
1. Identification of substance/preparation and company

Product trade names

AKTISIL AM, EM, MAM, MAM-R, MM, PF 216, PF 777, Q, VE, VM 56

REACH registration number

Exempt from the requirement to register in accordance with Article 2 § (9).

Use of substance/preparation

AKTISIL is used as a functional filler for elastomers, plastics, paints and varnishes, adhesives, and polishing and protective agents, as well as in the construction and chemical industries.

Manufacturer/supplier information

HOFFMANN MINERAL GmbH & Co. KG

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2. Possible hazards

Specific hazards for people and the environment

Due to the cryptocrystalline silica, lung fibrosis cannot be ruled out. Prolonged inhalation of large amounts of dust may lead to silicosis.

Hazard identification

The product is not a dangerous substance according to EC Directive 67/548/EC.

3. Composition/information on ingredients

Chemical characterization (individual substances)

Description: AKTISIL products are based on Neuburg Siliceous Earth and coated with various bonding agents. Neuburg Siliceous Earth is one in nature originated inorganic compound of amorphous and cryptocrystalline silica and lamellar kaolinite.

Components

CAS no.

7631-86-9

1318-74-7

Name according to EC Directive

Amorphous and cryptocrystalline silica

Kaolinite

EC classification

No classification

No classification

Bonding agents

Various organofunctional silanes and/or white oil: The exact chemical composition and concentration of the bonding agents is part of company know-how and, therefore, confidential.

4. First aid measures

General information

No special measures.

Inhalation

Breathe fresh air. In the event of breathing difficulties, consult a doctor.

Skin contact

Wash off with plenty of water.

Eye contact

Rinse thoroughly with water, including underneath the eyelids.

Ingestion

In the event of nausea, seek medical advice.
Allow the individual to vomit naturally.

5. Fire-fighting measures

Suitable extinguishing agents

The product itself does not burn, nor does it release any hazardous decomposition products.

Extinguishing agents which are unsuitable on grounds of safety

None

Specific hazards arising from the substance or product itself, its combustion products, or gas emissions

None

Special protective equipment for use in fire-fighting

None

6. Accidental release measures

Personal precautions

Avoid dust formation. If the atmosphere is particularly dusty, breathing apparatus must be worn.

Environmental precautions

See Point 12, "Ecological information".

Methods for cleaning up/removal

Use an industrial vacuum cleaner (minimum dust class M) for removal.

Keep in closed containers, ready for disposal.

Additional information

Where possible, recycling is preferred to disposal.

No hazardous substances are released.

7. Handling and storage

Notes on safe handling

Keep containers tightly closed. Avoid dust formation.

If dust forms, provide appropriate ventilation.

In the event of insufficient ventilation, see Point 8.

Remove and wash soiled clothing.

Notes on fire and explosion protection

No specific fire-precaution requirements.

Requirements for storage rooms and containers

Keep containers tightly closed.

Ensure that dust-protection measures are in place during silo loading.

Further information on storage conditions

Dry storage

Storage class

Non-combustible solids

8. Exposure controls and personal protective equipment

Additional information on the design of technical plants

Adequate ventilation and extraction must be provided at processing machines and at locations where dust may form.

Ingredients with threshold limit values

If a concentration of $\leq 0.15 \text{ mg/m}^3$ (average value for one shift) is observed for cryptocrystalline silica in the alveolar dust content, it is almost certain that employees will not suffer from any silicotic disease. Activities performed in dusty atmospheres must be monitored: dust samples taken in accordance with EN 481.

For additional information, see www.hoffmann-mineral.com.

Personal protective equipment

General precautions	Wash hands before breaks and at the end of a shift. Do not inhale dust. Do not eat or drink while working. Remove soiled clothing and wash it before wearing again.
Respiratory protection	If dust exceeds the concentration of 0.15 mg/m^3 , wear an appropriate fine-dust filter mask (FFP 2).
Hand protection	Not applicable
Eye protection	Safety glasses with side shields
Body protection	Not applicable
Hygiene measures	Keep street and work clothing separate.

Environmental exposure controls

No specific requirements.

9. Physical and chemical properties

Appearance

Physical state	Powder
Color	White to beige
Odor	Odorless

Safety-relevant data

Density at 20°C Method: DIN ISO 787 Part 10	2.6 g/cm ³
Solubility in water at 20°C Method: DIN ISO 787 Part 8	Insoluble

Further information

Detailed mineralogical tests (*Göske, report no. 7042729*) have shown that the silica content of Neuburg Siliceous Earth is a unique mineral specimen, which has not previously been found or described in this particular form anywhere else in the world.

For additional information, see www.hoffmann-mineral.com.

10. Stability and reactivity

Conditions to avoid

No special measures required.

Substances to avoid

No particular incompatibility.

Hazardous decomposition products

Traces of sulfur dioxide (only applies to products: AKTISIL MM and AKTISIL PF 216).

11. Toxicological information

Research on humans

Standardized in vivo and in vitro studies (*Bruch et al., 2001 – 2007*) designed to assess the toxicity of Neuburg Siliceous Earth as compared to DQ 12 standard quartz, for example, found very low levels of biological activity, which prove that the product has different properties to quartz.

