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

1.1. Product identifier

Neuburg Siliceous Earth / No other synonyms / CAS-No.1020665-14-8

REACH registration number

Exempted in accordance with Annex V.7

Trade names

SILLITIN V 85, V 88, N 82, N 85, N 87, Z 86, Z 89, SILLIKOLLOID P 87, and their puriss grades

1.2. Relevant identified uses of the substance

SILLITIN and SILLIKOLLOID are used as functional fillers for elastomers, plastics, paints and varnishes, adhesives, food additives, polishing and protective agents, and welding electrodes, as well as in the construction and chemical industries.

1.3. Details of the supplier of the safety data sheet

HOFFMANN MINERAL GmbH

Muenchener Strasse 75, 86633 Neuburg (Donau), Germany

Phone: +49 (0) 84 31 53-0; Fax: +49 (0) 84 31 53-3 30

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

1.4. Emergency telephone number

Phone: +49 (0) 84 31 53-0 -> Not available outside office hours

2. Hazards identification

2.1. Hazards for people and environment

Due to the potential for generation of airborne respirable cryptocrystalline silica, lung fibrosis cannot be ruled out. Prolonged inhalation of large amounts of A-dust may lead to silicosis. Occupational exposure to respirable cryptocrystalline silica A-dust should be monitored and controlled.

2.2. Classification of the substance

According to EC Directive 1272/2008 this product is classified as STOT RE 1.

2.3. Label elements

Hazard pictogram:



Signal word:

DANGER

Hazard statement:

H 372, Causes damage to lung through prolonged or repeated inhalation.

Precautionary statements:

P 260, Do not breathe dust.

P 285, In case of inadequate ventilation wear respiratory protection.

2.4. Other hazards

This product is an inorganic substance of natural origin and does not meet the criteria for PBT or vPvB in accordance with Annex XIII of REACH.

3. Composition/information on ingredients

3.1. Chemical characterization (individual substances)

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.

3.2. Components

CAS no.	Name according to EC Directive	EC classification
7631-86-9	Cryptocrystalline Silica (A-dust)	STOT RE 1; H 372
7631-86-9	Amorphous Silica	No classification
1318-74-7	Kaolinite	No classification

4. First aid measures

4.1. Description of first aid measures

Eye contact:

Rinse with copious quantities of water and seek medical attention if irritation persists.

Inhalation:

Movement of the exposed individual from the area to fresh air is recommended.

Ingestion:

No special measures.

4.2. Most important symptoms and effects both acute and delayed

No acute and delayed symptoms and effects are observed.

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

No specific actions are required.

5. Fire-fighting measures

5.1. Extinguishing media

No specific extinguishing media is needed.

5.2. Specific hazards arising from the substance

Non combustible. No hazardous thermal decomposition.

5.3. Advice for fire-fighters

No specific actions are required.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

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

6.2 Environmental precautions

No special requirements.

6.3 Methods and material for containment and cleaning up

Avoid dry sweeping and use water spraying or vacuum cleaning (minimum dust class M) for removal. Keep in closed containers, ready for disposal.

6.4 Reference for other sections

See sections 8 and 13.

7. Handling and storage

7.1 Precautions for safe handling

Avoid airborne dust generation. Provide appropriate exhaust ventilation at places where airborne dust is generated. In case of insufficient ventilation, wear suitable respiratory protective equipment. Handle packaged products carefully to prevent accidental bursting. Remove and wash soiled clothing. If you require advice on safe handling techniques, please contact your supplier or check the Good Practice Guide referred to in section 16.

7.2 Requirements for storage rooms and containers

Keep containers tightly closed.
Ensure that dust-protection measures are in place during silo loading.

7.3 Further information on storage conditions

Dry storage

7.4 Notes on fire and explosion protection

No specific fire-precaution requirements

7.5 Storage class

Non-combustible solids

8. Exposure controls/personal protection

8.1 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.

8.2 Ingredients with threshold limit values

If a concentration of $\leq 0.10 \text{ mg/m}^3$ (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.

8.3. 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 A-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.

