



# MATERIAL SAFETY DATA SHEET

## DIATOMITE K-1

DIATOMITE K-1  
Fecha: 6/10/14  
Rev: 0  
PAG 1

### 1.1. Product identifier

Chemical name/synonyms : Diatomaceous Earth (Kieselguhr), calcined

REACH Registration number: Exempted according to Annex V.7.

Trade names: DIATOMITE NANOLIT K-1

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

The substance is used as a filter aid, a carrier, a silica source or as a functional additive for paint, plastics, rubber or other applications.

### 1.3. Details of the supplier of the safety data sheet

**NANOQUIMIA, S.L.**

PCT Rabanales 21.c/ Astronoma Cecilia Payne. Edif. Aldebarán. M 4.7

CIF: B14723399

Tel 957346221

[nanoquimia@nanoquimia.com](mailto:nanoquimia@nanoquimia.com)

### 1.4. Emergency telephone number

Emergency Telephone: +34 915628469

### 2.1. Classification of the substance or mixture

**Kieselguhr Calcined with less than 1% respirable cristobalite**

This product does not meet the criteria for classification as hazardous as defined in the Regulation EC 1272/2008 and in Directive 67/548/EEC.

Regulation EC 1272/2008: Directive EU (67/548/EEC):

No classification

No classification

### 2.2. Label elements

**Kieselguhr Calcined with less than 1% respirable cristobalite**

None

### 2.3. Other hazards

Acute inhalation can cause dryness of the nasal passage and lung congestion, coughing and general throat irritation. Chronic inhalation of dust should be avoided. May cause irritation (tear formation and redness) if dust gets in eyes. Although not absorbed by the skin, may cause dryness if prolonged exposure. Ingestion of small to moderate quantities is not considered harmful, but may cause irritation of the mouth, throat and stomach.

### 3.1. Main constituent

Name	% by weight	CAS-No	EINECS No
Diatomaceous Earth, Calcined	100%	91053-39-3	293-303-4

#### Other components

Cristobalite (Respirable)	< 1%	14464-46-1	238-455-4
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Respirable crystalline silica per SWerF calculation (particle size distribution)

### 3.2. Impurities

None

### 4.1. Description of first aid measures



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### Eye contact

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

### Ingestion

Drink generous amounts of water to reduce bulk and drying effect.

### Inhalation

Movement to fresh air is recommended. Blow nose to evacuate dust.

### Skin contact

Wash skin with soap and water. Use suitable lotion to moisturize skin if dryness occurs.

### 4.2. Most important symptoms and effects, both acute and delayed

Acute inhalation can cause dryness of the nasal passage and lung congestion, coughing and general throat irritation. Chronic inhalation of dust should be avoided. Personal protective respiratory equipment is recommended if area exposure levels are higher than permissible under current national regulations. Ingestion of moderate quantities may cause irritation to the mouth, throat and stomach.

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

No specific actions are required, however movement to fresh air is recommended and blow nose to evacuate dust.

### 5.1. Extinguishing media

No specific extinguishing media is needed. The material is not flammable. No hazardous thermal decomposition. Use of extinguishing agent suitable for surrounding fire recommended.

### 5.2. Special hazards arising from the substance or mixture

Substance is not flammable and does not spontaneously combust; substance is not explosive.

### 5.3. Advice for fire-fighters

No specific fire-fighting protection is required.

### 6.1. Personal precautions, protective equipment and emergency procedures

Avoid airborne dust generation. Wear personal protective equipment in compliance with national legislation. Protect eyes with goggles.

### 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 systems to prevent airborne dust generation. Wear personal protective equipment in compliance with national legislation.

### 6.4. Reference to other sections

See sections 8 and 13.

### 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. 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. Conditions for safe storage, including any incompatibilities



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Minimize airborne dust generation and prevent wind dispersal during loading and unloading. Keep containers closed and store packaged products so as to prevent accidental bursting. Store in a dry place to maintain packaging integrity and product quality. Do not store near hydrofluoric acid. Observe all label precautions and warnings.

### 7.3. Specific end Use(s)

If you require advice on specific uses, please contact your supplier or check the Good Practice Guidereferred to in section 16.

### 8.1. Control parameters

Follow workplace regulatory exposure limits for all types of airborne dust (e.g. total dust, respirable dust) in compliance with applicable national legislation.

Occupational Exposure Limits Table

#### Countries Quartz - Respirable Fraction (mg/m<sup>3</sup>)

Italy, Portugal 0.025

Ireland 0.05

Bulgaria 0.07

Netherlands 0.075

Belgium, Czech Republic, Denmark, Estonia, France, Greece, Lithuania, Norway, Romania, Slovakia, Spain, Sweden, United Kingdom, United States 0.1

Austria, Hungary, Luxembourg, Slovenia, Switzerland 0.15

Finland 0.2

### 8.2. Exposure controls

#### Occupational

##### Exposure Control

Minimize airborne dust generation. Use process enclosures, local exhaust ventilation or other engineering controls to keep airborne levels below specified exposure limits. If user operations generate dust, fumes or mist, use ventilation to keep exposure to airborne particles below the exposure limit. Apply organizational measures e.g. by isolating personnel from dusty areas. Remove and wash soiled clothing.

