1. PRODUCT AND COMPANY IDENTIFICATION

Product name: BONDERITE S-FN AQUADAG E
ACHESON known as AQUADAG E
IDH number: 1224544
Product type: Conductive coating
Restriction of Use: None identified
Company address: Henkel Corporation
One Henkel Way
Rocky Hill, Connecticut 06067

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW
WARNING: CAUSES SKIN IRRITATION.
CAUSES SERIOUS EYE IRRITATION.

HAZARD CLASS | HAZARD CATEGORY
--- | ---
SKIN IRRITATION | 2
EYE IRRITATION | 2A

PICTOGRAM(S)

Precautionary Statements

Prevention: Wash thoroughly after handling. Wear eye and face protection. Wear protective gloves.
Response: IF ON SKIN: Wash with plenty of soap and water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to remove. Continue rinsing. If skin irritation occurs: Get medical attention. If eye irritation persists: Get medical attention. Take off contaminated clothing.
Storage: Not prescribed
Disposal: Not prescribed


See Section 11 for additional toxicological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Hazardous Component(s)</th>
<th>CAS Number</th>
<th>Percentage*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graphite</td>
<td>7782-42-5</td>
<td>5 - 10</td>
</tr>
<tr>
<td>Ammonium hydroxide</td>
<td>1336-21-6</td>
<td>1 - 5</td>
</tr>
</tbody>
</table>
4. FIRST AID MEASURES

Inhalation: If mist or vapor of this product is inhaled, remove person immediately to fresh air. Seek medical attention if symptoms develop or persist.

Skin contact: Remove contaminated clothing and footwear. Immediately wash skin thoroughly with soap and water. If symptoms develop and persist, get medical attention.

Eye contact: Immediately flush eyes with water for at least 15 minutes, while holding eyelids open. Seek medical attention at once.

Ingestion: Get immediate medical attention. Do not induce vomiting. Never give anything by mouth to a victim who is unconscious or is having convulsions.

Symptoms: See Section 11.

Notes to physician: Treat symptomatically and supportively.

5. FIRE FIGHTING MEASURES

Extinguishing media: Water spray (fog), foam, dry chemical or carbon dioxide.

Special firefighting procedures: Wear full protective clothing. Wear self-contained breathing apparatus.

Unusual fire or explosion hazards: Not a fire hazard.

Hazardous combustion products: Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons. Oxides of nitrogen.

6. ACCIDENTAL RELEASE MEASURES

Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.

Environmental precautions: Prevent further leakage or spillage if safe to do so. Wear appropriate protective equipment and clothing during clean-up. Do not allow product to enter sewer or waterways.

Clean-up methods: Absorb spill with inert material. Shovel material into appropriate container for disposal. Dispose of according to Federal, State and local governmental regulations.

7. HANDLING AND STORAGE

Handling: Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Avoid breathing vapors or mists of this product. Use only with adequate ventilation. Do not take internally. For industrial use only.

Storage: For safe storage, store between 5.0 °C (41°F) and 30.0 °C (86°F) Keep container tightly closed and in a cool, well-ventilated place away from incompatible materials. Protect from freezing.

For information on product shelf life, please review labels on container or check the Technical Data Sheet.
8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Employers should complete an assessment of all workplaces to determine the need for, and selection of, proper exposure controls and protective equipment for each task performed.

<table>
<thead>
<tr>
<th>Hazardous Component(s)</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>AIHA WEEL</th>
<th>OTHER</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2 mg/m³ TWA Respirable fraction.</td>
<td>5 mg/m³ PEL Respirable fraction.</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>15 mg/m³ PEL Total dust.</td>
<td>15 MPPCF TWA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ammonium hydroxide</td>
<td>None</td>
<td>None</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Engineering controls:**
Provide local and general exhaust ventilation to effectively remove and prevent buildup of any vapors or mists generated from the handling of this product.

**Respiratory protection:**
If ventilation is not sufficient to effectively prevent buildup of aerosols, mists or vapors, appropriate NIOSH/MSHA respiratory protection must be provided.

