

PORESPHERE™ Makro B

Silica gel wide-pored type B

Section 1: Name of the substance/mixture and the company

1.1 Product identification

PORESPHERE™ Makro B

1.2 Relevant identified uses of the substance or mixture and uses that are discouraged

Relevant Identified Uses:

Solid for drying gases

1.3 Information on the supplier of the safety data sheet

GIEBEL Desiccants GmbH

Carl-Zeiss-Str. 5

74626 Bretzfeld-Schwabbach

Germany

Phone: +49 7946 944401-11

E-mail: desiccants@gf-dry.com

1.4 Emergency number

+49(0)7946 9444010 (during normal business hours)

+49(0)176 42554437 (outside normal business hours)

Section 2: Identification of hazards

2.1 Label elements in accordance with Regulation (EC) No 1272/2008 [CLP]

The product does not require a hazard statement according to GHS criteria.

2.2 Label elements according to Directive (EC) No. 1272/2008

Globally harmonized system, EU (GHS)

The product does not require a hazard statement according to GHS criteria.

In accordance with Regulations 67/548/EEC and 1999/45/EC

The product does not require a hazard statement according to EC criteria.

2.3 Other hazards

In accordance with Regulation (EC) No. 1272/2008

This solid/mixture does not contain components with a concentration of 0.1% or higher that are classified as persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB).

Section 3: Composition/Ingredient Claims

3.1 Substances

Chemical nature

Synonyms: Adsorbents, Silica Gel, Dry Beads, Desiccant

Amorphous Silicon Dioxide 99%

CAS No: 7631-86-9

EC No.: 231-545-4

REACH Registration Number: 01-2119379499-16-0401

Hazardous Ingredients (GHS) according to Regulation (EC) No. 1272/2008

No particular dangers known. According to the leading legal provisions, there are no components that need to be advised.

Section 4: Composition/Ingredient Information

4.1 Description of first aid measures

Remove contaminated clothing.

If inhaled:

Keep the patient calm, bring to the fresh air.

In case of skin contact:

Wash thoroughly with soap and water

In case of contact with eyes:

Wash the affected eyes under running water with open eyelids for at least 15 minutes.

When ingested:

Rinse your mouth and then drink plenty of water.

4.2 The main symptoms and effects, both acute and delayed

Symptoms: No significant response of the human body to the product known.

4.3 Indication of immediate medical attention and special treatment required

Treatment: Symptomatic treatment (decontamination, vital signs).

Section 5: Firefighting measures

5.1 Extinguishing agents

Suitable extinguishing agents

Use spraying water, alcohol-resistant foam, dry chemicals, or carbon dioxide.

5.2 Special hazards from the substance or mixture

No particular dangers known.

5.3 Advice for firefighters

Special protective equipment:

Wear a self-contained breathing apparatus.

Further information:

The product itself is non-flammable; The fire extinguishing method of the surrounding areas must be taken into account. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Do not breathe in dust. Avoid contact with skin, eyes and clothing. Use personal protective clothing. For information on personal protective measures, see Chapter 8.

6.2 Environmental precautions

Discharge into the environment must be avoided.

6.3 Methods and material for enclosure and purification

Avoid stirring up dust. Steam, mechanically pick up and discard. Correct

Dispose of the recovered product immediately. Reclaim for processing if possible.

6.4 Reference to Other Sections

For information on exposure limits/personal protection and disposal considerations, see Sections 8 and 13.

Section 7: Handling and storage

7.1 Precautions for safe handling

Avoid dust formation. Avoid inhaling dusts. Avoid contact with skin, eyes and clothing. Make sure that the processing machines are properly extracted.

Protection against fire and explosion:

The substance/product is non-flammable.

7.2 Conditions for safe storage, including any incompatibilities

Store it in a cool, dry and well-ventilated place in a tightly closed container.

Storage class (TRGS 510): Non-flammable solids

Suitable materials for containers: carbon steel (iron), low-density polyethylene (LDPE). Further information on storage conditions: Containers should be stored tightly closed in a dry place.

7.3 Specific end-use(s)

For the relevant use(s) identified in Section 1, the recommendations set out in this Section 7 shall be followed.

Section 8: Exposure limitation/personal protection

8.1 Control Parameters

Components with workplace-related monitoring limits.

Component:

Silica gel granules

Specification:

TRGS 900 – Monitoring Limits

Value:

4 mg/m³

Remark:

Senate Commission for the Testing of Harmful Substances of the DFG (MAK Commission) Colloidal Amorphous Silica (7631-86-9) including Fumed Silica and silica produced by the wet process (precipitated silica, silica gel).

There is no need to fear a risk of fetal damage if the occupational exposure limit value and the biological limit value (BGW) are observed.

8.2 Exposure limits Personal protective equipment

Respiratory

Respiratory protection in the event of dust formation. Particulate filter with low efficiency for solid particles (e.g. EN 143 or 149, type P1 or FFP1)

Guard:

Chemical-resistant protective gloves (EN 374)

Eye protection:

Safety goggles with side protection (frame glasses) (e.g. EN 166)

Body Protection:

Body protection must be chosen based on the level of activity and exposure.

General safety and hygiene measures:

Store work clothes separately. Hands and/or face should be washed before breaks and at the end of the shift.

