

**SECTION 1: PRODUCT AND COMPANY IDENTIFICATION**

|                         |                                                            |
|-------------------------|------------------------------------------------------------|
| PRODUCT IDENTIFIER      | OPTISORB                                                   |
| CHEMICAL NAME           | Diatomaceous Earth, Natural                                |
| CHEMICAL FAMILY         | Silica                                                     |
| MATERIAL USE            | Industrial Absorbent                                       |
| RESTRICTION ON USE      | None Known                                                 |
| MANUFACTURER            | EP Minerals, LLC., 9785 Gateway Dr., Reno, NV 89521        |
| TELEPHONE NO.           | (775) 824 7600 (Monday – Friday 8:00 am PST – 5:00 pm PST) |
| EMERGENCY TELEPHONE NO. | (775) 824 7600 (Monday – Friday 8:00 am PST – 5:00 pm PST) |
| SDS DATE OF PREPARATION | October 31, 2013                                           |

**SECTION 2: HAZARDS IDENTIFICATION**

|                                  |                             |
|----------------------------------|-----------------------------|
| OSHA GHS HAZARD CLASSIFICATION   | Not classified as hazardous |
| HAZARDS NOT OTHERWISE CLASSIFIED | None                        |
| LABEL ELEMENTS                   | No GHS labeling required    |
|                                  |                             |

**SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS**

| INGREDIENT IDENTIFICATION                | APPROXIMATE CONCENTRATION (%) | C.A.S. NUMBERS             | EINECS    |
|------------------------------------------|-------------------------------|----------------------------|-----------|
| Diatomaceous Earth, Natural (kieselguhr) | 100%                          | 61790-53-2<br>or 7631-86-9 | 231-545-4 |

**SECTION 4: FIRST AID MEASURES**

|                                                                               |                                                                                                                                                                                                                                       |
|-------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EYE                                                                           | Flush eyes with generous quantities of water or eye rinse solution. Consult physician if irritation persists.                                                                                                                         |
| SKIN                                                                          | Use moisture renewing lotions if dryness occurs.                                                                                                                                                                                      |
| INGESTION                                                                     | Drink generous amounts of water to reduce bulk and drying effects.                                                                                                                                                                    |
| INHALATION                                                                    | Remove to fresh air. Blow nose to evacuate dust.                                                                                                                                                                                      |
| Most important symptoms/effects, acute and delayed                            | Dust may cause abrasive irritation to eyes. Prolonged skin contact may cause dryness. Dust may cause nose, throat and upper respiratory tract irritation. Prolonged inhalation of high concentration of dust may cause lung effects.. |
| Indication of immediate medical attention and special treatment, if necessary | Immediate medical attention is not normally required. If dust irritates the eyes, seek medical attention.                                                                                                                             |

|                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                     |                     |                     |
|----------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------------------|---------------------|
| MATERIAL NAME                                                  | OPTISORB                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                     |                     | Page 2 of 4         |
| SECTION 5: FIRE FIGHTING MEASURES                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                     |                     |                     |
| EXTINGUISHING MEDIA                                            | Not applicable, the material is not combustible.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                     |                     |                     |
| SPECIFIC HAZARDS ARISING FROM THE CHEMICAL                     | Not applicable, the material is not combustible.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                     |                     |                     |
| SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE-FIGHTERS | Not applicable, the material is not combustible.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                     |                     |                     |
| SECTION 6: ACCIDENTAL RELEASE MEASURES                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                     |                     |                     |
| PERSONAL PRECAUTIONS                                           | If dust is present, use respirator fitted with particulate filter as specified in Section 8. Protect eyes with goggles.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                     |                     |                     |
| ENVIRONMENTAL PRECAUTIONS                                      | This material is not a significant environmental concern.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                     |                     |                     |
| METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP          | Vacuum clean spillage, wet sweep or wash away. Avoid creating dust. Place in a container for use or disposal.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                     |                     |                     |
| SECTION 7: HANDLING AND STORAGE                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                     |                     |                     |
| PRECAUTIONS FOR SAFE HANDLING                                  | Minimize dust generation. Avoid contact with eyes. Avoid breathing dust. Repair or dispose of broken bags. Observe all label precautions and warnings.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                     |                     |                     |
| CONDITIONS FOR SAFE STORAGE                                    | Store in a dry place to maintain packaging integrity and product quality. Do not store near hydrofluoric acid or strongly basic solutions.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                     |                     |                     |
| SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                     |                     |                     |
| EXPOSURE GUIDELINES:                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                     |                     |                     |
| Component                                                      | OSHA PEL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | ACGIH TLV           | MSHA PEL            | NIOSH REL           |
| Diatomaceous Earth, Natural (kieselguhr)                       | 80 mg/m <sup>3</sup><br>% SiO <sub>2</sub><br>total dust                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | None<br>Established | 5 mg/m <sup>3</sup> | 6 mg/m <sup>3</sup> |
| ENGINEERING CONTROLS                                           | Use general or local exhaust ventilation to control dust within recommended exposure limits. Refer to ACGIH publication “Industrial Ventilation” or similar publications for design of ventilation systems.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                     |                     |                     |
| PERSONAL PROTECTIVE EQUIPMENT:                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                     |                     |                     |
| EYE / FACE PROTECTION                                          | Goggles to protect from dust                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                     |                     |                     |
| SKIN PROTECTION                                                | No special equipment is needed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                     |                     |                     |
| RESPIRATORY PROTECTION                                         | Respirators fitted with filters certified to standard 42CFR84 under series N95 should be worn when dust is present. If the dust concentration is less than ten (10) times the Permissible Exposure Limit (PEL) use a quarter or half-mask respirator with a N95 dust filter or a single use dust mask rated N95. If dust concentration is greater than ten (10) times and less than fifty (50) times the PEL, a full-face piece respirator fitted with replaceable N95 filters is recommended. If dust concentration is greater than fifty (50) and less than two hundred (200) times the PEL use a power air-purifying (positive pressure) respirator with a replaceable N95 filter. If dust concentration is greater than two hundred (200) times the PEL use a type C, supplied air respirator (continuous flow, positive pressure), with full face piece, hood or helmet. |                     |                     |                     |
| GENERAL HYGIENE                                                | Avoid breathing dust. Avoid contact with eyes. Wash hands after handling and before eating or drinking.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                     |                     |                     |
|                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                     |                     |                     |