**Eye/face protection:**
Wear safety glasses; chemical goggles (if splashing is possible).

**Skin protection:**
Wear impervious gloves for prolonged contact. Use of impervious apron and boots are recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

- **Physical state:** Liquid
- **Color:** Black
- **Odor:** Ammoniacal
- **Odor threshold:** Not available.
- **pH:** 10 - 10.5
- **Vapor pressure:** Not determined
- **Boiling point/range:** >= 100 °C (>= 212°F)
- **Melting point/ range:** <= 0 °C (<= 32°F)
- **Specific gravity:** 1.12
- **Vapor density:** Not available.
- **Flash point:** Not applicable
- **Flammable/Explosive limits - lower:** Not available.
- **Flammable/Explosive limits - upper:** Not available.
- **Autoignition temperature:** Not applicable
- **Evaporation rate:** Not applicable
- **Solubility in water:** Dispersible
- **Partition coefficient (n-octanol/water):** Not available.
- **VOC content:** None
- **Viscosity:** <= 10,000 cp
- **Decomposition temperature:** Not available.

10. STABILITY AND REACTIVITY

- **Stability:** Stable at normal conditions.
- **Hazardous reactions:** Will not occur.
- **Hazardous decomposition products:** Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons. Oxides of nitrogen.
- **Incompatible materials:** Copper. Zinc. Aluminum.
- **Reactivity:** This product reacts with acids.
- **Conditions to avoid:** Keep away from heat, ignition sources and incompatible materials.
11. TOXICOLOGICAL INFORMATION

Relevant routes of exposure: Skin, Inhalation, Eyes

Potential Health Effects/Symptoms

- **Inhalation:** This product is irritating to the respiratory system. Excessive inhalation of this material causes headache, dizziness, nausea and incoordination.
- **Skin contact:** This product is irritating to the skin.
- **Eye contact:** This product is severely irritating to the eyes. May cause permanent visual impairment. Vapors may also produce eye irritation.
- **Ingestion:** Ingestion can cause gastrointestinal irritation, nausea, vomiting and diarrhea.

<table>
<thead>
<tr>
<th>Hazardous Component(s)</th>
<th>LD50s and LC50s</th>
<th>Immediate and Delayed Health Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graphite</td>
<td>None</td>
<td>Lung</td>
</tr>
<tr>
<td>Ammonium hydroxide</td>
<td>Oral LD50 (RAT) = 350 mg/kg</td>
<td>Irritant, Corrosive</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hazardous Component(s)</th>
<th>NTP Carcinogen</th>
<th>IARC Carcinogen</th>
<th>OSHA Carcinogen (Specifically Regulated)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graphite</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Ammonium hydroxide</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

12. ECOLOGICAL INFORMATION

Ecological information: Not available.

13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

Recommended method of disposal: Dispose of according to Federal, State and local governmental regulations.

Hazardous waste number: Material, if discarded, is not expected to be a characteristic hazardous waste under RCRA. Wastes must be tested using methods described in 40 CFR Part 261 to determine if it meets applicable definitions of hazardous wastes.

14. TRANSPORT INFORMATION

The transport information provided in this section only applies to the material/formulation itself, and is not specific to any package/configuration.

U.S. Department of Transportation Ground (49 CFR)

- **Proper shipping name:** Not regulated
- **Hazard class or division:** None
- **Identification number:** None
- **Packing group:** None

International Air Transportation (ICAO/IATA)

- **Proper shipping name:** Not regulated
- **Hazard class or division:** None
- **Identification number:** None
- **Packing group:** None

Water Transportation (IMO/IMDG)

- **Proper shipping name:** Not regulated
- **Hazard class or division:** None
- **Identification number:** None
- **Packing group:** None
15. REGULATORY INFORMATION

United States Regulatory Information

TSCA 8 (b) Inventory Status: All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory.

TSCA 12 (b) Export Notification: None above reporting de minimis

CERCLA/SARA Section 302 EHS: None above reporting de minimis

CERCLA/SARA Section 311/312: Immediate Health

CERCLA/SARA Section 313: This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372). Ammonium hydroxide (CAS# 1336-21-6).

California Proposition 65: No California Proposition 65 listed chemicals are known to be present.

Canada Regulatory Information

CEPA DSL/NDSL Status: All components are listed on or are exempt from listing on the Canadian Domestic Substances List.

16. OTHER INFORMATION

This safety data sheet contains changes from the previous version in sections: New Safety Data Sheet format.

Prepared by: Jennifer Mckay, Regulatory Affairs Specialist

Issue date: 10/01/2014

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