# SAFETY DATA SHEET

in accordance with 1907/2006/EC (REACH, as amended by 453/2010/EC) and 29 CFR 1910.1200

| Revision date: | 25 February 2015 | Initial date of issue: | 21 January 2009 | SDS No. | 1090I-6 |

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

### 1.1. Product identifier

CMS-2000 Injectable Sealing Compound

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

This new asbestos-free sealing product from Chesterton® is a high quality pump sealant which offers virtually zero leakage. It is an excellent replacement sealant on pumps with worn or pitted shafts since its malleability allows it to conform to all irregularities on shaft and stuffing box.

### 1.3. Details of the supplier of the safety data sheet

**Company:**
A.W. CHESTERTON COMPANY
860 Salem Street
Groveland, MA 01834-1507, USA
Tel.: +1 978-469-6446 Fax: +1 978-469-6785
(Mon. - Fri. 8:30 - 5:00 PM EST)
SDS requests: www.chesterton.com
E-mail (SDS questions): ProductMSDSs@chesterton.com
E-mail: customer.service@chesterton.com

**Supplier:**

### 1.4. Emergency telephone number

24 hours per day, 7 days per week
Call Infotrac: 1-800-535-5053
Outside N. America: +1 352-323-3500 (collect)

## SECTION 2: HAZARDS IDENTIFICATION

### 2.1. Classification of the substance or mixture


This product does not meet the criteria for classification in any hazard class according to Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures, 29 CFR 1910.1200 and GHS.

#### 2.1.2. Classification according to Directives 1999/45/EC and 1975/324/EEC

This product does not meet the criteria for classification in any danger category according to Directive 1999/45/EC on classification, packaging and labelling of dangerous preparations.

#### 2.1.3. Canadian WHMIS classification

D2B: Toxic materials causing other effects; D2A: Very toxic materials causing other effects

#### 2.1.4. Australian classification

Not classified as hazardous according to criteria of Safe Work Australia.

#### 2.1.5. Additional information

None

### 2.2. Label elements


<table>
<thead>
<tr>
<th>Hazard pictograms:</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signal word:</td>
<td>None</td>
</tr>
<tr>
<td>Hazard statements:</td>
<td>None</td>
</tr>
<tr>
<td>Precautionary statements:</td>
<td>None</td>
</tr>
<tr>
<td>Supplemental information:</td>
<td>None</td>
</tr>
</tbody>
</table>
2.3. Other hazards
It is nontoxic at ambient temperatures. When heated to temperatures above 260ºC (500°F), perfluorocarbon resins begin to give off vapors that may cause temporary flu-like symptoms if inhaled. Thermal decomposition leads to the formation of oxidized products containing carbon, fluorine and oxygen. The ACGIH states that no exposure limit is recommended pending determination of the toxicity of the products, but air concentration should be minimal. Likewise, when using this product avoid smoking for the same reason.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

<table>
<thead>
<tr>
<th>Hazardous Ingredients</th>
<th>% Wt.</th>
<th>CAS No./ EC No.</th>
<th>REACH Reg. No.</th>
<th>Classification (CLP/GHS)</th>
<th>Classification (67/548/EEC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graphite</td>
<td>25-35</td>
<td>7782-42-5</td>
<td>NA</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td></td>
<td>231-955-3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Talc</td>
<td>5-10</td>
<td>14807-96-6</td>
<td>NA</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td></td>
<td>238-877-9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Titanium dioxide</td>
<td>1-3</td>
<td>13463-67-7</td>
<td>NA</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td></td>
<td>236-675-5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethylene glycol</td>
<td>0.1-0.4</td>
<td>107-21-1</td>
<td>NA</td>
<td>Acute Tox. 4, H302 STOT RE 2, H373</td>
<td>Xn; R22</td>
</tr>
<tr>
<td></td>
<td></td>
<td>203-473-3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other ingredients:</td>
<td>5-10</td>
<td>68440-29-9</td>
<td>NA</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Fatty acids, tallow, Me esters, chlorinated</td>
<td></td>
<td>270-448-1</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Indications of danger acc. to 67/548/EEC: Xn: Harmful

* Controlled Products Regulations
* Safe Work Australia [NOHSC: 1008 (2004)]

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

Inhalation: Remove to fresh air. If not breathing, administer artificial respiration. Contact physician.

