### SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### 1.1 Product Identifier
- **Chemical Name**: Natural Diatomaceous Earth (Kieselguhr)
- **CAS No.**: 61790-53-2, 14808-60-7
- **EINECS No.**: 612-383-7, 238-878-4
- **REACH Registration No.**: Not applicable.

#### 1.2 Recommended use of the chemical and restrictions on use
- **Identified Use(s)**: 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.
- **Uses Advised Against**:

#### 1.3 Details of the supplier of the safety data sheet
- **Manufacturer**: EP Minerals, LLC
  9785 Gateway Drive
  Reno, Nevada 89521
  USA
- **Telephone**: +1-775-824-7600
- **Fax**: +1-775-824-7601
- **E-Mail (competent person)**: inquiry.minerals@epminerals.com
- **Importer**: EP Minerals Europe GmbH & Co.
  KG Rehrhofer Weg 115 D-29633, Munster, Germany
- **Telephone**: +49 51 92 98970
- **Fax**: +49-51 92 989715
- **E-Mail (competent person)**: EPME@epminerals.com

#### 1.4 Emergency Phone No.
- **Europe**: +49 51 92 98970 (08:00–17:00 CET)
- **Languages spoken**: English, French and German
- **USA**: +1-775-824-7600 (08:00–17:00 PST)

### SECTION 2: HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture
- **This product contains quartz (fine fraction) at: < 1%**
- **Depending on the type of handling and use (e.g. grinding, drying), airborne respirable crystalline silica may be generated. Prolonged and/or massive inhalation of respirable crystalline silica dust may cause lung fibrosis, commonly referred to as silicosis. Principal symptoms of silicosis are cough and breathlessness. Occupational exposure to respirable crystalline silica dust should be monitored and controlled.**

#### 2.1.1 Regulation (EC) No. 1272/2008 (CLP)
- **Not classified as hazardous for supply/use.**

#### 2.2 Label elements
- **Contains**: Natural Diatomaceous Earth, Kieselguhr (amorphous)
(< 1% Crystalline Silica – Quartz (Respirable Dust))

Hazard Pictogram(s)  None assigned.
Signal Word(s)  None assigned.
Hazard Statement(s)  None assigned.
Precautionary Statement(s)  None assigned.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

EC Classification Regulation (EC) No. 1272/2008 (CLP)

<table>
<thead>
<tr>
<th>Chemical identity of the substance</th>
<th>%W/W</th>
<th>CAS No.</th>
<th>EC No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Diatomaceous Earth (Kieselguhr)</td>
<td>circa.100</td>
<td>61790-53-2</td>
<td>612-383-7</td>
</tr>
<tr>
<td>Contains: Quartz (Respirable Dust), &lt;1 Fine Fraction Crystalline silica per SWeRF calculation</td>
<td>&lt; 1</td>
<td>14808-60-7</td>
<td>238-878-4</td>
</tr>
</tbody>
</table>

3.2 Mixtures - Not applicable.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation  If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If irritation develops and persists, get medical attention. Blow nose to evacuate dust.

Skin Contact  Remove clothing and wash thoroughly before use. Wash affected skin with soap and water. If skin irritation or rash occurs: Get medical advice/attention.

Eye Contact  Flush eyes with water for at least 15 minutes while holding eyelids open. Get medical attention if eye irritation develops or persists.

Ingestion  Rinse mouth. Give plenty of water to drink. Get medical attention.

4.2 Most important symptoms and effects, both acute and delayed

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. 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 to the respiratory system.

4.3 Indication of any immediate medical attention and special treatment needed

Unlikely to be required but if necessary treat symptomatically. There is no specific antidote. Remove person to fresh air and keep comfortable for breathing.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable Extinguishing media  Non-flammable. Extinguish with carbon dioxide, dry chemical, foam or
waterspray. As appropriate for surrounding fire.

5.2 Special hazards arising from the substance or mixture
Non-flammable, Non-combustible, Not explosive.

5.3 Advice for fire-fighters
Fight fire with normal precautions from a reasonable distance. Fire fighters should wear complete protective clothing including self-contained breathing apparatus.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Ensure adequate ventilation. Avoid generation of dust. Do not breathe dust. Wear appropriate personal protective equipment, avoid direct contact. Where engineering controls are not fitted or inadequate wear suitable respiratory protective equipment.

