

**SAFETY DATA SHEET  
FOR  
THORN SMITH LABORATORIES**

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**SECTION 1 - IDENTIFICATION**

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Trade Name: **Potassium Biphthalate** for acidity  
Catalog Number: 80-1475  
Product Description: Analyzed Quantitative Unknowns  
Manufacturer: Auric Enterprises, Inc.  
d/b/a Thorn Smith Laboratories  
Address: 7755 Narrow Gauge Road  
Beulah, MI 49617  
Phone Number: 231-882-4672  
SDS Number: TSL-002

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**SECTION 2 – HAZARDS IDENTIFICATION**

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**Classification of Substance or Mixture:** Not a hazardous substance or mixture as packaged in 10g student vials or 100g containers.

**GHS Label Elements, including precautionary statements:** Not a hazardous substance or mixture as packaged in 10g student vials or 100g containers.

**Hazards not otherwise classified (HNOC) or not covered by GHS:** None

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**SECTION 3 – COMPOSITION AND INFORMATION ON INGREDIENTS**

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Potassium Biphthalate

Common Synonyms: 1,2-Benzenedicarboxylic acid monopotassium salt; potassium hydrogen phthalate, potassium acid phthalate, acid potassium phthalate.

Formula:  $\text{KHC}_8\text{H}_4\text{O}_4$   
CAS No.: 877-24-7

Sodium Chloride

Formula: NaCl  
CAS No.: 7647-14-5  
% by Weight: < 60

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## SECTION 4 – FIRST AID MEASURES

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- Potential Acute Health Effects:** Slightly hazardous in case of skin and eye contact (irritant), of ingestion, of inhalation.
- Potential Chronic Health Effects:** Repeated or prolonged exposure is not known to aggravate medical conditions.
- Eye Contact:** Do not rub eye(s). Flush with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally. Seek medical attention.
- Skin Contact:** Remove any contaminated clothing. Wipe off excess from skin. Immediately wash skin with soap and water for at least 15 minutes. Get medical attention if irritation develops or persists.
- Inhalation:** If a person breathes in large amounts, move the exposed person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention.
- Ingestion:** If swallowed, and if person is conscious, immediately give large amounts of water. Get medical attention.
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## SECTION 5 – FIRE FIGHTING MEASURES

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- Flammability:** Non-Flammable
- Flash Points:** Not Applicable
- Auto-Ignition:** Not Applicable
- Flammable Limits:** N/A
- Extinguishing Media:** Use extinguishing media appropriate to the surrounding fire.
- Fire Fighting Procedure:** Firefighters should wear self-contained breathing apparatus and protective clothing to prevent inhalation or contact with skin and eyes.
- Fire/Explosion Hazards:** As with most organic solids, fire is possible at elevated temperatures or by Contact with an ignition source. Not considered to be an explosion hazard.
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## SECTION 6 – ACCIDENTAL RELEASE MEASURES

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**Spill or Leak Procedures:** Utilize recommended protective clothing and equipment. Clean spills in a manner that does not disperse dust into the air. Sweep up and containerize for reclamation or disposal. Vacuuming or wet sweeping may be used to avoid dust dispersal. Whatever cannot be saved for reclamation may be delivered to an approved waste disposal facility. Small amounts of residue may be flushed to sewer with plenty of water.

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## SECTION 7 – HANDLING AND STORAGE

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- Storage Temperatures:** Store at ambient temperatures.
- Shelf Life:** Unlimited in tightly closed container.
- Special Sensitivity:** Nitric acid, strong oxidizing agents, lithium inter-halogens, iron, cement.

**Precautions to be taken in handling and storage:** Store in accordance with all local, state, and federal environmental regulations. Keep away from fire and/or sparks.

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## SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

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**Respiratory Protection (Specify Type):** None where adequate ventilation conditions exist. If airborne Concentration is high, use an appropriate respirator or dust mask.

**Protective Gloves:** Wear protective gloves.

**Eye Protection:** Wear chemical safety glasses.

**Ventilation To Be Used:** Use adequate general or local exhaust ventilation to keep fume or dust levels as low as possible.