Skin contact: Wash skin with soap and water. Contact physician if irritation persists.

Eye contact: Flush eyes for at least 15 minutes with large amounts of water. Contact physician if irritation persists.

Ingestion: not applicable

4.2. Most important symptoms and effects, both acute and delayed

Mild transient skin and eye irritant. When heated, vapors may cause nausea, dizziness, irritation of the respiratory tract and watering eyes. Prolonged or repeated contact may cause acne, irritation or allergic reaction in sensitive individuals. Prolonged, excessive inhalation of Graphite dust has caused emphysema and pneumoconiosis. Repeated or prolonged inhalation of Talc dust may cause chronic cough, shortness of breath, scarring of the lungs (pulmonary fibrosis) and mild symptomatic pneumoconiosis.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptoms.

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Carbon Dioxide, dry chemical or foam

5.2. Special hazards arising from the substance or mixture

Thermal decomposition can form Hydrogen Chloride and other toxic fumes.

5.3. Advice for firefighters

Recommend Firefighters wear self-contained breathing apparatus. Thermal decomposition can form Hydrogen Chloride and other toxic fumes.

Flammability Classification:

HAZCHEM Emergency Action Code: 3 2
SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures
Avoid contamination of tobacco products. Utilize exposure controls and personal protection as specified in Section 8.

6.2. Environmental Precautions
No special requirements.

6.3. Methods and material for containment and cleaning up
Scoop up and transfer to a suitable container for disposal.

6.4. Reference to other sections
Refer to section 13 for disposal advice.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling
Remove contaminated clothing and wash before reuse. Avoid contamination of tobacco products. Wash before eating, drinking or smoking. Avoid creating and breathing dust during removal, drilling, grinding, sawing or sanding.

7.2. Conditions for safe storage, including any incompatibilities
Keep container closed when not in use. Store in a cool, dry area.

7.3. Specific end use(s)
Refer to the product instructions and product data sheet for more detailed application information.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters
Occupational exposure limit values

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>OSHA PEL¹ ppm</th>
<th>mg/m³ (resp)</th>
<th>ACGIH TLV² ppm</th>
<th>mg/m³ (resp)</th>
<th>UK WEL³ ppm</th>
<th>mg/m³ (resp)</th>
<th>AUSTRALIA ES⁴ ppm</th>
<th>mg/m³ (resp)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graphite</td>
<td>15 mppcf</td>
<td>(resp)</td>
<td>2</td>
<td>(resp)</td>
<td>4</td>
<td>10</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Talc</td>
<td>20 mppcf</td>
<td>(resp)</td>
<td>2</td>
<td>(resp)</td>
<td>1</td>
<td>(resp)</td>
<td>2.5</td>
<td></td>
</tr>
<tr>
<td>Titanium dioxide</td>
<td>–</td>
<td>15</td>
<td>–</td>
<td>10</td>
<td>4</td>
<td>10</td>
<td>–</td>
<td>10</td>
</tr>
<tr>
<td>Ethylene glycol</td>
<td>–</td>
<td>–</td>
<td>100</td>
<td>–</td>
<td>20</td>
<td>52 (skin)</td>
<td>20</td>
<td>52 (skin)</td>
</tr>
<tr>
<td>Fatty acids, tallow, Me esters, chlorinated</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td></td>
</tr>
</tbody>
</table>

¹ United States Occupational Health & Safety Administration permissible exposure limits.
² American Conference of Governmental Industrial Hygienists threshold limit values.
³ EH40 Workplace exposure limits, Health & Safety Executive
⁴ Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003].