**Eye/Face protection** Wear safety glasses with side-shields in circumstances where there is a risk of penetrative eye injuries.

##### Skin protection

Appropriate protection (e.g. gloves, barrier cream) is recommended for workers who suffer from dermatitis or sensitive skin. Wash hands at the end of each work session.

##### Respiratory protection

In case of prolonged exposure to airborne dust concentrations, wear respiratory protective equipment that complies with the requirements of European and national legislation.

**Environmental Exposure Control** Avoid wind dispersal.

### 9.1. Information on basic physical and chemical properties

**Appearance, Color** Buff to off white powder

**Odor** Odorless

**Physical State** Solid

**pH (10% SUSPENSION)** 6 – 8

**Vapor Pressure** Does not exist as aVapor



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**Vapor Density** Does not exist as a vapor

**Boiling Point** Decomposes before boiling

**Melting Point** > 1300° C

**Flash Point** Is not flammable

**Flammability** Not flammable

**Flammability Limits** Not flammable

**Autoignition Temperature** Not flammable

**Decomposition Temperature** > 1300° C

**Spec. Gravity/Relative**

**Density** 2.0

**Evaporation Rate** Not applicable

**COEFF. – Water/Oil** Not applicable

**Odor Threshold** Not applicable

**Solubility - Water** < 2%

**Partition Coefficient** Not applicable

**Viscosity** Not applicable, does not exist as a liquid

**Explosive properties** Not explosive

**Oxidizing properties** Not applicable, is neither an oxidizer or a reducer

### 9.2. Other information

Not applicable

**10.1. Reactivity** Substance is not reactive.

**10.2. Chemical Stability** Substance is chemically stable.

**10.3. Possibility of hazardous reactions** Do not use with hydrofluoric acid. May react violently.

### 10.4. Conditions to Avoid

Do not leave in enclosed spaces when mixed with highly flammable material, as heat can build up over long periods of time and flammable material may eventually ignite.

### 10.5. Incompatible Materials

Hydrofluoric acid. Products containing silica may react violently with hydrofluoric acid.

**10.6. Hazardous decomposition products** There is no danger of hazardous decomposition.

### 11.1. Information on toxicological effects

a. Acute toxicity: Based on available data, the classification criteria are not met.

b. Skin corrosion/ irritation: Based on available data, the classification criteria are not met.

c. Serious eye damage/ irritation: Based on available data, the classification criteria are not met.

d. Respiratory or skin sensitization: Based on available data, the classification criteria are not met.

e. Germ cell mutagenicity: Based on available data, the classification criteria are not met.

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

g. Reproductive toxicity: Based on available data, the classification criteria are not met.

h. STOT – Single exposure: Based on available data, the classification criteria are not met.

i. STOT – Repeated exposure: Kieselguhr (amorphous) with less than 1% respirable quartz  
Based on available data, the classification criteria are not met.

j. Aspiration hazard: Based on available data, the classification criteria are not met.



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### 12.1. Toxicity

Diatomaceous earth products have shown some efficacy as a natural insecticide, but otherwise have not demonstrated toxicity in regards to aquatic or terrestrial life.

### 12.2. Persistence and degradability

Not relevant

### 12.3. Bioaccumulative potential

Little potential for bioaccumulation.

### 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.

### 13.1. Waste treatment methods

#### WASTE FROM RESIDUES / UNUSED PRODUCTS

Where possible, recycling is preferable to disposal. May be disposed of in a non-hazardous sanitary landfill when not mixed with a hazardous substance. Check with local and government agencies prior to disposal.

#### PACKAGING

Dust formation from residues in packaging should be avoided and suitable worker protection assured.

Store used packaging in enclosed receptacles. Recycling and disposal of packaging should be carried out in compliance with local regulations. The re-use of packaging is not recommended. Repair all broken bags. Recycling and disposal of packaging should be carried out by an authorized waste management company.

### 14.1. UN number

Not relevant

### 14.2. UN proper shipping name

The substance is not listed on the Dangerous Goods list.

### 14.3. Transport hazard class

ADR: Not classified

IMDG: Not classified

ICAO/IATA: Not classified

RID: Not classified

### 14.4. Packaging group

Not relevant

### 14.5. Environmental hazards

Not relevant

### 14.6. Special precautions for users

No special precaution

### 15.1. Safety, Health and Environmental Regulations/Legislation specific for the substance or mixture

United States (federal and state)



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**TSCA No.:** Kieselguhr appears on the EPA TSCA inventory under the CAS No. 61790-53-2, but is otherwise not regulated by the Toxic Substances Control Act, or its regulations.

**RCRA:** This product is not classified as a hazardous waste under the Resource Conservation and Recovery Act, or its regulations, 40 CFR Sec. 261 et.seq.

**CERCLA:** This product is not classified as a hazardous waste under the regulations of the Comprehensive Environmental Response Compensation and Liability Act (CERCA), 40 CFR Sec. 302.

**SARA Title III:** This product is not classified as an extremely hazardous waste under Section 302 and is not a toxic chemical subject to the requirements of Section 313.

