1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: BIRCHWOOD CASEY ALUMINUM BLACK PAB

MANUFACTURED BY: BIRCHWOOD LABORATORIES, INCORPORATED
7900 Fuller Road
Eden Prairie, Minnesota 55344 USA

Product Information Telephone Number: (952) 937-7900 (8:00-4:00pm CST)
Fax Number: (952) 937-7979
www.birchwoodcasey.com

24 HOUR TRANSPORTATION EMERGENCY NUMBER: CHEMTREC 800-424-9300 U.S. & CANADA
703-527-3887 INTERNATIONAL (Collect)

2. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>CAS NUMBER</th>
<th>WEIGHT PERCENT</th>
<th>EXPOSURE LIMITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selenium Dioxide – SeO₂</td>
<td>7446-08-04</td>
<td>&lt;3</td>
<td>0.2 mg/m³</td>
</tr>
<tr>
<td>Cupric Sulfate – CuSO₄·5H₂O</td>
<td>7758-99-8</td>
<td>&lt;8</td>
<td>1 mg/m³</td>
</tr>
<tr>
<td>Phosphoric Acid – H₃PO₄</td>
<td>7664-38-2</td>
<td>&lt;3</td>
<td>1 mg/m³</td>
</tr>
<tr>
<td>Fluoboric Acid – HBF₄</td>
<td>16872-11-0</td>
<td>&lt;2</td>
<td>2.5 mg/m³</td>
</tr>
<tr>
<td>Nickel Sulfate – NiSO₄</td>
<td>7786-81-4</td>
<td>&lt;1</td>
<td>1 mg/m³</td>
</tr>
<tr>
<td>Water – H₂O</td>
<td>7732-18-5</td>
<td>&gt;83</td>
<td>None Established</td>
</tr>
</tbody>
</table>

\(^a\) OSHA (as Se)
\(^b\) OSHA (as F)
\(^c\) OSHA (Cu, dust or mist)
\(^d\) OSHA (as Ni)

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: Odorless blue liquid. Irritating or burning to eyes and skin.

EYE CONTACT: Irritation or possible burns upon direct contact.

SKIN CONTACT: Irritation and possible sensitization with certain individuals.

INGESTION: Irritation and possible burns to the gastrointestinal tract. Other possible symptoms include nausea, vomiting, abdominal pain, and difficulty breathing.

INHALATION: Toxic fumes not generated normally. If sprayed, breathing mists can cause nose and throat irritation, headache, dizziness, nausea, and difficulty breathing.

CHRONIC: Not established.

4. FIRST AID MEASURES

EYE CONTACT: Flush immediately with clean water. Continue for at least 15 minutes. Consult a physician.

SKIN CONTACT: Remove contaminated clothing to avoid prolonged contact. Wash affected areas with soap and water.

INGESTION: If victim is conscious, induce vomiting. Never administer anything by mouth to an unconscious person. If breathing is difficult, give oxygen. Seek medical attention.

INHALATION (mist): Remove from exposure. Provide air if breathing difficult. Seek medical attention if necessary.
5. **FIRE FIGHTING MEASURES**

**FLAMMABLE PROPERTIES**

- **FLASHPOINT:** None  
- **METHOD USED:** Not applicable  
- **FLAMMABLE LIMITS:**  
  - **LFL:** Not applicable  
  - **UFL:** Not applicable

**EXTINGUISHING MEDIA:** Water-based product. Non-flammable

**FIRE & EXPLOSION HAZARDS:** None.

**SPECIAL FIRE FIGHTING PROCEDURES:** None (non-flammable)

6. **ACCIDENTAL RELEASE MEASURES**

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:** Review current local, state and federal laws, codes, statutes, and regulations to determine appropriate agencies to be notified, and the conditions under which they are to be notified. Wear recommended protective equipment. Recover as much free liquid as possible and collect in acid-resistant container. Use absorbent to pick up residue. Avoid discharging liquid directly into a sewer or surface waters. CERCLA Reportable Quantity is 10 lb. for Selenious Acid (approximately 33 gallons of product) and 10 lb. for Cupric Sulfate (approximately 27 gallons of product).

**WASTE DISPOSAL METHOD:** Review current local, state and federal laws, codes, statutes and regulations to determine current status and appropriate disposal method for the ingredients listed in Section 2. Waste and its solutions are assigned EPA Hazardous Waste Number D010. The wastes can be disposed of through a licensed waste disposal company.

7. **HANDLING AND STORAGE:**

- Store in acid-resistant containers.  
- Keep containers covered when not in use.  
- Avoid storing with cyanides, water-reactive substances and strong reducing agents.  
- Wear protective equipment when handling product.

8. **SPECIAL PROTECTION INFORMATION**

**NOTE:** The product itself does not produce hazardous fumes or vapors. Consequently, no ventilation or respiratory protection is required under normal operating conditions. However, if the product is applied in a way that produces mists or aerosols, then appropriate ventilation and respiratory protection is recommended.