8.2. Exposure controls

8.2.1. Engineering measures
No special requirements. If using under extreme heat, use local exhaust. If it is necessary to alter the final cured product such that dust may be generated, use adequate dust extraction or damp down.

8.2.2. Individual protection measures

Respiratory protection: Not normally needed.
Protective gloves: Impervious gloves. Cotton gloves have been recommended.
Eye and face protection: Safety glasses
Other: Do not smoke while using the product.

8.2.3. Environmental exposure controls
No special requirements. Refer to sections 6 and 12.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>putty, thick compound mix</td>
</tr>
<tr>
<td>Colour</td>
<td>black</td>
</tr>
<tr>
<td>Initial boiling point</td>
<td>not applicable</td>
</tr>
<tr>
<td>Melting point</td>
<td>not applicable</td>
</tr>
<tr>
<td>% Volatile (by volume)</td>
<td>None</td>
</tr>
<tr>
<td>Flash point</td>
<td>not applicable</td>
</tr>
<tr>
<td>Method</td>
<td>not applicable</td>
</tr>
<tr>
<td>Viscosity</td>
<td>not determined</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>not applicable</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>no data available</td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td>not applicable</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>not applicable</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>not determined</td>
</tr>
<tr>
<td>Odour</td>
<td>mild</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>not determined</td>
</tr>
<tr>
<td>Vapour pressure @ 20°C</td>
<td>None</td>
</tr>
<tr>
<td>% Aromatics by weight</td>
<td>None</td>
</tr>
<tr>
<td>pH</td>
<td>not applicable</td>
</tr>
<tr>
<td>Relative density</td>
<td>1.4 kg/l</td>
</tr>
<tr>
<td>Weight per volume</td>
<td>12.3 lbs/gal.</td>
</tr>
<tr>
<td>Vapour density (air=1)</td>
<td>&gt; 1</td>
</tr>
<tr>
<td>Rate of evaporation (ether=1)</td>
<td>&lt; 1</td>
</tr>
<tr>
<td>Solubility in water</td>
<td>insoluble</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>not applicable</td>
</tr>
</tbody>
</table>

9.2. Other information

None

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

Refer to sections 10.3 and 10.5.

10.2. Chemical stability

Stable

10.3. Possibility of hazardous reactions

No dangerous reactions known under conditions of normal use. No dangerous reactions known under conditions of normal use.

10.4. Conditions to avoid

Extreme heat above 260°C (500°F).

10.5. Incompatible materials

Strong oxidizers like liquid Chlorine and concentrated Oxygen.

10.6. Hazardous decomposition products

Hydrogen Chloride and other toxic fumes and at temperatures above 260°C (500°F) perfluorocarbon resin fumes.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Primary route of exposure: Inhalation, skin and eye contact.

under normal use:

Acute effects: Mild transient skin and eye irritant. When heated, vapors may cause nausea, dizziness, irritation of the respiratory tract and watering eyes.

<table>
<thead>
<tr>
<th>Substance</th>
<th>Test</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Titanium dioxide</td>
<td>LC50 inhalation, rat, 4 hours</td>
<td>&gt; 6.8 mg/l</td>
</tr>
<tr>
<td>Titanium dioxide</td>
<td>LD50 dermal, rabbit</td>
<td>&gt; 10000 mg/kg</td>
</tr>
<tr>
<td>Titanium dioxide</td>
<td>LD50 oral, rat</td>
<td>&gt; 10000 mg/kg</td>
</tr>
<tr>
<td>Ethylene glycol</td>
<td>Human lethal dose</td>
<td>786 mg/kg</td>
</tr>
<tr>
<td>Ethylene glycol</td>
<td>LD50 oral, rat</td>
<td>&gt; 5000 mg/kg</td>
</tr>
<tr>
<td>Ethylene glycol</td>
<td>LC50 inhalation, rat, 8 hours</td>
<td>&gt; 183 ppm</td>
</tr>
<tr>
<td>Ethylene glycol</td>
<td>LD50 dermal, rabbit</td>
<td>&gt; 5000 mg/kg</td>
</tr>
<tr>
<td>Fatty acids, tallow, Me esters, chlorinated</td>
<td>LD50 dermal, rat, calculated</td>
<td>&gt; 2000 mg/kg</td>
</tr>
<tr>
<td>Fatty acids, tallow, Me esters, chlorinated</td>
<td>LD50 oral, rat, calculated</td>
<td>&gt; 2000 mg/kg</td>
</tr>
</tbody>
</table>

