

VeruSOL

MATERIAL SAFETY DATA SHEET

Section 1: PRODUCT AND COMPANY IDENTIFICATION

Manufacturer: VeruTEK Technologies, Inc.
Address: 628-2 Hebron Avenue, Suite 505, Glastonbury, CT 06033
Phone Number: (860) 633-4900

Product Name: VeruSOL
Issue Date: June 2006

Section 2: HAZARDS IDENTIFICATION

Emergency Overview

Appearance/Odor: Light yellow, slightly viscous liquid with citrus odor.

Product is Combustible.

Slippery when spilled.

Potential Health Effects: See Section 11 for more information.

Likely Routes of Exposure: Eye contact, skin contact, inhalation.

Eye: Causes moderate to severe irritation.

Skin: May cause slight redness. Prolonged or repeated exposure may cause drying of the skin.

Inhalation: May cause nose, throat, and respiratory tract irritation, coughing, headache.

Ingestion: Not likely to be toxic, but may cause vomiting, headache, or other medical problems.

Medical Conditions Aggravated By Exposure: May irritate the skin of people with pre-existing skin conditions.

This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC, or NTP.

OSHA Regulatory Status

This material is combustible, which is defined as having a flash point between 100°F (37.8°C) and 200°F (93.3°C). Combustible materials are hazardous according to the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

The specific chemical identity is being withheld as a trade secret.

Section 4: FIRST AID MEASURES

Eye Contact: Remove contact lenses at once. Flush with water for at least 15 minutes. If irritation persists, seek medical attention.

Skin Contact: Wash affected area with copious amounts of soap and water. If irritation develops, seek medical attention.

Inhalation: Move to fresh air. If symptoms persist, seek medical attention.

Ingestion: Seek medical attention immediately. DO NOT induce vomiting. Rinse mouth with water. Offer water to drink. DO NOT administer anything by mouth to an unconscious person.

General: As with any chemical, employees should thoroughly wash hands with soap and water after handling this material.

Section 5: FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Carbon dioxide, foam or dry chemical. Caution: Carbon dioxide will displace air in confined spaces and may create an oxygen deficient atmosphere.

Unsuitable Extinguishing Media: Water.

Products of Combustion: Forms acrid fumes, carbon monoxide, carbon dioxide and oxides of nitrogen.

Protection of Firefighters: Vapors may be irritating to eyes, skin and respiratory tract. Firefighters should wear self-contained breathing apparatus (SCBA) and full fire-fighting turnout gear.

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Section 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions: Use personal protection recommended in Section 8. Product is slippery when spilled. Isolate the hazard area. Deny entry to unnecessary and unprotected personnel.

Environmental Precautions: Keep out of drains, sewers, ditches and waterways.

Methods for Containment: Dike spill area and cap leaking containers as necessary to prevent further spreading of spilled material. Absorb spilled liquid with suitable material.

Methods for Clean Up: Eliminate all ignition sources. Use equipment rated for use around combustible materials. Oil soaked rags may spontaneously combust; place in appropriate disposal container.

Other Information: There are no special reporting requirements for spills of this material.

Section 7: HANDLING AND STORAGE

Handling

Keep away from heat, sparks, and flame. Open container slowly to release pressure caused by temperature variations. Do not allow this material to come in contact with eyes. Avoid prolonged contact with skin. Use in well ventilated areas. Do not breathe vapors. As with any chemical, employees should thoroughly wash hands with soap and water after handling this material.

Storage

Product may be packaged in phenolic-lined, steel containers or fluorinated plastic containers. Store in well ventilated area. Storage temperature should not exceed 110°F (43°C) for extended periods of time. Keep container closed when not in use. Air should be excluded from partially filled containers by displacing with nitrogen or carbon dioxide. Do not cut, drill, grind or weld on or near this container; residual vapors may ignite.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

VeruSOL N/E (N/E – Not Established)

Engineering Controls: Provide ventilation. Keep away from sparks and flames.

Eye/Face Protection: Wear safety glasses or goggles.

Skin Protection: Nitrile gloves are recommended. Boots, apron, or bodysuits should be worn as necessary.

Respiratory Protection: Not normally required. If adequate ventilation is unavailable, use NIOSH approved air-purifying respirator with organic vapor cartridge or canister.

General Hygiene Considerations: As with any chemical, wash hands thoroughly after handling. Have eyewash facilities immediately available.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Color: Light yellow.

Odor: Citrus odor.

