



Material Safety Data Sheet

Revision Date: 30 Jul 2009

1. PRODUCT AND COMPANY IDENTIFICATION

Product Description: EPOTUF® D808-XD-71
SAP ID(s): 2959; 2960; 181074
Material Code: 15039-00
Chemical Family: Polyester Resin
Intended Use: Coatings

Manufacturer/Supplier:
Reichhold, Inc.
Corporate Headquarters
P.O. Box 13582
Research Triangle Park, NC 27709
USA
Tel +1-919-990-7500
Fax +1-919-767-8602

Emergency Telephone (Chemtrec) 1-800-424-9300

Email: ProdSafe@reichhold.com

2. HAZARDS IDENTIFICATION

Emergency Overview:

WARNING!

Flammable Liquid

Vapors may form explosive mixtures with air

Vapor can travel to a source of ignition (spark or flame) and flash back

Appearance: Amber

Physical State: Liquid

Odor: Aromatic

Primary Routes of Entry Skin contact, Ingestion, Inhalation, Eye contact, Skin absorption.

Acute Effects

Eyes: Causes eye irritation.

Skin: Irritating to skin. Repeated exposure may cause skin dryness or cracking. Can be absorbed through skin.

Inhalation: Inhalation of vapours in high concentration may cause irritation of respiratory system. Inhalation of high vapor concentrations can cause CNS-depression and narcosis.

Ingestion: Ingestion (swallowing) may irritate the mouth, throat and stomach. Aspiration into lungs may cause chemical pneumonia and lung damage. Ingestion is not an anticipated route of exposure for this material in industrial use.

Chronic Effects:

This material contains a chemical which is listed by the International Agency for Research on Cancer (IARC) as a group 2B cancer causing agent (possibly carcinogenic to humans). The National Toxicology Program (NTP) has listed a chemical in this material as a substance that may reasonably be anticipated to be a human carcinogen. Exposure to organic solvents during pregnancy may cause an increased risk of birth defects.

Target Organ(s): Central nervous system (CNS), Kidney, Liver.

HMIS: Health: 2* Flammability: 3 Reactivity: 0

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS-No	Weight %	Status
Polyester Resin		68 - 70	Not Hazardous
2-Propanol	67-63-0	11 - 13	Hazardous

3. COMPOSITION/INFORMATION ON INGREDIENTS

Xylene	1330-20-7	7 - 9	Hazardous
Propylene glycol monomethyl ether	107-98-2	3 - 5	Hazardous
p-Xylene	106-42-3	2 - 3	Hazardous
Ethyl Benzene	100-41-4	2 - 3	Hazardous
Chlorendic acid	115-28-6	1 - 2	Hazardous

4. FIRST AID MEASURES

Skin Contact:	Wash off immediately with plenty of water for at least 15 minutes. Remove and wash contaminated clothing before re-use. Get medical attention if irritation develops or persists.
Eye Contact:	Move individual away from exposure. Immediately flush eyes with large quantities of clean water for at least 15 minutes. Get immediate medical attention.
Inhalation:	Remove victim to fresh air. Keep warm and quiet. If not breathing, give artificial respiration. If breathing is difficult, give oxygen by trained personnel. GET IMMEDIATE MEDICAL ATTENTION.
Ingestion:	DO NOT INDUCE VOMITING. ASPIRATION HAZARD. This material may enter the lungs during vomiting. Never give anything by mouth to an unconscious person. GET IMMEDIATE MEDICAL ATTENTION.

