1. Product and Company Identification

Material name: PREMIUM GEL®
Version #: 38
Revision date: 14-April-2009
CAS #: 1302-78-9
Synonym(s): SMECTITE CLAY
Manufacturer: American Colloid Company
2870 Forbs Avenue
Hoffman Estates, IL 60192 US
safetydata@amcol.com
www.colloid.com
General Information (800) 426-5564
CHEMTREC® (800) 424-9300

2. Hazards Identification

Potential health effects

Routes of exposure
- Inhalation. Eye contact.
- Skin
- Eye contact
- Dust or powder may irritate eye tissue. Symptoms include itching, burning, redness and tearing.
- Inhalation of dusts may cause respiratory irritation. Repeated or prolonged inhalation may cause toxic effects. For additional information on inhalation hazards, see Section 11 of this safety data sheet.
- Skin
- Non-irritating to the skin. Not expected to be a primary skin irritant.
- Ingestion
- No significant adverse effects are expected upon ingestion of the product.

Target organs
- Lungs.

Chronic effects
- This product has the potential for generation of respirable dust during handling and use. Dust may contain respirable crystalline silica. Overexposure to dust may result in pneumocononiosis, a respiratory disease caused by inhalation of mineral dust, which can lead to fibrotic changes to the lung tissue, or silicosis, a respiratory disease caused by inhalation of silica dust, which can lead to inflammation and fibrosis of the lung tissue.

3. Composition / Information on Ingredients

The manufacturer lists no ingredients as hazardous according to OSHA 29 CFR 1910.1200.

Composition comments
- Bentonite contains naturally occurring crystalline silica (not listed in Annex I of Directive 67/548/EEC) in quantities less than 6%. Occupational Exposure Limits for impurities are listed in Section 8.

4. First Aid Measures

First aid procedures

Eye contact
- Flush eyes immediately with large amounts of water. Get medical attention if irritation develops or persists.

Skin contact
- No special measures required. Get medical attention if irritation develops or persists.

Inhalation
- If symptoms are experienced, remove source of contamination or move victim to fresh air. If the affected person is not breathing, apply artificial respiration. If breathing is difficult, give oxygen. Call a physician if symptoms develop or persist.

Ingestion
- No special measures required. If ingestion of a large amount does occur, seek medical attention.

Notes to physician
- Provide general supportive measures and treat symptomatically.

General advice
- If you feel unwell, seek medical advice (show the label where possible).

5. Fire Fighting Measures

Flammable properties
- The product is not flammable. This material will not burn.
### Extinguishing media

**Suitable extinguishing media**

Dry chemical, CO2, water spray or regular foam. Use any media suitable for the surrounding fires.

### Protection of firefighters

**Protective equipment and precautions for firefighters**

Material can be slippery when wet.

### Hazardous combustion products

None known.

### 6. Accidental Release Measures

#### Personal precautions

Material can be slippery when wet. Forms smooth, slippery surfaces on floors, posing an accident risk. Wear a dust mask if dust is generated above exposure limits.

#### Environmental precautions

No special environmental precautions required.

#### Methods for containment

None necessary.

#### Methods for cleaning up

Avoid the generation of dusts during clean-up. Collect dust or particulates using a vacuum cleaner with a HEPA filter. Reduce airborne dust and prevent scattering by moistening with water.

### 7. Handling and Storage

#### Handling

Material can be slippery when wet. Forms smooth, slippery surfaces on floors, posing an accident risk. Keep formation of airborne dusts to a minimum. Provide appropriate exhaust ventilation at places where dust is formed. In case of insufficient ventilation, wear suitable respiratory equipment.

#### Storage

Guard against dust accumulation of this material. No special storage conditions required. No special restrictions on storage with other products.

