



SAFETY DATA SHEET

SECTION 1 – PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: CP Earth-Safe Soil Sulfur

PRODUCT USE: Soil Conditioner

MANUFACTURER NAME & ADDRESS: Vital Earth/Carl Pool
706 E Broadway
Gladewater, TX 75647

EMERGENCY PHONE NUMBERS: (903) 845-5985 (800) 245-7645

SECTION 2 – HAZARDS IDENTIFICATION

Potential Acute Health Effects: Hazardous in case of eye contact (irritant). Slightly hazardous in case of skin contact (irritant), of ingestion, of inhalation (lung irritant).

Potential Chronic Health Effects: Slightly hazardous in case of skin contact (sensitizer).

CARCINOGENIC EFFECTS: Not available.

MUTAGENIC EFFECTS: Not available.

TERATOGENIC EFFECTS: Not available.

DEVELOPMENTAL TOXICITY: Not available. The substance may be toxic to upper respiratory tract, skin. Repeated or prolonged exposure to the substance can produce target organs damage.

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

<u>Chemical Name and Synonym</u>	<u>WT%</u>
Sulfur	100%

SECTION 4 – FIRST AID MEASURES

Eye Contact: Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.

Skin Contact: In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.

Serious Skin Contact: Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek medical attention.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Serious Inhalation: Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek medical attention.

Ingestion: Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or

Serious Ingestion: Not available.

SECTION 5 – FIREFIGHTING MEASURES

Flammability of the Product: Flammable.

Auto-Ignition Temperature: 232°C (449.6°F)

Flash Points: CLOSED CUP: 207°C (404.6°F).

Flammable Limits: Not available.

Products of Combustion: Not available.

Fire Hazards in Presence of Various Substances: Flammable in presence of open flames and sparks, of heat. Non-flammable in presence of shocks.

Explosion Hazards in Presence of Various Substances: Explosive in presence of open flames and sparks. Non-explosive in presence of shocks.

Fire Fighting Media and Instructions: Flammable solid. SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray or fog. Cool containing vessels with water jet in order to prevent pressure build-up, auto-ignition or explosion.

Special Remarks on Fire Hazards: Vapors given off during melting of Sulfur may contain sufficient Hydrogen Sulfide and Carbon Disulfide to permit ignition of air/vapor mixture on contact with hot surface. Such ignition may result in transmission of flames to molten Sulfur. Mixture of Barium carbide and sulfur heated at 150 deg. C becomes incandescent. Mixture of barium chlorate and Sulfur ignites at about 108-111 deg. C. Calcium carbide reacts incandescently with sulfur vapors at 500 deg. C. Calcium phosphide reacts with sulfur incandescently at 300 deg. C Powdered sulfur is spontaneously flammable when mixed with Lampblack or freshly calcined charcoal. Sulfur in chlorine dioxide takes fire spontaneously and may produce an explosion. Flowers of sulfur moistened with chromyl chloride ignites spontaneously. A mixture of lead chlorate and sulfur ignites at about 63-67 deg. C. A mixture of sulfur and silver chlorate ignites at about 74 deg. C. When finely divided sulfur is ground with silver oxide, the mixture ignites. Solid sulfur will ignite when mixed with solid sodium chlorite and moistened. Lithium carbide burns in vapors of sulfur. Sulfur mixed with mercurous oxide will ignite on light impact. Powdered nickel heated with sulfur reacts with incandescence. Sulfur when heated with Thorium reacts vigorously with incandescence. Mixture of sulfur + niobium oxide + aluminum causes fire. A mixture of boron and sulfur becomes incandescent 600 deg. C.