5. FIRE-FIGHTING MEASURES

Flammability:	Flammable liquid.		
Suitable Extinguishing Media:	Carbon dioxide (CO ₂), Alcohol-resistant foam, Dry chemical, Water spray, Do not use a solid water stream as it may scatter and spread fire.		
Hazardous Combustion Products:	Carbon monoxide, Carbon dioxide (CO ₂).		
Fire/Explosion Hazard:	Flammable. Vapors may form explosive mixtures with air. Flash back possible over considerable distance. Closed containers may rupture when exposed to extreme heat. Empty containers may retain product residue (liquid and/or vapor). Do not pressurize, cut, weld, braze, solder, drill, grind, or expose these containers to heat, flame, sparks, static electricity, or other sources of ignition as the container may explode and may cause injury or death.		
Protective Equipment and Precautions for Firefighters:	Wear self-contained breathing apparatus (SCBA) and full fire-fighting protective clothing. Thoroughly decontaminate all protective equipment after use. Evacuate all persons from the fire area to a safe location. Move non-burning material, as feasible, to a safe location as soon as possible. Fire fighters should be protected from potential explosion hazard while extinguishing the blaze. DO NOT extinguish a fire resulting from the flow of this flammable liquid until the flow of liquid is effectively shut off. This precaution will help prevent the accumulation of an explosive vapor-air mixture after the initial fire is extinguished. Use water spray to cool fire-exposed containers.		
NFPA Rating:	Health 2	Flammability 3	Instability 0

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:	Remove all sources of ignition. Use personal protective equipment. Ensure adequate ventilation. Keep people away from and upwind of spill/leak.
Environmental Precautions:	Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system.

Methods for Containment: Prevent spilled material from 1) contaminating soil, 2) entering sanitary sewers, storm sewers, and drainage systems, and 3) entering bodies of water or ditches that lead to waterways. Prevent spreading over a wide area (e.g. by containment or oil barriers).

Methods for Clean-up: Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

7. HANDLING AND STORAGE

Handling: Avoid breathing vapors or mists. Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing before re-use. Wash hands before breaks and immediately after handling the product. Ensure adequate ventilation. Remove all sources of ignition. Do not smoke. Ground and bond containers when transferring material. Use spark-proof tools and explosion-proof equipment.

Storage: Keep away from heat and sources of ignition. Keep containers tightly closed in a dry, cool and well-ventilated place.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limits

2-Propanol (CAS #: 67-63-0)

ACGIH TLV - TWA	200 ppm
ACGIH TLV - STEL	400 ppm
OSHA PEL - TWA	980 mg/m ³ 400 ppm
Canada - Alberta OELs	983 mg/m ³ (TWA) 1230 mg/m ³ (STEL)
Ontario OEL (TWA)	200 ppm
Ontario OEL (STEL)	400 ppm
British Columbia OELs	200 ppm (TWA) 400 ppm (STEL)
NIOSH IDLH	2000 ppm Immediately dangerous to life or health (IDLH)
Mexico OEL	1225 mg/m ³ (STEL)

Xylene (CAS #: 1330-20-7)

ACGIH TLV - TWA	100 ppm
ACGIH TLV - STEL	150 ppm
OSHA PEL - TWA	435 mg/m ³ 100 ppm
Canada - Alberta OELs	434 mg/m ³ (TWA) 651 mg/m ³ (STEL)
Ontario OEL (TWA)	435 mg/m ³
Ontario OEL (STEL)	650 mg/m ³
British Columbia OELs	100 ppm (TWA) 0.5 ppm (TWA) 150 ppm (STEL)
Mexico OEL	655 mg/m ³ (STEL)

Propylene glycol monomethyl ether (CAS #: 107-98-2)

ACGIH TLV - TWA	100 ppm
ACGIH TLV - STEL	150 ppm
Canada - Alberta OELs	369 mg/m ³ (TWA) 553 mg/m ³ (STEL)
Ontario OEL (TWA)	365 mg/m ³
Ontario OEL (STEL)	550 mg/m ³
British Columbia OELs	50 ppm (TWA) 75 ppm (STEL)

p-Xylene (CAS #: 106-42-3)

ACGIH TLV - TWA	100 ppm
ACGIH TLV - STEL	150 ppm
OSHA PEL - TWA	435 mg/m ³ 100 ppm

