



Material Safety Data Sheet

RHODAPHOS TEP HP

Date Prepared: 7/09/08

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1. PRODUCT AND COMPANY IDENTIFICATION

RHODIA INC.
RHODIA NOVECARE
CN7500
8 Cedar Brook Drive
Cranbury NJ 08512-7500

Emergency Phone Numbers:

FOR EMERGENCIES INVOLVING A SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT CONTACT: CHEMTREC (800-424-9300 within the United States or 703-527-3887 for international collect calls) or Rhodia CAERS (Communication and Emergency Response System) at 800-916-3232.

For Product Information:

(888) 776-7337

Chemical Name or Synonym:

TRIETHYL PHOSPHITE; TEP

2. HAZARDS IDENTIFICATION

A. EMERGENCY OVERVIEW:

Physical Appearance and Odor:

clear, colorless / liquid, characteristic odor.

Warning Statements:

WARNING!! FLAMMABLE LIQUID. MAY CAUSE SKIN AND EYE IRRITATION.

B. POTENTIAL HEALTH EFFECTS:

Acute Eye:

Not expected to cause significant irritation to the eyes.

Acute Skin:

Not expected to cause significant irritation to the skin.

Acute Inhalation:

Not expected to cause significant irritation to the lungs, upper respiratory tract or nose.

Acute Ingestion:

Low acute oral toxicity. May cause nausea, vomiting, diarrhea.

Chronic Effects:

This product does not contain any ingredient designated by IARC, NTP, ACGIH or OSHA as probable or suspected human carcinogens.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS Reg Number	OSHA Hazard	% WT/WT
PHOSPHOROUS ACID, TRIETHYL ESTER	122-52-1	Y	> 96
PHOSPHONIC ACID, DIETHYL ESTER	762-04-9	Y	< 3
PHOSPHORIC ACID, TRIETHYL ESTER	78-40-0	Y	< 1
ETHANOL	64-17-5	Y	< 0.5

4. FIRST AID MEASURES**FIRST AID MEASURES FOR ACCIDENTAL:****Eye Exposure:**

Hold eyelids open and flush with a steady, gentle stream of water for at least 15 minutes. Seek medical attention if irritation develops or persists or if visual changes occur.

Skin Exposure:

In case of contact, immediately wash with plenty of soap and water for at least 5 minutes. Seek medical attention if irritation develops or persists. Remove contaminated clothing and shoes. Clean contaminated clothing and shoes before re-use.

Inhalation:

Remove victim from immediate source of exposure and assure that the victim is breathing. If breathing is difficult, administer oxygen, if available. If victim is not breathing, administer CPR (cardio-pulmonary resuscitation). Seek medical attention.

Ingestion:

Wash out mouth with water and keep at rest. Seek immediate medical attention. Do not induce vomiting unless instructed to do so by a physician.

MEDICAL CONDITIONS POSSIBLY AGGRAVATED BY EXPOSURE:

No specific information found.

NOTES TO PHYSICIAN:

All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Treat symptomatically. No specific antidote available.

5. FIRE FIGHTING MEASURES**FIRE HAZARD DATA:**

Flash Point:

52 C (125 F). Flammability Class: FLAMMABLE.

Method Used:

Setaflash Closed Cup

Flammability Limits (vol/vol%):**Lower:**

No Data

Upper:

No Data

Extinguishing Media:

Recommended: dry chemical, alcohol foam, carbon dioxide.

Special Fire Fighting Procedures:

Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing.

Unusual Fire and Explosion Hazards:

Containers may explode (due to the build-up of pressure) when exposed to extreme heat. Smoke and fumes are extremely irritating to eyes, nose, throat and lungs.

Hazardous Decomposition Materials (Under Fire Conditions):

oxides of phosphorus

oxides of carbon

6. ACCIDENTAL RELEASE MEASURES

Evacuation Procedures and Safety:

Ventilate closed spaces before entering. Eliminate all sources of ignition until the area is determined to be free from explosion or fire hazards. Wear appropriate protective gear for the situation. See Personal Protection information in Section 8. Evacuate and isolate spill area.

Containment of Spill:

Dike spill using absorbent or impervious materials such as earth, sand or clay. Cover spill area with foam to reduce vapors. Follow procedure described below under Cleanup and Disposal of Spill. Collect and contain contaminated absorbent and dike material for disposal.

