

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

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

PRODUCT USES: Functional fillers in elastomers, plastics, paints and coatings,
adhesives, food additives, polishing and care products, welding electrodes, and in the
construction and chemical industries.

CHEMICAL FAMILY: Minerals

MANUFACTURER:

HOFFMANN MINERAL GmbH

Münchener Straße 75,

D-86633 Neuburg (Donau)

Tel.: 011 49 (0) 84 31 53-0; Fax: 011 49 (0) 84 31 53-3 30

www.hoffmann-mineral.com, info@hoffmann-mineral.com

2. HAZARD IDENTIFICATION

POTENTIAL HEALTH EFFECTS: (Also see section 11)

EMERGENCY OVERVIEW: DANGER:

HARMFUL IF INHALED. MAY CAUSE SKIN AND EYE IRRITATION.

PROLONGED INHALATION OF DUST MAY CAUSE CHRONIC LUNG INJURY AND
SILICOSIS.

ROUTES OF ENTRY: Inhalation, skin and eye contact.

Appearance: Odorless, white to beige powder

CARCINOGENICITY:

NTP: No IARC: group 3 OSHA: No

This material is considered hazardous by the OSHA Hazard Communication Standard.
(29CFR1910.1200)

This product has been classified in accordance with the hazard criteria of the Controlled
Products Regulations (CPR) and the MSDS contains all information required by the CPR.

**CONFORMS TO WHMIS GUIDELINES AND
ANSI STANDARD Z400.1-2004
AKTISIL**

Version 1.00.08

Issue: May 30, 2011, Date of printing: June 1, 2011

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**HOFFMANN
MINERAL**

Unternehmensgruppe Hoffmann

HMIS Rating:

Health	2
Flammability	0
Physical Hazard	0
Personal Protection	E

WHMIS Classification: Class D2B



3. COMPOSITION/ INFORMATION ON INGREDIENTS

Description: Neuburg Siliceous Earth, also known by the trade names SILLITIN and SILLIKOLLOID, is one in nature originated inorganic compound of amorphous and cryptocrystalline silica and lamellar kaolinite.

As unique mineralogical entity Neuburg Siliceous Earth got the individual CAS-No.1020665-14-8 with the CAS-Name 'Siliceous Earth'.

The EINECS number is 310-127-6.

Components

Cryptocrystalline and amorphous Silica

Kaolin

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.

CAS#

7631-86-9

1332-58-7

4. FIRST AID MEASURES:

SKIN: Wash with soap or mild detergent and large amounts of water. Do not use solvents or thinners.

EYES: Hold eyes open and flush for at least 15 minutes with large amounts of water. Get medical attention if irritation occurs.

INGESTION: Do not induce vomiting. Give two glasses of water to dilute stomach contents. Never give anything by mouth to an unconscious person.

INHALATION: Remove to fresh air. If breathing is difficult administer oxygen. Consult physician.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Product is not flammable. Use extinguishing agent suitable for surrounding fire.

SPECIAL FIRE FIGHTING PROCEDURES: None.

6. ACCIDENTAL RELEASE MEASURES:

SPILL AND LEAK PROCEDURES: Avoid dust formation. Avoid dry sweeping and use water spray or vacuum cleaning (HEPA filter) for removal. Collect into suitable containers.

7. HANDLING AND STORAGE

STORAGE: Store in closed original containers.

HANDLING: Wear clothing, gloves and glasses to avoid contact with skin and eyes. Avoid dust formation.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE LIMITS:

Component	Exposure Limits
Cryptocrystalline silica	$\leq 0.10 \text{ mg/m}^3 \text{ TWA}$
R= Respirable fraction.	(Recommendation HOFFMANN MINERAL)

ENGINEERING CONTROLS: Use in a well ventilated area.

RESPIRATORY PROTECTION: For exposure to dust or powder, use a NIOSH approved respirator in accordance with OSHA Respirator Protection requirements under 29 CFR 1910.134.

SKIN PROTECTION: Clothing and gloves suitable to avoid skin contact.

EYE PROTECTION: Safety glasses with side shields.

9. PHYSICAL AND CHEMICAL PROPERTIES

Property	Value
Appearance	Powder
Color	White to beige
Flashpoint	n.a.
Density at 20°C	2.6 g/cm ³
Solubility in Water	insoluble

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable.

HAZARDOUS DECOMPOSITION PRODUCTS: None.

POLYMERIZATION: Will not occur.

