

This MSDS complies with the style format specified by ANSI Z400 1-1993

**SECTION 1: CHEMICAL PRODUCT - COMPANY IDENTIFICATION**

**TETRA Technologies, Inc.** (281) 367-1983  
 25025 I-45 North (800) 327-7817  
 The Woodlands, Texas 77380

**(800) 424-9300 CHEMTREC (24-Hour Emergency Response)**  
**(800) 222-1222 POISON CONTROL**

**PRODUCT:** Sodex®  
**TRADE NAMES/SYNONYMS:** None  
**CHEMICAL FAMILY:** Soil Amendment  
**MSDS CREATION DATE:** 24 NOV 97  
**MSDS REVISION DATE:** 18 SEP 2003

**SECTION 2: COMPOSITION, INFORMATION ON INGREDIENTS**

The compositional information and/or the composition of one of the components of this product is proprietary. In the event of a medical emergency, spill or fire, compositional information will be revealed to responding emergency personnel. This product is not hazardous as defined in 29 CFR 1910.1200.

COMPONENTS	CAS	RETEC	PERCENTAGE
Blend of calcium and nitrogen compounds	Proprietary	Proprietary	Proprietary
Water			Proprietary

**PROBABLE CONTAMINANTS:** Alkali and Alkaline Earth Metal Carbonates, Hydroxides, and Ammonia

**SECTION 3: HAZARDS IDENTIFICATION**

**NFPA RATINGS:** (SCALE 0-4): HEALTH=1 FIRE=0 REACTIVITY=0  
**EMERGENCY OVERVIEW:** Odorless liquid. Colorless to light yellow or amber. May cause skin and eye irritation. Avoid contact with eyes, skin and clothing. May be harmful if swallowed. Mists may be irritating to the respiratory tract. Keep container tightly closed. Wash thoroughly after handling. Use only with adequate ventilation.  
**POTENTIAL HEALTH EFFECTS:**  
**INHALATION:** May cause irritation of mucous membranes to include sneezing, coughing and shortness of breath.  
**SKIN CONTACT:** May cause irritation, possibly severe.  
**EYE CONTACT:** May cause irritation.  
**INGESTION:** May cause nausea, sore throat, stomach pain and disorientation.  
**CARCINOGEN STATUS:**  
 OSHA: No NTP: No IARC: No

**SECTION 4: FIRST AID MEASURES**

**INHALATION:** Remove to fresh air. Get medical attention immediately.  
**SKIN CONTACT:** Remove contaminated clothing and shoes immediately. Wash affected area with large amounts of soap and water. In case of burns, cover area with sterile dressing. Get medical attention immediately.  
**EYE CONTACT:** Flush with large amounts of water. Get medical attention immediately.

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**INGESTION:** Do not induce vomiting. If vomiting occurs, keep head lower than hips to prevent aspiration. Get medical attention immediately.

**NOTE TO PHYSICIAN: Antidote:** No specific antidote. May cause corneal injury.

## **SECTION 5: FIRE FIGHTING MEASURES**

**FIRE AND EXPLOSION HAZARD:** Negligible fire hazard when exposed to heat or flame.

**EXTINGUISHING MEDIA:** In case of a fire, utilize dry chemical, carbon dioxide, water spray or regular foam. For larger fires, use water spray, fog or regular foam. Use an extinguishing agent suitable for type of surrounding fire and/or chemicals.

**FIREFIGHTING:** Move container(s) from fire area if you can do it without risk. Apply cooling water to sides of containers that are exposed to flames until well after fire is out. Stay away from ends of drums and/or ends of tanks. Extinguish fire using agent suitable for type of surrounding fire and/or chemicals. Do not use water directly on material. Avoid breathing corrosive vapors; keep upwind.

**HAZARDOUS COMBUSTION PRODUCTS:** Thermal decomposition products may include toxic and corrosive fumes of chlorine, hydrogen chloride, ammonia, nitrogen oxides.

## **SECTION 6: ACCIDENTAL RELEASE MEASURES**

**OCCUPATIONAL SPILL:** Avoid contact with spilled material. For small spills, take up with absorbent material and place into containers for later reclamation or disposal. For larger spills, dike far ahead of spill for later disposal. Isolate area.

**SOIL SPILL:** Dig holding area such as lagoon, pond or pit for containment. Dike flow of spilled material using soil or sandbags or foamed barriers such as polyurethane or concrete. Use cement powder or fly ash to absorb liquid mass.

## **SECTION 7: HANDLING AND STORAGE**

Observe all federal, state and local regulations when storing this product. Store in a tightly closed container. Store away from incompatible substances. Product is corrosive to mild steel and aluminum.

## **SECTION 8: EXPOSURE CONTROLS, PERSONAL PROTECTION**

**EXPOSURE LIMITS:** No occupational exposure limits established by OSHA/ACGIH/NIOSH.

**VENTILATION:** Provide local exhaust ventilation system.

**EYE PROTECTION:** Wear safety glasses with splash shields or safety goggles.

**EMERGENCY WASH FACILITIES:** Where there is possibility of exposure, the employer should provide an eye wash fountain and a safety shower within the immediate work area for emergency use.

