Trade name: Commutator Cement

SECTION 1: Identification

Product identifier: Commutator Cement.
Synonyms: None available.
Product Code Number: 54-007.
SDS number: ID007
Recommended use: Adhesive.
Recommended restrictions: None known.

Manufacturer/Importer/Supplier/Distributor information:
Company Name: IDEAL INDUSTRIES, INC.
Company Address: Becker Place, Sycamore, IL 60178
Company Telephone: Office hours (Mon – Fri)
7AM - 5 PM (CDT)
(815)895-5181
Company Contact Name: Darryl Docter.
Company Contact Email: IDEAL@IDEALINDUSTRIES.COM
Emergency phone number: 24 HOUR EMERGENCY NUMBER:
(815)895-5181.

SECTION 2: Hazard(s) identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200:

Physical hazards
Not classified as a physical hazard under GHS criteria

Health hazards
Carcinogenicity, Category 1A.

Environmental hazards
Not classified as a physical hazard under GHS criteria.

GHS Signal word: DANGER.
GHS Hazard statement(s): May cause cancer.
GHS Hazard symbol(s):

GHS Precautionary statement(s):

Prevention: P201 - Obtain special instructions before use. 
P202 - Do not handle until all safety precautions have been read and understood. 
P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response: P308 + P313 - IF exposed or concerned: Get medical advice/ attention.

Storage: P405 - Store locked up.

Disposal: P501 - Dispose of contents/ container to an approved waste disposal plant.

Hazard(s) not otherwise Classified (HNOC): None known.

Percentage of ingredient(s) of unknown acute toxicity: 
37% of the mixture consists of ingredients of unknown acute toxicity (oral/dermal/inhalation).

SECTION 3: Composition/information on ingredients

Pure substance:

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS#</th>
<th>Concentration (weight %)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silica Sand</td>
<td>14808-60-7</td>
<td>&lt; 45%</td>
</tr>
</tbody>
</table>

SECTION 4: First-aid Measures

Description of necessary measures:
Inhalation: If inhaled, move to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms persist.
**Skin contact:** In case of contact, Wash skin with soap and for at least 15 minutes. Remove contaminated clothing and thoroughly clean before reuse. Get medical attention if symptoms persist.

**Eye contact:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if symptoms persist.

**Ingestion:** Induce vomiting. Consult physician or local poison control center.

**Most important symptoms/effects, acute and delayed:** May cause cancer.

**Indication of immediate medical attention and special treatment needed:** If any symptoms are observed, contact a physician and give them this SDS sheet. If exposed or concerned: Get medical advice/attention.

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**SECTION 5: Fire-fighting measures**

**Suitable extinguishing media:** Not flammable. Use extinguishing media suitable for surrounding materials.

**Unsuitable extinguishing media:** No data available.

**Specific hazards arising from the chemical:** None expected. Combustion products - Carbon monoxide, Carbon dioxide.

**Special protective equipment and precautions for fire-fighters:** For fire involving this material, do not enter any enclosed or confined fire space without proper protective equipment. Use self-contained breathing apparatus with full face shield to protect against the hazardous effects of combustion products and oxygen deficiencies.

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**SECTION 6: Accidental release measures**

**Personal precautions, protective equipment and emergency procedures:** Isolate immediate hazard area and keep unauthorized personnel out. Wear appropriate protective equipment, including respiratory protection, as conditions warrant (see Section 8). See Sections 2 and 7 for additional information on hazards and precautionary measures.

**Methods and material for containment and cleaning up:** Persons not wearing protective equipment should be excluded from area of spill until cleanup has been completed. Stop spill at source. Avoid allowing material to dry before clean-up. Flush area with water. Apply absorbent and sweep up. Dispose of as solid fill. Prevent run-off to sewers, streams or other bodies of water. If run-off occurs, notify proper authorities as required.
SECTION 7: Handling and Storage

Precautions for safe handling: Wash thoroughly after handling. Wear protective gloves/clothing and eye/face protection. Use good personal hygiene practices and wear appropriate personal protective equipment (see section 8).

Conditions for safe storage, including any incompatibles: Avoid freezing. Store indoors at temperatures between 40 - 100F. Keep away from children, infants and pets. Keep in dry location. Keep container(s) tightly closed and properly labeled. Store only in approved containers. Keep away from any incompatible material (see Section 10). Protect container(s) against physical damage.