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| MATERIAL NAME | OPTISORB | Page 3 of 4 |
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## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

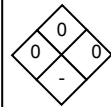
|                           |                            |                                         |                |
|---------------------------|----------------------------|-----------------------------------------|----------------|
| APPEARANCE, COLOR         | Buff to off white granules | ODOR                                    | Odorless       |
| PHYSICAL STATE            | Solid                      | ODOR THRESHOLD                          | Not applicable |
| VAPOR PRESSURE            | Not applicable             | VAPOR DENSITY                           | Not applicable |
| BOILING POINT             | Not applicable             | MELTING POINT                           | > 1300° C      |
| FLASH POINT               | Not applicable             | pH (10% SUSPENSION)                     | 7              |
| FLAMMABILITY LIMITS       | Not applicable             | EVAPORATION RATE                        | Not applicable |
| DECOMPOSITION TEMPERATURE | > 1300° C                  | SPEC. GRAVITY / RELATIVE DENSITY        | 2.2            |
| AUTOIGNITION TEMPERATURE  | Not applicable             | PARTITION COEFFICIENT – n-OCTANOL/WATER | Not applicable |
| FLAMMABILITY (solid/gas)  | Not applicable             | SOLUBILITY – WATER                      | < 1%           |
|                           |                            | VISCOSITY                               | Not applicable |

## SECTION 10: STABILITY AND REACTIVITY

|                                    |                                                                                                     |
|------------------------------------|-----------------------------------------------------------------------------------------------------|
| REACTIVITY                         | Material is not reactive.                                                                           |
| CHEMICAL STABILITY                 | Material is stable.                                                                                 |
| POSSIBILITY OF HAZARDOUS REACTIONS | Material is not reactive.                                                                           |
| CONDITIONS TO AVOID                | Not applicable                                                                                      |
| INCOMPATIBLE MATERIALS             | Products containing silica may react violently with hydrofluoric acid and strongly basic solutions. |
| HAZARDOUS DECOMPOSITION PRODUCTS   | Not applicable                                                                                      |

## SECTION 11: TOXICOLOGICAL INFORMATION

|                                |                                                                                                                                                                    |
|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| POTENTIAL HEALTH EFFECTS       | See below and Section 11 for additional information                                                                                                                |
| Likely Routes of Exposure      | See below                                                                                                                                                          |
| EYE                            | May cause irritation (tear formation and redness) if dust gets in eyes.                                                                                            |
| SKIN                           | Not absorbed by the skin, but may cause dryness if prolonged exposure.                                                                                             |
| INGESTION                      | Ingestion of small to moderate quantities is not considered harmful, but may cause irritation of the mouth, throat and stomach.                                    |
| INHALATION                     | Acute inhalation can cause dryness of the nasal passage and lung congestion, coughing and general throat irritation. Chronic inhalation of dust should be avoided. |
| CHRONIC EFFECTS                | Chronic inhalation of dust in excess of the Permissible Exposure Limit (PEL) established by OSHA over a prolonged number of years may cause lung changes.          |
| NTP                            | Diatomaceous Earth, Natural is not classified as a carcinogen.                                                                                                     |
| IARC                           | Diatomaceous Earth, Natural is not classifiable as to carcinogenicity in humans (Group 3).                                                                         |
| NUMERICAL MEASURES OF TOXICITY | No data available                                                                                                                                                  |