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Canada - Alberta OELs	434 mg/m ³ (TWA) 651 mg/m ³ (STEL)
Ontario OEL (TWA)	435 mg/m ³
Ontario OEL (STEL)	650 mg/m ³
British Columbia OELs	100 ppm (TWA) 0.5 ppm (TWA) 150 ppm (STEL)
NIOSH IDLH	900 ppm Immediately dangerous to life or health (IDLH)
Mexico OEL	655 mg/m ³ (STEL)
Ethyl Benzene (CAS #: 100-41-4)	
ACGIH TLV - TWA	100 ppm
ACGIH TLV - STEL	125 ppm
OSHA PEL - TWA	435 mg/m ³ 100 ppm
Canada - Alberta OELs	434 mg/m ³ (TWA) 543 mg/m ³ (STEL)
Ontario OEL (TWA)	435 mg/m ³
Ontario OEL (STEL)	540 mg/m ³
British Columbia OELs	100 ppm (TWA) 125 ppm (STEL)
NIOSH IDLH	800 ppm Immediately dangerous to life or health (IDLH)
Mexico OEL	545 mg/m ³ (STEL)

Legend

ACGIH - American Conference of Industrial Hygienists
 IDLH - Immediately Dangerous to Life or Health
 NIOSH - National Institute for Occupational Safety and Health
 OEL - Occupational Exposure Limit
 OSHA - Occupational Safety and Health Administration
 PEL - Permissible Exposure Limit
 STEL - Short Term Exposure Limit
 TWA - Time weighted average

Engineering Controls:

Use general ventilation to maintain airborne concentrations to levels that are below regulatory and recommended occupational exposure limits. Local ventilation may be required during certain operations. Use explosion-proof equipment.

Personal Protective Equipment**Eye/face Protection:**

Wear safety glasses with side shields and a faceshield or goggles and a faceshield. Ensure that eyewash stations and safety showers are close to the workstation location.

Skin Protection:

Gloves made of Viton®. Chemical resistant apron. Boots.

Respiratory Protection:

None required if hazards have been assessed and airborne concentrations are maintained below the exposure limits listed in Section 8. Wear an approved air-purifying respirator with organic vapor cartridges where airborne concentrations may exceed exposure limits in Section 8. Use an approved positive-pressure air-supplied respirator with emergency escape provisions if there is any potential for an uncontrolled release, airborne concentrations are not known, or any other circumstances where air-purifying respirators may not provide adequate protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:

Amber

Odor:

Aromatic

Odor Threshold:

20 ppm (Xylene)

Physical State:

Liquid

pH:

Not applicable

Flash Point:

28°C / 83°F

Flash Point Method:

Seta closed cup

Autoignition Temperature:

530°F - 980°F / 277°C - 527°C

Boiling Point/Range:

180°F - 279°F / 82°C - 137°C

Freezing point:

< 0°F / -18°C

9. PHYSICAL AND CHEMICAL PROPERTIES

Flammability Limits in Air

Lower:	1.0%
Upper:	12%
Specific Gravity:	1.288 - 1.312 @ 25°C
Solubility:	Insoluble
Evaporation Rate:	0.83 - 1.4 (BuAc = 1)
Vapor Pressure:	8 - 32 mmHg @ 68°F/20°C
Vapor Density:	2.1 - 3.66 (Air = 1)
Percent volatile:	28 - 30 % by weight
VOC Content:	429 g/l (calculated) product as supplied
Viscosity:	5 - 10 Stokes @ 25°C

10. STABILITY AND REACTIVITY

Chemical Stability:	Stable under normal conditions.
Conditions to Avoid:	Keep away from open flames, hot surfaces and sources of ignition. Contamination.
Incompatible Materials:	Strong oxidizing agents. Strong acids. Strong bases. Aldehydes. Amines. Halogenated compounds. Isocyanates.
Hazardous Decomposition Products:	Carbon monoxide. Carbon dioxide (CO ₂). Hydrocarbons.
Hazardous Polymerization:	Hazardous polymerisation does not occur.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Xylene