Special Remarks on Explosion Hazards: SULFUR IS POOR CONDUCTOR OF ELECTRICITY & TENDS TO DEVELOP CHARGES OF STATIC ELECTRICITY DURING TRANSPORT OR PROCESSING; STATIC DISCHARGE MAY LEAD TO IGNITION OF SULFUR DUST. Sulfur + Ammonia may form explosive Sulfur Nitride. Ammonium Nitrate + Sulfur can be exploded by shock. Mixtures of Ammonium Perchlorate and Sulfur are impact sensitive. Interaction between Sulfur and Tetrapheny lead may be explosive. A mixture of sulfur + stannic iodide + sodium produces a strong explosion on impact. When sulfur is rubbed with sodium the reaction proceeds with explosive violence. When a mixture of Sulfur and yellow phosphorous is warmed is causes a vivid combustion and powerful explosion. Iodine Pentaoxide

reacts explosively when warmed with sulfur. Potassium Perchlorate + Sulfur, used in flash crackers, can be explode by moderately strong impact. COMBINATION OF FINELY DIVIDED SULFUR & FINELY DIVIDED BROMATES (ALSO CHLORATES OR IODATES) OF BARIUM, CALCIUM, MAGNESIUM, POTASSIUM, SODIUM, OR ZINC WILL EXPLODE WITH HEAT, PERCUSSION, & SOMETIMES, LIGHT FRICTION. A mixture of sulfur and chlorates will explode. Sulfur + silver bromate produces an explosive reaction in the presence of water.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Small Spill: Use appropriate tools to put the spilled solid in a convenient waste disposal container.

Large Spill: Flammable solid. Stop leak if without risk. Do not touch spilled material. Use water spray curtain to divert vapor drift. Prevent entry into sewers, basements or confined areas; dike if needed. Eliminate all ignition sources. Call for assistance on disposal.

SECTION 7 – HANDLING AND STORAGE MEASURES

Precautions: Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe dust. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents, metals.

Storage: Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame).

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: Use adequate ventilation to keep the airborne concentrations of this material below the recommended exposure standard of nuisance dust.

Personal Protection: Splash goggles. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill: Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits: TWA: 10 STEL: 20 (mg/m³) [Canada] Inhalation Nuisance Dust: TWA: 15 (mg/m³) from OSHA (PEL) [United States] Inhalation Total. TWA: 5 (mg/m³) from OSHA (PEL) [United States] Inhalation Respirable. Consult local authorities for acceptable exposure limits.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Physical state and appearance: Solid.

Taste: Tasteless. Faint taste

Color: Yellow.

Boiling Point: 445°C (833°F)

Critical Temperature: 1040°C (1904°F)

Vapor Pressure: Not applicable.

Volatility: Not available.

Molecular Weight: 32.06 g/mole

pH (1% soln/water): Not applicable.

Melting Point: 112°C (233.6°F) - 120 C

Specific Gravity: Density: 2.07 (Water = 1)

Vapor Density: Not available.

Odor Threshold: Not available.

Water/Oil Dist. Coeff: Not available.

Ionicity (in Water): Not available.

Odor: Odorless. Pure Sulfur is odorless, but traces of hydrocarbon impurity may impart an oily and/or rotten egg odor.

Dispersion Properties: See solubility in water, acetone.

Solubility: Partially soluble in acetone. Very slightly soluble in diethyl ether. Insoluble in cold water, hot water. Sparingly soluble in alcohol. Soluble in Toluene. Solubility in Acetone: 2.65% @ 25 deg. C. Solubility in Methylene Iodide: 9.1% @ 10 deg. C. Solubility in Chloroform: 1.5% @ 18 deg. C.

SECTION 10 – STABILITY AND REACTIVITY

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Heat, ignition sources, incompatible materials

Incompatibility with various substances: Reactive with oxidizing agents, metals.

Corrosativity: Non-corrosive in presence of glass.

Special Remarks on Reactivity: Incompatible with ammonia, ammonium nitrate, ammonium perchlorate, barium carbide, barium chlorate, calcium phosphide, calcium carbide, Lampblack, also chlorates, or iodates) of Barium, Magnesium, Calcium, Potassium, Sodium, or Zinc, Calcium Hypochlorite, Silver Bromate, Lithium Carbide, Lead Dioxide, Potassium Chlorate, Sodium Hydride, Thorium, aluminum + niobium oxide, Bromine Pentafluoride, Boron, Bromine trifluoride, calcium, chlorine monoxide gas, chlorine trifluoride, indium, Iodine pentaoxide, Lithium, Nitrogen dioxide, yellow phosphorous, Potassium Nitride, Uranium, Tetraphenyllead. Freshly calcined charcoal, lead chlorate, finely divided bromates.

