

**SAFETY DATA SHEET  
FOR  
THORN SMITH LABORATORIES**

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**SECTION 1 - IDENTIFICATION**

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Trade Name: **Soluble Chloride** for Cl  
Catalog Number: 80-1575  
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-004

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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

**Potential Acute Health Effects:**

Slightly hazardous in case of skin and eye contact (irritant). Slight hazardous in case of ingestion and inhalation.

**Potential Chronic Health Effects:**

Mutagenic for bacteria and/or yeast. Mutagenic for mammalian somatic cells. Repeated or prolonged exposure to this compound can produce target organs damage.

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

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Potassium Chloride

Formula: KCl  
CAS No.: 7447-40-7  
% by Weight: 25-50%

Sodium Chloride

Formula: NaCl  
CAS No.: 7647-14-5

Common Synonyms: Salt; Sea Salt  
% by Weight: 51-75%

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#### SECTION 4 – FIRST AID MEASURES

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**Eye Contact:** Do not rub eye(s). Flush with plenty of cold water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get medical attention.

**Skin Contact:** Remove any contaminated clothing. Wipe off excess from skin. Immediately wash skin with soap and water. 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 advice.

**Ingestion:** DO NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.

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#### SECTION 5 – FIRE FIGHTING MEASURES

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**Flammability:** Non-Flammable

**Flash Points:** Not Applicable

**Auto-Iginition:** 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:** When heated to decomposition emits toxic fumes.

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#### SECTION 6 – ACCIDENTAL RELEASE MEASURES

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**Spill or Leak Procedures:** Utilize recommended protective clothing and equipment. Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of in accordance to all Federal, State and Local environmental regulations.

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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:** Hygroscopic. Keep away from oxidizing agents, acids and moisture.

**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:** Solid crystalline powder  
**Color:** White  
**Odor:** Odorless  
**Molecular Weight:** 74.55 g/mole (KCl); 58.44 g/mole (NaCl)  
**Boiling Point:** 1420°C (2588°F) (KCl); 1413°C (2575.4°F) (NaCl)  
**Melting Point:** 770°C (1418°F) (KCl); 801°C (1473.8°F) (NaCl)  
**Solubility in Water:** Soluble in cold or hot water.  
**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):** Oxidizing agents, acids (KCl). Oxidizing agents, acids, metals (NaCl)  
**Hazardous Decomposition Products:** N/A  
**Reactivity:** Hygroscopic. May react violently with BrF<sub>3</sub> (KCl); NaCl reacts with nonnoble metals such as iron or steel, building materials (such as cement). Sodium Chloride is rapidly attacked by bromine trifluoride. Violent reaction with lithium. (NaCl).  
**HAZARDOUS POLYMERIZATION:**  May Occur     Will Not Occur

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## SECTION 11 – TOXICOLOGICAL INFORMATION

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**Routes of Exposure:** Ingestion. Inhalation.  
**Toxicity Data:** Acute Oral Toxicity LD50: 1500 mg/kg (mouse) - KCl  
Acute Oral Toxicity LD50: 3000 mg/kg (rat) - NaCl  
Acute Dermal Toxicity LD50: >10000 mg/kg (rabbit) - NaCl  
Acute Toxicity to Dust (LC50): >42000 mg/m<sup>3</sup> 1 hour (rat) – NaCl  
**Chronic Toxic Effects:** KCl – may cause damage to the blood and cardiovascular system. May effect genetic material. Passes through placental barrier in animals.  
NaCl – Mutagenic for mammalian somatic cells. Mutagenic for bacteria and/or yeast.  
**Acute Toxic Effects:** May cause skin and eye irritation. Ingestion of large quantities may irritate the stomach with nausea and vomiting. May effect behavior (muscle spasticity/contraction, somnolence), sense organs, metabolism, blood, and cardiovascular system. Continued exposure may produce dehydration, internal organ congestion, and coma. Inhalation of dust may cause irritation to



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