Local Exhaust     Mechanical (General)     Special

Other (Specify)

**Other Protective Clothing and Equipment:** Wear clean body-covering clothing. Emergency showers and eye wash stations should be available.

**Hygienic Work Practices:** Avoid contact with eyes, skin, and clothing. Avoid breathing dust. Keep container closed when not in use. Use with adequate ventilation. Wash thoroughly after handling. Avoid flames and fire.

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## SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

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**Physical Form:** Crystals (KHC<sub>8</sub>H<sub>4</sub>O<sub>4</sub>); Crystalline solid (NaCl)

**Color:** White

**Odor:** Odorless

**Molecular Weight:** N/A

**Boiling Point:** 1413°C (2575°F) (NaCl)

**Melting Point:** 801°C (1474°F) (NaCl)

**Specific Gravity:** 1.64 (KHC<sub>8</sub>H<sub>4</sub>O<sub>4</sub>); 2.16 (NaCl)

**Solubility in Water:** 25mg/100ml cold water (KHC<sub>8</sub>H<sub>4</sub>O<sub>4</sub>); Appreciable (more than 10%) (NaCl)

**Water Reactive:** No

**Vapor Density (Air-1):** N/A

**Evaporation Rate (-1):** N/A

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## SECTION 10 – STABILITY AND REACTIVITY

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**STABILITY:**  Stable     Unstable

**Conditions to Avoid:** Humidity

**Incompatibility (Materials to avoid):** Nitric acid, strong oxidizing agents, lithium, inter-halogens, iron, cement.

**Hazardous Decomposition Products:** Oxides of carbon and potassium may form when heated to decomposition.

**HAZARDOUS POLYMERIZATION:**  May Occur     Will Not Occur

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## SECTION 11 – TOXICOLOGICAL INFORMATION

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**Routes of Exposure:** Eye Contact. Ingestion. Inhalation. Skin contact.  
**Toxicity Data:** Potassium Biphthalate: No LD50/LC50 information found.  
Sodium Chloride LD50 (oral-rat) 3000 mg/kg; LD50 (ipr-mouse) 2602 mg/kg;  
LD50 (scu-mouse) 3150 mg/kg; LD50 (iv-mouse) 645 mg/kg.  
**Chronic Toxic Effects:** Elevated blood pressure and accelerated respiration rate.  
**Acute Toxic Effects:** Inhalation of dust may cause irritation to upper respiratory tract and mucous membranes because of slight acidity. Symptoms may include coughing and sore throat. Large ingested doses may cause gastrointestinal irritation, nausea, vomiting, and diarrhea. May cause irritation to eyes and skin, with redness and pain.  
**Extremely Hazardous Substance:** No  
**CERCLA Hazardous Substance:** No  
**SARA 313 Toxic Chemicals:** No  
**TSCA Inventory:** No

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## SECTION 12 – ECOLOGICAL INFORMATION

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Not Known

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## SECTION 13 – DISPOSAL CONSIDERATIONS

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Dispose of in accordance with all applicable local, state and federal environmental regulations.

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## SECTION 14 – TRANSPORTATION INFORMATION

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Domestic (D.O.T.)  
Proper Shipping Name: Chemicals, n.o.s.

International (T.M.O.)  
Proper Shipping Name: Chemicals, n.o.s.

Air (I.C.A.O.)  
Proper Shipping Name: Chemicals, n.o.s.

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## SECTION 15 – REGULATORY INFORMATION

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**Pennsylvania Right to Know Components:**  
Potassium hydrogen phthalate CAS-No. 877-24-7  
Sodium Chloride CAS-No. 7647-14-5

**New Jersey Right to Know Components:**Potassium hydrogen phthalate  
Sodium ChlorideCAS-No. 877-24-7  
CAS-No. 7647-14-5

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**SECTION 16 – OTHER INFORMATION**

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NFPA Rating: Health: 1 Flammability: 0 Reactivity: 0  
HMIS Rating: Health: 1 Fire: 0 Reactivity: 0 Protection: CDate Prepared: September 7, 1989  
Date of Last Revision: May 16, 2017

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