Special Remarks on Corrosativity: Not available.

Polymerization: Will not occur.

SECTION 11 – TOXICOLOGICAL INFORMATION

Routes of Entry: Inhalation. Ingestion.

Toxicity to Animals: Acute oral toxicity (LD) >8437 mg/kg [Rat].

Chronic Effects on Humans: May cause damage to the following organs: upper respiratory tract, skin.

Other Toxic Effects on Humans: Slightly Hazardous in case of inhalation (lung irritant). Slightly hazardous in case of skin contact (irritant), of ingestion.

Special Remarks on Toxicity to Animals: Lowest Published Lethal Dose: LDL [Rabbit] - Route: Oral; Dose: 175 mg/kg.

Special Remarks on Chronic Effects on Humans: Not available.

Special Remarks on other Toxic Effects on Humans: Acute Potential Health Effects: Skin: May cause skin irritation or rash. Eyes: May cause eye irritation with tearing, burning, scratchy discomfort, and blurring of vision, and possible eye damage (damage to the lens, formation of opacities, cataracts, and focal chorioretinitis. Inhalation: Breathing sulfur can irritate the nose, throat, lungs, causing coughing, wheezing, sneezing, and/or shortness of breath/dyspnea. It may cause inflammation in the respiratory tract resulting in tracheobronchitis, inflammation of nasal mucosa with increased secretions, pulmonary edema, pneumonia, Ingestion: May cause gastrointestinal tract irritation with nausea, vomiting, and diarrhea. Sulfur is not particularly toxic when ingested. Ingestion of 60 grams has been survived. However, if not promptly eliminated,

theoretically, ingestion of large doses may lead to hydrogen sulfide production in chiefly due to bacterial action in the colon. Small particles are more toxic than large ones. It may affect behavior/central nervous system/peripheral nervous system (headache, vertigo, amnesia, fatigue, seizures, agitation, peripheral neuropathy, coma), and kidneys. Chronic Potential Health Effects: Skin: Prolonged or repeated skin contact may cause allergic dermatitis (dermatitis venerea). Ingestion: Prolonged or repeated ingestion may cause metabolic acidosis. It may also affect the liver (increase levels of liver enzymes) Inhalation: Prolonged or repeated inhalation may cause bronchitis, various bronchopulmonary diseases, including emphysema, bronchiectasis, thiopneumoconiosis (sulfur pneumoconiosis), and asthma. It may also causes changes in the thyroid gland.

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity: Ecotoxicity in water (LC50): 10000 ppm 96 hours [Fish (Mosquito fish)].

BOD5 and COD: Not available.

Products of Biodegradation: Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The product itself and its products of degradation are not toxic.

Special Remarks on the Products of Biodegradation: Not available.

SECTION 13 - DISPOSAL CONSIDERATIONS

Disposal Method: Pick up with a shovel and broom and use as a fertilizer by applying to soil using good agricultural management.

SECTION 14 – TRANSPORTATION INFORMATION

Shipping Name: Sulfur

Hazard Class: Class 4.1: Flammable solid.

Reportable Quantity (RQ) None

Labels Required: Normal

Placard: Required

SECTION 15 – REGULATORY INFORMATION

General Comments: Contact local authorities for proper disposal of large quantities of unused product.

SECTION 16 – OTHER INFORMATION

MANUFACTURER DISCLAIMER: The information contained herein is, to the best of the Manufacturer's knowledge and belief, accurate and reliable as of the date of the preparation of this document. However, no warranty or guarantee, express or implied, is made as to the accuracy or reliability, and the Manufacturer shall not be liable for any loss or damage arising out of the use thereof. In addition, the Manufacturer shall not be liable for any damage or injury resulting from abnormal use, from any failure to adhere to recommended practices or from any hazards inherent in the nature of the product.

Notice: How this product is used is very important and beyond the control of the seller. The buyer assumes all risk for any use beyond those described on the label or for any use under abnormal conditions.