Section 1: Identification

Product Name: Bismuth Strontium Calcium Copper Oxide
CAS Number: NIL / EC Number: NIL
Company: Angstrom Sciences, Inc.
40 South Linden Street
Duquesne, PA 15110
For more information call: 412-469-8466
(Monday - Friday 9:00 AM -5:00 PM EST)

Section 2: HAZARD IDENTIFICATION

Signal Word: Warning

Hazard Statements:
- H315: Causes skin irritation.
- H319: Causes serious eye irritation.
- H335: May cause respiratory irritation.

Precautionary Statements:
- P261: Avoid breathing dust/fume/vapor
- P280: Wear protective gloves/protective clothing/eye protection/face protection
- P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
- P304 + P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P405: Store locked up
- P501: Dispose of contents/container in accordance with local/regional/national/international regulations

HMIS Health Ratings (0-4):
- Health: 1
- Flammability: 0
- Physical: 0
BISMUTH STRONTIUM CALCIUM COPPER OXIDE
SAFETY DATA SHEET

Section 3: Composition/Information on Ingredients

Chemical characterization: Ceramic
Additional Names: BSCCO
CAS# Description: NIL
Percentage: 2/2/2/3/10 at% for example
EC number: NIL

Section 4: FIRST AID MEASURES

General Treatment: Seek medical attention if symptoms persist.
Special Treatment: None
Important Symptoms: None
Eye Contact: Flush eyes with water, blinking often for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
Skin Contact: Wash affected area with mild soap and water. Remove any contaminated clothing.
Inhalation: Remove to fresh air. If required, give artificial respiration. Seek medical advice.
Ingestion: Seek medical attention.

Section 5: FIRE FIGHTING MEASURES

Suitable extinguishing Media: Do not use water for metal fires. Use special powder, sand, CO₂
Flammability: Non-Flammable
Special Fire Fighting Procedure: Use full-face, self contained breathing apparatus with full protective clothing to prevent contact with skin and eyes.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions: Wear appropriate respiratory and protective equipment specified in special protection information. Isolate spill area and provide ventilation. Vacuum up spill using a high efficiency particulate absolute (HEPA) air filter and place in a closed container for disposal. Take care not to raise dust.
Environmental Precautions: Isolate runoff to prevent environmental pollution.

Section 7: HANDLING AND STORAGE

Handling Precautions for safe handling: Wash thoroughly after handling.
Conditions for safe storage, including any incompatibilities: Store in a cool dry place in a tightly sealed container.
Work/Hygienic Maintenance: Do not use tobacco or food in work area. Wash thoroughly before eating and smoking. Do not blow dust off clothing or skin with compressed air.
Ventilation: Provide sufficient ventilation to maintain concentration at or below threshold limit.
Section 8:  EXPOSURE CONTROL/PERSONAL PROTECTION

Permissible Exposure Limits:  0.1 mg/m³ as Cu), long-term value  
Threshold Limit Value:  0.2 mg/m³ as Cu, long-term value  
Special Equipment:  None  
Respiratory Protection:  Dust respirator  
Protective Gloves:  Rubber gloves  
Eye Protection:  Safety glasses or goggles  
Body Protection:  Protective work clothing. Wear close-toed shoes and long sleeves/pants.

Section 9:  PHYSICAL AND CHEMICAL PROPERTIES

Appearance:
  Form:  Powder, Granules, Pellets, Sputtering target, Custom parts  
  Color:  Black  
  Odor:  Odorless  
  Water Solubility:  Insoluble  
  Boiling Point:  N/A  
  Melting Point:  N/A  
  Flash Point:  N/A  
  Autoignition Temperature:  N/A  
  Density:  N/A  
  Molecular Weight:  N/A

Section 10:  STABILITY AND REACTIVITY

Reactivity:  Oxidizing agents  
Chemical Stability:  Stable under recommended storage conditions  
Incompatible Conditions:  None  
Hazardous Decomposition Products:  Metal oxide fume

Section 11:  TOXICOLOGICAL INFORMATION

Potential Health Effects:  
  Eyes:  Causes serious eye irritation  
  Skin:  Causes skin irritation  
  Ingestion:  May cause irritation.  
  Inhalation:  May cause irritation
Chronic: Bismuth and bismuth compounds are often poorly absorbed. Should absorption occur, however, exposure may cause loss of appetite, headache, skin rash, exodermatitis, kidney injury and jaundice. Repeated or prolonged exposure may cause a bismuth line or black spots on the gums, foul breath and salivation. Exposure to bismuth may cause injury to the mouth, esophagus and stomach. Symptoms may include loss of appetite, headache, skin rash, kidney damage and jaundice.

Signs & Symptoms: N/A
Aggravated Medical Conditions: N/A
Median Lethal Dose: N/A
Carcinogen: N/A

Section 12: ECOLOGICAL INFORMATION
Aquatic Toxicity: Low
Persistent Bioaccumulation Toxicity: No
Very Persistent, Very Bioaccumulative: No
Notes: N/A

Section 13: DISPOSAL CONSIDERATIONS
Dispose of in accordance with local, state, national, and international regulations

Section 14: TRANSPORT INFORMATION
Hazardous: Not hazardous for transportation
Hazard Class: N/A
Packing Group: N/A
UN Number: N/A
Proper Shipping Name: N/A

Section 15: REGULATORY INFORMATION
Sec 302 Extremely Hazardous: No
Sec 304 Reportable Quantities: N/A
Sec 313 Toxic Chemicals: No
Section 16: OTHER INFORMATION

This safety data sheet should be used in conjunction with technical sheets. It does not replace them. The information given is based on our knowledge of this product, at the time of publication. It is given in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than that for which it was intended. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. The aim of the mandatory regulations mentioned is to help the user to fulfill his obligations regarding the use of hazardous products.