Physical State: Liquid.

Boiling Point: >212°F (>100°C)

Specific Gravity: 0.968 to 0.985 @ 77°F (25°C)

Vapor Pressure: <2mmHg @ 68°F (20°C)

Flash Point: 130°F (54.4°C)

Solubility in Water: Soluble.

Evaporation Rate: Medium to fast.

Volatile Organic Compound (VOC) Content: 10-30% by volume.

Note: These specifications represent a typical sample of this product, but actual values may vary.

Certificates of Analysis and Specification Sheets are available upon request.

Section 10: STABILITY AND REACTIVITY

Stability: Stable.

Conditions to Avoid: Keep away from heat, sparks and flames.

Incompatible Materials: None

Hazardous Decomposition Products: None

Possibility of Hazardous Reactions: None

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Section 11: TOXICOLOGICAL INFORMATION

Acute Effects

An ingredient has been shown to have low oral toxicity (LD₅₀>5 g/kg) and low dermal toxicity (LD₅₀> 5g/kg) when tested on rabbits, It also showed low toxicity by inhalation (RD₅₀>1 g/kg) when tested on mice. Product may be a skin and eye irritant. Inhalation may cause irritation of the nose, throat, and respiratory tract.

Chronic Effects

This product is not classified as a carcinogen by OSHA, IARC or NTP. This product has not been shown to produce genetic changes when tested on bacterial or animal cells. This product does not contain known reproductive or developmental toxins. Prolonged or repeated exposure can cause drying or dermatitis of skin. Improper storage and handling may lead to the formation of a possible skin sensitizer.

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity: There is no information available at this time for this product. However, a spill may produce significant toxicity to aquatic organisms and ecosystems. Some studies have shown that certain bacteria and fungi have the ability to degrade terpenes, decreasing their toxicity to fish. When spilled, this product may act as an oil, causing a film, sheen, emulsion or sludge at or beneath the surface of a body of water.

Persistence/Degradability: Product is expected to be readily biodegradable.

Bioaccumulation/Accumulation: No appreciable bioconcentration is expected in the environment.

Mobility in Environment: Product volatilize rapidly.

Section 13: DISPOSAL CONSIDERATIONS

Disposal: Incinerate or dispose of in accordance with Local, State, and Federal Regulations. Taking regulations into consideration, waste may be incinerated or handled through EPA Spill Control Plan via landfill or dilution. Empty containers must be triple-rinsed prior to disposal.

Section 14: TRANSPORT INFORMATION

US DOT Shipping Classification

Hazard Class: 3

Identification No.: UN2319

Packing Group: III

Label/Placard: exception §173.150(f) applies.

TDG Status: Hazardous

IMO Status: Hazardous

IATA Status: Hazardous

The listed transportation classification does not address regulatory variations due to changes in package size, mode of shipment or other regulatory descriptions.

Section 15: REGULATORY INFORMATION

Global Inventories

The components of this product are included in the following inventories:

USA (TSCA)

Canada (DSL)

Australia (AICS)

Korea (KECL)

Philippines (PICCS)

Proposition 65: California Safe Drinking Water and Toxic Enforcement Act of 1986

This product is not known to contain any chemicals currently listed as carcinogens or reproductive toxins under California Proposition 65 at levels which would be subject to the proposition.

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Section 16: OTHER INFORMATION

NFPA 704: National Fire Protection Association

Health – 1 (slight hazard)

Fire – 2 (moderate hazard)

Reactivity – 0 (minimal hazard)

Legend

OSHA – United States Occupational Health and Safety Administration

IARC – International Agency for Research on Cancer

NTP – National Toxicology Program

NIOSH – National Institute for Occupational Safety and Health

EPA – United States Environmental Protection Agency

Caution: The user should conduct his/her own experiments and establish proper procedures and control before attempting use on critical parts.

The information contained herein is based on current knowledge and experience: no responsibility is accepted that the information is sufficient or correct in all cases. Users should consider these data only as a supplement to other information obtained by the user. No warranty is expressed or implied regarding the accuracy of this data, the results to be obtained from the use thereof, or that any such use will not infringe any patent. Users should make independent determinations of suitability and completeness of information from all sources to assure proper use and disposal of these materials, the safety and health of employees and customers, and the protection of the environment. This information is furnished upon the condition the person receiving it shall determine the suitability for the particular purpose. This MSDS is to be used as a guideline for safe work practices and emergency response.