Section 9: Physical and chemical properties

9.1 Information on Basic Physical and Chemical Properties

Shape: Pearls

Colour: colourless

Odor: odorless

Odour threshold: not determined

pH value: 4 – 8 (100 g/kg) (as suspension)

Melting point: > 550 °C

Boiling point: not relevant

Flash point: non-flammable

Evaporation rate: not applicable

Flammability: does not ignite

Lower explosion limit: not applicable

Upper explosion limit: not applicable

Ignition temperature: not applicable

Vapor pressure: (20 °C) negligible

Relative vapour density (air): not applicable

Water solubility: practically insoluble (20 °C)

Distribution coefficient n-octanol/water (log Kow): not applicable

Self-combustion: non-combustible

Thermal decomposition: not determined
Viscosity, dynamic: not applicable
Risk of explosion: non-explosive
Fire-promoting properties: non-fire-spreading

9.2 Other information

Bulk Density: $\geq 750\text{g/L}$

Section 10: Exposure limitation/personal protection

10.1 Reactivity

No dangerous reactions during storage and handling as prescribed/indicated.
Metal corrosion: Non-corrosive effect on metal.
Formation of combustible gases:
Does not form flammable gases in the presence of water.

10.2 Chemical Stability

The product is chemically stable.

10.3 Possibility of Dangerous Reactions

The addition of water leads to an increase in temperature.
The product is chemically stable

10.4 Conditions to Avoid

Avoid dust formation. Avoid the build-up of dust.

10.5 Incompatible Materials

Substances to avoid: Water

10.6 Dangerous decomposition products

Substances to avoid:
No dangerous decomposition products known.

Section 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity
Of low toxicity after a single dose.

Experimental/calculated data:

LD50 rat (oral): > 2000 mg/kg

The product has not been tested. The statement was derived from products of similar structure or composition

LC50 rat (inhaled): > 2.07 mg/l 4 h

The product has not been tested. The statement was derived from products of similar structure or composition. An aerosol was tested.

LD50 Rabbit (dermal): > 5000 mg/kg

The product has not been tested. The statement was derived from products of similar structure or composition

Irritation

Not irritating to the eyes. Non-irritating to the skin.

Sensitization of the respiratory tract/skin

Skin sensitizing effects were not observed in animal studies. The product has not been tested. The statement was derived from products of similar structure or composition.

Germ cell mutagenicity

No data available

Carcinogenicity

No data available

Reproductive toxicity

No data available

Developmental toxicity

No data available

Specific target organ toxicity (single exposure)

No data available

Repeated dose toxicity and specific target organ toxicity (repeated exposure)

No data available

Risk of aspiration

No data available

Other relevant toxicity information

The product has been evaluated based on the available data of the components.

There are some data gaps for individual components. However, our current knowledge and experience do not lead to risks beyond labeling.

Section 12: Ecological information

12.1 Toxicity

No data available

12.2 Persistence and Degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in the ground

No data available

12.5 PBT and vPvB Assessment Results

A PBT/vPvB assessment is not available as a chemical safety assessment is not required/is not carried out.

12.6 Other adverse effects

Avoid invading the environment.

Section 13: Disposal Considerations

13.1 Waste treatment processes

Product

Comply with national and local legal regulations. If recycling is to be carried out, specialized companies should be approached.

Contaminated packaging

Dispose of in accordance with national, state, and local regulations. Used packaging must be emptied optimally and how the substance/product is to be disposed of.

Section 14: Transport information

14.1 UN number

ADR/RID: -

IMDG:-

IATA:-

14.2 UN shipping name

ADR: No dangerous goods in the sense of the transport regulations

RID: No dangerous goods in the sense of the transport regulations

IMDG: No dangerous goods

IATA: No dangerous goods

14.3 Hazard classifications for transport

ADR/RID: -

IMDG:-

IATA:-

14.4 Packaging Group

ADR/RID: -

IMDG:-

IATA:-

14.5 Danger to the environment

ADR/RID: no

IMDG marine pollutant: no

IATA: no

14.6 Special precautions for the user

No data available

Section 15: Regulatory Information

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

Water hazard class (VwVwS, Annex 4): 1 - Slightly hazardous to water.

Directive 96/82/EC on dangerous substances Directive 96/82/EC

Not applicable

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer

Unregulated

Regulation (EC) No 850/2004 on persistent organic pollutants and amending

Directive 79/117/EEC

Unregulated

Regulation (EC) No 689/2008 on the export and import of hazardous chemicals

Unregulated

Substances of Very High Concern (SVHC)

This product does not contain any substances of very high concern above the relevant legal limit (> 0.1% (w/w) REACH Regulation (EC) No. 1907/2006, Article 57).

If other regulatory information applies that is not already included elsewhere in this safety data sheet, it is described in this subsection.

15.2 Chemical safety assessment

No chemical safety assessment has been carried out for this product.

Section 16: Other information

The data contained in this safety data sheet is based on our current knowledge and experience and describes the product only with regard to safety requirements. The data does not describe the characteristics of the product (product specification). Neither an agreed property nor the suitability of the product for a specific purpose may be derived from the information in the safety data sheet. It is the responsibility of the recipient of the product to ensure that all proprietary rights and existing laws and regulations are complied with.

Abbreviations and acronyms

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations of the "International Air Transport Association"

(IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical instructions of the "International Civil Aviation Organization" (ICAO)

GHS: Globally harmonized system for classification and labeling of chemicals

LC50 Lethal concentration, 50 percent

LD50 Lethal dose, 50 percent