"Empty" containers retain residue and may be dangerous. "Empty" drums should be completely drained, properly bunged, and promptly shipped to the supplier or a drum reconditioner. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.

SECTION 8: Exposure controls/personal protection

Control Parameters:

Occupational exposure limits:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PEL-TWA (8 hour)</td>
<td>PEL-STEL (15 min)</td>
<td>Substance</td>
</tr>
<tr>
<td>Silica Sand (as respirable dust)</td>
<td>30/(% SiO2+ 2) mg/m³</td>
<td>No data available</td>
<td>Silica Sand (as respirable dust)</td>
</tr>
</tbody>
</table>

Appropriate engineering controls: General (mechanical) room ventilation is expected to be adequate. Special local ventilation is recommended to keep dust below exposure limits.

Individual protection measures, such as personal protective equipment:

Eye/face protection: The use of OSHA compliant safely goggles are recommended.
**Skin and Hand protection:** None normally required.

**Respiratory protection:** Where protection from nuisance levels of dusts are desired, use type N95 (US) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH/OSHA.

**Other:** None required.

**Thermal hazards:** No data available.

### SECTION 9: Physical and chemical properties

**Appearance**

- Physical state: Paste
- Form: Gray viscous paste.
- Color: Gray.
- Odor: Mild odor.
- Odor threshold: No data available
- pH: 10.9
- Melting point/freezing point: No data available
- Initial boiling point and boiling range: None
- Flash point: None
- Evaporation rate: No data available
- Flammability (solid, gas): Not applicable

#### Upper/lower flammability or explosive limits

- Flammability limit – lower (%): Not applicable
- Flammability limit – upper (%): Not applicable
- Explosive limit – lower (%): Not applicable
- Explosive limit – upper (%): Not applicable

**Vapor pressure:** No data available
**Vapor density:** No data available
**Relative Density:** 1.6
**Solubility(ies):** Infinite.
**Partition coefficient (n-octanol/water):** No data available
**Auto-ignition temperature:** No data available
**Decomposition temperature:** No data available
**Viscosity:** No data available

**Other information:**
- % Volatile by volume: < 25
- Percent solids by weight: ~ 70%

### SECTION 10: Stability and Reactivity

**Reactivity:** Not chemically reactive.
**Chemical stability:** Stable under normal ambient and anticipated conditions of use.
Possibility of hazardous reactions: Hazardous reactions not anticipated.
Conditions to avoid: None.
Incompatible materials: Avoid strong oxidizers.
Hazardous decomposition Products: None known.

SECTION 11: Toxicological information

Information on likely routes of exposure:

Inhalation: Not an expected route of entry.
Ingestion: Not an expected route of entry.
Skin: Skin contact is a primary route of entry.
Eyes: Not an expected route of entry.

Symptoms related to the physical, chemical, and toxicological characteristics:
May cause lung cancer, pulmonary fibrosis and is a suspected human carcinogen.

Delayed and immediate effects and chronic effects from short or long-term exposure:
Detailed below.

Numerical measures of toxicity:
Ingredient Information:

<table>
<thead>
<tr>
<th>Substance</th>
<th>Test Type (species)</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silica Sand</td>
<td>LD₅₀ Oral (Rat)</td>
<td>No data available</td>
</tr>
<tr>
<td></td>
<td>LD₅₀ Dermal (Rabbit)</td>
<td>No data available</td>
</tr>
<tr>
<td></td>
<td>TCL₀ Inhalation - Lowest</td>
<td>40 mg/kg</td>
</tr>
<tr>
<td></td>
<td>published toxic concentration (Mouse)</td>
<td></td>
</tr>
</tbody>
</table>

Product Acute Toxicity Estimates:
Acute Oral Toxicity – no data available
Acute Dermal Toxicity - no data available
Acute Inhalation Toxicity - no data available

Skin corrosion/irritation: No information available on the mixture, however none of the components have been classified to cause skin corrosion/irritation (or are below the concentration threshold for classification).

Serious eye damage/eye irritation: No information available on the mixture, however none of the components have been classified to cause eye damage/irritation (or are below the concentration threshold for classification).

Respiratory sensitization: No information available on the mixture, however none of the components have been classified as a
respiratory sensitizer (or are below the concentration threshold for classification).

**Skin sensitization:**
No information available on the mixture, however none of the components have been classified as a skin sensitizer (or are below the concentration threshold for classification).