**CLOTHING:** Wear appropriate chemical resistant clothing. Leather products will dehydrate with resultant shrinkage and possible destruction.

**GLOVES:** Wear appropriate chemical resistant gloves, such as rubberized or latex coated canvas gauntlets.

**RESPIRATOR:** Not required under established uses and normal working conditions. Contamination levels found in the working environment specific to the job assignment may dictate respirator requirements. Do not exceed the working limits of the respirator. Respirators must be approved by NIOSH-MSHA.

**FOR FIREFIGHTING AND OTHER IMMEDIATELY DANGEROUS TO LIFE OR HEALTH CONDITIONS:** Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode; Any supplied air-respirator that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained breathing apparatus operated in pressure-demand or other positive-pressure mode.

## **SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

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<b>DESCRIPTION:</b>	Odorless, clear to slightly yellow or amber liquid
<b>BOILING POINT:</b>	234 °F (112°C)
<b>SPECIFIC GRAVITY:</b>	1.39 @ 59°F (15°C)
<b>pH:</b>	6.0 - 8.0
<b>WATER SOLUBILITY:</b>	Miscible with water in all proportions
<b>SOLVENT SOLUBILITY:</b>	Miscible in alcohol, acetic acid and acetone

## **SECTION 10: STABILITY AND REACTIVITY**

**REACTIVITY:** Stable under normal temperatures and pressures

**CONDITIONS TO AVOID:** None known

**INCOMPATIBILITIES:**

**Boric Oxide + Calcium Oxide:** Possible violent incandescent reaction

**Bromide Trifluoride, Sodium Nitrite, Phosphorous Pentachloride:** Possible violent reaction

**Furan-2-Peroxy-carboxylic Acid:** Explodes

**Metals:** Corrosive in the presence of moisture

**Methyl Vinyl Ether:** May initiate exothermic polymerization

**Aluminum & Zinc:** Corrodes, releasing some flammable hydrogen gas

**Sodium Hypochlorite, Calcium Hypochlorite:** Can react to form explosive nitrogen trichloride

**HAZARDOUS DECOMPOSITION:** Thermal decomposition products may include toxic and corrosive fumes of chlorine, hydrogen chloride, ammonia, nitrogen oxides

**POLYMERIZATION:** Has not been reported to occur under normal temperatures and pressures

## **SECTION 11: TOXICOLOGICAL INFORMATION**

**TOXICITY DATA:**

TD<sub>LO</sub>: 110g/kg, oral, 20 weeks, rat

LD<sub>LO</sub>: 274 mg/kg subcutaneous, dog

LD<sub>50</sub>: 1000 mg/kg oral, rat

LD<sub>50</sub>: 264 mg/kg intraperitoneal, rat

Mutagenic and tumorigenic data see Registry of Toxic Effects of Chemical Substances (RTECS) file

**CARCINOGEN STATUS:** None

**LOCAL EFFECTS:** Eye, mucous membrane and skin irritant. Moderately toxic by ingestion, slightly toxic by dermal absorption. Fatal ingestion dose is estimated to be 100 grams.

## **SECTION 12: ECOLOGICAL INFORMATION**

No data available.

## **SECTION 13: DISPOSAL INFORMATION**

Observe all federal, state and local regulations with disposing of this substance.

## **SECTION 14: TRANSPORT INFORMATION**

DOT shipping name - ID Number: Non-regulated.

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**SECTION 15: REGULATORY INFORMATION**

TSCA STATUS:	Yes
WHMIS CLASSIFICATION	D.2B
SARA SECTION 302, 304, 313:	No
SARA SECTION 304:	No
SARA SECTION 313:	No
SARA HAZARD CATEGORIES, SARA SECTIONS 311/312	
ACUTE HAZARD:	Yes
OSHA Process Safety	No
California Proposition 65	No

**SECTION 16: OTHER INFORMATION**

Individuals handling this product should be informed of the recommended safety precautions and should have access to this information.

This information relates to the specific product designated and may not be valid for such product used in combination with any other materials or in any other processes. Such information is to the best of our knowledge and belief, accurate and reliable as of the date compiled. However, no representation, warranty or guarantee is made as to its accuracy, reliability, or completeness. It is the users' responsibility to satisfy themselves as to the suitability and completeness of such information for their own particular use. We do not accept liability for any loss or damage that may occur from the use of this information nor do we offer warranty against patent infringement.

TETRA Technologies, Inc. reserves the right to refuse shipment of this product to any consumer who fails to demonstrate the ability to consistently handle and use it safely and in compliance with all applicable laws, rules and regulations. Such demonstration may require on-site inspection of any or all storage, processing, packaging and other handling systems that come in contact with it.

Customers are responsible for compliance with local, state and federal regulations that may be pertinent in the storage, application and disposal of this product.