LD50 Oral	4300 mg/kg - rat
LD50 Dermal	2000 mg/kg - rabbit
LC50 Inhalation	6350 ppm (4 hours) - rat

Propylene glycol monomethyl ether

LD50 Oral	6600 mg/kg - rat
LD50 Dermal	13000 mg/kg - rabbit
LC50 Inhalation	15000 ppm - rat (4 hours)

p-Xylene

LD50 Oral	4300 mg/kg - rat
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Ethyl Benzene

LD50 Oral	3500 mg/kg - rat
LD50 Dermal	17800 mg/kg - rabbit

Chlorendic acid

LD50 Oral	1770 mg/kg - rat
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Chronic Toxicity

Ethyl Benzene

IARC	Group 2B - Possibly Carcinogenic to Humans
ACGIH	Group A3-Animal carcinogen.

Chlorendic acid

NTP	Reasonably anticipated to be human carcinogen
IARC	Group 2B - Possibly Carcinogenic to Humans

11. TOXICOLOGICAL INFORMATION

Legend:	IARC - International Agency for Research on Cancer ACGIH - American Conference of Industrial Hygienists NTP - National Toxicology Program
Repeated dose toxicity:	Repeated overexposure to xylene via the inhalation route, has caused a hearing loss in laboratory animals.
Developmental Toxicity:	High exposures to xylene in some animal studies have been reported to cause health effects on the developing embryo/fetus. These effects were often at levels toxic to the mother. The significance of these findings to humans has not been determined. Ethyl Benzene has been shown to be fetotoxic in laboratory animals at maternally toxic levels.
Target Organ(s):	Central nervous system (CNS), Kidney, Liver.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects: Harmful to aquatic organisms.
Bioaccumulation: No information available.

Xylene

Toxicity to Aquatic Invertebrates	LC50 (24h) 15 mg/l (Daphnia magna)
Freshwater Fish	LC50 (96h) 13.5 mg/l (Oncorhynchus mykiss)

Propylene glycol monomethyl ether

Freshwater Algae	EC50 (7 days) > 1000 mg/l (Selenastrum capricornutum)
Toxicity to Aquatic Invertebrates	LC50 (48h) 23300 mg/l (Daphnia magna)
Freshwater Fish	LC50 (96h) 20800 mg/l (Pimephales promelas)

Ethyl Benzene

Bioconcentration factor (BCF)	1.9 (Carassius auratus)
Freshwater Fish	LC50 (96h) 12.1 mg/l (Pimephales promelas)

Chlorendic acid

Freshwater Fish	LC50 (96h) 422.7 mg/l (Lepomis macrochirus)
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13. DISPOSAL CONSIDERATIONS

Waste Disposal Method:	Hazardous waste. Can be incinerated, when in compliance with local regulations.
Contaminated Packaging:	Empty containers should be taken for local recycling, recovery or waste disposal.
US EPA Waste Number:	D001 (IGNITABLE): When discarded in its purchased form, this material would be regulated under 40 CFR 261.21 as EPA Hazardous Waste Number D001 based on the characteristic of ignitability.

14. TRANSPORT INFORMATION

DOT

UN-No	UN1866
Proper Shipping Name:	RESIN SOLUTION
Hazard Class	3
Packing Group	III
NAERG:	127

TDG

UN-No	UN1866
Proper Shipping Name	RESIN SOLUTION

14. TRANSPORT INFORMATION

Hazard Class CLASS 3
Packing Group PG III
NAERG: 127

IATA

UN-No UN1866
Proper Shipping Name RESIN SOLUTION
Hazard Class 3
Packing Group III
Packing Instructions 309, 310
NAERG: 127

IMDG/IMO

UN-No UN1866
Proper Shipping Name RESIN SOLUTION
Hazard Class CLASS 3
Packing Group PG III
EmS No. F-E, S-E

15. REGULATORY INFORMATION

International Inventories

TSCA Inventory Status: All components of this material are listed on the US Toxic Substances Control Act (TSCA) inventory.

