SECTION 1. IDENTIFICATION

**Product Name:** Barium Chloranilate Trihydrate

**Product Number:** All applicable American Elements product codes, e.g. BA-OMX-01 01

**CAS #:** 13435-46-6

**Relevant identified uses of the substance:** Scientific research and development

**Supplier details:**
American Elements  
10884 Weyburn Ave.  
Los Angeles, CA 90024  
Tel: +1 310-208-0551  
Fax: +1 310-208-0351

**Emergency telephone number:**  
+1 800-424-9300

SECTION 2. HAZARDS IDENTIFICATION

**OSHA Haz Com:** CFR 1910.1200: Acute Toxicity - Oral [Category 3]  
Acute Toxicity - Inhalation [Category 3]

**Signal word:** Danger!

**Hazard Statement(s):**  
Toxic if swallowed  
Toxic if inhaled

**Pictogram(s) or Symbol(s):**

**Precautionary Statement(s):**

[Prevention] Do not eat, drink or smoke when using this product. Wash hands and face thoroughly after handling. Do not breathe dusts or mists. Use only outdoors or in a well-ventilated area.

[Response] If swallowed: Immediately call a poison center or doctor. Rinse mouth. If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center or doctor.

[Storage] Store locked up. Store in a well-ventilated place. Keep container tightly closed.

[Disposal] Dispose of contents and container in accordance with US EPA guidelines for the classification and
SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Mixture: Substance
Chemical Formula: C6BaCl2O4·3H2O
Synonyms: Chloranilic Acid Barium Salt Trihydrate, Barium 3,6-Dichloro-1,4-dioxo-3,6-cyclohexadiene-2,5-diolate Trihydrate
Components: Barium Chloranilate Trihydrate
Percent: >97.0%(T)
CAS Number: 13435-46-6
Molecular Weight: 344.29(Anh)

SECTION 4. FIRST AID MEASURES

Inhalation: Immediately call a poison center or doctor. Move victim to fresh air. Give artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult. Keep victim warm and quiet. Treat symptomatically and supportively. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
Skin contact: Immediately call a poison center or doctor. Remove and wash contaminated clothing before re-use. In case of contact with substance, immediately flush skin with running water for at least 20 minutes. Treat symptomatically and supportively. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
Eye contact: If this chemical contacts the eyes, immediately wash (irrigate) the eyes with large amounts of water, occasionally lifting the lower and upper eyelids. If eye irritation persists get medical advice/attention. Move victim to fresh air. Check for and remove any contact lenses. Keep victim warm and quiet. Treat symptomatically and supportively. Effects of exposure to substance may be delayed. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
Ingestion: Toxic if swallowed. Call a physician or Poison Control Center immediately. Do not use mouth-to-mouth method if victim ingested the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Loosen tight clothing such as a collar, tie, belt or waistband. If a person vomits place them in the recovery position so that vomit will not reenter the mouth and throat. Rinse mouth. Keep victim warm and quiet. Treat symptomatically and supportively. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
Symptoms/effects: Acute: No data available
Delayed: No data available
Immediate medical attention: WARNING: It might be dangerous to the person providing aid to give
mouth-to-mouth respiration, because the inhaled material is toxic. If breathing has stopped, perform artificial respiration. Use first aid treatment according to the nature of the injury. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media: Dry chemical, CO2 or water spray. Consult with local fire authorities before attempting large scale fire fighting operations.

Specific hazards arising from the chemical Hazardous combustion products: These products include: Carbon oxides Halogenated compounds Metallic oxides

Other specific hazards: WARNING: Highly toxic HCl gas is produced during combustion.

Special precautions for fire-fighters:
Use water spray or fog; do not use straight streams. Dike fire-control water for later disposal; do not scatter the material. Containers may explode when heated. Move containers from fire area if you can do it without risk.

Special protective equipment for fire-fighters:
Wear positive pressure self-contained breathing apparatus (SCBA). Structural fire fighters' protective clothing provides limited protection in fire situations ONLY; it may not be effective in spill situations. Wear chemical protective clothing which is specifically recommended by the manufacturer. It may provide little or no thermal protection.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Avoid contact with skin, eyes, and clothing. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing (Section 8).

Warn unnecessary personnel to move away. Stop leak if you can do it without risk. Ensure adequate ventilation.
Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

Personal protective equipment: Safety glasses. Lab coat. Dust respirator. Be sure to use a MSHA/NIOSH approved respirator or equivalent. Wear protective gloves (nitrile).

Emergency procedures: Prevent dust cloud. In case of a spill and/or a leak, always shut off any sources of ignition, ventilate the area, and exercise caution. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Warn personnel to move away. Prevent entry into sewers, basements or confined areas; dike if needed.

Methods and materials for containment and cleaning up:
ELIMINATE all ignition sources (no smoking, flares, sparks, or flames in immediate area). Stop leak if without risk. Ventilate the area. Absorb with an inert material and put the spilled material in an appropriate waste disposal container. Use clean non-sparking tools to collect absorbed material.

