Safety Data Sheet

Sulphatrox EX

*** * * Section 1 - Chemical Product and Company Identification * * ***

Product Identifier:
Sulphatrox EX
Chemical Name
Inorganic Nitrate Solution
Recommended Use
Wastewater Odor Control

Manufacturer Information

CAPE FEAR WATER SOLUTIONS INC.
399 OLD NC 87
Dublin, NC. 28332

Phone: 910-991-7700

CHEMTREC: (800) 424-9300

General Comments
NOTE: Emergency telephone numbers are to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure, or accident involving chemicals. All non-emergency questions should be directed to customer service.

*** * * Section 2 – Hazard Identification * * ***

Appearance & Odor: Colorless to amber liquid with a slight chlorine odor.

Emergency Overview: Spills will make the floor slippery. Do not allow the product to evaporate to dryness as the dry residue can ignite upon contact with combustible materials. Avoid long term exposure to ultraviolet light. Store in opaque containers.

Fire & Explosion Hazards: Not flammable as liquid solution. Strong oxidant if allowed to dry.

Primary Route(s) of Exposure: Skin and eye contact, and inhalation.

Inhalation - Acute Effects: Inhalation of vapors or mists may cause irritation to the respiratory tract. Breathing vapor or mists may be harmful.

Skin Contact - Acute Effects: Occasional brief contact with the liquid is not expected to result in significant irritation. Prolonged contact may cause irritation.

Eye Contact - Acute Effects: Eye contact will irritate and may burn the eyes.

Ingestion - Acute Effects: May be harmful if swallowed. May cause gastrointestinal irritation and nausea.

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* * * Section 3 - Composition / Information on Ingredients * * *

CAS #	Component	Percent
13477-34-4	Calcium Nitrate	32-73
7758-19-2	Sodium Chlorite	Proprietary
7732-18-5	Balance	Balance

* * * Section 4 - First Aid Measures * * *

Description of Necessary Measures

Inhalation First Aid: Remove affected person to fresh air. Give artificial respiration ONLY if breathing has stopped. Obtain medical attention.
Skin Contact First Aid: Immediately remove clothing from affected area and wash skin with flowing water and soap. Clothing should be washed before reuse. Obtain medical attention if irritation persists.
Eye Contact First Aid: Immediately irrigate eyes with flowing water continuously for 15 minutes while holding eyes open. Contacts should be removed before or during flushing. Obtain medical attention if irritation develops.
Ingestion First Aid: If victim is alert, rinse mouth with water and give water to drink. Do not induce vomiting. If spontaneous vomiting occurs, have affected person lean forward with head down to avoid breathing in vomitus. Rinse mouth again and give more water to drink. Obtain medical attention immediately.
Medical Conditions Aggravated: Pre-existing disorders of the following organs or systems include: respiratory system (including asthma and other breathing disorders), and gastrointestinal system.
Note to Physician: Chlorine dioxide vapors are emitted when this product contacts acids or chlorine. If these vapors are inhaled, monitor the patient closely for delayed development of pulmonary edema which may occur up to 48-72 hr after inhalation.

* * * Section 5 - Fire Fighting Measures * * *

Flash Point/Method: Not applicable
Auto Ignition Temperature: Not applicable
Upper/Lower Explosion Limits: Not applicable
Extinguishing Media: Use extinguishing agent suitable for the surrounding fire.
Fire Fighting Procedures: Firefighters should wear full protective clothing and a NIOSH/OSHA approved positive pressure self-contained breathing apparatus. Approach fire from upwind to avoid hazardous vapors and toxic decomposition products. Use flooding quantities of water as fog or spray. This product becomes a fire or explosion hazard if allowed to dry, so use water spray to keep fire-exposed containers cool.

Fire & Explosion Hazards: If this product is allowed to dry it can ignite upon contact with

combustible materials.

Hazardous Products of Decomposition and/or Combustion: Gaseous oxides of sodium and nitrogen when heated above the melting point of the solid 306.8° C.

NFPA Ratings: Health: 1 **Fire:** 0 **Reactivity:** 1

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

* * * Section 6 - Accidental Release Measures * * *

Wear appropriate personal protective equipment (See Section 8). Stop leak if safe to do so without risk. Ventilate area. If safe to do so, absorb spill with inert material, (e.g., dry sand or earth), then place into a chemical waste container. Do not use organic materials, such as wood shavings, wood dust or paper, to absorb spills. Flush area with flooding amounts of water. DO NOT DUMP ON THE GROUND OR INTO ANY BODY OF WATER. All disposal methods must be in compliance with all Federal, State, Local and Provincial laws, and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator.

* * * Section 7 - Handling and Storage * * *

Handling: Wash thoroughly after handling. Use with adequate ventilation. Do not get in eyes, on skin, or on clothing. Do not breathe mists or vapors. Wear all recommended personal protective equipment (See Section 8).

Storage: Protect from physical damage and freezing. Protect from ultraviolet radiation. Store in a cool well ventilated place away from incompatible materials such as combustible, organic, or other readily oxidizable materials. Avoid storage on wood or other combustible floors. Keep containers tightly closed. Do not store in very warm areas where the liquid may evaporate.