6.2 Environmental precautions
No special requirements.

6.3 Methods and material for containment and cleaning up
Sweep spilled substances into containers if appropriate moisten first to prevent dusting. Use vacuum equipment for collecting spilt materials, where practicable. Transfer to a container for disposal.

6.4 Reference to other sections
See Section: 8, 13

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling
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. Avoid generation of dust. In case of inadequate ventilation wear respiratory protection. Do not breathe dust. Wear protective gloves/protective clothing/eye protection/face protection. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Wash hands before breaks and after work.

7.2 Conditions for safe storage, including any incompatibilities
Atmospheric concentrations should be minimised and kept as low as reasonably practicable below the occupational exposure limit. Stable under normal conditions. Store in a dry place. Keep away from: Hydrofluoric Acid

7.3 Specific end use(s)
See Section: 1.2

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters
8.1.1 Occupational Exposure Limits

<table>
<thead>
<tr>
<th>SUBSTANCE</th>
<th>CAS No.</th>
<th>LTEL (8 hr TWA ppm)</th>
<th>STEL (8 hr TWA mg/m³)</th>
<th>STEL (ppm)</th>
<th>STEL (mg/m³)</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silica, Respirable Crystalline</td>
<td>-</td>
<td>-</td>
<td>0.1</td>
<td>-</td>
<td>-</td>
<td>WEL: Workplace Exposure Limit (UK HSE EH40)</td>
</tr>
<tr>
<td>Nuisance Dust</td>
<td>-</td>
<td>-</td>
<td>10</td>
<td>-</td>
<td>-</td>
<td>Inhahleable Dust. WEL: Workplace Exposure Limit (UK HSE EH40)</td>
</tr>
<tr>
<td>Nuisance Dust</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>-</td>
<td>-</td>
<td>Respirable Dust. WEL: Workplace Exposure Limit (UK HSE EH40)</td>
</tr>
</tbody>
</table>

Note: For the equivalent limits in other countries, please consult a competent occupational hygienist or the local regulatory authority

8.1.2 Biological limit value
Not applicable.

8.1.3 PNECs and DNELs
Not applicable. A REACH chemical safety assessment has not been carried out.

8.2 Exposure controls

8.2.1 Appropriate engineering controls
Ensure adequate ventilation. Atmospheric levels should be controlled in compliance with the occupational exposure limit. Avoid dust generation.
8.2.2 Individual protection measures, such as personal protective equipment (PPE)

Use personal protective equipment as required. Wash contaminated clothing before reuse. Avoid contact with skin and eyes. Avoid dust generation. Do not breathe dust.

Eye/face protection

Wear eye protection with side protection (EN166).

Skin protection

Use skin barrier cream before handling the product. Wear suitable gloves if prolonged skin contact is likely. Wear impervious gloves (EN374).

Respiratory protection

Atmospheric levels should be controlled in compliance with the occupational exposure limit. In case of inadequate ventilation wear respiratory protection. Recommended: Half-face mask (DIN EN 140), Filter type P2/P3 - efficiency of at least 90%

Thermal hazards

Not applicable.

8.2.3 Environmental Exposure Controls

Avoid wind dispersal.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance
Buff to off white powder
Odour
Odourless
Odour threshold
Not available.
pH
6-8 (10% Suspension)
Melting point/freezing point
Not applicable.
Initial boiling point and boiling range
Decomposes below boiling point at (°C): >1300°C
Flash point
Non-flammable.
Evaporation rate
Not applicable.
Flammability (solid, gas)
Non-flammable.
Upper/lower flammability or explosive limits
Non-flammable.
Vapour pressure
Not applicable.
Vapour density
Not applicable.
Relative density
2.0 g/cm³ (H₂O = 1)
Solubility(ies)
<2% Water
 Partition coefficient: n-octanol/water
Not applicable.
Auto-ignition temperature
Not applicable.
Decomposition Temperature
Not available.
Viscosity
Not applicable. Solid.
Explosive properties
Not explosive.
Oxidising properties
Not oxidising.

