SAFETY DATA SHEET
FOR
THORN SMITH LABORATORIES

SECTION 1 - IDENTIFICATION

Trade Name:	**Soluble Sulfate** for SO_3
Catalog Number:	80-1675 (Vials) / 80-1676 (100g)
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-006

SECTION 2 – HAZARDS IDENTIFICATION

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: May be slightly hazardous in case of f ingestion and inhalation. Slightly hazardous in case of eye and skin contact (irritant).

Potential Chronic Health Effects: CARCENOGENIC EFFECTS: N/A
MUTAGENIC EFFECTS: N/A
TERATOGENIC EFFECTS: N/A
DEVELOPMENTAL TOXICITY: N/A

SECTION 3 – COMPOSITION AND INFORMATION ON INGREDIENTS

Soluble Sulfate:

Formula:	Na_2SO_4
Common Synonyms:	Sulfuric Acid, Disodium Salt; Disodium Sulfate
CAS No.:	7757-82-6
OSHA PEL:	N/E
ACGIH TLV:	N/E
OTHER LIMITS:	N/A

Sodium Chloride

Formula:	NaCl

CAS No.: 7647-14-5
Common Synonyms: Salt; Sea Salt
OSHA PEL: N/E
ACGIH TLV: N/A
OTHER LIMITS:N/A

SECTION 4 – FIRST AID MEASURES

Eye Contact: Check for and remove contact lenses. 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. Flush skin with water. Get medical attention if irritation develops or persists.
Inhalation: If inhaled, move the exposed person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical advice.
Ingestion: If swallowed, and if person is conscious, immediately rinse mouth with plenty of water. DO NOT induce vomiting. Get medical attention.

SECTION 5 – FIRE FIGHTING MEASURES

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.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

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.

SECTION 7 – HANDLING AND STORAGE

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.

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

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.
__X__ Local Exhaust __X__ Mechanical (General) _____ Special
_____ Other (Specify)
Other Protective Clothing and Equipment: Wear clean body-covering clothing. Emergency showers and eye was 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.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Physical Form: Solid crystalline powder
Color: White
Odor: Odorless
Molecular Weight: 142.04 g/mole (Na_2SO_4); 58.44 g/mole (NaCl)
Boiling Point: 1700°C (Na_2SO_4); 1413°C (2575.4°F) (NaCl)
Melting Point: 880-888°C (Na_2SO_4); 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

SECTION 10 – STABILITY AND REACTIVITY

STABILITY: __X__ Stable _____ Unstable
Conditions to Avoid: Humidity
Incompatibility (Materials to avoid): Incompatibles, high temperatures (Na_2SO_4). Oxidizing agents, acids, metals (NaCl)
Hazardous Decomposition Products: N/A
Reactivity: Hygroscopic. 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 __X__ Will Not Occur

SECTION 11 – TOXICOLOGICAL INFORMATION

Routes of Exposure: Ingestion. Inhalation.
Toxicity Data: Acute Oral Toxicity LD50: 5989 mg/kg (mouse) - Na_2SO_4
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^3 1 hour (rat) – NaCl
Chronic Toxic Effects: Na_2SO_4 – Elevated blood pressure and accelerated respiration rate.
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 spasicity/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 upper respiratory tract, nose and throat. Large ingested doses may cause gastrointestinal irritation and pain.

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity: Na_2SO_4 - Fish: Bluegill/Sunfish: LC50 = 12750 ppm; 96 Hr; Static bioassay Water flea Daphnia: LC50 = 4547 mg/L; 96 Hr; Unspecified fish: Fathead minnow: LC50 = 13500 – 14000 mg/L; 24 – 96 Hr; Mosquito Fish: LC50 = 17500 mg/L; 96 Hr; This chemical is not expected to cause oxygen depletion in aquatic systems. It has low potential to affect aquatic organisms and is expected to have a low potential to affect secondary waste treatment microorganisms.

Environmental: Sodium Sulfate may persist indefinitely in the environment, but is not likely to show bioaccumulation or food chain contamination effects. If diluted with water, this chemical released directly or indirectly into the environment is not expected to have a significant impact.

SECTION 13 – DISPOSAL CONSIDERATIONS

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

SECTION 14 – TRANSPORTATION INFORMATION

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.

SECTION 15 – REGULATORY INFORMATION

Non-regulated.

SECTION 16 – OTHER INFORMATION

SARA TITLE III HAZARD CATEGORIES AND LISTS

Acute: Yes Chronic: Yes Flammability: No Pressure: No Reactivity: No
Extremely Hazardous Substance: No
CERCLA Hazardous Substance: No
SARA 313 Toxic Chemicals: Yes (Na_2SO_4)

TSCA Inventory: Yes

NFPA Rating:	Health: 1	Flammability: 0	Reactivity: 0	
HMIS Rating:	Health: 1	Fire: 0	Reactivity: 0	Protection: E

Date Prepared:	October 2, 1989
Date of Last Revision:	November 11, 2020

The information published in this Safety Data Sheet has been compiled from our experience and data presented in various technical publications. It is the user's responsibility to determine the suitability of this information for the adoption of necessary safety precautions. We make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and assume no liability resulting from its use. We reserve the right to revise Safety Data Sheets periodically as new information becomes available.