



Material Safety Data Sheet

VI-SIL V-04R

Date Prepared: 11/15/01

Supersedes Date: 7/11/96

1. PRODUCT AND COMPANY DESCRIPTION

RHODIA INC.
SILICONES
CN 7500
Prospect Plains Road
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:

(800) 356-7560

Chemical Name or Synonym:

PRIMER

2. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS Reg Number	OSHA Hazard	Percentage
VM & P NAPHTHA	64741-41-9	N	60 - 65
TETRAETHYL ORTHOSILICATE	78-10-4	Y	25 - 30
TITANIUM SALT	*****	N	5 - 10
BUTANOL	71-36-3	Y	1 - 3
ETHYL POLYSILICATE	11099-06-2	N	1 - 3

3. HAZARDS IDENTIFICATION

A. EMERGENCY OVERVIEW:

Physical Appearance and Odor:

red / liquid, petroleum-like odor.

Warning Statements:

WARNING!! FLAMMABLE LIQUID. SEVERE EYE IRRITANT. SKIN IRRITANT. HARMFUL IF INHALED OR SWALLOWED.

B. POTENTIAL HEALTH EFFECTS:

Acute Eye:

Severe irritant. Can cause redness, tissue destruction, irritation.

Acute Skin:

Low acute dermal toxicity. Irritant. Can cause redness, dryness, loss of natural oils, irritation.

Acute Inhalation:

Harmful if inhaled. May cause upper respiratory tract irritation, dizziness, headache.

Acute Ingestion:

Harmful if ingested. Can cause nausea, vomiting, loss of appetite, abdominal pain, loss of coordination.

Chronic Effects:

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

4. FIRST AID MEASURES

FIRST AID MEASURES FOR ACCIDENTAL:

Eye Exposure:

In case of contact, immediately absorb excess with clean absorbent cloth or cotton. Then, 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:

Immediately wipe excess material off skin with a dry cloth; then wash skin with plenty of soap and water. Seek medical attention if irritation develops or persists.

Inhalation:

If respiratory irritation or distress occurs remove victim to fresh air. Seek medical attention if respiratory irritation or distress continues.

Ingestion:

If victim is conscious and alert, give 1-2 glasses of water to drink. Do not give anything by mouth to an unconscious person. Seek medical attention. Do not leave victim unattended.

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:

< 27 C (80 F). Flammability Class: FLAMMABLE.

Method Used:

Tagliabue Closed Cup

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

1.1

Upper:

25

Extinguishing Media:

Recommended: dry chemical, foam, carbon dioxide.

Special Fire Fighting Procedures:

Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing. Cool containers exposed to fire with water.

Unusual Fire and Explosion Hazards:

Product will burn under fire conditions. Vapors may travel a considerable distance to a source of ignition and flash back along vapor trail. Closed containers may explode (due to the build-up of pressure) when exposed to extreme heat.

Hazardous Decomposition Materials (Under Fire Conditions):

formaldehyde

oxides of carbon

silica (crystalline)

6. ACCIDENTAL RELEASE MEASURES

Evacuation Procedures and Safety:

Wear appropriate protective gear for the situation. See Personal Protection information in Section 8. CAUTION: Spilled material may make the floor slippery. Do not leave traces of product on floors, ladders, etc., as this may present a slipping hazard.

Containment of Spill:

Follow procedure described below under Cleanup and Disposal of Spill.

Cleanup and Disposal of Spill:

Absorb with an inert absorbent. Scrape up and place in appropriate closed container (see Section 7: Handling and Storage). Clean up residual material with an appropriate solvent like paint thinner or mineral spirits, provided that there is good ventilation and no sources of ignition.

Environmental and Regulatory Reporting:

Do not flush to drain.

7. HANDLING AND STORAGE

Minimum/Maximum Storage Temperatures:

Not Available

Handling:

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

Storage:

Store in tightly closed containers. Store in an area that is clean, dry, well-ventilated, away from combustible material, away from ignition sources, away from incompatible materials (see Section 10. Stability and Reactivity).

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.

This product can form formaldehyde vapors when heated to temperatures above 150 degrees C in the presence of air. Formaldehyde is a potential cancer hazard, a known skin and respiratory sensitizer, and an irritant to the eyes, nose, throat, skin, and digestive system. Safe handling conditions may be maintained by keeping vapor concentrations within the OSHA Permissible Exposure Limit for formaldehyde.

