not relevant
 Upper flammability or explosive limit: not relevant
 Lower flammability or explosive limit: not relevant
 Vapour pressure (20°C) (hPa): not relevant
 Vapour density (20°C): not relevant
 Density (g/cm³): not determined
 Bulk density (g/dm³): 700
 Solubility in water: < 1 wt %
 Soluble in: not determined
 Partition coefficient: n-octanol/water: not relevant
 Auto-ignition temperature (°C): not relevant
 Temperature-resistance (°C): up to + 800
 Dynamic viscosity (mPa · s) (20°C): not relevant
 Explosive properties: not explosive
 Oxidising properties: not relevant

9.2 Other information

None.

10. Stability and reactivity**10.1 Reactivity**

No data available for the product.

10.2 Chemical stability

The product is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

10.3 Possibility of hazardous reactions

When used as intended, no hazardous reaction known.

10.4 Conditions to avoid

When used as intended, no particular conditions known.

10.5 Materials to avoid

Avoid contact with hydrofluoric acid.

10.6 Hazardous decomposition products

No hazardous decomposition products known.

For hazardous combustion products see subsection 5.2.

11. Toxicological information**11.1 Information on toxicological effects****11.1.1 Toxicokinetics, metabolism and distribution**

No data are available for the product.

11.1.2 Acute effects (acute toxicity, irritation and corrosivity)

LD50 rat, oral (mg/kg) No data available.

LD50 rat, dermal (mg/kg) No data available.

LC50 rat, inhalation (mg/l/4h) No data available.

Irritant effect on skin No data available.

Irritant effect on eyes No data available.

11.1.3 Sensitisation

No evidence of sensitive properties of perlite has been found.

11.1.4 Repeated dose toxicity

No data available.

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11.1.5 CMR effects (carcinogenicity, mutagenicity, toxicity for the reproduction)

Carcinogenicity	Quartz has been declared as carcinogenic category 1 by the German MAK-Commission. This declaration only must be considered as scientific recommendations. It is not in accordance with the regulations. According to section 2 of the German TRGS 906: in case of formation of alveolar dust of quartz processing and treatment are considered as carcinogenic activities corresponding with Article 3 paragraph 2 No 3 of the German Ordinance on Hazardous Substances.
Mutagenicity	No data available.
Toxicity for the reproduction	No data available.

11.1.6 Comprehensive evaluation of the CMR properties of substances subject to registration

No data available.

11.1.7 Information on likely routes of exposure

If liberated dust is inhaled: irritant effect on the respiratory tract, e.g. burning, coughing.

In case of contact of liberated dust with eyes: burning eyes, tears.

11.1.8 Symptoms related to the physical, chemical and toxicological characteristics

If liberated dust is inhaled: irritant effect on the respiratory tract, e.g. burning, coughing.

In case of contact of liberated dust with eyes: burning eyes, tears.

11.1.9 Delayed and immediate effects as well as chronic effects from short and long-term exposure

If liberated dust is inhaled: irritant effect on the respiratory tract, e.g. burning, coughing.

In case of contact of liberated dust with eyes: burning eyes, tears.

Frequent inhalation of large quantities of cement dust over a long period of time increases the risk of damage to the lungs. The product contains quartz as an impurity. Quartz is known to be a silicosis-producing substance to human.

11.1.10 Interactive effects

No information on interactive effects available for the product.

11.1.11 General remarks

The product has not been tested.

Labelling on the basis of the content of respirable fine dust of quartz as an impurity.

12. Ecological information**12.1 Toxicity****Aquatic toxicity:**

LC50 (fish) No data available.

EC50 (daphnia) No data available.

IC50 (algae) No data available.

Behaviour in sewage works:

Inorganic product, insoluble in water. Can be mechanically refined for the most part in waste water cleaning plants.

12.2 Persistence and degradability

The product is insoluble in water.

The methods for determining the biological degradability are not applicable to inorganic substances.

12.3 Bioaccumulative potential

The methods for determining the bioaccumulative potential are not applicable to inorganic substances.

12.4 Mobility in soil

The product has not been tested.

12.5 Results of PBT and vPvB assessment

The criteria for identifying substances as PBT and vPvB set out in Annex XIII of Regulation (EC) No 1907/2006 shall not apply to inorganic substances.

12.6 Other adverse effects

Ozone depletion potential No data available.

Photochemical ozone creation potential No data available.

Global warming potential No data available.

AOX-hint Not to apply.

12.7 Further information

Chemical oxygen demand (COD) No data available.

Biochemical oxygen demand (BOD5) No data available.

Contains according to the formulation following compounds of directives 2006/11/EC and 80/68/EEC:

None.

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

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

Disposal operations/recovery operations according to Directive 2008/98/EC

Disposal operations	D 1	Deposit into or on to land
Recovery operations	R 5	Recycling/reclamation of other inorganic materials

13.1.1 Product / unused product

Waste disposal corresponding to European Waste Catalogue. Wastes must be classified with respect to their origin and depending on different processing steps. The waste codes mentioned as follows are only constituted as our recommendations. Referring to the particular case they should be completed or revised.

