

# Material Safety Data Sheet

May be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200. Standard must be consulted for specific requirements.

Harvard Chemical Research, Inc.

3595 Zip Industrial Blvd.

Atlanta, GA 30354

Identity (as used on label and list): **Britener A-600**

Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

## Section I

Manufacturer's Name: Harvard Chemical Research, Inc.

Emergency Telephone Number: **800 424 9300 Chemtrec**

Address (Number, Street, City, State, and Zip Code):  
3595 Zip Industrial Blvd.

Telephone Number for Information: 404-761-0657

Atlanta, GA 30354

Date Prepared: 10/10/05

Signature of Preparer (optional):

## Section II — Hazardous Ingredients/Identity Information

| Hazardous Components (specific chemical identity; common name(s)) | OSHA PEL | ACGIH TLV | Other limits recommended | % (optional) |
|---|----------|-----------|--------------------------|--------------|
| Phosphoric Acid CAS# 7664-38-2                                    | 1 mg/m3  | 1 mg/m3   |                          |              |
| Hydrofluoric Acid CAS# 7664-39-3                                  | 3 ppm    | 3 ppm     |                          |              |
| Sulfuric acid CAS# 7664-93-9                                      | 1 mg/m3  | 1 mg/m3   |                          |              |
| 2-Butoxyethanol   | 50 ppm   | 25 ppm    |                          |              |

## Section III — Physical/Chemical Characteristics

|                         |        |   |      |
|-------------------------|--------|---|------|
| Boiling Point           | >220 F | Specific Gravity (H <sub>2</sub> O = 1) | 1.04 |
| Vapor Pressure (mm Hg.) | N/A    | Melting Point                           | N/A  |
| Vapor Density (Air = 1) | >1     | Evaporation Rate (Butyl Acetate = 1)    | <1   |

Solubility in Water: Complete

Appearance and Odor: Clear solution with pungent acid odor

## Section IV — Fire and Explosion Hazard Data

|                                |                   |        |        |
|--------------------------------|-------------------|--------|--------|
| Flash Point (method used): N/A | Flammable Limits: | LEL -- | UEL -- |
|--------------------------------|-------------------|--------|--------|

Extinguishing Media: Co2 Foam

Special Fire Fighting Procedures: Overall cover of personnel if vapors of products are encountered

Unusual Fire and Explosion Hazards: Liquid produces hydrogen in contact with metals

## Section V — Reactivity Data

|           |          |   |                                 |
|-----------|----------|---|---------------------------------|
| Stability | Unstable |   | Conditions to Avoid: None known |
|           | Stable   | X |                                 |

Incompatibility (*Materials to Avoid*): Strong Alkaline Material, cyanides, sulfides

Hazardous Decomposition or Byproducts: CO and oxides of phosphorous and fluorides

|                          |                |   |                                 |
|--------------------------|----------------|---|---------------------------------|
| Hazardous Polymerization | May Occur      |   | Conditions to Avoid: None known |
|                          | Will Not Occur | X |                                 |

## Section VI — Health Hazard Data

|                    |             |    |       |   |            |   |
|--------------------|-------------|----|-------|---|------------|---|
| Route(s) of Entry: | Inhalation? | -- | Skin? | X | Ingestion? | X |
|--------------------|-------------|----|-------|---|------------|---|

Health Hazards (*Acute and Chronic*): Irritation of skin and burns to the eye

|                       |      |    |                  |      |                 |    |
|-----------------------|------|----|------------------|------|-----------------|----|
| Carcinogenicity: None | NTP? | No | IARC Monographs? | None | OSHA regulated? | No |
|-----------------------|------|----|------------------|------|-----------------|----|

Signs and Symptoms of Exposure: Severe burns on skin and eyes. Removal of calcium from tissue

Medical Conditions Generally Aggravated by Exposure: Irritation of skin and eye

### Emergency and First Aid Procedures

Skin, flush with cold water for at least 15 min. Remove clothing and soak contaminated area in 0.13% iced aqueous Zephiran chloride solution for 30-60 min. Do not use Zephiran solution on eyes

Eyes: If splashed into eye, flush immediately with water for 15 minutes. Get medical attention

Ingestion: Do not induce vomiting, Give 1 oz. Of magnesia with equal amount of water, get medical attention.

Inhalation:

## Section VII — Precautions for Safe Handling and Use

Steps to be taken in case material is released or spilled: Impound and treat large amounts with alkaline material

Waste disposal method: PH adjustment and dispose in accordance with federal, state and local regulations

Precautions to be taken in handling and storing: Keep container closed and away freezing

Other precautions:

## Section VIII — Control Measures

Respiratory Protection (*specify type*): Organic vapors and acid gases respirator

|             |                                       |             |
|-------------|---------------------------------------|-------------|
| Ventilation | Local Exhaust: yes                    | Special: -- |
|             | Mechanical ( <i>general</i> ): yes -- | Other: --   |

Protective Gloves: Rubber

Eye Protection: Goggles and gloves

Other Protective Clothing or Equipment: Vinyl apron and other impervious clothing to avoid contamination

Work/Hygienic Practices: Always use gloves and goggles