

# Bac-2-Nu® Heavy Duty Restoration Cleaner

## Safety Data Sheet

### Section 1. Identification

**Product Name:** Bac-2-Nu Heavy Duty Restoration Cleaner

**Product Code:**

**Recommended use:** Masonry cleaning

**Restrictions on use:** Use only as directed

**Manufacturer Name:** Chemique, Inc.  
**Address:** 315 N. Washington Avenue  
Moorestown, NJ 08057  
**Telephone number:** (856) 235-4161

**Emergency phone number:** (800) 535-5053 (Infotrac)

**Date of Preparation:** September 5, 2013

### Section 2. Hazard(s) Identification

Note: This product is a consumer product and is labeled in accordance with the US Consumer Product Safety Commission regulations which take precedence over OSHA Hazard Communication labeling. The actual container label will not include the label elements below. The labeling below applies to industrial/professional products.

**Classification:**

| Physical | Health  |
|----------|---|
|          | Skin Corrosion Category 1B<br>Acute Toxicity Category 4 |

**Danger!**



**Hazard statement(s)**

Causes severe skin burns and eye damage.  
Harmful if swallowed.

**Precautionary statement(s)**

Do not breathe dusts or mists.  
Wash thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
Wear protective gloves, protective clothing, eye protection and face protection.  
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with soap and water.  
Wash contaminated clothing before reuse.  
IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
Immediately call a POISON CENTER.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Store locked up.

Dispose of contents and container in accordance with local and national regulations.

### Section 3. Composition / Information on Ingredients

| Chemical name       | CAS No.   | Concentration |
|---------------------|-----------|---------------|
| Ammonium Bifluoride | 1341-49-7 | 15-25%        |
| Ammonium Hydroxide  | 1336-21-6 | 1-5%          |

The specific identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

### Section 4. First-Aid Measures

**Inhalation:** Immediately remove victim to fresh air. If breathing has stopped give artificial respiration. Mouth to mouth is not recommended. If breathing is difficult have qualified personnel administer oxygen. Get immediate medical attention.

**Skin contact:** Immediately wash with large amounts of water for at least 15 minutes. Get immediate medical attention. Remove contaminated clothing. Destroy all contaminated clothing, shoes and other items that cannot be decontaminated.

**Eye contact:** Immediately flush eye with water for at least 15 minutes while lifting the upper and lower lids. Get immediate medical attention.

**Ingestion:** If conscious, give milk, chewable calcium carbonate tablets or milk of magnesia. Do not induce vomiting. Never give anything by mouth to a person who is unconscious or convulsing. Get immediate medical attention.

**Most important symptoms/effects, acute and delayed:** Causes severe burns to the eye, skin and mucous membranes. Burns may not be immediately painful or visible. Can be absorbed through the skin in fatal amounts. Inhalation may cause respiratory irritation or burns with coughing or labored breathing. Symptoms may be delayed. May be fatal if inhaled or swallowed. Prolonged or repeated exposure may cause mottling of teeth, damage to bones and fluorosis with symptoms including brittle bones, weight loss, anemia, calcified ligaments and joint stiffness.

**Indication of immediate medical attention and special treatment, if necessary:** Medical treatment is required for all incidents of contact or exposure.

**Notes to Physician:** Contact your Poison Center for the latest advice on treatment. For eye contact: Carefully evaluate for eye damage, exposure to dilute solutions may result in delayed symptoms of ocular damage. For skin contact: Decontamination of the contact area is of primary importance. Symptoms may be delayed for several hours. Specific treatment is controversial with no single treatment clearly superior. Topical calcium gluconate gel or magnesium oxide paste has been successful. Calcium gluconate infiltration may be considered in some cases. Systemic absorption may occur and may require treatment with parenteral calcium salts. For ingestion: Administer fluoride binding substance. Consider nasogastric or soft orogastric suction and lavage with 10% calcium gluconate if the ingestion is recent and spontaneous emesis has not occurred. Monitor and treat hypocalcemia and hypomagnesemia, parenterally as needed. Observe and evaluate patient for oral and GI burns. For inhalation: Monitor for respiratory distress. Respiratory symptoms may be delayed up to 24 hours.

**Section 5. Fire-Fighting Measures**

**Suitable (and unsuitable) extinguishing media:** This material is not combustible. Use any media that is suitable for the surrounding fire.

**Specific hazards arising from the chemical:** Contact with alkalis and metals may evolve flammable hydrogen gas. Emits toxic fumes under fire conditions.