* * * Section 8 - Exposure Controls / Personal Protection * * *

Respiratory Protection: If use conditions generate mists or vapors, wear a NIOSH-approved respirator with acid gas canisters.

Skin Protection: Wear rubber gloves and other protective clothing such as coveralls and rubber boots as appropriate to prevent skin contact. Wear a rubber apron if splashing is likely.

Eye Protection: Wear chemical goggles. In addition, wear a faceshield when connecting and disconnecting piping or if splashing is likely.

Ventilation Protection: General exhaust ventilation under normal use conditions. If vapors or mist are generated use local exhaust ventilation.

Other Protection: Recommend means of washing the eyes with a gentle flow of cool to tepid water be readily available in all areas where this material is handled or stored. Employees should wash their hands and face before eating, drinking, or using tobacco products.

Exposure Limits: Exposure limits have not been established for this product or its components.

* * * Section 9 - Physical & Chemical Properties * * *

Appearance:	Colorless liquid	**Odor:**	None
Physical State:	Liquid	**Odor Threshold**:	Not Applicable
Vapor Pressure:	Not available	**pH:**	8.0 - 10.0
Vapor Density:	Not available	**Specific Gravity:**	1.3-1.5 @ 68ºF (20ºC)
Boiling Point / Boiling Range:	212 ºF (100 ºC)	**Evaporation Rate:**	Not available
Melting Point / Freezing Point:	Not available / <25ºF (<-4 ºC)	**Relative Density:**	Not available
Solubility (H2O):	Complete	**Auto-ignition Temperature:**	Not available
Flash Point:	Not Flammable	**Decomposition Temperature:**	Not available
Upper Flammable Limit (UFL):	Not Applicable	**Lower Flammable Limit (LFL):**	Not Applicable
Viscosity:	Not available	**Partition Coefficient (n-octanol / water):**	Not available
Flammability:	Not available		

* * * Section 10 - Chemical Stability & Reactivity Information * * *

Chemical Stability: This product is stable for 90 days or more under normal use conditions. Exposure to ultraviolet radiation may result in decomposition of sodium chlorite.

Incompatibilities: Avoid contact with wood and other fiammable organics, flammable or combustible materials, cyanides, sodium hypophosphite, or boron phosphide.

Polymerization: Hazardous polymerization will not occur.

Decomposition: After water has evaporated, this material may thermally decompose producing oxides of nitrogen. Explosive and toxic chlorine dioxide gas will be generated on contact with acids or chlorine or ultraviolet radiation.

Conditions to Avoid: Do not expose to ultraviolet radiation. Do not allow to evaporate to dryness. Do not heat to 1000° F as an explosion may occur in the presence of reducing agents or inorganic materials.

* * * Section 11 - Toxicological Information * * *

Toxicological Data: Not established for this product. However, for its components:

Calcium nitrate: Oral (rat) LD50 = 302 mg / kg

Sodium chlorite: Oral (rat) LD50 = 165 mg / kg

Chronic Effects: The toxicity of nitrates is due to their in vivo conversion to nitrites which may lead to methemoglobinemia. Nitrate may react with secondary and tertiary amines to form nitrosamines, some of which are suspect cancer agents.
Mutagenicity: Sodium chlorite, a minor component of this material, has tested positive in some studies with laboratory animals. The significance of these results for human health is unclear because the oxidizing effects of the chlorite or the salty effects of the sodium may significantly affect the ability of the tests to accurately detect mutagens.
Carcinogenicity: There are no known carcinogenic effects of this product.
Neurotoxicity: No data available for this product or its components.
Other Effects: The substance may cause effects on the blood, resulting in formation of methemoglobin when ingested.
Target Organs: Target organs include the skin, eyes, digestive tract, and respiratory system.

* * * Section 12 - Ecological Information * * *

The ecological effects are not known. Safely store product to prevent release to the environment and water supplies.

* * * Section 13 - Disposal Considerations * * *

Material that cannot be used, or chemically reprocessed for use, and empty containers should be disposed of in accordance with all applicable regulations. Product containers should be thoroughly emptied before disposal. Generators of waste material are required to evaluate all waste for compliance with RCRA and any local disposal procedures and regulations. NOTE: State and local regulations may be more stringent than federal regulations.

* * * Section 14 - Transportation Information * * *

US DOT Information

Shipping Name: Not regulated as a hazardous material for transportation in current form.

International Maritime Dangerous Goods

Shipping Name: Not regulated as a hazardous material for transportation in current form.

* * * Section 15 - Regulatory Information * * *

OSHA HAZARD COMMUNICATION STANDARD: Health Hazard
CERCLA HAZARDOUS SUBSTANCE No
RQ: None
SARA SECTION 311/312:
Acute Health = Yes Chronic Health = No Fire = No
Pressure Release = No Reactivity = No

SARA SECTION 313: No
OSHA PROCESS SAFETY (29CFR1910.119): No
CALIFORNIA PROPOSITION 65: Not listed.

*** * * Section 16 - Other Information * * ***

Disclaimer: The information contained herein is based on data considered accurate. However, no warranty is expressed or implied regarding the accuracy of these data or the results to be obtained from the user thereof. It is the buyer's responsibility to ensure that its activities comply with federal, state, provincial, and local laws.