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:

TETRAETHYL ORTHOSILICATE

	Notes	TWA	STEL
ACGIH		85 mg/cu m	
ACGIH		10 ppm	
OSHA		10 ppm	
OSHA		85 mg/cu m	

BUTANOL

	Notes	TWA	STEL
ACGIH	S		152 mg/cu m
ACGIH	S		50 ppm
OSHA	C,S	150 mg/cu m	
OSHA	C,S	50 ppm	

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: general area dilution/ exhaust ventilation.

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.

Under normal conditions, in the absence of other airborne contaminants, the following devices should provide protection from this material up to the conditions specified by the appropriate OSHA, WHMIS or ANSI standard(s): Air-purifying (half-mask/ full-face) respirator with cartridges/canister approved for use against organic vapors.

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 minimized through use of gloves and suitable long-sleeved clothing (i.e., shirts and pants). 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:

red / liquid.

Odor:

petroleum-like odor.

pH:

Not Applicable

Specific Gravity:

0.83 at 25 C (77 F).

Water Solubility:

partially soluble

Melting Point Range:

Not Available

Boiling Point Range:

116 to 204 C (241 to 399 F) at 760 mmHg

Vapor Pressure:

< 5.9 mmHg at 20 C (68 F)

Vapor Density:

Not Available

Evaporation Rate:

< 1 (Butyl Acetate = 1)

10. STABILITY AND REACTIVITY

Chemical Stability:

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

Conditions To Be Avoided:

combustible materials
heat
open flame
spark
static electricity
water
extreme humidity

Materials/Chemicals To Be Avoided:

moisture
water
strong bases
strong acids
strong oxidizing agents

The Following Hazardous Decomposition Products Might Be Expected:

Decomposition Type: hydrolysis

ethanol
tetraethyl silicate

Decomposition Type: oxidative/thermal

formaldehyde

Hazardous Polymerization Will Not Occur.

Avoid The Following To Inhibit Hazardous Polymerization:

not applicable

11. TOXICOLOGICAL INFORMATION

Acute Eye Irritation:

The following data are for the specified ingredients.

Toxicological Information and Interpretation:

eye - eye irritation, rabbit. Severely irritating.

Acute Skin Irritation:

The following data is for the specified ingredient.

Toxicological Information and Interpretation:

skin - skin irritation, rabbit. Moderately irritating.

Acute Dermal Toxicity:

The following data is for the specified ingredients.

Toxicological Information and Interpretation:

LD50 - lethal dose 50% of test species, 3400 mg/kg, rabbit.

Acute Respiratory Irritation:

No test data found for product.

Acute Inhalation Toxicity:

The following data is for the specified ingredients.

Toxicological Information and Interpretation:

LC50 - lethal concentration 50% of test species, 8000 ppm/4 hr, rat.

Acute Oral Toxicity:

The following data is for the specified ingredients.

Toxicological Information and Interpretation:

LD50 - lethal dose 50% of test species, 790 mg/kg, rat.

Chronic Toxicity:

This product does not contain any substances that are considered by OSHA, NTP, IARC or ACGIH to be "probable" or "suspected" human carcinogens.

12. ECOLOGICAL INFORMATION

Ecotoxicological Information:

No data found for product.

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.

Container Handling and Disposal:

Any containers or equipment used should be decontaminated immediately after use.

EPA Hazardous Waste - YES**EPA RCRA HAZARDOUS WASTE CODES:**

"I" Ignitable.

14. TRANSPORTATION 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 Department of Transportation

Hazard Class..... 3
 Shipping Name:
 FLAMMABLE LIQUID, N.O.S.
 Technical Shipping Name:
 NAPHTHA
 ID Number..... UN1993
 Packing Group.... III
 Labels..... FLAMMABLE LIQUID
 Emergency Guide #.... 128

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	- YES
Chronic Health Hazard	- NO

SARA 313 Chemicals

BUTANOL (1 - 3%)

SARA Extremely Hazardous Substances (EHS)/CERCLA Hazardous Substances

Ingredient	CERCLA/SARA RQ	SARA EHS TPQ
BUTANOL	5000 lbs	

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):

- 3** Health Hazard Rating--Serious
- 3** Flammability Rating--Serious
- 0** Instability Rating--Minimal

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

- 3** Health Hazard Rating--Serious
- 3** Flammability Rating--Serious
- 0** Reactivity Rating--Minimal

Reason for Revisions:

Change and/or addition made to Section 3, Section 8.

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
RPI - 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 ****