



TETRA Technologies, Inc.

Material Safety Data Sheet

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

SECTION 1: CHEMICAL PRODUCT - COMPANY IDENTIFICATION

TETRA Technologies, Incorporated

25025 I-45 North

The Woodlands, Texas 77380

(281) 367-1983

(800) 327-7817

(800) 424-9300 - CHEMTREC (24 Hour Emergency Response)

PRODUCT: TETRA O-Sol

TRADE NAMES/SYNONYMS: TETRA Pseudosol-2500

CHEMICAL FAMILY: Surfactant

MSDS CREATION DATE: 09 APR 97

MSDS REVISION DATE: 16 APR 97

SECTION 2: COMPOSITION, INFORMATION ON INGREDIENTS

COMPONENTS: Proprietary Mixture of Surfactants

TOXIC AND HAZARDOUS COMPONENTS: None

CAS NUMBER: None

RTECS: None

PERCENTAGE: Proprietary

PROBABLE CONTAMINANT: Not known

SECTION 3: HAZARDS IDENTIFICATION

NFPA RATINGS: (SCALE 0-4): HEALTH=1, FIRE=2, REACTIVITY=0

EMERGENCY OVERVIEW: White to off-white liquid. Product may cause irritation to the eyes and skin. Breathing high concentrations may cause irritation of the nose, throat and upper respiratory tract. Harmful if ingested. Use with adequate ventilation.

**TETRA Technologies, Inc.****Material Safety Data Sheet**

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

POTENTIAL HEALTH EFFECTS:**INHALATION:**

Short Term Effects: Breathing high concentrations may cause irritation of the nose, throat and upper respiratory tract.

Long Term Effects: No information or data is available.

SKIN CONTACT:

Short Term Effects: May produce irritation with prolonged contact with product.

Long Term Effects: No information or data is available.

EYE CONTACT:

Short Term Effects: May cause irritation.

Long Term Effects: No information or data is available.

INGESTION:

Short Term Effects: May be harmful if ingested.

Long Term Effects: No information or data is available.

CARCINOGEN STATUS:

OSHA: No **NTP:** No **IARC:** No

SECTION 4: FIRST AID MEASURES

INHALATION: Remove from exposure area to fresh air immediately. If breathing has stopped, perform artificial resuscitation. Treat symptomatically and supportively. Get medical attention immediately.

SKIN CONTACT: Remove contaminated clothing and shoes. Wash affected area with soap or mild detergent and large amounts of water until no evidence of product remains (at least 15-20 minutes). If symptoms develop or persist seek medical attention.

EYE CONTACT: Flush eyes immediately with large amounts of water or normal saline solution, occasionally lifting upper and lower lids until no evidence of product remains (at least 15-20 minutes). If symptoms develop or persist seek medical attention.

INGESTION: Treat symptomatically and supportively. Get medical attention immediately. If vomiting occurs, keep head lower than hips to prevent aspiration.

NOTE TO PHYSICIAN: Antidote:

No specific antidote. Treat symptomatically and supportively.

**TETRA Technologies, Inc.****Material Safety Data Sheet**

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

SECTION 5: FIRE FIGHTING MEASURES

FIRE AND EXPLOSION HAZARD: Fire hazard when exposed to heat or flame. Flash Point is 150°F (Pensky Martens closed cup); Flammability Classification is LEL 1.0, UEL 8.0 @ 60°F.

EXTINGUISHING MEDIA: Dry chemical, carbon dioxide, water spray, regular foam or sand. For larger fires, use water spray, fog or regular foam (1996 North American Emergency Response Guidebook, RSPA P 5800.7).

FIREFIGHTING: Move product from fire area if you can without risk. Extinguish fire using agent suitable for type of surrounding fire and/or chemicals. Cool sides of drums with water if feasible. Avoid breathing vapors; keep upwind.

HAZARDOUS COMBUSTION PRODUCTS: Thermal decomposition products may include toxic oxides of carbon.

SECTION 6: ACCIDENTAL RELEASE MEASURES

OCCUPATIONAL SPILL: Do not touch spilled material. Eliminate all sources of ignition. Stop leak if you can without risk. For spills, take up with sand or other absorbent material and place into containers for disposal. Move container(s) from spill area. For larger spills, dike far ahead of spill for later disposal. Deny entry to nonessential personnel and isolate hazard.

SECTION 7: HANDLING AND STORAGE

Observe all federal, state and local regulations when storing this product. Store away from incompatible materials.

SECTION 8: EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE LIMITS: No occupational exposure limits have been established by OSHA/ACGIH/NIOSH for this product.

VENTILATION: Provide local exhaust ventilation system.

EYE PROTECTION: Wear safety glasses with side shields or safety goggles/shield to prevent contact with this product.

EMERGENCY WASH FACILITIES: Where there is any possibility that an employee's eyes and/or skin may be exposed to this product, an eye wash fountain and safety shower should be available.