**California Proposition 65:** Crystalline silica (respirable) is classified as a substance known to the State of California to be a carcinogen.

**HMIS Rating:** Health **1** Fire **0** Reactivity **0** Personal Protection **E**

**NFPA Rating:** Health **1** Flammability **0** Reactivity **0** Specific Hazard **0**

Canada

**WHMIS Classification:** Quartz is classified as a D2A substance.

Europe

**Austria:** Ordinance on Limit Values for Workplace Substances and on Carcinogens (Government Gazette II (BGBL II No. 243/2007)

**Belgium:** Royal order (May 19, 2009) relative to protection of health and safety of workers against the risks linked to chemical agents in the workplace

**Bulgaria:** Regulation 13 Regarding the Protection of Workers from Hazards Related to Exposure to Chemical Agents at Work (amended August 17, 2007)

**Czech Republic:** Governmental Directive n°441/2004

**Denmark:** Executive Order on Work with Substances and Materials (chemical agents)

**Estonia:** Regulation No. 293: Limit Values for Chemical Hazards in the Working Environment

**Finland:** Concentrations Known to be Hazardous, 557/2009

**France:** Occupational Exposure Limit Values to Chemical Agents (2006)

**Greece:** Legislation for mining activities Ministerial Decree II-5th /Φ/17402/84 of 1984 (as amended)

**Hungary:** Joint Decree No. 25/2000 (IX. 30) on chemical safety at work

**Ireland:** 2010 Code of Practice for the Safety, Health and Welfare at Work (Chemical Agents)

**Italy:** Decree of August 20, 1999; Valori Limite di Soglia 2010

**Lithuania:** Order -827/A1-287 (October 15, 2007); Lithuanian Hygiene Standard HN 23:2007

**Netherlands:** Values for substances harmful to health 2009-2010

**Norway:** Administrative norms regarding contamination in work atmosphere

**Poland:** Ordinance on maximum permissible concentrations and intensities of hazardous agents in the working environment; Dz.U. Nr. 161, 1142 of August 30, 2007, as amended

**Portugal:** prNP 1796:2007 Instituto Portuges da Qualidade, Hygiene & Safety at Workplace

**Romania:** Governmental Decision 1218 from 06/09/2006 on the minimum health and safety Published in the OJ Part I no. 845 from 13/10/2006 Binding Occupational Exposure Limit Values Annex No. 1

requirements for protection of workers from the risks related to exposure to chemical agents

**Slovakia:** Government Decree 45 of January 16, 2002 on the protection of health when working with chemical agents, amended by Government Decrees 355/2006 and 300/2007

**Slovenia:** Regulations on the amendment to the Regulations for protection of workers against risks related to exposure to chemical substances at the workplace (The Official Journal of the



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Republic of Slovenia, No. 53/2007, June 15, 2007 Annex I - List of Binding Occupational Exposure Limit Values)

**Spain:** Royal Decree 374/2001 Judicial Ordinance Directive for the National Institute of Safety and Hygiene in the Workplace (INSHT) to publish the annual Professional Exposure Limits of Chemical Agents in Spain - 2010 revision

**Sweden:** Provisions of the Swedish Work Environment Authority on Occupational Exposure Limit Values and Measures against Air Contaminants, together with General Recommendations on the Implementations of the Provisions - Statute Book of the Swedish Work Environment Authority AFS 2005:17 amended by AFS 2007:02

**Switzerland:** Occupational Limit Values 2009

**United Kingdom:** EH40/2005; Control of Substances Hazardous to Health Regulations 2002 (COSHH, as amended 2005).

### 15.2. Chemical safety assessment

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

### Indication of the changes made to the previous version of the SDS

Not relevant

### Training

Workers must be informed of the presence of crystalline 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. Prolonged and/or massive exposure to respirable crystalline silica-containing dust may cause silicosis, a nodular pulmonary fibrosis caused by deposition in the lungs of fine respirable particles of crystalline silica.

In 1997, IARC (the International Agency for Research on Cancer) concluded that crystalline silica inhaled from occupational sources can cause lung cancer in humans. However it pointed out that not all industrial circumstances, nor all crystalline silica types, were to be incriminated. (IARC Monographs on the evaluation of the carcinogenic risks of chemicals to humans, Silica, silicates dust and organic fibres, 1997, Vol. 68, IARC, Lyon, France.)

In June 2003, SCOEL (the EU Scientific Committee on Occupational Exposure Limits) concluded that the main effect in humans of the inhalation of respirable crystalline silica dust is silicosis. "There is insufficient information to conclude that the relative risk of lung cancer is increased in persons with silicosis (and, apparently, not in employees without silicosis exposed to silica dust in quarries and in the ceramic industry). Therefore preventing the onset of silicosis will also reduce the cancer risk..."

(SCOEL SUM Doc 94-final, June 2003).



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So there is a body of evidence supporting the statement that increased cancer risk would be limited to people already suffering from silicosis. Worker protection against silicosis should be assured by respecting the existing regulatory occupational exposure limits and implementing additional risk management measures where required.

### 1. Other Information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.