Environmental precautions:
Keep away from living quarters. Prevent further leakage or spillage if safe to do so. Water runoff can cause environmental damage. Prevent entry into sewers, basements or confined areas; dike if needed.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling: Avoid inhalation of vapor or mist. Do not ingest. Avoid contact with skin and eyes. Good general ventilation should be sufficient to control airborne levels. Keep container dry. Handle and open container with care. Wear suitable protective clothing, gloves and eye/face protection. When using do not eat, drink, or smoke. Keep away from sources of ignition. Conditions for safe storage: Store locked up. Keep containers tightly closed in a cool, well-ventilated place. Keep away from incompatibles. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Avoid prolonged storage periods. Storage incompatibilities: Combustible substances, Store away from oxidizing agents

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limits: No data available
Appropriate engineering controls:
Good general ventilation should be sufficient to control airborne levels. Ventilation is normally required when handling or using this product. Eyewash fountains should be provided in areas where there is any possibility that workers could be exposed to the substance. Follow safe industrial engineering/laboratory practices when handling any chemical. Personal protective equipment

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state (20°C): Solid
Form: Crystal - Powder
Color: Purple - Black
Odor: No data available
Odor threshold: No data available
Melting point/freezing point: No data available
Boiling point/range: No data available
Decomposition temperature: No data available
Relative density: No data available
Kinematic Viscosity: No data available
Partition coefficient: No data available
n-octanol/water (log Pow)
Flash point: No data available
Flammability (solid, gas): No data available
pH: No data available
Vapor pressure: No data available
Vapor density: No data available
Dynamic Viscosity: No data available
Evaporation rate: No data available
(Butyl Acetate = 1)
Autoignition temperature: No data available
Flammability or explosive limits: No data available
Lower: No data available
Upper: No data available

Solubility(ies):
Water: Insoluble
Insoluble: Ether, Benzene, Ethanol

SECTION 10. STABILITY AND REACTIVITY

Reactivity: Not Available.
Chemical Stability: Stable under recommended storage conditions. (See Section 7)
Possibility of Hazardous Reactions: No hazardous reactivity has been reported.
Conditions to avoid: Avoid excessive heat and light.
Incompatible materials: Oxidizing agents
Hazardous Decomposition Products: No data available

SECTION 11. TOXICOLOGICAL INFORMATION

Acute Toxicity:
No data available
Skin corrosion/irritation:
No data available
Serious eye damage/irritation:
No data available
Respiratory or skin sensitization:
No data available
Germ cell mutagenicity:
No data available
Carcinogenicity:
No data available
IARC: No data available NTP: No data available OSHA: No data available
Reproductive toxicity:
No data available
Routes of Exposure: Inhalation, Eye contact, Ingestion.
Symptoms related to exposure:
Overexposure may result in serious illness or death.
Potential Health Effects:
No specific information available; skin and eye contact may result in irritation. May be harmful if inhaled or ingested.
Target organ(s): No data available
SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity
Fish: No data available
Crustacea: No data available
Algae: No data available
Persistence and degradability: No data available
Bioaccumulative potential (BCF): No data available
Mobility in soil: No data available
Partition coefficient:
n-octanol/water (log Pow)
No data available
Soil adsorption (Koc): No data available
Henry's Law:
constant (PaM3/mol)
No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal of product: Recycle to process if possible. It is the generator's responsibility to comply with Federal, State and Local rules and regulations. You may be able to dissolve or mix material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber system. This section is intended to provide assistance but does not replace these laws, nor does compliance in accordance with this section ensure regulatory compliance according to the law. US EPA guidelines for Identification and Listing of Hazardous Waste are listed in 40 CFR Parts 261. The product should not be allowed to enter the environment, drains, water ways, or the soil.
Disposal of container: Dispose of as unused product. Do not re-use empty containers.
Other considerations: Observe all federal, state and local regulations when disposing of the substance.

SECTION 14. TRANSPORT INFORMATION

DOT (US)
IATA
Serious eye damage/irritation:
No data available
IARC: No data available NTP: No data available OSHA: No data available
Reproductive toxicity:
No data available
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Skin corrosion/irritation:
No data available
Germ cell mutagenicity:
No data available
Barium Chloranilate Trihydrate
UN number:
UN1564
Acute Toxicity:
No data available
Proper Shipping Name:
Barium compounds, n.o.s.
Class or Division:
6.1 Toxic material.
Packing Group:
III
UN number:
UN1564
Proper Shipping Name:
Barium compound, n.o.s.
Class or Division:
6.1 Toxic material.
Packing Group:
III
IMDG
UN number:
UN1564
Proper Shipping Name:
Barium compound, n.o.s.
Class or Division:
6.1 Toxic material.
Packing Group:
III
EmS number: F-A, S-A

SECTION 15. REGULATORY INFORMATION

Toxic Substance Control Act (TSCA 8b.):
This product is ON the EPA Toxic Substances Control Act (TSCA) inventory.
US Federal Regulations
CERCLA Hazardous substance and Reportable Quantity:
SARA 313: Not Listed
SARA 302: Not Listed
State Regulations
State Right-to-Know
Massachusetts Not Listed
New Jersey Not Listed
Pennsylvania Not Listed
California Proposition 65: Not Listed
Other Information
NFPA Rating:
Health: 3
Flammability: 0
Instability: 0
HMIS Classification:
Health: 3
Flammability: 0
Physical: 0
SECTION 16. OTHER INFORMATION

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH). The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. American Elements shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. COPYRIGHT 1997-2019 AMERICAN ELEMENTS. LICENSED GRANTED TO MAKE UNLIMITED PAPER COPIES FOR INTERNAL USE ONLY.