1. Identification

Product identifier: Brandt Pesticide Equipment Cleaner

Other means of identification:

- Product code: 06002
- Recommended use: Agriculture - Cleaner - Refer to product label for application instructions
- Recommended restrictions: None known.

Manufacturer/Importer/Supplier/Distributor information

- Manufacturer: Brandt Consolidated, Inc.
- Address: 2935 South Koke Mill Road, Springfield, IL 62711, United States
- Telephone: Corporate Office 1-217-547-5800
- Website: www.brandt.co
- E-mail: msds@brandt.co
- Contact person: EH&S / Regulatory Department
- Emergency phone number: CHEMTREC (24 hours): USA, Canada, Puerto Rico 1-800-424-3900; Virgin Islands 1-800-424-3900; International Maritime +1 (703) 527-3887

2. Hazard(s) identification

Physical hazards: Not classified.

Health hazards:

- Acute toxicity, oral: Category 4
- Skin corrosion/irritation: Category 1
- Serious eye damage/eye irritation: Category 1

Environmental hazards: Not classified.

OSHA defined hazards: Not classified.

Label elements

- Signal word: Danger
- Hazard statement: Harmful if swallowed. Causes severe skin burns and eye damage. Causes serious eye damage.
- Precautionary statement:
  - Prevention: Do not breathe mist or vapor. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection.
  - Response: If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. Specific treatment (see this label). Wash contaminated clothing before reuse.
  - Storage: Store locked up.
  - Disposal: Dispose of contents/container in accordance with local/regional/national/international regulations.
- Hazard(s) not otherwise classified (HNOC): None known.
- Supplemental information: 14% of the mixture consists of component(s) of unknown acute oral toxicity.
3. Composition/information on ingredients

Mixtures

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Common name and synonyms</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium hydroxide, (K(OH))</td>
<td></td>
<td>1310-58-3</td>
<td>9.2</td>
</tr>
</tbody>
</table>

Other components below reportable levels 90.8

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation: Move to fresh air. Call a physician if symptoms develop or persist.

Skin contact: Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.

Eye contact: Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.

Ingestion: Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn’t get into the lungs.

Most important symptoms/effects, acute and delayed: Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

Indication of immediate medical attention and special treatment needed: Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

General information: Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

5. Fire-fighting measures


Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical: During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters: Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire-fighting equipment/instructions: Move containers from fire area if you can do so without risk.

Specific methods: Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards: No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up: Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Environmental precautions: Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.
7. Handling and storage

Precautions for safe handling
Do not breathe mist or vapor. Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure. Do not taste or swallow. When using, do not eat, drink or smoke. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities
Store locked up. Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

<table>
<thead>
<tr>
<th>US. ACGIH Threshold Limit Values</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Components</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Potassium hydroxide, (K(OH)) (CAS 1310-58-3)</td>
<td>Ceiling</td>
<td>2 mg/m3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>US. NIOSH: Pocket Guide to Chemical Hazards</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Components</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Potassium hydroxide, (K(OH)) (CAS 1310-58-3)</td>
<td>TWA</td>
<td>2 mg/m3</td>
</tr>
</tbody>
</table>

Biological limit values
No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls
Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

<table>
<thead>
<tr>
<th>Eye/face protection</th>
<th>Wear safety glasses with side shields (or goggles) and a face shield.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin protection</td>
<td>Wear appropriate chemical resistant gloves.</td>
</tr>
<tr>
<td>Hand protection</td>
<td>Wear appropriate chemical resistant clothing.</td>
</tr>
<tr>
<td>Other</td>
<td>Wear appropriate chemical resistant clothing.</td>
</tr>
<tr>
<td>Respiratory protection</td>
<td>In case of insufficient ventilation, wear suitable respiratory equipment.</td>
</tr>
<tr>
<td>Thermal hazards</td>
<td>Wear appropriate thermal protective clothing, when necessary.</td>
</tr>
</tbody>
</table>

General hygiene considerations
Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Appearance</th>
<th>Liquid.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid.</td>
</tr>
<tr>
<td>Form</td>
<td>Liquid.</td>
</tr>
<tr>
<td>Color</td>
<td>Brown.</td>
</tr>
<tr>
<td>Odor</td>
<td>Not available.</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>Not available.</td>
</tr>
<tr>
<td>pH</td>
<td>13</td>
</tr>
<tr>
<td>Salt-Out / Crystallization Temp</td>
<td>Not available.</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>716 °F (380 °C) estimated</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>221 °F (105 °C)</td>
</tr>
<tr>
<td>Flash point</td>
<td>&gt; 200.0 °F (&gt; 93.3 °C) ASTM D-56</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not available.</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

Upper/lower flammability or explosive limits

| Flammability limit - lower (°C) | Not available. |
**Flammability limit - upper (%)**
Not available.

**Explosive limit - lower (%)**
Not available.

**Explosive limit - upper (%)**
Not available.

**Vapor pressure**
0.07 hPa estimated

**Vapor density**
Not available.

**Relative density**
Not available.

**Solubility(ies)**
- **Solubility (water)**
  Not available.

**Partition coefficient (n-octanol/water)**
Not available.

**Auto-ignition temperature**
Not available.

**Decomposition temperature**
Not available.

**Viscosity**
Not available.

**Other information**
- **Flammability class**
  Combustible IIIB estimated
- **Percent volatile**
  72.8 % estimated
- **Pounds per gallon**
  9.63 lb/gal

**10. Stability and reactivity**

**Reactivity**
Reacts violently with strong acids. This product may react with oxidizing agents.

**Chemical stability**
Material is stable under normal conditions.

**Possibility of hazardous reactions**
Reacts violently with strong acids. This product may react with oxidizing agents. Hazardous polymerization does not occur.