EC waste code	19 12 09
Waste notation	minerals (for example sand, stones)

Alternative:

EC waste code	01 04 10
Waste notation	dusty and powdery wastes other than those mentioned in 01 04 07

13.1.2 Contaminated packaging

Recommendation: Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse.

Recommended cleansing agent: Remove adhering residues mechanically.

Packaging that cannot be cleaned:

EC waste code:	15 01 02
Waste notation:	Plastic packaging

14. Transport information**14.1 UN number**

No dangerous good in accordance with the UN Model Regulations (ADR/RID/ADN/IMDG/ICAO/IATA).

14.2 UN proper shipping name

Not relevant.

14.3 Transport hazard class(es)

Not relevant.

14.4 Packing group

Not relevant.

14.5 Environmental hazards

Not relevant.

14.6 Special precautions for user

Not relevant.

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

Not relevant.

15. Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****15.1.1 Information regarding relevant Community provisions**

Regulation (EC) No 1907/2006: Annex V(7) (perlite)
(exemptions from the obligation to register)

15.1.2 Information regarding national laws/national measures that may be relevant (for Germany only)

Indications on restriction of occupation: Not relevant
Major-accident Regulation: Not relevant
Fire and explosion hazards: Not relevant
Regulation on clean air (TA Luft): Number 5.2.1 (exhaust stream in case of liberation of dust during processing and treatment)
Water hazard class: Not hazardous to water according to VwVwS³

German Ordinance on Hazardous Substances
(in accordance with EC-Directive 98/24/EC):

Articles 6, 7, 8, 9, 14, Annex I No 2 must be observed.

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(Continued from 15.1.2 Information regarding national laws/national measures that may be relevant (for Germany only))

In case of liberation of dust during processing and treatment:

Regulation on Occupational Medical Prevention (ArbMedVV): Annex, Part 1 (1):
Obligatory prophylaxis: The employer shall arrange occupational medical prophylaxis for workers conducting activities with exposure to silicogenic dust, if the occupational exposure limit value is exceeded.
 Annex, Part 1 (2):
Prophylaxis offer: For activities involving silicogenic dust occupational medical prevention has to be offered.
 Technical Rules for Hazardous Substances¹: TRGS 400, 402, 500, 510, 555, 559, 600, 900, 906
 Rules of the employers' liability insurance association²: DGUV Regel 112-190, 112-192
 Informations of the employers' liability insurance association²: DGUV Information 250-401
 Classification in accordance with the easy-to-use workplace control scheme for hazardous substances of the Federal Institute for Occupational Safety and Health, version 2.2, 2012⁴: inhalation: hazard group C
 (in case of release of mineral dust, the protective measures in accordance with TRGS 559¹ should be applied preferably)

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out.

16. Other information

- 16.1 Keeping (restrictions)** Not relevant
- Supply** to industry consumer
- 16.2 Full text of the hazard statements referred to under point 2.1.1 of the Safety Data Sheet**
 H373 May cause damage to lungs through prolonged or repeated exposure via inhalation.
- 16.3 Full text of the R phrases referred to under point 2.1.2 of the Safety Data Sheet**
 Not to apply.
- 16.4 Label elements in accordance with Directive 67/548/EEC**
- Symbol(s) of danger: Not required
- Indication(s) of danger: Not required
- Hazardous component(s) to be indicated on label: Not required
- R phrases: Not required
- S phrases: Not required
- Special labelling for certain mixtures: Not required
- 16.5 Key to abbreviations and acronyms used in the safety data sheet**
- ADN: Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure
- ADR: Accord européen relatif au transport international des marchandises dangereuses par route
- AOX: adsorbable organically bound halogens
- ICAO/IATA: International Civil Aviation Organisation/International Air Transport Association-Dangerous Goods Regulations
- IMDG-Code: International Maritime Dangerous Goods-Code
- LGK: Lagerklasse (storage class)
- NEPSI: Noyau Européen pour la Silice – European Network for Silica
- PBT: persistent, bioaccumulative and toxic
- RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer
- TRGS: Technische Regeln für Gefahrstoffe (Technical Rules for Hazardous Substances)
- VCi: Verband der chemischen Industrie (German Association of Chemical Industry)
- vPvB: very persistent and very bioaccumulative
- VwVwS: Verwaltungsvorschrift wassergefährdende Stoffe (Administrative Regulation of Water-polluting Substances)

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16.6 Literature references and sources for data¹ <http://www.baua.de>² <http://www.arbeitssicherheit.de>³ <http://www.umweltbundesamt.de>⁴ <http://www.baua.de/emkg>⁵ <http://www.nepsi.eu>**16.7 Changes which have been made to the previous version of the safety data sheet****Revised sections: 1.2, 2.1.1, 2.2, 8.1, 8.2.1, 8.2.2, 8.2.2.3, 11.1.11, 15.1.2, 16.2**

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.

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