### 8. Exposure Controls / Personal Protection

#### Occupational exposure limits

**ACGIH**

<table>
<thead>
<tr>
<th>Impurities</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>INERT OR NUISANCE DUST (SEQ250)</td>
<td>TWA</td>
<td>10 mg/m³</td>
<td>Inhalable particles.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 mg/m³</td>
<td>Respirable particles.</td>
</tr>
<tr>
<td>QUARTZ (14808-60-7)</td>
<td>TWA</td>
<td>0.025 mg/m³</td>
<td>Respirable fraction.</td>
</tr>
</tbody>
</table>

**U.S. - OSHA**

<table>
<thead>
<tr>
<th>Impurities</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>INERT OR NUISANCE DUST (SEQ250)</td>
<td>PEL</td>
<td>15 mg/m³</td>
<td>Total dust.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 mg/m³</td>
<td>Respirable fraction.</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>5 mg/m³</td>
<td>Respirable fraction.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>50 mppcf</td>
<td>Total dust.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15 mppcf</td>
<td>Respirable fraction.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15 mg/m³</td>
<td>Total dust.</td>
</tr>
<tr>
<td>QUARTZ (14808-60-7)</td>
<td>TWA</td>
<td>2.4 mppcf</td>
<td>Respirable.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.3 mg/m³</td>
<td>Total dust.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.1 mg/m³</td>
<td>Respirable.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.1 mg/m³</td>
<td>Respirable dust.</td>
</tr>
</tbody>
</table>

#### Exposure guidelines

Occupational exposure to nuisance dust (total and respirable) and respirable crystalline silica should be monitored and controlled.

#### Engineering controls

If material is ground, cut, or used in any operation which may generate dusts, use appropriate local exhaust ventilation to keep exposures below the recommended exposure limits. If engineering measures are not sufficient to maintain concentrations of dust particulates below the OEL, suitable respiratory protection must be worn.

#### Personal protective equipment

**Eye / face protection**

Wear dust goggles.

**Skin protection**

No special protective equipment required.
9. Physical & Chemical Properties

Appearance  Not available.
Color  Various.
Odor  None.
Odor threshold  Not available.
Physical state  Solid.
Form  Various.
pH  8 - 11
Melting point  Not available.
Freezing point  Not available.
Boiling point  Not available.
Flash point  Not available.
Evaporation rate  Not available.
Flammability  Not available.
Flammability limits in air, upper, % by volume  Not explosive
Flammability limits in air, lower, % by volume  Not explosive
Vapor pressure  Not available.
Vapor density  Not available.
Specific gravity  Not available.
Relative density  Not available.
Solubility (water)  Negligible
Partition coefficient (n-octanol/water)  Not available.
Auto-ignition temperature  Not available.
Decomposition temperature  Not available.
Molecular formula  UNKNOWN

10. Chemical Stability & Reactivity Information

Chemical stability  Stable at normal conditions.
Conditions to avoid  None known.
Incompatible materials  None known.
Hazardous decomposition products  None known.
Possibility of hazardous reactions  Will not occur.

11. Toxicological Information

Acute effects  Mild irritant to eyes (according to the modified Kay & Calandra criteria).
Chronic effects

In 1997, IARC (the International Agency for Research on Cancer) concluded that crystalline silica inhaled from occupational sources can cause lung cancer in humans. However in making the overall evaluation, IARC noted that "carcinogenicity was not detected in all industrial circumstances studied. Carcinogenicity may be dependent on inherent characteristics of the crystalline silica or on external factors affecting its biological activity or distribution of its polymorphs." (IARC Monographs on the evaluation of the carcinogenic risks of chemicals to humans, Silica, silicates dust and organic fibres, 1997, Vol. 68, IARC, Lyon, France.)

In June 2003, SCOEL (the EU Scientific Committee on Occupational Exposure Limits) concluded that the main effect in humans of the inhalation of respirable crystalline silica dust is silicosis. "There is sufficient information to conclude that the relative risk of lung cancer is increased in persons with silicosis (and, apparently, not in employees without silicosis exposed to silica dust in quarries and in the ceramic industry). Therefore, preventing the onset of silicosis will also reduce the cancer risk..." (SCOEL SUM Doc 94-final, June 2003)

According to the current state of the art, worker protection against silicosis can be consistently assured by respecting the existing regulatory occupational exposure limits. Occupational exposure to nuisance dust (total and respirable) and respirable crystalline silica should be monitored and controlled.

Carcinogenicity

IARC Monographs on Occupational Exposures to Chemical Agents: Overall evaluation
QUARTZ (14808-60-7) 1 Human carcinogen.

US ACGIH Threshold Limit Values: A2 carcinogen
QUARTZ (14808-60-7) Group A2 Suspected human carcinogen.