8.4. Environmental exposure controls

No specific requirements.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state	Solid, powder
Colour	White to beige
Odour	Odourless
Odour threshold	Not relevant
pH	5 - 8 Method: (400g/l water at 20°C)
Melting point	> 1600°C
Density at 20°C Method: DIN ISO 787 Part 10	2.6 g/cm ³
Grain shape	Corpuscular / lamellar
Solubility in water at 20°C Method: DIN ISO 787 Part 8	Negligible
Solubility in hydrofluoric acid	Yes

9.2. 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

10.1. Reactivity

Inert, not reactive

10.2. Chemical stability

Chemically stable

10.3. Possibility of hazardous reactions

No hazardous reactions

10.4. Conditions to avoid

Not relevant

10.5. Incompatible materials

No particular incompatibility

10.6. Hazardous decomposition products

Not relevant

11. Toxicological information

11.1. Acute toxicity, oral, dermal, inhalation

Based on available data, the classification criteria are not met.

11.2. Skin corrosion/irritation

Based on available data, the classification criteria are not met.

11.3. Serious damage/eye irritation

Based on available data, the classification criteria are not met.

11.4. Respiratory/Skin sensitization

Based on available data, the classification criteria are not met.

11.5. Aspiration hazard

Based on available data, the classification criteria are not met.

11.6. Reproductive toxicity

Based on available data, the classification criteria are not met.

11.7. Germ cell mutagenicity

Based on available data, the classification criteria are not met.

11.8. Carcinogenicity

Based on available data, the classification criteria are not met.

11.9. STOT – single exposure

Based on available data, the classification criteria are not met.

11.10. STOT – repeated exposure

Due to the potential for generation of airborne respirable cryptocrystalline silica this product is classified as STOT RE 1 according to EC Directive 1272/2008.

Prolonged inhalation of large amounts of A-dust may lead to silicosis, a nodular pulmonary fibrosis caused by deposition of fine respirable particles of cryptocrystalline silica in the lung.

In vivo/In vitro studies, experience with humans

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

12.1. Toxicity

Not relevant

The substances listed under section 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.

12.2. Persistence and degradability

Not relevant

12.3. Bioaccumulative potential

Not relevant (Some organisms accumulate Si(OH)₄)

12.4. Mobility in soil

Negligible

12.5. Results of PBT and vPvB assessment

Not relevant

12.6. Other adverse effects

No specific adverse effects known.

13. Disposal considerations

13.1. Waste treatment methods

This material is not classified as hazardous waste according to Commission Decisions 2000/532/EC and 2001/118/EC.

Waste from residues/unused products: 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.

Packaging: Empty containers should be recycled, recovered or disposed of locally. Dust may form when folding empty paper bags and big-bags. Ensure that appropriate health and safety measures are in place.

14. Transport information

14.1. UN number

Not relevant

14.2. UN proper shipping name

Not relevant

14.3. Transport hazard classes

ADR: Not classified; IMDG: Not classified; ICAO/IATA: Not classified; RID: Not classified

14.4. Packing group

Not applicable

14.5. Environmental hazards

Not relevant

14.6. Special precautions for user

No special precautions

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

Nothing additionally known beyond the information which are given in the sections 2., 8., 11., 12.

15.2. Chemical safety assessment

Exempted from REACH registration in accordance with Annex V.7.

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.

Training

Workers must be informed about the presence of cryptocrystalline silica and trained in the proper use and handling of this product as required under applicable regulations.

Social Dialogue on Respirable Crystalline Silica

A multi-sectoral social dialogue agreement on Workers Health Protection through the Good Handling and Use of Crystalline Silica and Products Containing it was signed on 25 April 2006.

This autonomous agreement, which receives the European Commission's financial support, is based on a Good Practices Guide. The requirements of the Agreement came into force on 25 October 2006. The Agreement was published in the Official Journal of the European Union (2006/C 279/02). The text of the Agreement and its annexes, including the Good Practices Guide, are available from <http://www.nepsi.eu> and provide useful information and guidance for the handling of products containing respirable crystalline silica.

Literature references are available on request from EUROSIL, the European Association of Industrial Silica Producers.

Safety Data Sheet (in compliance with Regulations (EC) 1907/2006, (EC) 1272/2008 and (EC) 453/2010) SILLITIN, SILLIKOLLOID

Version 1.00.01

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HOFFMANN MINERAL

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DE **GEFAHR**
Klassifizierung
CAS-Nr. 1029665-14-8
Schädigt die Lunge bei längerer oder wiederholter Inhalation.
Staub nicht einatmen, bei unzureichender Belüftung Atemschutz tragen.

