SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT IDENTIFIER Pre-co-Floc® PB40, PB40M, PB33, PB33C, PB100M, PB200M, PB300M, PB20, PB20M, PB900, NB10
CHEMICAL NAME Powdered Cellulose
CHEMICAL FAMILY Cellulose
MATERIAL USE Filter Aid
RESTRICTION ON USE None Known
MANUFACTURER EP Minerals, LLC., 9875 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 July 31, 2014

SECTION 2: HAZARDS IDENTIFICATION

OSHA GHS HAZARD CLASSIFICATION Combustible Dust
HAZARDS NOT OTHERWISE CLASSIFIED None
LABEL ELEMENTS WARNING May cause combustible dust concentrations in the air.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>INGREDIENT IDENTIFICATION</th>
<th>APPROXIMATE CONCENTRATION (%)</th>
<th>C.A.S. NUMBERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cellulose</td>
<td>100%</td>
<td>9004-34-6</td>
</tr>
</tbody>
</table>

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.

SECTION 5: FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA Water is most effective for ordinary combustibles such as cellulose.

SPECIFIC HAZARDS ARISING FROM THE CHEMICAL Cellulose is combustible and will burn under fire conditions. Dust generated in handling this material may present a potential fire and explosion hazard if suspended in air at high concentrations. Settled dust presents a fire hazard. Resuspension of the dust into the air by vibration, traffic, material handling, etc. in high concentrations in the presence of an ignition source could result in a dust explosion. Minimize the generation and accumulation of dust.

SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE-FIGHTERS No special procedures are required.
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
Scoop or shovel up using methods that minimize the generation of airborne dust. Nonsparking tools should be used. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentrations. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air).

SECTION 7: HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING
Avoid contact with eyes. Avoid breathing dust. Repair or dispose of broken bags. Observe all label precautions and warnings. Keep product away from open flames and hot surfaces. Possible combustible dust hazard. Minimize the generation and accumulation of dust. Keep dust away from open flames, hot surfaces and sources of ignition. Follow good housekeeping practices to keep surfaces, including areas overhead such as piping, drop ceilings, ductwork, etc., free from settled dust. Dry powders can build static electricity charges when subjected to friction of transfer and in mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres.

CONDITIONS FOR SAFE STORAGE
Store in a dry place to maintain packaging integrity and product quality.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES:

<table>
<thead>
<tr>
<th>Component</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
<th>MSHA PEL</th>
<th>NIOSH REL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cellulose, wood fiber</td>
<td>5 mg/m³ respirable dust 15 mg/m³ total dust</td>
<td>10 mg/m³</td>
<td>5 mg/m³ respirable dust 15 mg/m³ total dust</td>
<td>5 mg/m³ respirable dust 10 mg/m³ total dust</td>
</tr>
</tbody>
</table>

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. It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling this product contain explosion relief vents or an explosion suppression system or an oxygen deficient environment. Ensure that dust handling systems (such as exhaust ducts, dust collectors, vessels and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment). Use only appropriately classified electrical equipment and powered industrial trucks.

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.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>APPEARANCE, COLOR</th>
<th>White powder</th>
<th>ODOR</th>
<th>Neutral</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYSICAL STATE</td>
<td>Solid</td>
<td>ODOR THRESHOLD</td>
<td>Not applicable</td>
</tr>
<tr>
<td>VAPOR PRESSURE</td>
<td>Not applicable</td>
<td>VAPOR DENSITY</td>
<td>Not applicable</td>
</tr>
<tr>
<td>BOILING POINT</td>
<td>Not applicable</td>
<td>MELTING POINT</td>
<td>Not applicable</td>
</tr>
<tr>
<td>FLASH POINT</td>
<td>Not applicable</td>
<td>pH (10% SUSPENSION)</td>
<td>5.0 – 7.5 typical</td>
</tr>
<tr>
<td>FLAMMABILITY LIMITS</td>
<td>Not applicable</td>
<td>EVAPORATION RATE</td>
<td>Not applicable</td>
</tr>
<tr>
<td>MATERIAL NAME</td>
<td>Pre-co-Floc® PB40, PB40M, PB33, PB33C, PB100M, PB200M, PB300M, PB20, PB20M, PB900, NB 10</td>
<td>Page 3 of 4</td>
<td></td>
</tr>
<tr>
<td>---------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
<td>-------------</td>
<td></td>
</tr>
<tr>
<td>DECOMPOSITION TEMPERATURE</td>
<td>200° C</td>
<td>SPEC. GRAVITY / RELATIVE DENSITY</td>
<td>Variable- dependent on species and moisture 0.10 – 0.25 typical</td>
</tr>
<tr>
<td>AUTOIGNITION TEMPERATURE</td>
<td>500° C</td>
<td>PARTITION COEFFICIENT – n-OCTANOL/WATER</td>
<td>Not applicable</td>
</tr>
<tr>
<td>FLAMMABILITY (solid/gas)</td>
<td>Not applicable</td>
<td>SOLUBILITY – WATER</td>
<td>Insoluble</td>
</tr>
<tr>
<td>VISCOSITY</td>
<td>Not applicable</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**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**
Extreme heat / open flame

**INCOMPATIBLE MATERIALS**
None

**HAZARDOUS DECOMPOSITION PRODUCTS**
Oxides of carbon

**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 exposure may lead to dermatitis or respiratory sensitization.

**CARCINOGENICITY**
Not listed as a carcinogen.

**NTP**
Cellulose is not classified as a carcinogen.

**IARC**
Cellulose is not classified as a carcinogen.

**NUMERICAL MEASURES OF TOXICITY**
No data available

**CORROSIVENESS, SENSITIZATION, IRRITANCY**
Not applicable

**REPRODUCTIVE TOXICITY**
Not available

**TERATOGENICITY, MUTAGENICITY**
Not available

**SECTION 12: ECOLOGICAL INFORMATION**

**ECOTOXICITY:**
These products have no demonstrated toxicity in regards to aquatic or terrestrial life.

**PERSISTENCE AND DEGRADABILITY**
Non-biodegradable, inert.

**BIOACCUMULATIVE POTENTIAL**
Little potential for bioaccumulation

**MOBILITY IN SOIL**
No mobility

**OTHER ADVERSE EFFECTS**
None known
**SECTION 13: DISPOSAL CONSIDERATIONS**

**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.

**SECTION 14: TRANSPORT INFORMATION**

**BASIC SHIPPING INFORMATION**  
No restrictions.

**ADDITIONAL INFORMATION**  
No special requirements or placarding necessary.

**SECTION 15: REGULATORY INFORMATION**

**U.S. FEDERAL:**

<table>
<thead>
<tr>
<th>TSCA</th>
<th>Cellulose appears on the EPA TSCA inventory list.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CERCLA</td>
<td>Cellulose is not classified as a hazardous substance under regulations of the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), 40 CFR 302.</td>
</tr>
<tr>
<td>SARA TITLE III</td>
<td>Not listed.</td>
</tr>
</tbody>
</table>

**INTERNATIONAL:**

<table>
<thead>
<tr>
<th>WHMIS Classification</th>
<th>These products are not regulated by WHMIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>WHMIS Ingredient Disclosure List</td>
<td>No reportable ingredients are present.</td>
</tr>
</tbody>
</table>

**SECTION 16: OTHER INFORMATION**

Refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and handling of Combustible Particulate Solids, for safe handling.

**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.