Chronic effects: Prolonged or repeated contact may cause acne, irritation or allergic reaction in sensitive individuals. Prolonged, excessive inhalation of Graphite dust has caused emphysema and pneumoconiosis. Repeated or prolonged inhalation of Talc dust may cause chronic cough, shortness of breath, scarring of the lungs (pulmonary fibrosis) and mild symptomatic pneumoconiosis. Ethylene Glycol has produced birth defects in animals.

Carcinogenicity: The International Agency for Research on Cancer (IARC) has designated inhaled titanium dioxide as possibly carcinogenic to humans (group 2B).
**Aspiration hazard:** Not applicable

**Other information:** None

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### SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicological data have not been determined specifically for this product. The information given below is based on a knowledge of the components and the ecotoxicology of similar substances.

#### 12.1. Toxicity

Not determined

#### 12.2. Persistence and degradability

Graphite, Talc, Titanium dioxide: inorganic substances, exist in nature. Fatty acids, tallow, Me esters, chlorinated: biodegradable (not readily biodegradable). Ethylene glycol: readily biodegradable.

#### 12.3. Bioaccumulative potential

Ethylene glycol: low potential for bioaccumulation (BCF: 10).

#### 12.4. Mobility in soil

Semi-solid. Insoluble in water. In determining environmental mobility, consider the product's physical and chemical properties (see Section 9). Ethylene glycol: expected to have very high mobility in soils.

#### 12.5. Results of PBT and vPvB assessment

Not available

#### 12.6. Other adverse effects

No information available

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### SECTION 13: DISPOSAL CONSIDERATIONS

**13.1. Waste treatment methods**

Landfill material with a properly licensed facility. Material may be incinerated at an appropriate facility with emissions controls. Check local, state and national/federal regulations and comply with the most stringent requirement.

**European List of Wastes code:** Not determined

---

### SECTION 14: TRANSPORT INFORMATION

#### 14.1. UN number

<table>
<thead>
<tr>
<th>ADR/RID/ADN/IMDG/ICAO:</th>
<th>NOT APPLICABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>TDG:</td>
<td>NOT APPLICABLE</td>
</tr>
<tr>
<td>US DOT:</td>
<td>NOT APPLICABLE</td>
</tr>
</tbody>
</table>

#### 14.2. UN proper shipping name

<table>
<thead>
<tr>
<th>ADR/RID/ADN/IMDG/ICAO:</th>
<th>NON-HAZARDOUS, NON REGULATED</th>
</tr>
</thead>
<tbody>
<tr>
<td>TDG:</td>
<td>NON-HAZARDOUS, NON REGULATED</td>
</tr>
<tr>
<td>US DOT:</td>
<td>NON-HAZARDOUS, NON REGULATED</td>
</tr>
</tbody>
</table>

#### 14.3. Transport hazard class(es)

<table>
<thead>
<tr>
<th>ADR/RID/ADN/IMDG/ICAO:</th>
<th>NOT APPLICABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>TDG:</td>
<td>NOT APPLICABLE</td>
</tr>
<tr>
<td>US DOT:</td>
<td>NOT APPLICABLE</td>
</tr>
</tbody>
</table>

