

MATERIAL SAFETY DATA SHEET



1 CHEMICAL PRODUCT & COMPANY IDENTIFICATION

Trade Name **ZELEC 2-EHP**

Manufacturer Stepan Company
22 West Frontage Road
Northfield, IL 60093 USA

Telephone Numbers - 24 Hour Emergency Assistance

Medical	800-228-5635
Chemtrec	800-424-9300
Chemtrec Int'l	703-527-3887

Telephone Numbers - General Assistance

General	(847) 446-7500
---------	----------------

Product Class Surfactant

Product Number 2594

2 COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient Name	CAS Number	Percent
Zinc, ester phosphoric acid complex mixture	Confidential	100 %

3 HAZARDS IDENTIFICATION

Emergency Overview

Clear liquid, yellow color. Alcohol-like odor.

Warning! Irritant

May cause moderate to severe irritation to the eyes, skin, respiratory and gastrointestinal systems.

Health Effects: Eyes

Causes moderate eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.

Health Effects: Skin

Causes moderate skin irritation.

Health Effects: Inhalation

This product may cause irritation to the respiratory system.

Health Effects: Ingestion

This product may be harmful if it is swallowed.

4 FIRST AID MEASURES

Eyes

Immediately flush eyes with water for at least 15 minutes while holding eyelids open. Get medical attention or advice.

Skin

Immediately take off all contaminated clothing. Wash contaminated clothing before reuse. For skin contact flush with large amounts of water. Get medical attention or advice.

Inhalation

If symptoms are experienced, remove source of contamination or move victim to fresh air. If symptoms persist, get medical attention. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen. Seek medical attention.

Ingestion

If the material is swallowed, get immediate medical attention or advice. Do not induce vomiting.

5 FIRE FIGHTING MEASURES

Flash Point (> 93.3 °C), > 200 °F

Fire and Explosion Hazards

Toxic fumes may be released in case of fire.

Extinguishing Media

Dry chemical, foam, carbon dioxide.

Fire Fighting Equipment / Instructions

Firefighters should wear full fire-fighting turn-out gear (full Bunker gear) including NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

6 ACCIDENTAL RELEASE MEASURES

SPILL AND LEAK PROCEDURES

Emergency Action:

Isolate spill or leak area immediately. Keep unauthorized personnel away. Stay upwind. Keep out of low areas. Ventilate closed spaces before entering.

Wear appropriate personal protective equipment during cleanup. Do not touch or walk through spilled material. Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Large Spills: Dike ahead of liquid spill for later disposal. Prevent entry into waterways, sewers, basements or confined areas.

7 HANDLING & STORAGE

Handling Procedures

Do not get this material in your eyes, on your skin, or on your clothing. Do not inhale vapors or mists of this product. Wash thoroughly after work using soap and water. As with all chemicals, good industrial hygiene practices should be followed when handling this material.

Storage Procedures

Store in a segregated and approved area. Keep this material in a cool, well-ventilated place. Keep the container tightly closed and dry. Do not handle or store near an open flame, heat or other sources of ignition.

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls

Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.

Personal Protective Equipment: Eyes/Face

Wear chemical goggles; face shield (if splashing is possible).

Personal Protective Equipment: Skin

Use impervious gloves. Wear suitable protective clothing.

Personal Protective Equipment: Respiratory

If vapors are present or irritation is experienced, NIOSH approved respiratory protection for organic vapors should be worn.

Personal Protective Equipment: General

Eye wash fountain and emergency showers are recommended.

9 PHYSICAL & CHEMICAL PROPERTIES

Flash Point	(> 93.3 °C), > 200 °F
Boiling Point	(> 98.9 °C), > 210 °F
Specific Gravity	(1.005 g/ml), 8.36 lb/gal @ 25 C
Percent Volatile	< 1 % (w/w)
Vapor Density	Not available.
Viscosity	138 cps @ 25 C
Evaporation Rate	< 1 compared to water
pH Value	4.36 @ 1% 50/50 IPA/H ₂ O

Appearance and Odor

Clear liquid, yellow color. Alcohol-like odor.

10 STABILITY & REACTIVITY

Chemical Stability

Stable under normal conditions.

Conditions to Avoid

Keep away from heat, ignition sources and incompatible materials.

Incompatibility

Strong acids, alkalies and oxidizing agents.

Hazardous Decomposition

Upon decomposition, this product may emit phosphorous oxides. Carbon monoxides and carbon dioxide.

11 TOXICOLOGICAL INFORMATION

Carcinogenicity

Not listed as carcinogenic according to IARC, NTP or OSHA.

12 ECOLOGICAL INFORMATION

Ecotoxicity

No data available on finished product.

13 DISPOSAL CONSIDERATIONS

Disposal Instructions

Treatment, storage, transportation and disposal must be in accordance with applicable Federal, State/Provincial and Local regulations. Regulations may vary in different locations. Characterization and compliance with applicable laws are the responsibility solely of the generator.

14 TRANSPORT INFORMATION

DOT Proper Shipping Name Refer to bill of lading or container label for DOT or other transportation hazard classification, if any.

15 REGULATORY INFORMATION

U.S. Federal Regulations

_Phosphoric acid, 2-ethylhexyl ester **12645-31-7**

TSCA (Toxic Substances Control Act) - Section 8(a) - PAIR - Reporting List Effective 10/29/90; Reporting 12/27/90

TSCA (Toxic Substances Control Act) - Section 8(d) - 716.120(d) - Health and Saf Effective 10/29/90, Sunset 11/09/93

Ingredient Name	CAS Number	Percent
Zinc, ester phosphoric acid complex mixture	Confidential	100 %

Inventories

All components of this product are listed on the following inventories:U.S.A.(TSCA), Canada(N_DSL), Europe(EINECS/ELINCS/Polymer/NLP), Korea(ECL), Philippines(PICCS)

Reportable Quantity (RQ) of this product is 250000 pounds based upon _Phosphoric acid(7664-38-2) which yielded the lowest resultant RQ according to the following formula: CERCLA ingredient RQ / % of that ingredient in the product.

16 OTHER INFORMATION

Disclaimer

Disclaimer: Nothing contained herein grants or extends a license, express or implied, in connection with patents, issued or pending, of the manufacturer or others. The information contained herein is based on the manufacturer's own study and the works of others. The manufacturer makes no warranties, expressed or implied, as to the accuracy, completeness, or adequacy of the information contained herein. The manufacturer shall not be held liable (regardless of fault) to the vendee's employees, or anyone for any direct, special or consequential damages arising out of or in connection with the accuracy, completeness, adequacy or furnishing of such information.

HAZARD RATINGS	HMIS	NFPA
Health	2	2
Flammability	1	1
Reactivity	1	1
PPE	X	

Completed On12/19/2006Replaces Sheet Dated08/06/2003

Completed ByProduct Safety & Compliance