9.2 Other information

None.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity
Stable under normal conditions.

10.2 Chemical stability
Stable under normal conditions.

10.3 Possibility of hazardous reactions
Stable under normal conditions.

10.4 Conditions to avoid
Avoid contact with: Hydrofluoric Acid. 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
Reacts violently with - Hydrofluoric Acid

10.6 Hazardous decomposition product(s)
No hazardous decomposition products known.
SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity
Ingestion
Based upon the available data, the classification criteria are not met.

Inhalation
Based upon the available data, the classification criteria are not met.

Skin Contact
Based upon the available data, the classification criteria are not met.

Eye Contact
Based upon the available data, the classification criteria are not met.

Skin corrosion/irritation
Based upon the available data, the classification criteria are not met.

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

Respiratory or skin sensitization
Based upon the available data, the classification criteria are not met.

Germ cell mutagenicity
Based upon the available data, the classification criteria are not met.

Carcinogenicity
Based upon the available data, the classification criteria are not met.

Reproductive toxicity
Based upon the available data, the classification criteria are not met.

STOT - single exposure
Based upon the available data, the classification criteria are not met.

STOT - repeated exposure
Based upon the available data, the classification criteria are not met.

Aspiration hazard
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 (human carcinogen category 1). 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 2009, in the Monographs 100 series, IARC confirmed its classification of Silica Dust, Crystalline, in the form of Quartz and Cristobalite (IARC Monographs, Volume 100C, 2012). 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 fact 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 (see section 16 below).

11.2 Other information

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity
Not classified as a Marine Pollutant.

12.2 Persistence and degradability
Not applicable.

12.3 Bioaccumulative potential
The product has no potential for bioaccumulation. Some organisms accumulate Si(OH)4

12.4 Mobility in soil
The product is predicted to have low mobility in soil.

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

12.6 Other adverse effects
None known.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
Dispose of empty containers and wastes safely. Dispose of contents in accordance with local, state or national legislation.

13.2 Additional Information
Packaging waste: Remove all packaging for recovery or disposal. Make sure
that packaging is completely empty before recycling. Inform consumer about possible hazards of unclean empty packaging for recycling or disposal.

### SECTION 14: TRANSPORT INFORMATION

Not classified according to the United Nations ‘Recommendations on the Transport of Dangerous Goods’.

<table>
<thead>
<tr>
<th>14.1 UN number</th>
<th>Not applicable.</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2 UN proper shipping name</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>14.3 Transport hazard class(es)</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>14.4 Packing group</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>14.5 Environmental hazards</td>
<td>Not classified as a Marine Pollutant.</td>
</tr>
<tr>
<td>14.6 Special precautions for user</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</td>
<td>Diatomaceous Earth, No special measures are required.</td>
</tr>
<tr>
<td>14.8 Additional Information</td>
<td>None.</td>
</tr>
</tbody>
</table>

### SECTION 15: REGULATORY INFORMATION

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

15.1.1 EU regulations

| Authorisations and/or Restrictions On Use | None. |

15.1.2 National regulations

| Germany | Water hazard class: Not classified |

15.2 Chemical Safety Assessment

| A REACH chemical safety assessment has not been carried out. |

### SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: 1-16.

**References:** Existing Safety Data Sheet (SDS): Natural Diatomaceous Earth (Kieselguhr)

**Training advice:** 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. 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.

**LEGEND**

| LTEL | Long Term Exposure Limit |
| STEL | Short Term Exposure Limit |
| DNEL | Derived No Effect Level |
| PNEC | Predicted No Effect Concentration |
| PBT | PBT: Persistent, Bioaccumulative and Toxic |
| vPvB | vPvT: very Persistent and very Toxic |
| OECD | Organisation for Economic Cooperation and Development |
| SCOEL | The EU Scientific Committee on Occupational Exposure Limits |
| IARC | International Agency for Research on Cancer |
| SWeRF | Size-Weighted Respirable Fraction |

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Annex to the extended Safety Data Sheet (eSDS)
Not applicable. A REACH chemical safety assessment has not been carried out.