**Special protective equipment and precautions for fire-fighters:** Firefighters should wear full emergency equipment and NIOSH approved positive pressure self-contained breathing apparatus. Cool fire exposure containers with water.

**Section 6. Accidental Release Measures**

**Personal precautions, protective equipment, and emergency procedures:** Wear appropriate protective clothing and equipment to prevent eye and skin contact.

**Environmental precautions:** Avoid release to the environment. Report spill as required by local and federal regulations.

**Methods and materials for containment and cleaning up:** Evacuate spill area. Only trained individuals should attempt to clean up spills of this material. Wear appropriate protective clothing and equipment to prevent contact. Dike spill and prevent spill from entering sewers and waterways. Collect into appropriate containers for disposal with an absorbent. Wash spill area with water.

**Section 7. Handling and Storage**

**Precautions for safe handling:** Prevent eye and skin contact. Do not breathe vapors or mists. Use only with adequate ventilation and appropriate protective clothing. Immediately remove contaminated clothing and other items for disposal. Wash thoroughly after handling.

Empty containers retain product residues. Follow all SDS precautions in handling empty containers.

**Conditions for safe storage, including any incompatibilities:** Protect containers from physical damage. Store in a cool, well-ventilated area away from alkalis and acids. Do not store in metal containers. Keep in original containers.

**Section 8. Exposure Controls / Personal Protection**

**Exposure guidelines:**

|                     |   |
|---------------------|---|
| Ammonium Bifluoride | 2.5 mg/m <sup>3</sup> TWA OSHA PEL (as Fluoride)<br>2.5 mg/m <sup>3</sup> TWA ACGIH TLV (as Fluoride) |
| Ammonium Hydroxide  | None Established  |

**Appropriate engineering controls:** For operations where exposures limits are exceeded increased mechanical ventilation such as local exhaust may be required.

**Personal Protective Equipment:**

**Respiratory protection:** For spray application and for large jobs where the recommended exposure limit may be exceeded an approved full facepiece particulate respirator, supplied air respirator (with escape bottle if required) or self-contained breathing apparatus may be required. Selection of respiratory protection depends on the contaminant type, form and concentration. Select in accordance with OSHA 1910.134 and good Industrial Hygiene practice.

**Skin protection:** PVC, neoprene, rubber or other impervious gloves are recommended to prevent skin contact.

**Eye protection:** Wear chemical safety goggles and faceshield to prevent eye and face contact unless a full facepiece respirator is used. Do not wear contact lenses.

**Other:** Impervious apron, boots and other clothing are recommended if needed to prevent contact or if splashing is possible. A safety shower and an eye wash facility should be available in the immediate work area.

**Section 9. Physical and Chemical Properties**

**Appearance (physical state, color, etc.):** Turbid liquid/gel

**Odor:** Mild odor. When the product is applied to masonry product, ammonia is released which has a slight pungent odor.

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|--|---|
| <b>Odor threshold:</b> 1 ppm (ammonia)                       | <b>pH:</b> 5  |
| <b>Melting point/freezing point:</b> Not available           | <b>Initial boiling point and boiling range:</b> Not available |
| <b>Flash point:</b> Not flammable                            | <b>Evaporation rate:</b> Same as water                        |
| <b>Flammability (solid, gas):</b> Not applicable             |   |
| <b>Flammable limits: LEL:</b> Not applicable                 | <b>UEL:</b> Not applicable                                    |
| <b>Vapor pressure:</b> Not available                         | <b>Vapor density:</b> Not available                           |
| <b>Relative density:</b> 1.08                                | <b>Solubility(ies):</b> Complete                              |
| <b>Partition coefficient: n-octanol/water:</b> Not available | <b>Auto-ignition temperature:</b> Not applicable              |
| <b>Decomposition temperature:</b> Not available              | <b>VOC:</b> 0 g/L   |

**Section 10. Stability and Reactivity**

**Reactivity:** Not reactive under normal conditions of use.

**Chemical stability:** Stable

**Possibility of hazardous reactions:** Reacts with acids to liberate toxic and corrosive hydrogen fluoride. Reacts with bases to liberate ammonia. Mixtures with nitromethanes may be explosive.

**Conditions to avoid:** Contact with metals and alkalis may release flammable hydrogen gas.

**Incompatible materials:** Avoid acids, alkalis, caustics, sulfides, cyanides, organic peroxides, halogenated organics. .

**Hazardous decomposition products:** Thermal decomposition may yield toxic hydrogen fluoride, nitric oxides phosphorus oxides and ammonia.