INCOMPATIBILITIES: Strong acids and oxidizing agents.

11. TOXICOLOGICAL INFORMATION

Phase analytical studies of Neuburg Siliceous Earth have shown the presence of crypto-crystalline silica. For this portion – if present in the form of dust – a fibrogenous (or fibrotic) action cannot be excluded, which means that inhalation of high amounts of such dust over long periods of time potentially can lead to silicosis. It is consequently advisable to monitor the dust exposure and comply with existing limits.

This quartz-like risk potential, as well as the discussion started in 1997 by IARC with the new classification of quartz, has also led to in-depth studies with respect to toxicological effects of Neuburg Siliceous Earth, whose silica content until very recently was thought to be composed of quartz. Several *in vitro* investigations at IBE (Bruch et al., 2001-2007) with cross-validation by *in vivo* experiments, upon analysis of the vector model have confirmed a markedly different toxicological profile for Neuburg Siliceous Earth, in the direction of a considerably lower toxicity level as compared with other quartz-containing products.

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.”

A cohort study conducted by the German ‘Institut für Prävention und Arbeitsmedizin’ (KAFKA Studie 2011) at the sites of Hoffmann Mineral substantiated these particular circumstances. It encompasses 675 employees who worked for Hoffmann Mineral during the time period of 1923 till 2007.

The epidemiological findings of more than 80 years handling Neuburg Siliceous Earth could be summarized in the following conclusions:

Lung cancer:

Though a large number of employees were exposed to a highly elevated concentration (cumulative concentrations up to 90 mg/m³ x year) of crypto-crystalline silica dust the study could not identify any significant lung cancer risk.

Silicosis:

Employees who worked underground or worked under long lasting exposure conditions of > 0.15 mg/m³ alveolar respirable dust (crypto-crystalline silica) were at higher risk to get silicosis.

12. ECOLOGICAL INFORMATION

Avoid contamination of ground water or waterways. Do not discharge into sewers.

13. DISPOSAL CONSIDERATIONS

Dispose of in accordance with Federal, State or Local regulations.

14. TRANSPORT INFORMATION

TDG/DOT SHIPPING NAME: Not regulated.

15. REGULATORY INFORMATION

All components of this product are on the TSCA Inventory.

SARA Title III:

This product contains no toxic chemicals which are subject to the supplier notification requirements of Section 313 of the Superfund Amendments and Reauthorization Act (SARA/EPCRA) and the requirements of 40 CFR Part 372.

Note: Entries under this section cover only those regulations typically addressed in the MSDS generating process, such as, TSCA, and EPCRA/SARA Title III.

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Unternehmensgruppe Hoffmann

16. OTHER INFORMATION

WHMIS LABEL: SKIN AND EYE IRRITANT.
MAY CAUSE CHRONIC LUNG INJURY AND SILICOSIS

This MSDS conforms to the American National Standard, ANSI Z400.1-2004.
To the best of our knowledge, the information contained in this MSDS is accurate.
It is intended to assist the user in his evaluation of the product's hazards, and safety precautions to be taken in its use. The data on this MSDS relate only to the specific material designated herein. We do not assume any liability for the use of, or reliance on this information, nor do we guarantee its accuracy or completeness.

CAUTION!

HARMFUL IF INHALED. MAY CAUSE SKIN AND EYE IRRITATION. PROLONGED INHALATION OF DUST MAY CAUSE CHRONIC LUNG INJURY AND SILICOSIS.

Contains: Cryptocrystalline / Amorphous Silica and Kaolinite

Precautions
Avoid inhalation of dust.
Use with adequate ventilation or respiratory protection to keep exposure below TLV values.
Avoid contact with skin and eyes.
Do not ingest.
Wash thoroughly after handling.
Keep container closed when not in use.

First Aid Measures
If swallowed, give 2 glasses of water. Do not induce vomiting. Immediately call a physician.
In case of skin or eye contact, immediately flush affected area with plenty of water.
If inhaled, remove victim to fresh air and seek medical assistance if breathing is difficult.

Fire Fighting
Product is not flammable.

SEE MSDS
SUPPLIER

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DE **GEFAHR**
Kieselerde
CAS-Nr. 1020665-14-8
Schädigt die Lunge bei längerer oder wiederholter Inhalation.
Staub nicht einatmen.
Bei ausreichender Belüftung Atemschutz tragen.