**Germ cell mutagenicity:**
No information available on the mixture, however none of the components have been classified for germ cell mutagenicity (or are below the concentration threshold for classification).

**Carcinogenicity:**
Silica Dust (respirable fraction) has been found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (2012).

**Reproductive toxicity:**
No information available on the mixture, however none of the components have been classified for reproductive toxicity (or are below the concentration threshold for classification).

**Specific target organ toxicity- Single exposure:**
No information available on the mixture, however none of the components have been classified for STOT SE (or are below the concentration threshold for classification).

**Specific target organ toxicity- Repeat exposure:**
No information available on the mixture, however none of the components have been classified for STOT RE (or are below the concentration threshold for classification).

**Aspiration hazard:**
No information available on the mixture, however none of the components have been classified for aspiration hazard (or are below the concentration threshold for classification).

**Further information:**
No data available.

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**SECTION 12: Ecological information**

**Ecotoxicity:**

**Product data:** No data available
Ingredient Information:

<table>
<thead>
<tr>
<th>Substance</th>
<th>Test Type</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silica Sand</td>
<td>LC₅₀</td>
<td>Fish - Gambusia affinis (Mosquito fish)</td>
<td>No data available</td>
</tr>
<tr>
<td></td>
<td>LC₅₀</td>
<td>Aquatic crustacea</td>
<td>No data available</td>
</tr>
<tr>
<td></td>
<td>EC₅₀</td>
<td>Algae</td>
<td>No data available</td>
</tr>
</tbody>
</table>

Persistence and Degradability: No data available
Bioaccumulative Potential: No data available.
Mobility in Soil: No data available.
Other adverse effects: No data available.

SECTION 13: Disposal considerations

Disposal instructions:
Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company.
The generator of a waste is always responsible for making proper hazardous waste determinations and needs to consider state and local requirements in addition to federal regulations.
See Sections 7 and 8 for information on handling, storage and personal protection and Section 9 for physical/chemical properties. It is possible that the material as produced contains constituents which are not required to be listed in the SDS but could affect the hazardous waste determination. Additionally, use which results in chemical or physical change of this material could subject it to regulation as a hazardous waste.

SECTION 14: Transport Information

DOT: This material is not classified as dangerous under DOT regulations.
IATA: This material is not classified as dangerous under IATA regulations.
IMDG: This material is not classified as dangerous under IMDG regulations.

SECTION 15: Regulatory Information

Safety, health and environmental regulations specific for the product.

USA:
United States Federal Regulations: This SDS complies with the OSHA, 29 CFR 1910.1200. The product is hazardous under OSHA.
Toxic Substances Control Act (TSCA) – All substances in this product are listed, as required, on the TSCA inventory.

SARA Superfund and Reauthorization Act of 1986 Title III sections 302, 311,312 and 313:
Section 302 – No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

CERCLA Hazardous Substance List, 40 CFR 302.4:
None listed.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):
None listed.

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3): None listed.

SARA Title III
Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A): None listed.

Section 311/312 (40 CFR 370):

Acute Health Hazard: Yes
Chronic Health Hazard: No
Fire Hazard: No
Pressure Hazard: No
Reactivity Hazard: No

Section 313 Toxic Release Inventory (40 CFR 372):
This product contains the following materials that are subject to the reporting requirements of Section 313 of EPCRA: 14808-60-7 Crystalline Quartz Silica - 40%.

STATE REGULATIONS:

This SDS contains specific health and safety data is applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

California Proposition 65 (California Safe Drinking Water and Toxic Enforcement Act of 1986): Silica, crystalline (airborne particles of respirable size) is listed on Prop 65 as a carcinogen.

Massachusetts Right to Know: Silica Sand (as Silica, crystalline, quartz) is listed on the Massachusetts Right to Know List.

Minnesota Hazardous Substance List: Silica Sand (as Silica - crystalline) is listed on the Minnesota Hazardous Substance List.
New Jersey Right to Know: Silica Sand (as Silica, quartz) is listed on the New Jersey Right to Know list.

Pennsylvania Right to Know: Silica Sand (as Quartz) is listed on the Pennsylvania Right to Know List.

Canada WHMIS Hazard Class: D2A – Very Toxic Material

SECTION 16: Other information, including date of preparation or last revision.

Revision Date: May 2, 2015

To the best of our knowledge, the information contained herein is accurate. However IDEAL INDUSTRIES INC. does not assume any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.