CLOTHING: Wear appropriate protective clothing and equipment to prevent repeated or prolonged skin contact with this product.

GLOVES: Wear appropriate protective gloves to prevent contact with this product.

**TETRA Technologies, Inc.****Material Safety Data Sheet**

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

RESPIRATOR: If a respirator is utilized, the selection must be based on contamination levels found in the work place and specific to the job assignment. Do not exceed the working limits of the respirator. Respirators must also be jointly approved by the National Institute for Occupational Safety and Health and the Mine Safety and Health Administration (NIOSH-MSHA). These respirators are ranked from minimum to maximum respiratory protection as listed below:

- Any dust mask;
- Any dust and mist respirator with a full facepiece;
- Any air-purifying full facepiece respirator with a high-efficiency organic vapor cartridge;
- Any powered air-purifying respirator with a tight-fitting facepiece and high-efficiency organic vapor cartridge;
- Any Type 'C' supplied-air respirator with a full facepiece operated in pressure-demand or other positive-pressure mode or with a full facepiece, helmet or hood operated in continuous-flow mode;
- Any self-contained breathing apparatus with a full facepiece operated in pressure-demand or other positive-pressure mode.

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

DESCRIPTION: White to off-white liquid

BOILING POINT: 340°F @ 760 mmHg

FREEZING POINT: No data available

SPECIFIC GRAVITY: 0.92

SOLUBILITY in WATER: Moderate at 25°F (by weight %)

VOLITILE: No data available

EVAPORATION RATE: Less than 1 (Butyl Acetate = 1)

VAPOR PRESSURE: Less than 3 (mm Hg @ 20°C)

VAPOR DENSITY: No data available

**TETRA Technologies, Inc.****Material Safety Data Sheet**This MSDS Sheet complies with the style format specified by ANSI Z400.1-1993

SECTION 10: STABILITY AND REACTIVITY**REACTIVITY:** Stable under normal temperatures and pressures. Product will burn in a fire.**INCOMPATIBILITIES:** None known**HAZARDOUS DECOMPOSITION:** Thermal decomposition products may include toxic oxides of carbon.**POLYMERIZATION:** Hazardous polymerization has not been reported to occur under normal temperatures and pressures.**SECTION 11: TOXICOLOGICAL INFORMATION****TOXICITY DATA:** No data are available for TETRA O-Sol**CARCINOGEN STATUS:** No data available.**TARGET EFFECTS:** No data available.**INHALATION:****Acute Exposure:** No data available.**Chronic Exposure:** No data available.**SKIN CONTACT:****Acute Exposure:** No data available.**Chronic Exposure:** No data available.**EYE CONTACT:****Acute Exposure:** No data available.**Chronic Exposure:** No data available.**INGESTION:****Acute Exposure:** No data available.**Chronic Exposure:** No data available.**SECTION 12: ECOLOGICAL INFORMATION****ENVIRONMENTAL IMPACT RATING (0-4):** No data available.**ACUTE AQUATIC TOXICITY:** No data available.**DEGRADABILITY:** No data available.**LOG BIOCONCENTRATION FACTOR (BCF):** No data available.**LOG OCTANOL/WATER PARTITION COEFFICIENT:** No data available.**SECTION 13: DISPOSAL INFORMATION**

Observe all federal, state and local regulations when disposing of this product.

**TETRA Technologies, Inc.****Material Safety Data Sheet**

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

SECTION 14: TRANSPORT INFORMATION

U.S. DOT Shipping Name: Combustible liquid, n.o.s.

U.S. DOT Hazard Class or Division: Combustible liquid

U.S. DOT Identification Number: NA 1993

U.S DOT Packaging Group: III

U.S. DOT Label(s) Required: None

Reportable Quantity: Not applicable

U.S. DOT Packaging Authorizations:

Exceptions: 49 CFR 173.150

Non-Bulk Packing: 49 CFR 173.203

Bulk Packaging: 49 CFR 173.241

1996 North American Emergency Response Guidebook-Guide Number: 128

SECTION 15: REGULATORY INFORMATION

	TSCA STATUS:	Yes
40 CFR 302.4	CERCLA SECTION 103:	No
40 CFR 355.30	SARA SECTION 302:	No
40 CFR 355.40	SARA SECTION 304:	No
40 CFR 372.65	SARA SECTION 313:	No
29 CFR 1910.119	OSHA Process Safety	No
	California Proposition 65	No
40 CFR 370.21	SARA HAZARD CATEGORIES, SARA SECTIONS 311.312	
	ACUTE HAZARD:	No
	CHRONIC HAZARD:	No
	FIRE HAZARD:	No
	REACTIVITY HAZARD:	No
	SUDDEN RELEASE HAZARD:	No

SECTION 16: OTHER INFORMATION

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

**TETRA Technologies, Inc.****Material Safety Data Sheet**

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

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 user's 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, Incorporated 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.