

Material Safety Data Sheet

IGEPAL CO-520

Date Prepared: 9/27/04 Supersedes Date: 5/30/01

1. PRODUCT AND COMPANY DESCRIPTION

RHODIA INC. HOME, PERSONAL CARE & INDUSTRIAL INGREDIENTS 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) 973-7873

Chemical Name or Synonym:

NONYLPHENOXY POLY(ETHYLENEOXY)ETHANOL, BRANCHED

Molecular Formula:

 $C_{15}H_{23}O-(C_2H_4O)_nH$, n=5

2. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS Reg Number	OSHA Hazard	Percentage
ETHOXYLATED NONYLPHENOL, BRANCHED	68412-54-4	Υ	> 99.5
DIOXANE	123-91-1	Υ	0.0019
ETHYLENE OXIDE	75-21-8	Υ	0.0005
ACETALDEHYDE	75-07-0	Υ	< 0.0005

3. HAZARDS IDENTIFICATION

A. EMERGENCY OVERVIEW:

Physical Appearance and Odor: pale yellow viscous liquid, aromatic odor.

Warning Statements:

WARNING!! SEVERE EYE IRRITANT. SKIN IRRITANT.

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B. POTENTIAL HEALTH EFFECTS:

Acute Eye:

Severe irritant. Can cause redness, irritation.

Acute Skin:

Low acute dermal toxicity. Irritant. Can cause redness, inflammation, irritation, on prolonged contact.

Acute Inhalation:

Inhalation not likely. Mists may cause upper respiratory tract irritation.

Acute Ingestion:

Low acute oral toxicity. May cause nausea, diarrhea, abdominal cramps.

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:

Hold eyelids open and flush with a steady, gentle stream of water for at least 15 minutes. Seek medical attention.

Skin Exposure:

In case of contact, immediately wash with plenty of water for at least 15 minutes. Seek medical attention if irritation developes or persists. Remove contaminated clothing and shoes. Clean contaminated clothing and shoes before re-use.

Inhalation:

Inhalation is not an expected route of exposure. 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:

Skin contact may aggravate existing skin disease.

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:

> 93 C (200 F). Flammability Class: WILL BURN.

Method Used:

Pensky-Martens Closed Cup

Flammability Limits (vol/vol%): Lower: Upper:
No Data No Data

Extinguishing Media:

Recommended: dry chemical, carbon dioxide, foam.

Special Fire Fighting Procedures:

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

Unusual Fire and Explosion Hazards:

Product will burn under fire conditions.

Hazardous Decomposition Materials (Under Fire Conditions):

smoke

oxides of carbon

6. ACCIDENTAL RELEASE MEASURES

Evacuation Procedures and Safety:

Wear appropriate protective gear for the situation. See Personal Protection information in Section 8.

Containment of Spill:

Follow procedure described below under Cleanup and Disposal of Spill.

Cleanup and Disposal of Spili:

Absorb with an inert absorbent. Shovel up into an appropriate closed container (see Section 7: Handling and Storage).

Environmental and Regulatory Reporting:

Do not flush to drain. 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:

15 to 49 C (59 to 120 F)

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. In cold weather, this product may stratify and freeze. This does not damage the product. If freezing occurs, thaw and remix before using. Frozen material may be thawed in a warm room. Avoid localized overheating. Vent drums while heating. Mix thoroughly to assure homogeneity.

Ethylene oxide may collect in container head space. Although concentrations are expected to remain below established exposure limits, provide adequate ventilation when accessing or working with open containers and tanks.

Storage:

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

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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:

No exposure limits were found for this product or any of its ingredients.

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.

For reasonably foreseeable industrial end uses of this material, respiratory protection should not be necessary.

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.

Eye contact should be prevented through use of chemical safety glasses with side shields or splash proof goggles. An emergency eye wash must be readily accessible to the work area.

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:

- 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:

pale yellow viscous liquid.

Od	1	٠,
Vu		٠.

aromatic odor.

pH:

6 to 8 at 10 wt/wt%.

Specific Gravity:

1.03 at 25 C (77 F).

Water Solubility:

slightly soluble

Melting Point Range:

Not Available

Freezing Point Range:

< -33 C (-27 F)

Boiling Point Range:

> 200 C (392 F) at 760 mmHg

Vapor Pressure:

< 0.01 mmHg at 25 C (77 F)

Vapor Density:

Not Available

Percent Volatiles by Volume:

< 0.5

Viscosity:

viscosity (centipoises): 9 to 11 cps at 100 C (212 F). viscosity (centipoises): 170 to 270 cps at 25 C (77 F).

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 open flame spark

Materials/Chemicals To Be Avoided:

strong oxidizing agents strong reducing agents

The Following Hazardous Decomposition Products Might Be Expected:

Decomposition Type: thermal

smoke

oxides of carbon

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 similar or related products.

Toxicological Information and Interpretation:

eye - eye irritation, rabbit. Severely irritating.

Acute Skin Irritation:

The following data is for similar or related products.

Toxicological information and interpretation:

skin - skin irritation, rabbit. Moderately irritating.

Acute Dermal Toxicity:

No test data found for product.

Acute Respiratory Irritation:

No test data found for product.

Acute Inhalation Toxicity:

No test data found for product.

Acute Oral Toxicity:

The following data is for similar or related products.

Toxicological Information and Interpretation:

LD50 - lethal dose 50% of test species, 7400 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.

No additional test data found for product.

12. ECOLOGICAL INFORMATION

Ecotoxicological information:

Ecotoxological Information and Interpretation:

LC50 - lethal concentration 50% of test species, < 2.8 mg/l/96 hr, bluegill sunfish (Lepomis macrochirus).

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 - NO

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

Shipping Name: NOT REGULATED

15. REGULATORY INFORMATION

Inventory Status

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

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

SARA 313 Chemicals

GLYCOL ETHERS (<18.0%)

OTHER FEDERAL REGULATIONS:

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FDA Status:

This product meets the compositional requirements of:

- 21 CFR 175.105 ADHESIVES
- 21 CFR 176.180 COMP'TS OF PAPER/PAPERBOARD CONT./DRY FOOD
- 21 CFR 176.210 DEFOAMING AGENTS USED IN OF PAPER & PAPERBOARD
- 21 CFR 178.3400 EMULSIFIERS AND/OR SURFACE ACTIVE AGENTS

STATE REGULATIONS:

This product contains the following components that are regulated under California Proposition 65:

Ingredient Name	Cancer	Reprod.	No Sign. Risk LvI (ug/day)	
	List	List	California	RPI
DIOXANE	Υ	N	30	ND
ETHYLENE OXIDE	Y	Y	2	ND
ACETALDEHYDE	Y	N	90	ND

16. OTHER INFORMATION

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

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

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

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

Reason for Revisions:

Change and/or addition made to Section 1, Section 4, Section 11, Section 12, SARA 313 Information in Section 15, Regulatory Review and Update.

Key Legend Information:

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

TLV - Threshold Limit Value

PEL - Permissable 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 **