US NTP Report on Carcinogens: Known carcinogen
QUARTZ (14808-60-7) Known carcinogen.

12. Ecological Information

Ecotoxicological data

<table>
<thead>
<tr>
<th>Product</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>PREMIUM GEL® (1302-78-9)</td>
<td>LC50 Rainbow trout,donaldson trout (Oncorhynchus mykiss): 19000 mg/l 96.00 Hours</td>
</tr>
</tbody>
</table>

Ecotoxicity
This product has no known eco-toxicological effects. This product is not expected to produce significant ecotoxicity upon exposure to aquatic organisms and aquatic systems.

Environmental effects
Based on the physical properties of this product, significant environmental persistence and bioaccumulation would not be expected.

Persistence and degradability
Not available.

13. Disposal Considerations

Disposal instructions
Dispose in accordance with all applicable regulations. Material should be recycled if possible.

14. Transport Information

DOT
Not regulated as dangerous goods.

IATA
Not regulated as dangerous goods.

IMDG
Not regulated as dangerous goods.

15. Regulatory Information

US federal regulations
OSHA Process Safety Standard: This material is not known to be hazardous by the OSHA Highly Hazardous Process Safety Standard, 29 CFR 1910.119.

CERCLA (Superfund) reportable quantity
None
Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
- Immediate Hazard - No
- Delayed Hazard - Yes
- Fire Hazard - No
- Pressure Hazard - No
- Reactivity Hazard - No

Section 302 extremely hazardous substance
No

Section 311 hazardous chemical
Yes

Food and Drug Administration (FDA)
- Total food additive
- Direct food additive
- GRAS food additive

Inventory status

<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory name</th>
<th>On inventory (yes/no)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Australian Inventory of Chemical Substances (AICS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Domestic Substances List (DSL)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Non-Domestic Substances List (NDSL)</td>
<td>No</td>
</tr>
<tr>
<td>China</td>
<td>Inventory of Existing Chemical Substances in China (IECSC)</td>
<td>Yes</td>
</tr>
<tr>
<td>Europe</td>
<td>European Inventory of New and Existing Chemicals (EINECS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Europe</td>
<td>European List of Notified Chemical Substances (ELINCS)</td>
<td>No</td>
</tr>
<tr>
<td>Japan</td>
<td>Inventory of Existing and New Chemical Substances (ENCS)</td>
<td>No</td>
</tr>
<tr>
<td>Korea</td>
<td>Existing Chemicals List (ECL)</td>
<td>Yes</td>
</tr>
<tr>
<td>New Zealand</td>
<td>New Zealand Inventory</td>
<td>Yes</td>
</tr>
<tr>
<td>Philippines</td>
<td>Philippine Inventory of Chemicals and Chemical Substances (PICCS)</td>
<td>Yes</td>
</tr>
<tr>
<td>United States &amp; Puerto Rico</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>Yes</td>
</tr>
</tbody>
</table>

A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

State regulations
WARNING: This product contains a chemical known to the State of California to cause cancer.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance
- QUARTZ (14808-60-7) Listed.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

US - Pennsylvania RTK - Hazardous Substances: Listed substance
- QUARTZ (14808-60-7) Listed.

16. Other Information

Further information
This safety datasheet only contains information relating to safety and does not replace any product information or product specification.

Recommended restrictions
Workers (and your customers or users in the case of resale) should be informed of the potential presence of respirable dust and respirable crystalline silica as well as their potential hazards. Appropriate training in the proper use and handling of this material should be provided as required under applicable regulations.

HMIS ratings

<table>
<thead>
<tr>
<th>Category</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>1</td>
</tr>
<tr>
<td>Physical</td>
<td>0</td>
</tr>
<tr>
<td>Protection</td>
<td>0</td>
</tr>
</tbody>
</table>

NFPA ratings
- Health: 1
- Flammability: 0
- Instability: 0
Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The manufacturer expressly does not make any representations, warranties, or guarantees as to its accuracy, reliability or completeness nor assumes any liability, for its use. It is the user's responsibility to verify the suitability and completeness of such information for each particular use.

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Issue date
14-April-2009

Other information
American Colloid Company is an AMCOL International company.