DK **FARE**
Klassiford
CAS-nr. 1029665-14-8
Skadligt for langema længerevarende eller gentagne inhalation.
Støv må ikke indåndes. Ved utilstrækkelig udluftning anvendes åndedrætsværn.

FI **VAARA**
Kvartel
CAS-nro 1029665-14-8
Vahingoitavia kauhokko pikaikäisesti tai toistuvasti hengiteltynä.
Älä hengitä pölyä.
Käytä hengitysoensuojainta, jos tarvevalta on riittävästi.

HU **VESZÉLY**
Kovaföld
CAS-Nr. 1029665-14-8
Hosszabb vagy ismétlődő belégzés esetén károsítja a tüdőt.
A por belégzése tilos.
Nem megfelelő szellőzés esetén légvédelem kötelező.

KR **위험**
실리카
CAS-Nr. 1029665-14-8
장기간 노출되거나 반복적으로 흡입하면 폐에 손상을 줍니다.
분말 먼지를 흡입하지 마십시오.
용량이 충분하면 경우에는 마스크를 착용하십시오.

NL **GEVAAR**
Klassifoor
CAS-Nr. 1029665-14-8
Veroorzaakt longbeschadiging bij langdurig of herhaaldelijke inhalatie.
Stof niet inademen.
Bij onvoldoende ventilatie een geschikt adembescherming dragen.

RO **PERICOL**
Pământ siliceos
nr. CAS 1029665-14-8
Provoacă lezuni ale plămânilor în caz de inhalare prelungită sau repetată.
Nu inspira praful.
În cazul în care ventilația este insuficientă, purtați echipament de protecție respiratorie.

SK **NEBEZPEČNÉ**
Kremelinová zemina
& CAS 1029665-14-8
Pri dlhšej alebo opakovanej inhalácii poškodzuje pľúca.
Nevdychujte prach.
V prípade nedostatočného vetrania, používajte ochranu dýchacích ciest.

BG **ОПАСНО**
Кларцова пръст
CAS-№ 1029665-14-8
Понижена вредност на белите дробове посредством продължителна или повтаряща се инхалация.
Не вдъхват праха.
В случай на лоша вентилация носете респираторни предпазни средства.

EE **OHT**
Ränimüü
CAS nr 1029665-14-8
Kahjustab kopu pikajärgel või korduvalt inhaleerimisel.
Tõrju mitte sisse hingata.
Ebasobiva ventilatsioon korral kanda hingamisteede kaitsevahendeid.

FR **DANGER**
Silice
nr CAS 1029665-14-8
Risque avéré d'effets graves pour les poumons à la suite d'inhalations prolongées ou d'une inhalation répétée.
Ne pas respirer les poussières.
Lorsque la ventilation du local est insuffisante, porter un équipement de protection respiratoire.

IR **خطر**
سیلیس
CAS: 1029665-14-8 /
از صورت استنشاق طولانی یا مکرر موجب آسیب به ریه خواهد شد.
از نفس خراب آن پرهیز کنید.
در صورت عدم وجود تهویه کافی از ماسک تنفسی استفاده کنید.

LT **APDRAUDEJIMS**
Tilgiamis
CAS-Nr. 1029665-14-8
Įspėjimą tikrai, kas kvėpuojant ar dažnai įkvėpiant gali pakenkti plūčiui.
Neįkvėpti dulkių.
Esant nepakankamam vėdinimui, naudoti kvėpavimo būg apsaugos priemonės.

NO **ADVARSEL**
Klassiford
CAS-Nr. 1029665-14-8
Skader lungene ved gjentatt innånding over lengre tid.
Pust ikke inn støvet.
Bruk munnebeskyttelse ved utilstrekkelig lufting.

RU **ОПАСНО**
Кремнезём, прг.
№ CAS 1029665-14-8
Вреден для легких при длительном или неоднократном вдыхании.
Вдыхание пыли не допускается.
При недостаточной вентиляции использовать средства защиты органов дыхания.