Cleanup and Disposal of Spill:

Use non-sparking tools. Pump any free liquid into an appropriate closed container (see Section 7: Handling and Storage). Absorb with an inert, non-combustible absorbent. Shovel up into an appropriate closed container (see Section 7: Handling and Storage). Clean up residual material by washing area with water. Collect washings for disposal. Decontaminate tools and equipment following cleanup.

Environmental and Regulatory Reporting:

Do not flush to drain. Runoff from fire control or dilution water may cause pollution. Prevent material from entering public sewer system or any waterways. Spills may be reportable to the National Response Center (800-424-8802) and to state and/or local agencies.

7. HANDLING AND STORAGE

Minimum/Maximum Storage Temperatures:

Not Available

Handling:

Avoid breathing vapors. Avoid direct or prolonged contact with skin and eyes. Use nonsparking tools and grounded/bonded equipment and containers when transferring.

Storage:

Contact with air causes degradation. Store in an area that is clean, diked, dry, well-ventilated, away from ignition sources, away from combustible material, oxidizers, Store in tightly closed containers.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Introductory Remarks:

These recommendations provide general guidance for handling this product. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. While developing safe handling procedures, do not overlook the need to clean equipment and piping systems for maintenance and repairs. Waste resulting from these procedures should be handled in accordance with Section 13: Disposal Considerations.

Assistance with selection, use and maintenance of worker protection equipment is generally available from equipment manufacturers.

Exposure Guidelines:

Exposure limits represent regulated or recommended worker breathing zone concentrations measured by validated sampling and analytical methods, meeting the regulatory requirements. The following limits apply to this material, where, if indicated, S=skin and C=ceiling limit:

ETHANOL

	Notes	TWA	STEL
ACGIH		1000 ppm	
OSHA		1000 ppm	
OSHA		1900 mg/cu m	

Engineering Controls:

Where engineering controls are indicated by use conditions or a potential for excessive exposure exists, the following traditional exposure control techniques may be used to effectively minimize employee exposures.

Respiratory Protection:

When respirators are required, select NIOSH/MSHA approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industrial recommendations.

Eye/Face Protection:

Eye and face protection requirements will vary dependent upon work environment conditions and material handling practices. Appropriate ANSI Z87 approved equipment should be selected for the particular use intended for this material.

It is generally regarded as good practice to wear a minimum of safety glasses with side shields when working in industrial environments.

Skin Protection:

Skin contact should be prevented through use of suitable protective clothing, gloves and footwear, selected with regard for use conditions and exposure potential. Consideration must be given both to durability as well as permeation resistance.

Work Practice Controls:

Personal hygiene is an important work practice exposure control measure and the following general measures

should be taken when working with or handling this material:

- (1) Do not store, use, and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored.
- (2) Wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics, or using the toilet.
- (3) Wash exposed skin promptly to remove accidental splashes or contact with this material.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical properties here represent typical properties of this product. Contact the business area using the Product Information phone number in Section 1 for its exact specifications.

Physical Appearance:

clear, colorless / liquid.

Odor:

characteristic odor.

pH:

Not Applicable

Specific Gravity:

0.969 at 20 C (68 F).

Density:

0.969 g/ml at 20 C (68 F).

Water Solubility:

slightly soluble

Melting Point Range:

Not Available

Boiling Point Range:

65 C (149 F) at 24 mmHg

Vapor Pressure:

Not Available

Vapor Density:

Not Available

10. STABILITY AND REACTIVITY

Chemical Stability:

This material is stable under normal handling and storage conditions described in Section 7.

Conditions To Be Avoided:

heat

Materials/Chemicals To Be Avoided:

air
water
strong oxidizing agents

The Following Hazardous Decomposition Products Might Be Expected:

Decomposition Type: thermal

oxides of phosphorus
oxides of carbon
Acids of phosphorus

Hazardous Polymerization Will Not Occur.

Avoid The Following To Inhibit Hazardous Polymerization:

none known

11. TOXICOLOGICAL INFORMATION

Acute Eye Irritation:

No test data found for product.

Acute Skin Irritation:

No test data found for product.

Acute Dermal Toxicity:

Toxicological Information and Interpretation:

LD50 - lethal dose 50% of test species, > 5000 mg/kg, rabbit.