#### 14.4. Packing group

<table>
<thead>
<tr>
<th>ADR/RID/ADN/IMDG/ICAO:</th>
<th>NOT APPLICABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>TDG:</td>
<td>NOT APPLICABLE</td>
</tr>
<tr>
<td>US DOT:</td>
<td>NOT APPLICABLE</td>
</tr>
</tbody>
</table>

#### 14.5. Environmental hazards

NOT APPLICABLE

#### 14.6. Special precautions for user

NOT APPLICABLE

#### 14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

NOT APPLICABLE

#### 14.8. Other information

NOT APPLICABLE

---

### SECTION 15: REGULATORY INFORMATION

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

#### 15.1.1. EU regulations

**Authorisations under Title VII:** Not applicable
## 15.1.2. National regulations

### 15.1.2.1. US EPA SARA TITLE III

<table>
<thead>
<tr>
<th>312 Hazards:</th>
<th>313 Chemicals:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immediate</td>
<td>None</td>
</tr>
</tbody>
</table>

### Hazardous Materials Identification System (HMIS)

<table>
<thead>
<tr>
<th>HEALTH</th>
<th>FLAMMABILITY</th>
<th>PHYSICAL HAZARD</th>
<th>Personal Protection</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>1</td>
<td>*</td>
</tr>
</tbody>
</table>

### Other EU regulations:

None

### Other national regulations:

None

## 15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

## SECTION 16: OTHER INFORMATION

### Abbreviations and acronyms:

- ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
- ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
- ATE: Acute Toxicity Estimate
- BCF: Bioconcentration Factor
- CLP: Classification Labelling Packaging Regulation (1272/2008/EC)
- ES: Exposure Standard
- GHS: Globally Harmonized System
- ICAO: International Civil Aviation Organization
- IMDG: International Maritime Dangerous Goods
- LC50: Lethal Concentration to 50 % of a test population
- LD50: Lethal Dose to 50% of a test population
- LOEL: Lowest Observed Effect Level
- N/A: Not Applicable
- NA: Not Available
- NOAEL: No Observed Adverse Effect Level
- NOEL: No Observed Effect Level
- PBT: Persistent, Bioaccumulative and Toxic substance
- QSAR: Quantitative Structure-Activity Relationship
- REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (1907/2006/EC)
- RID: Regulations concerning the International Carriage of Dangerous Goods by Rail
- SDS: Safety Data Sheet
- STEL: Short Term Exposure Limit
- STOT: Specific Target Organ Toxicity
- TDG: Transportation of Dangerous Goods (Canada)
- US DOT: United States Department of Transportation
- vPvB: very Persistent and very Bioaccumulative substance
- WEL: Workplace Exposure Limit
- WHMIS: Workplace Hazardous Materials Information System
- Other abbreviations and acronyms can be looked up at www.wikipedia.org.

### Key literature references and sources for data:

- Commission de la santé et de la sécurité du travail (CSST)
- European chemical Substances Information System (ESIS)
- European Chemicals Agency (ECHA) - Information on Chemicals
- Hazardous Substances Data Bank (HSDB)
- Hazardous Substances Information System (HSIS)
- Swedish Chemicals Agency (KEMI)

### Procedure used to derive the classification for mixtures according to Regulation (EC) No 1272/2008:

<table>
<thead>
<tr>
<th>Classification</th>
<th>Classification procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

### Relevant H-statements:

- H302: Harmful if swallowed.
- H373: May cause damage to organs through prolonged or repeated exposure.

### Relevant R-phrases:

- R22: Harmful if swallowed.

### Hazard pictogram names:

None

### Changes to the SDS in this revision:

Sections 2.1, 2.2, 7.1, 9, 11, 14.
Further information: None

This information is based solely on data provided by suppliers of the materials used, not on the mixture itself. No warranty is expressed or implied regarding the suitability of the product for the user's particular purpose. The user must make their own determination as to suitability.