TH **อันตราย**
ฝุ่นซิลิกา
CAS-Nr. 1029665-14-8
การสูดดมหรือการหายใจเอาฝุ่นซิลิกาเข้าไปเป็นเวลานานหรือการสูดดมซ้ำ ๆ กันอาจทำให้เกิดอันตรายต่อปอดได้
ห้ามสูดดมฝุ่นซิลิกา
หากการระบายอากาศไม่เพียงพอ ควรใช้หน้ากากป้องกันฝุ่นซิลิกา

CN **危险**
硅尘
CAS No. 1029665-14-8
长时间吸入或反复吸入可损伤肺部。
请勿吸入粉尘。
通风不足时请佩戴呼吸防护用品。

EG **خطر**
رمال السيليكا، رقم التسجيل الكيمائي
1029665-14-8 / (CAS)
تسبب الرئتين في حالة الاستنشاق الطويل أو المتكرر.
لا تنفس الغبار.
في حال التهوية غير كافية.

GB **DANGER**
Siliceous Earth
CAS # 1029665-14-8
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 1029665-14-8
Provoca danni ai polmoni in caso di inalazione prolungata o ripetuta.
Non respirare il polvere.
In caso di ventilazione insufficiente utilizzare un apparecchio respiratorio.

LV **PAVOJUS**
Silice smiltis
CAS-Nr. 1029665-14-8
Izaus plaušu bojājumus, ja ilgstoši vai atkārtoti ieelpojas.
Nesūpējot putekļus.
Nepietiekamas ventilācijas gadījumā izmantot gaismašķi.

PL **NIEBEZPIECZENSTWO**
Krzemionka
nr CAS 1029665-14-8
Powoduje uszkodzenie płuc poprzez długotrwałe lub powtarzane wdychanie.
Nie wdychać pyłu.
W przypadku niedostatecznej wentylacji stosować indywidualne środki ochrony dróg oddechowych.

SE **FARA**
Klassiford
CAS-nr 1029665-14-8
Skader lungorna vid upprepad eller långre tids inandning.
Andas inte in damm.
Använd andningskydd vid otillräcklig ventilation.

TR **TEHLİKE**
Silice Tozrak
CAS-Nr. 1029665-14-8
Uzun süreli veya tekrarlayan inhalasyon (ya da sürekli) durumlarda akciğerlere hasara neden olur.
Tozu nefesle emeyiniz.
Yetersiz havalandırma sağlanamıyorsa maske kullanınız.

CZ **NEBEZPEČÍ**
Křemelinová zemina
& CAS 1029665-14-8
Při dlouhé nebo opakované inhalaci poškozuje plicí.
Nevdychujte prach.
V případě nedostatečného větrání používejte vybavení pro ochranu dýchacích cest.

ES **PELIGRO**
Tierra silicea
n.º CAS 1029665-14-8
Provoca daños en los pulmones tras inhalación prolongada o repetida.
No respirar el polvo.
En caso de ventilación insuficiente, usar equipo de protección respiratoria.

GR **ΚΙΝΔΥΝΟΣ**
Ασπίλις
CAS-Αριθ. 1029665-14-8
Προκαλεί βλάβες στους πνεύμονες ύστερα από παρατεταμένη ή επαναλαμβανόμενη εισπνοή.
Μην αναπνέετε σκόνη.
Σε περίπτωση ανεπαρκούς αερισμού, να φορέσετε μέσο ατομικής προστασίας της αναπνοής.

JP **危険**
シリカ
CAS No. 1029665-14-8
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、防護マスクを装着してください。

MY **BAHAYA**
Silika
no. CAS 1029665-14-8
Merosakan paru-paru jika diisudut untuk tempoh berpanjangan atau berulang.
Jangan mengisut debu.
Gunakan perlindungan bernafas jika pengaliran udara tidak cukup.

PT **PERIGO**
Terra silicea
n.º CAS 1029665-14-8
Provoca danos nos pulmões após inalação prolongada ou repetida.
Não inalar pó.
Em caso de ventilação inadequada, usar protecção respiratória.

SJ **NEBEZPEČENSTVO**
Kremenska
šil CAS 1029665-14-8
Pri daljšem ali ponavljajočem se vdihovanju škodi pljučem.
Ne vdihovati prahu.
Ob nezadostnem prezračevanju nositi opremo za zaščito dihal.

VN **Rủi ro**
Đá tràm tich (Diatomit)
CAS-Nr. 1029665-14-8
Gây hại cho phổi nếu hít vào lâu hoặc nhiều lần.
Bụi xin đừng hít vào.
Sử dụng bộ phận bảo vệ hệ hô hấp khi không khí không thoáng đầy đủ.