Acute Respiratory Irritation:

No test data found for product.

Acute Inhalation Toxicity:

Toxicological Information and Interpretation:

LC50 - lethal concentration 50% of test species, > 21 mg/l/1 hr, rat.

Acute Oral Toxicity:

Toxicological Information and Interpretation:

LD50 - lethal dose 50% of test species, 4000 mg/kg, rat.

Chronic Toxicity:

This product contains the substances that are considered to be "probable" or "suspected" human carcinogens as follows:

Ingredient Name	Regulatory Agency Listing Carcinogen			
	OSHA	IARC	NTP	ACGIH
ETHANOL	No	1	No	No

Toxicological Information and Interpretation - MUTAGENICITY, **. Ames Test: Negative. - MUTAGENICITY, **. Mouse Lymphoma Negative.

12. ECOLOGICAL INFORMATION

Ecotoxicological Information:

No data found for product. May cause adverse environmental impact if material reaches waterways.

Chemical Fate Information:

No data found for product.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method:

Chemical additions, processing or otherwise altering this material may make the waste management information presented in this MSDS incomplete, inaccurate or otherwise inappropriate. Please be advised that state and local requirements for waste disposal may be more restrictive or otherwise different from federal laws and regulations. Consult state and local regulations regarding the proper disposal of this material.

EPA Hazardous Waste - YES

14. TRANSPORT INFORMATION

Transportation Status: IMPORTANT! Statements below provide additional data on listed DOT classification.

The listed Transportation Classification does not address regulatory variations due to changes in package size, mode of shipment or other regulatory descriptors.

US DOT:

Hazard Class..... 3
Shipping Name:
TRIETHYL PHOSPHITE
ID Number..... UN2323
Packing Group.... III
Emergency Guide #.... 130

TDG:

Hazard Class..... 3
Shipping Name: TRIETHYL PHOSPHITE
ID Number..... UN2323
Packing Group.... III

IMO:

Hazard Class..... 3
Shipping Name: TRIETHYL PHOSPHITE
ID Number..... UN2323
Packing Group.... III

IATA:

Hazard Class..... 3
Shipping Name: TRIETHYL PHOSPHITE
ID Number..... UN2323
Packing Group.... III

15. REGULATORY INFORMATION

Inventory Status

Inventory	Status
UNITED STATES (TSCA)	Y
CANADA (DSL)	Y
EUROPE (EINECS/ELINCS)	Y
AUSTRALIA (AICS)	Y
JAPAN (MITI)	Y
SOUTH KOREA (KECL)	Y

Y = All ingredients are on the inventory.

E = All ingredients are on the inventory or exempt from listing.

P = One or more ingredients fall under the polymer exemption or are on the no longer polymer list. All other ingredients are on the inventory or exempt from listing.

N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing.

FEDERAL REGULATIONS

Inventory Issues:

All functional components of this product are listed on the TSCA Inventory.

SARA Title III Hazard Classes:

Fire Hazard	- YES
Reactive Hazard	- NO
Release of Pressure	- NO
Acute Health Hazard	- NO
Chronic Health Hazard	- NO

OTHER FEDERAL REGULATIONS:

Weapons Precursor Regulations:

This product is regulated by the U.S. Department of Commerce under the provisions of the Chemical Weapons Convention (15 CFR Parts 730-774).

STATE REGULATIONS:

This product does not contain any components that are regulated under California Proposition 65.

16. OTHER INFORMATION

National Fire Protection Association Hazard Ratings--NFPA(R):

0	Health Hazard Rating--Minimal
2	Flammability Rating--Moderate
1	Instability Rating--Slight

National Paint & Coating Hazardous Materials Identification System--HMIS(R):

0	Health Hazard Rating--Minimal
2	Flammability Rating--Moderate
1	Reactivity Rating--Slight

Reason for Revisions:

Change and/or addition made to Section 5.

Key Legend Information:

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

TLV - Threshold Limit Value

PEL - Permissible Exposure Limit

TWA - Time Weighted Average

STEL - Short Term Exposure Limit

NTP - National Toxicology Program

IARC - International Agency for Research on Cancer

ND - Not determined

RHODIA - Rhodia Established Exposure Limits

Disclaimer:

The information herein is given in good faith but no warranty, expressed or implied, is made.

**** End of MSDS Document ****