DK **FARE**
Kvælstøv
CAS-nr. 1020665-14-8
Skadeligt for lungen ved længerevarende eller gentagne inhalation.
Støv må ikke indåndes.
Ved tilstrækkelig udluftning anvendes åndestraktormask.

FI **VAARA**
Kvartsi
CAS-numero 1020665-14-8
Vahingollista keuhkoja pölyäksikäyttöä tai toistuvasti hengittelyä.
Älä hengitä pölyä.
Käytä hengityksen suojausta, jos ilmanvaihto on riittämätön.

HU **VESZÉLY**
Kvartscsúszó
CAS-szám: 1020665-14-8
Hosszabb vagy ismétlődő belégzés esetén károsítja a tüdőt.
A por beleszívása tilos.
Nem megfelelő szellőzés esetén légvédelemmel kell dolgozni.

KR **위험**
실리카
CAS No. 1020665-14-8
장기간 노출되거나 반복적으로 흡입하면 폐에 손상을 줍니다.
인쇄된 안전표지 중립화하지 마십시오.
불충분한 환풍 상황에서는 마스크를 착용하십시오.

NL **GEVAAR**
Kiesdeeltjes
CAS-Nr. 1020665-14-8
Veroorzaakt longbeschadiging bij langdurig of herhaaldelijk inhaleren.
Stof niet inademen.
Bij ontoereikende ventilatie een geschikt adembescherming dragen.

RO **PERICOL**
Pământ silicos
nr. CAS 1020665-14-8
Provoacă leziuni ale plămânilor în caz de inhalare prelungită sau repetată.
Nu respira praful.
În cazul în care ventilația este insuficientă, purtați echipament de protecție respiratorie.

SK **NEBEZPEČIE**
Kvemená zrnina
č. CAS. 1020665-14-8
Pri dlhšej alebo opakovanej inhalácii poškodzuje pľúca.
Nevdychujte prach.
V prípade nedostatočného vetrania, používajte ochranu dýchacích orgánov.

BG **ОПАСНО**
Кварцова пръст
CAS № 1020665-14-8
Причина за увреждане на белите дробове посредством продължителна или повторна с вдишване.
Не вдъхвайте праха.
В случай на лоша вентилация носете респираторни предпазни средства.

EE **OHT**
Kvartsiidid
CAS nr 1020665-14-8
Kehustab kopsu kahjustusi või korduvat inhaleerimist.
Tõulu mitte sisse hingata.
Ebaregula ventilatsioon korraldada hingamisteede kaitselahendaid.

FR **DANGER**
Silice
n° CAS 1020665-14-8
Risque avéré d'effets graves pour les poumons à la suite d'inhalations répétées ou d'une inhalation prolongée.
Ne pas respirer les poussières.
Lorsque la ventilation de l'espace est insuffisante, porter un équipement de protection respiratoire.

IT **PERICOLO**
Silice
CAS: 1020665-14-8 /
Rischio accertato di gravi effetti sulla salute a seguito di inalazioni prolungate o ripetute.
Non respirare la polvere.
In caso di ventilazione insufficiente utilizzare un apparecchio respiratorio.

LT **APDRAUDEJUMS**
Tilgaminis
CAS Nr. 1020665-14-8
Įvesti tik su kvėpuojant ar dažnai kvėpuojant gali sukelti plaučių, kvėpavimo organų, sužalojimą.
Esant nepakankamam vėdinimui, naudoti kvėpavimo takų apsaugos priemones.

NO **ADVARSEL**
Kvartstøvet
CAS-Nr. 1020665-14-8
Skader lungene ved gjentatt innånding over lengre tid.
Pust ikke inn støvet.
Bruk nusbekyttelse ved utilstrekkelig lufting.

RU **ОПАСНО**
Кремнезем, пер.
№ CAS 1020665-14-8
Вреден для легких при длительном или неоднократном вдыхании.
Вдыхание пыли не допускается.
При недостаточной вентиляции использовать средства защиты органов дыхания.