**Section 11. Toxicological Information**

**Acute effects of exposure:**

**Inhalation:** Mist and vapors may cause respiratory irritation or burns with coughing and labored breathing. May cause fluoride poisoning with effects similar to those listed under “ingestion”. Symptoms may be delayed. May be fatal if inhaled in large amounts. Medical treatment if required for all incidents of contact or exposure.

**Skin Contact:** Contact may cause severe irritation or burns to the skin. Burns may not be immediately painful or visible. May be absorbed through the skin resulting in potentially fatal hypocalcemia. Treat all contact immediately and get medical attention.

**Eye Contact:** Contact may cause severe irritation or burns with redness, pain and swelling. Permanent damage and blindness may occur.

**Ingestion:** Swallowing may cause gastrointestinal irritation or burns, nausea, vomiting and abdominal pain. May cause fluoride poisoning with symptoms including weakness, tremors, shallow breathing, spasms of the hands and feet, convulsions and coma. May cause central nervous system, kidney and cardiovascular (heart rhythm) effects. Respiratory paralysis may cause death. Swallowing large amounts may cause potentially fatal hypocalcaemia and hypomagnesia.

**Chronic Effects:** Prolonged or repeated exposure may cause mottling of teeth, damage to bones and fluorosis with symptoms including brittle bones, weight loss, anemia, calcified ligaments and joint stiffness.

**Sensitization:** None of the components are sensitizing to animals or humans.

**Germ Cell Mutagenicity:** None of the components have been shown to cause germ cell mutagenicity.

**Reproductive Toxicity:** None of the components have been shown to cause reproductive or developmental toxicity.

**Carcinogenicity:** None of the components are listed as carcinogens or suspected carcinogens by IARC, NTP, ACGIH or OSHA.

**Acute toxicity values:**

Ammonium Bifluoride: Oral rat LD50: 130 mg/kg

Ammonium Hydroxide: Oral rat LD50: 350 mg/kg; Inhalation rat LC50: 2000 ppm/4-hr

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|---|
| <b>Section 12. Ecological Information</b> |
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This product may be harmful to aquatic organisms due to change in pH of water where released.

**Ecotoxicity values:**

Ammonium Bifluoride: 96 hr. LC50 fish: 422 mg/L; 48 hr. EC50: daphnia magna: 153 mg/l (structurally similar chemical)

Ammonium Hydroxide: 96 Hr LC50 fathead minnow: 8.2 mg/L; 48 Hr LC50 bluegill: 0.024 mg/L; 48 Hr EC50 daphnia magna: 0.66 mg/L

**Persistence and degradability:** Biodegradation is not applicable to inorganic substances such as ammonium bifluoride.

**Bioaccumulative potential:** No data available.

**Mobility in soil:** No data available.

**Other adverse effects:** None known.

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| <b>Section 13. Disposal Considerations</b> |
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Dispose in accordance with all local, state and federal regulations.

**Section 14. Transport Information**

|            | UN Number | Proper shipping name                                     | Hazard Class | Packing Group | Environmental Hazard |
|------------|-----------|--|--------------|---------------|----------------------|
| <b>DOT</b> | UN1760    | Corrosive Liquid, n.o.s<br>(ammonium hydrogendifluoride) | 8            | PGIII         | None                 |
| <b>TDG</b> | UN1760    | Corrosive Liquid, n.o.s<br>(ammonium hydrogendifluoride) | 8            | PGIII         | None                 |

**Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):** Not applicable – product is transported only in packaged form.

**Special precautions:** None known

**Section 15. Regulatory Information**

**Safety, health, and environmental regulations specific for the product in question.**

**CERCLA Hazardous Substances (Section 103)/RQ:** The RQ of this product based on the RQ of ammonium bifluoride of 100 lbs present at 25% maximum is 400 lbs. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

**SARA Hazard Category (311/312):** Acute health, Chronic Health

**EPA SARA 313:** This product contains the following chemicals regulated under SARA Title III, section 313: None

**California Proposition 65:** This product the following chemicals known to the State of California to cause cancer or reproductive toxicity: None

**EPA TSCA Inventory:** All of the components of this product are listed on the TSCA inventory.

**CANADA:**

**Canadian CEPA:** All the components of this product are listed on the Canadian DSL.

**Canadian WHMIS Classification:** Class E (Corrosive)

This product has been classified under the CPR and this SDS discloses information elements required by the CPR.

**Section 16. Other Information**

**SDS Revision History:** New SDS

**Date of preparation:** 5 September 2013

**Date of last revision:** None