We would like to draw your attention at this point to a qualifying statement found in 1997 IARC Monographs, which puts the classification of quartz as carcinogenic to humans (Group I) into perspective in a most interesting way:

“As part of their overall assessment, the IARC working group noted that a carcinogenic effect was not found in all the industrial situations examined. A carcinogenic effect may depend on the properties inherent to crystalline silica or on external factors, which influence the biological activity or the distribution of silica polymorphs.”

HOFFMANN MINERAL has over one hundred years of experience in working with Neuburg Siliceous Earth and has been able to draw the following conclusions:

Silicosis

If the concentration of cryptocrystalline silica found in the alveolar content in the workplace ≤ 0.15 mg/m³, it is almost certain that no silicotic disease will result.

Lung cancer

If the fine dust concentration specified above, which prevents silicosis, is observed, all associated cancer risks will also be excluded.

Further information on AKTISIL EM

Contains small amounts of a functional epoxy group. In vitro tests have found that epoxy compounds can have a mutagenic effect. As the genotoxic effect has not been tested in vivo, the effects on human beings cannot yet be assessed.

The product may contain and release traces of methanol.

12. Ecological information

General information

The substances listed under Point 3, “Composition/information on ingredients”, belong to the mineralogical class of silicates/oxides and are commonly found in the earth’s crust. They have no known harmful effects on the environment, nor are such effects to be expected.

13. Notes on disposal

Recommendation: Can be landfilled in compliance with local regulations. Where possible, recycling is preferred to disposal. The material should be stored in sealed containers to prevent the formation of dust.

Waste code number	No waste code number can be specified for this product in terms of the European Waste Catalogue, as the intended use must be known before the waste code number can be assigned. The waste code number must be defined by arrangement with the appropriate regional waste management company.
Waste name	Silica waste
Obligation to product supporting documents (Y/N)	N
Uncleaned packaging	
Recommendation	Empty containers should be recycled, recovered or disposed of locally.
Note	Dust may form when folding empty paper bags and big-bags. Ensure that appropriate health and safety measures are in place.

14. Transport information

Further information

Not hazardous cargo according to the relevant regulations on the transport of dangerous goods (GGVS/GGVE, RID/ADR, ADNR, IMDG, IATA-DGR).

15. Regulations

Labeling	The product is not subject to specific labeling requirements according to the relevant EC Directive/German Ordinance on Hazardous Substances
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16. Other information

Third-party materials

If third-party materials not manufactured or supplied by HOFFMANN MINERAL are used in conjunction with, or instead of HOFFMANN MINERAL products, it is the customer's responsibility to obtain all technical data and other properties relating to these and other materials from the supplier or manufacturer, as well as all relevant information pertaining to them. No liability can be accepted in respect of the use of HOFFMANN MINERAL products in conjunction with other materials.

Liability

The information provided here is accurate and reliable to the best of HOFFMANN MINERAL's knowledge and belief. However, no warranty or guarantee is made as to its accuracy, reliability, or completeness. It is the user's responsibility to satisfy himself as to the suitability and completeness of the information provided for his own specific application.

(D) Produkt enthält
kryptokristalline Kieselsäure

- (D)** Nur so arbeiten, dass möglichst wenig Staub entsteht.
(GB) Keep dust formation as low as possible.
(F) Formez un minimum de poussière en travaillant.
(E) Durante el trabajo mantener el nivel de polvo mas bajo posible.
(I) Lavorare solo in modo che si formi la minor polvere possibile.

- (D)** Verschmutzte Arbeitskleidung nicht ausklopfen.
(GB) Do not beat dust contaminated working clothes.
(F) Ne battez pas vos vêtements de travail.
(E) No sacudir a roupa de trabalho usada.
(I) Non sbattere gli indumenti di lavoro o sporchi.

- (D)** Wenn keine Absaugung vorhanden ist, Feinstaubmasken tragen.
(GB) Wear respirator where no air exhaust available.
(F) Le port du masque est obligatoire dans les zones dépourvues d'aspiration.
(E) En las zonas sin extractores es obligatorio el uso de mascarillas.
(I) Se non vi sono impianti di aspirazione, usare la maschera protettiva contro il pulviscolo.

- (D)** Bitte beachten Sie die Hinweise im Sicherheitsdatenblatt unter www.hoffmann-mineral.com

(GB) Product contains respirable
crypto-crystalline silica

- (P)** Trabalhar de maneira a levantar a menor quantidade possível de poeira.
(TJ) 操作時、請儘量減少激起粉塵。
(J) 出来る限り粉じんのたたないように取り扱うこと。
(CIS) Работать так, чтобы образовывалось как можно меньше пыли.
(TR) Mümkün olduğu kadar az toz kalkacak şekilde çalış.

- (P)** Não sacudir a roupa de trabalho suja.
(TJ) 粉塵沾汚の工作服、請不要拍打。
(J) 粉じんの付着した衣類をはたかないこと。
(CIS) Загрязненную рабочую одежду не вытряхивать
(TR) Kirlı elbiselerinin üzerine toz gidemek için vurma.

- (P)** Se não houver sistema de aspiração, usar máscaras portectoras contra poeira fina.
(TJ) 若在沒有排氣裝置的工作環境，請戴上防塵口罩。
(J) 集じん装置が無い場合、防じんマスクを使用すること。
(CIS) При отсутствии отсасывающих устройств необходимо использование масок для мелкой пыли
(TR) Emme tesisî yoksa, ince tozlara karşı, korunma maskesi tak.

- (GB)** Please note the advices in the MSDS at www.hoffmann-mineral.com



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