TH **อันตราย**
ซิลิกา
CAS No. 1020665-14-8
การหายใจเอาฝุ่นซิลิกาเข้าปอดอย่างต่อเนื่องหรือหายใจซ้ำๆ อาจทำให้เกิดโรคปอดได้
ห้ามสูดดมฝุ่นซิลิกา
หากการระบายอากาศไม่ดี ให้ใช้มาตรการป้องกัน

CN **危险**
硅尘
CAS No. 1020665-14-8
长时间吸入或反复吸入可损伤肺部。
请勿吸入粉尘。
通风不良时请佩戴呼吸防护用品。

EO **خطر**
رمال السليكا، رقم التسجيل الكمي CAS 1020665-14-8 / (CAS) لا تنفس الغبار.
منع الوالي التنفس في حالة عدم وجود تهوية كافية

OS **DANGER**
Siliceous Earth
CAS # 1020665-14-8
Causes damage to lung through prolonged or repeated inhalation.
Do not breathe dust.
In case of inadequate ventilation wear respiratory protection.

IT **PERICOLO**
Silice
No. CAS 1020665-14-8
Provoce danni ai polmoni in caso di inalazione prolungata o ripetuta.
Non respirare la polvere.
In caso di ventilazione insufficiente utilizzare un apparecchio respiratorio.

LV **PAVĀJUS**
Silīcija smiltis
CAS Nr. 1020665-14-8
Iztrais plaušu bojājumus, ja ilgstoši vai atkārtoti ieelpo.
Nesūdziet putekļus.
Nepietiekamas ventilācijas gadījumā izmantojiet gāzmasku.

PL **NEBEZPECZENSTWO**
Krzemionka
nr CAS 1020665-14-8
Powoduje uszkodzenie płuc poprzez długotrwałe lub powtarzane wdychanie.
Nie wdychać pyłu.
W przypadku niedostatecznej wentylacji stosować indywidualne środki ochrony dróg oddechowych.

SE **FARA**
Kvartstoft
CAS-nr 1020665-14-8
Skadar lungorna vid upprepat eller langre tids inandning.
Andas inte in damnen.
Använd andningskydd vid otillräcklig ventilation.

TR **TEHLİKE**
Silice Tozları
CAS-Nr. 1020665-14-8
Uzun süre veya tekrarlı olarak inhalasyon (güne çekme) durumunda akciğerlerde hasara neden olur.
Tozu nefesle etmeyiniz.
Yeterli havalandırma sağlanamıyorsa konuyu maska kullanınız.

CZ **NEBEZPEČÍ**
Křemenová zemina
č. CAS. 1020665-14-8
Při delší nebo opakované inhalaci poškodzuje pľúca.
Nevdychujte prach.
V prípade nedostatočného vetrania používajte vybavenie pro ochranu dýchacích orgánov.

ES **PELIGRO**
Tierra silicea
n° CAS 1020665-14-8
Provoce daños en los pulmones tras inhalación prolongada o repetida.
No respirar el polvo.
En caso de ventilación insuficiente, llevar equipo de protección respiratoria.

GR **ΚΤΙΝΑΥΝΟΕ**
Διοξείδιο του πυριτίου
CAS αριθμός: 1020665-14-8
Προκαλεί βλάβες στους πνεύμονες όποτε από παρατεταμένη ή επαναλαμβανόμενη εισπνοή.
Μην αναπνεύετε σκόνη.
Σε περίπτωση ανεπαρκούς αερίωσης, να φορέτε μέσα αναπνευστικής προστασίας της αναπνοής.

JP **危険**
シリカ
CAS No. 1020665-14-8
長期または繰り返し吸入すると、肺を傷めます。
粉塵を吸入しないでください。
換気状態が悪い場合は、保護マスクを着用してください。

MY **BAHAYA**
Silika
no. CAS 1020665-14-8
Merosakkan paru-paru jika dsedut untuk tempoh berpanjangan atau berulang.
Jangan menghidu debu.
Gunakan perlindungan bernafas jika pengaliran udara tidak cukup.

PT **PERIGO**
Terra silicea
n.º CAS 1020665-14-8
Provoce danos nos pulmões após inalação prolongada ou repetida.
Não inalar pó.
Em caso de ventilação inadequada, usar protecção respiratória.

SI **NEBEZPEČENSTVO**
Kvamenka
č. CAS 1020665-14-8
Pri daljšem ali ponovljajočem se vdihavanju škodi pljučem.
Ne vdihavajte prahu.
Ob nezadostnem praznjenju nositi opremo za zaščito dihal.

VN **Rủi ro**
Đá nghiền thạch (Diatomeit)
CAS-Nr. 1020665-14-8
Gây hại tới hai cho phổi nếu hít vào lâu hoặc nhiều lần.
Đụi xin dùng hít vào.
Sử dụng bộ phận bảo vệ hệ thống khí không khí không thông đầy đủ.