- **RESPIRATORY PROTECTION (type):** Air-supplied or self-contained breathing apparatus if misting is likely
- **PROTECTIVE GLOVES (type):** Rubber or neoprene
- **LOCAL EXHAUST VENTILATION (rate):** As needed to keep exposure below TLV
- **EYE PROTECTION:** (type): Safety glasses, goggles or face shield
- **MECHANICAL VENTILATION (rate):** No information
- **OTHER PROTECTIVE EQUIPMENT:** Chemical resistant apron
- **SPECIAL VENTILATION:** N/A

9. **PHYSICAL AND CHEMICAL PROPERTIES**

- **BOILING POINT:** >212°F
- **SPECIFIC GRAVITY:** (Water = 1): 1.099
- **VAPOR PRESSURE:** No data
- **VOLATILE BY VOLUME:** None (except water)
- **VAPOR DENSITY:** (Air = 1): <1
- **EVAPORATION RATE:** (Ethyl Ether = 1): <1
- **SOLUBILITY IN WATER:** Complete
- **pH (100%):** <1
- **APPEARANCE & ODOR:** Odorless blue liquid
10. **STABILITY AND REACTIVITY**

STABILITY: Stable.

CONDITIONS TO AVOID: None known.

INCOMPATIBILITY (materials to avoid): Cyanides, water-reactive substances, most metals, and strong reducing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: Reaction with organics and strong reducing agents can produce organoselenides and hydrogen selenide.

HAZARDOUS POLYMERIZATION: Will not occur.

11. **TOXICOLOGICAL INFORMATION**

1. The Registry of Toxic Effects of Chemical Substances cites experimental evidence toxic effects of selenites and various copper compounds. The implications of the experimental data for human exposure are uncertain.
2. With regards to carcinogenesis in animals, the status of selenium is not established according to IARC (the International Agency for Research on Cancer). Other animal or epidemiological studies suggest that selenium may have anti-carcinogenic effects.
3. The Registry of Toxic Effects of Chemical Substances cites experimental evidence toxic effects of nickel compounds. NIOSH has proposed that all “airborne nickel” (nickel dusts and fumes) be considered and regulated as an occupational carcinogen. The emission of nickel in this form with ALUMA BLACK A14 is essentially non-existent, which by NIOSH’s proposal, renders it non-carcinogenetic. Further, inorganic nickel compounds (i.e. nickel nitrate) are no considered carcinogenetic by ingestion.

12. **ECOLOGICAL INFORMATION**

Information not available.

13. **DISPOSAL CONSIDERATIONS**

Any disposal practice must be in compliance with local, state, and federal laws and regulations. Contact the appropriate agency for specific information. A licensed facility or waste hauler must carry out transport, storage and disposal of hazardous waste.

14. **TRANSPORT INFORMATION**

D.O.T. HAZARDOUS MATERIALS DESCRIPTION AND PROPER SHIPPING NAME:

(49CFR 172.101): Corrosive Liquid, Acidic, Inorganic, N.O.S. 8/UN3264/P.G. III (Selenious & Phosphoric Acid). Exceptions: 49CFR 173.154. Reportable Quantity at 26.9 gallons (Cupric Sulfate) and 33.8 gallons (Selenious Acid); Marine Pollutant (Cupric Sulfate)

15. **REGULATORY INFORMATION**

OSHA HAZARD COMMUNICATION RULE 29 CFR 1910.1200: Refer to Section 2.

TSCA (TOXIC SUBSTANCES CONTROL ACT): Components of this product are listed on the TSCA Inventory.

CERCLA (Comprehensive Response compensation and Liability Act, 40 CFR 117, 302: Refer to Section 6 (Accidental Release Measures).

SARA TITLE III (Superfund Amendments and Authorization Act):

Section 313 Reportable Ingredients: Selenious Acid, Cupric Sulfate and Phosphoric Acid.

CALIFORNIA PROPOSITION-65:

**WARNING:** This product contains a chemical known to the State of California to cause cancer. This product contains nickel and certain nickel compounds that have been listed pursuant to Proposition 65, California Health & Safety Code Section 25249.8. Employers may have an obligation to warn their employees.
16. OTHER INFORMATION

NATIONAL FIRE PROTECTION ASSOCIATION CODES (NFPA):

HEALTH: 2  FLAMMABILITY: 0
REACTIVITY: 0

HAZARDOUS MATERIAL IDENTIFICATION SYSTEM (HMIS):

HEALTH: 2  FLAMMABILITY: 0
REACTIVITY: 0  PERSONAL PROTECTION: C

The data here is for hazard communication to our employees, our customers and their employees, and authorized regulatory agencies. For the intended purpose, this MSDS (Material Safety data Sheet) may be duplicated or the data transcribed to an alternative form.

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FOR ASSISTANCE WITH PLACING ORDERS:

• Product Pricing / Payment Terms
• Shipping and Tracing of Shipments
• Sales Rep Locations

Call our Sales Department: (952) 937-7933 or 1-800-328-6156 or fax (952) 937-7979

FOR PRODUCT USAGE ASSISTANCE:

• Questions on Operation of Products
• Solving Finishing Problems
• Operator Safety and Pollution Control

Call our Customer Service Desk Department: (952) 937-7916 or 1-800-328-6156 or fax (952) 937-7979