



Safety Data Sheet (in compliance with Regulation (EC) 1907/2006, as amended by Regulation (EC) 453/2010, and Regulation (EU) 1272/2008)

Name of the product: Diatomaceous Earth (Kieselguhr), calcined

Version 1

Preparation date: February 27, 2015

1. Identification of the Substance / Mixture and the Company / Undertaking

1.1. Product identifier

Diatomaceous Earth (Kieselguhr), calcined

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

Trade names: Celatom® FP-1, FP-2, FP-22, FP-3, FP-4, FP-6, FP-12, AW-2, AW-3, AW-4, AW-6

Chemical name/synonyms: Diatomite calcined; Kieselguhr calcined

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

EP Minerals Europe GmbH & Co, KG (importer/distributor), Rehrhofer Weg 115 D-29633, Munster, Germany, ph. no. +49.51.92.9897.0, email address EPME@epminerals.com

EP Minerals, LLC (manufacturer), 9785 Gateway Drive, Suite 1000, Reno, Nevada 89521 (manufacturer), ph no. +1-775-824-7600, email address inquiry.minerals@epminerals.com

1.4. Emergency telephone number

Emergency telephone number: +49.51.92.9897.0 (available only during EU working hours); +1-775-824-7600 (available 8 am – 5 pm PST)

2. Hazards Identification

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.

Kieselguhr Calcined with less than 1% respirable cristobalite

Regulation EC 1272/2008:
No classification

Classification EU (67/548/EEC):
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. Composition / Information on Ingredients

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) Respirable crystalline silica per SWeRF calculation (particle size distribution)	< 1%	14464-46-1	238-455-4
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3.2. Impurities:

None

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.

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. Fire-fighting measures

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. Accidental release measures

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. 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. 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

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 Guide referred to in section 16.

8. Exposure controls / Personal protection

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.

Countries	Cristobalite - Respirable Fraction (mg/m ³)
Canada (Alberta, British Columbia, Manitoba, New Foundland, Nova Scotia, Prince Edward Island), Italy, Portugal, United States (ACGIH)	0.025
Chile	0.04
Argentina, Belgium, Canada (New Brunswick, Northwest Territories, Ontario, Quebec, Saskatchewan), Denmark, Estonia, France, Greece, Ireland, Korea, Lithuania, Mexico, Norway, Peru, Romania, Spain, Sweden, United States (NIOSH)	0.05
Bulgaria	0.07
Netherlands	0.075
Australia, Czech Republic, Finland, Hungary, New Zealand, Slovakia, United Kingdom	0.1
Austria, Luxembourg, Slovenia, Switzerland	0.15
Poland (dusts with >50% crystalline silica content)	0.3
Poland (dusts with 2-50% crystalline silica content), Russia	1
Thailand	10

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. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance, Color	Buff to pink powder	Odor	Odorless
Physical State	Solid	pH (10% SUSPENSION)	7
Vapor Pressure	Does not exist as a vapor	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	2.2
Evaporation Rate	Not applicable	COEFF. – Water/Oil	Not applicable
Odor Threshold	Not applicable	Solubility - Water	< 1%
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. Stability and Reactivity

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. Toxicological information

11.1 Information on toxicological effects

- Acute toxicity: Based on available data, the classification criteria are not met.
- Skin corrosion/ irritation: Based on available data, the classification criteria are not met.
- 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 Calcined with less than 1% respirable cristobalite
Based on available data, the classification criteria are not met.
- j. Aspiration hazard: Based on available data, the classification criteria are not met.

12. Ecological information

12.1. Toxicity

Diatomaceous earth products have shown some efficacy as a natural insecticide, but otherwise have no 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. Disposal considerations

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. Transport information

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 precautions

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Technical name is "Diatomaceous Earth". No special transport classification in effect.

15. Regulatory information

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

United States (federal and state)

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: Cristobalite 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 The Official Journal of the Republic of Slovenia, No. 53/2007, June 15, 2007 Annex I - List of Binding Occupational Exposure Limit Values)related to exposure to chemical substances at the workplace

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.

16. Other information

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 sufficient 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).

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.

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