|                                            |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |             |  |          |                |              |                        |
|--------------------------------------------|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------|--|----------|----------------|--------------|------------------------|
| MATERIAL NAME                              |  | OPTISORB                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  | Page 4 of 4 |  |          |                |              |                        |
| CORROSIVENESS,<br>SENSITIZATION, IRRITANCY |  | Not applicable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |             |  |          |                |              |                        |
| REPRODUCTIVE TOXICITY                      |  | Not available                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |             |  |          |                |              |                        |
| TERATOGENICITY,<br>MUTAGENICITY            |  | Not available                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |             |  |          |                |              |                        |
| <b>SECTION 12: ECOLOGICAL INFORMATION</b>  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |             |  |          |                |              |                        |
| ECOTOXICITY:                               |  | Diatomaceous earth products have shown some efficacy as a natural insecticide, but otherwise have no demonstrated toxicity in regards to aquatic or terrestrial life.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |             |  |          |                |              |                        |
| PERSISTENCE AND<br>DEGRADABILITY           |  | Non-biodegradable, inert.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |             |  |          |                |              |                        |
| BIOACCUMULATIVE POTENTIAL                  |  | Little potential for bioaccumulation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |             |  |          |                |              |                        |
| MOBILITY IN SOIL                           |  | No mobility                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |             |  |          |                |              |                        |
| OTHER ADVERSE EFFECTS                      |  | None known                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |             |  |          |                |              |                        |
| <b>SECTION 13: DISPOSAL CONSIDERATIONS</b> |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |             |  |          |                |              |                        |
| WASTE DISPOSAL                             |  | If this material as supplied becomes a waste, use solid waste disposal common to landfill type operations or in slurry to sumps. Not considered a hazardous waste under RCRA (40CFR Part 261).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |             |  |          |                |              |                        |
| PACKAGING DISPOSAL                         |  | Dispose of in accordance with applicable laws and regulations, typically solid waste disposal common to landfill type operations.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |             |  |          |                |              |                        |
| <b>SECTION 14: TRANSPORT INFORMATION</b>   |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |             |  |          |                |              |                        |
| BASIC SHIPPING INFORMATION                 |  | DOT shipping classification 55 (no restrictions). Technical name is "Diatomaceous Earth".                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |             |  |          |                |              |                        |
| ADDITIONAL INFORMATION                     |  | No special requirements or placarding necessary.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |             |  |          |                |              |                        |
| <b>SECTION 15: REGULATORY INFORMATION</b>  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |             |  |          |                |              |                        |
| U.S. FEDERAL:                              |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |             |  |          |                |              |                        |
| TSCA                                       |  | Diatomaceous Earth, Natural appears on the EPA TSCA inventory list.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |             |  |          |                |              |                        |
| CERCLA                                     |  | Diatomaceous Earth, Natural is not classified as a hazardous substance under regulations of the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), 40 CFR 302.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |             |  |          |                |              |                        |
| SARA TITLE III                             |  | Not listed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |             |  |          |                |              |                        |
| California Proposition 65:                 |  | This product contains crystalline silica, a chemical known to the State of California to cause cancer.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |             |  |          |                |              |                        |
| INTERNATIONAL:                             |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |             |  |          |                |              |                        |
| WHMIS Classification                       |  | These products are not regulated by WHMIS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |             |  |          |                |              |                        |
| WHMIS Ingredient<br>Disclosure List        |  | No reportable ingredients are present.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |             |  |          |                |              |                        |
| <b>SECTION 16: OTHER INFORMATION</b>       |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |             |  |          |                |              |                        |
|                                            |  | <div style="display: flex; align-items: center; justify-content: space-around;"> <div style="border: 1px solid black; padding: 5px; text-align: center;">             NFPA<br/>  </div> <div style="border: 1px solid black; padding: 5px;">             4-Extreme<br/>             3-High<br/>             2-Moderate<br/>             1-Slight<br/>             0-Insignificant           </div> <div style="border: 1px solid black; padding: 5px; text-align: center;">             HMIS<br/> <table border="1" style="margin-top: 10px;"> <tr><td>0 Health</td></tr> <tr><td>0 Flammability</td></tr> <tr><td>0 Reactivity</td></tr> <tr><td>E Protective Equipment</td></tr> </table> </div> </div> |  |             |  | 0 Health | 0 Flammability | 0 Reactivity | E Protective Equipment |
| 0 Health                                   |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |             |  |          |                |              |                        |
| 0 Flammability                             |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |             |  |          |                |              |                        |
| 0 Reactivity                               |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |             |  |          |                |              |                        |
| E Protective Equipment                     |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |             |  |          |                |              |                        |
| ORIGINAL ISSUE DATE                        |  | March 4, 1994                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |             |  |          |                |              |                        |
| REVISION DATE                              |  | March 10, 2015                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |             |  |          |                |              |                        |
| REVISION NO.                               |  | 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |             |  |          |                |              |                        |

**Disclaimer:** As of the date of the preparation of this document, the foregoing information is believed to be accurate and is provided in good faith to comply with applicable federal and state laws. No warranty, representation or guaranty of any kind, express or implied, is hereby provided or intended with respect to the completeness of the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by the purchase, resale, use or exposure to our product. Customer users of silica must comply with all applicable health and safety laws, regulations and orders, including OSHA Hazardous Communication Standard.