Canadian Inventory Status: All components of this material are listed on the Canadian Domestic Substances List (DSL).

Australian Inventory Status: This product contains one or more chemicals currently not on the Australian Inventory of Chemical Substances.

Korean Inventory Status: This product contains only chemicals which are currently listed on the Korean Chemical Substances List.

Philippine Inventory: This product contains one or more chemicals currently not on the Philippine Inventory of Chemicals and Chemical Substances.

Japan ENCS: This product contains one or more chemicals currently not on the Japanese Inventory of Existing and New Chemical Substances.

Chinese IECS: This product contains one or more chemicals currently not on the Chinese Inventory of Existing Chemical Substances.

New Zealand Inventory: This product contains only chemicals which are currently listed on the New Zealand Inventory of Chemicals.

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Component	CAS-No	Weight %	SARA 313 Status
2-Propanol	67-63-0	11 - 13	Listed.
Xylene	1330-20-7	7 - 9	Listed.
p-Xylene	106-42-3	2 - 3	Listed.
Ethyl Benzene	100-41-4	2 - 3	Listed.
Chlorendic acid	115-28-6	1 - 2	Listed.

SARA 311/312 Hazardous Categorization

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	Yes
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

TSCA 12(b) - Export Notification:

This material contains the following substances that are subject to TSCA 12(b):

Component	CAS-No	TSCA 12b Status
p-Xylene	106-42-3	1.0 % TSCA Section: 4 One-Time Export Notification only.

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product contains the following HAPs:

Component	CAS-No	Weight %	HAPS data
Xylene	1330-20-7	7 - 9	Listed.
p-Xylene	106-42-3	2 - 3	Listed.
Ethyl Benzene	100-41-4	2 - 3	Listed.

CERCLA

This product contains the following reportable quantities:

Component	CERCLA/SARA	CERCLA 302 EHS RQs
2-Propanol	100 lbs	
Xylene	100 lbs	Not Listed
Propylene glycol monomethyl ether	100 lbs	
p-Xylene	100 lbs	Not Listed
Ethyl Benzene	1000 lbs	Not Listed

State Regulations**California Proposition 65**

W A R N I N G: This material contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazard Class

B2 Flammable liquid
D2A Very toxic materials
D2B Toxic materials

Component	CAS-No	WHMIS Ingredient Disclosure List
2-Propanol	67-63-0	1%
Propylene glycol monomethyl ether	107-98-2	1%
p-Xylene	106-42-3	0.1%
Ethyl Benzene	100-41-4	0.1%

16. OTHER INFORMATION

Prepared By:

Reichhold Product Regulatory Department

Revision Date: 30 Jul 2009

Revision Number: 1

Revision Summary None

Former date: 13 July 2005

This information is provided in good faith and is correct to the best of Reichhold's knowledge as of the date hereof and is designed to assist our customers; however, Reichhold makes no representation as to its completeness or accuracy. Our products are intended for sale to industrial and commercial customers. We require customers to inspect and test our products before use and to satisfy themselves as to suitability for their specific applications. Any use which Reichhold customers or third parties make of this information, or any reliance on, or decisions made based upon it, are the responsibility of such customer or third party. Reichhold disclaims responsibility for damages, or liability, of any kind resulting from the use of this information. THERE ARE NO WARRANTIES OR REPRESENTATIONS, EXPRESS OR IMPLIED, INCLUDING THOSE OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THIS INFORMATION OR TO THE PRODUCT IT DESCRIBES. IN NO EVENT SHALL REICHHOLD BE LIABLE FOR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES.

End of MSDS