**Conditions to avoid**
Avoid temperatures exceeding the flash point. Do not mix with other chemicals. Contact with incompatible materials.

**Incompatible materials**

**Hazardous decomposition products**
No hazardous decomposition products are known.

**11. Toxicological information**

**Information on likely routes of exposure**

**Ingestion**
Causes digestive tract burns. Harmful if swallowed.

**Inhalation**
Prolonged inhalation may be harmful. May cause irritation to the respiratory system.

**Skin contact**
Causes severe skin burns.

**Eye contact**
Causes serious eye damage.

**Symptoms related to the physical, chemical and toxicological characteristics**
Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

**Information on toxicological effects**

**Acute toxicity**
Harmful if swallowed.

<table>
<thead>
<tr>
<th>Product</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brandt Pesticide Equipment Cleaner (CAS Mixture)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td>Rat</td>
<td>2967.3914 mg/kg estimated</td>
</tr>
<tr>
<td>LD50</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Components</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Potassium hydroxide, (K(OH)) (CAS 1310-58-3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td>Rat</td>
<td>273 mg/kg</td>
</tr>
<tr>
<td>LD50</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Skin corrosion/irritation
- Causes severe skin burns and eye damage.

Serious eye damage/eye irritation
- Causes serious eye damage.

Respiratory or skin sensitization
- Not available.

Germ cell mutagenicity
- No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity
- This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
- Not listed.

12. Ecological information

Ecotoxicity
- The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

<table>
<thead>
<tr>
<th>Product</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brandt Pesticide Equipment Cleaner (CAS Mixture)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aquatic Fish</td>
<td>LC50</td>
<td>869.5652 mg/l, 96 hours estimated</td>
</tr>
</tbody>
</table>

Potassium hydroxide, (K(OH)) (CAS 1310-58-3)
- Not classified.

Persistence and degradability
- No data is available on the degradability of this product.

Bioaccumulative potential
- No data available.

Mobility in soil
- No data available.

Other adverse effects
- No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions
- Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations
- Dispose in accordance with all applicable regulations.

Hazardous waste code
- The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products
- Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging
- Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.
14. Transport information

**DOT**

Basic shipping requirements:
- **UN number**: UN3266
- **Proper shipping name**: Corrosive liquid, basic, inorganic, n.o.s. (Potassium hydroxide, (K(OH)) RQ = 10870 lbs)
- **Hazard class**: 8
- **Packing group**: II
- **Special precautions**: Read safety instructions, SDS and emergency procedures before handling.

**Additional information:**
- **Special provisions**: A6, T14, TP2, TP27
- **Packaging exceptions**: 173.154(b)(1)
- **Packaging non bulk**: 201
- **Packaging bulk**: 243

**IATA**

- **UN number**: UN3266
- **UN proper shipping name**: Corrosive liquid, basic, inorganic, n.o.s. (Potassium hydroxide, (K(OH)))
- **Subsidiary risk**: II
- **Environmental hazards**: 8L
- **ERG Code**: Read safety instructions, SDS and emergency procedures before handling.

**Special precautions for user**: Allowed.

**Other information**
- **Passenger and cargo aircraft**: Allowed.
- **Cargo aircraft only**: Allowed.

**IMDG**

- **UN number**: UN3266
- **UN proper shipping name**: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Potassium hydroxide, (K(OH)))
- **Marine pollutant**: No.
- **EmS**: F-A, S-B

**Special precautions for user**: Read safety instructions, SDS and emergency procedures before handling.

**DOT**

**IATA; IMDG**
15. Regulatory information

**US federal regulations**

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

All components are on the U.S. EPA TSCA Inventory List.

- **TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**
  - Not regulated.

- **CERCLA Hazardous Substance List (40 CFR 302.4)**
  - Potassium hydroxide, (K(OH)) (CAS 1310-58-3) Listed.

- **SARA 304 Emergency release notification**
  - Not regulated.

  - Not listed.

- **Superfund Amendments and Reauthorization Act of 1986 (SARA)**
  - **Hazard categories**
    - Immediate Hazard - Yes
    - Delayed Hazard - No
    - Fire Hazard - No
    - Pressure Hazard - No
    - Reactivity Hazard - No

  - **SARA 302 Extremely hazardous substance**
    - Not listed.

  - **SARA 311/312 Hazardous chemical**
    - No

  - **SARA 313 (TRI reporting)**
    - Not regulated.

**Other federal regulations**

- **Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**
  - Not regulated.

- **Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**
  - Not regulated.

- **Safe Drinking Water Act (SDWA)**
  - Not regulated.

**US state regulations**

- **US. Massachusetts RTK - Substance List**
  - Potassium hydroxide, (K(OH)) (CAS 1310-58-3)

- **US. New Jersey Worker and Community Right-to-Know Act**
  - Potassium hydroxide, (K(OH)) (CAS 1310-58-3)
US. Pennsylvania Worker and Community Right-to-Know Law
Potassium hydroxide, (K(OH)) (CAS 1310-58-3)

US. Rhode Island RTK
Potassium hydroxide, (K(OH)) (CAS 1310-58-3)

US. California Proposition 65
California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

International Inventories

<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 Existing Commercial Chemical Substances (EINECS)</td>
<td>No</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) and a “No” indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

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

<table>
<thead>
<tr>
<th>Issue date</th>
<th>07-17-2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revision date</td>
<td>10-03-2014</td>
</tr>
<tr>
<td>Version #</td>
<td>02</td>
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<tr>
<td>Disclaimer</td>
<td>The information in the sheet was written based on the best knowledge and experience currently available.</td>
</tr>
<tr>
<td>Revision Information</td>
<td>This document has undergone significant changes and should be reviewed in its entirety.</td>
</tr>
</tbody>
</table>