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 East Lansing, MI 48823-5691

8am to 5pm Phone: (517) 351-5900  
 24-Hour Emergency Phone: 1-888-354-3323

**Effective Date:** 8/8/05

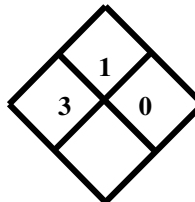
**Material Safety Data Sheet**

MSDS No: 30361

**1. PRODUCT IDENTIFICATION**

**Trade Name:** Ren-Weld 5169 Hardener

**Chemical Family:** Polyol



NFPA RATING

<b>Health:</b>	<b>3</b>
<b>Flammability:</b>	<b>1</b>
<b>Reactivity:</b>	<b>0</b>
<b>Personal Protection:</b>	

HMIS RATING

**Intended Use or Product Type:** Red Polyurethane Adhesive Hardener.

**2. COMPOSITION / INFORMATION ON INGREDIENTS**

O S H A	CAS No.	CHEMICAL IDENTITY	EXPOSURE LIMITS				MFR.	CARCINOGEN STATUS		
			ACGIH		OSHA			IARC	NTP	OSHA
			TWA	STEL	PEL	STEL				
*	84-74-2	1,2-Benzenedicarboxylic acid, dibutyl ester Dibutyl phthalate	5 mg/m3	NE	5 mg/m3	NE	NE	NR	NR	NR
*	9046-10-0	Poly[Oxy(Methyl-1,2-Ethanediy)], .alpha.-(2-Aminomethylethyl)-.omega.-(2-Aminomethylethoxy)-Polyoxypropylenediamine	NE	NE	NE	NE	NE	NR	NR	NR

\* = OSHA Hazardous Ingredient

**3. HAZARDS IDENTIFICATION**

**Emergency Overview:** Corrosive - Causes skin burns. Causes eye irritation. Harmful if absorbed through skin. May have effect on the liver.

**Primary Route(s) of Entry:** Dermal; heated product may produce inhalable vapors.

**Chronic:** This product contains dibutyl phthalate which may cause adverse reproductive effects in laboratory animals. The relevance to humans is not known.

**4. FIRST AID MEASURES**

**Ingestion:** If conscious, give 2 - 4 glasses of water to drink. Do not induce vomiting. Call a physician.

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**Skin:** Immediately wash with soap and water. Remove contaminated clothing and launder before reuse. Destroy contaminated shoes.

**Inhalation:** Remove to fresh air. Call a physician.

**Eyes:** Immediately flush eyes with water for at least 15 minutes. Call a physician.

**Overexposure Effects:** Corrosive - causes skin burns. Causes eye irritation. Harmful if absorbed through skin. May have effect on the liver.

**Medical Conditions Aggravated by Exposure:** Skin and eye conditions.

**Additional Information:** Referral to a physician is recommended if there is any question about the seriousness of any injury.

## **5. FIRE FIGHTING MEASURES**

<b>Flash Point:</b>	> 200°F (> 93 °C)
<b>Flash Point Method Used:</b>	Estimated
<b>Flammable Limits in Air (Lower - % by volume):</b>	Not established
<b>Flammable Limits in Air (Upper - % by volume):</b>	Not established

**Fire Fighting Extinguishing Media:** Carbon dioxide, dry chemical, foam, water.

**Fire Fighting Equipment:** Use self-contained breathing apparatus.

**Fire and Explosion Hazards:** Decomposition and combustion products may be toxic.

## **6. ACCIDENTAL RELEASE MEASURES**

**Accidental Release Measures:** Remove spillage by absorbing in absorbent material.

## **7. HANDLING AND STORAGE**

**Signal Word:** Danger!

**Precautions:** Corrosive - causes skin burns. Can cause eye irritation. Can be harmful if absorbed through skin. Do not get on skin or on clothing. Avoid contact with eyes. Wash thoroughly after handling.

**Other Handling Information:** Nuisance dust may be generated when sanding or sawing cured material.

## **8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

**Skin Protection:** Wear impermeable gloves.

**Respiratory Protection:** Use NIOSH approved organic vapor cartridge respirator when vapor/mist exposure is likely.

**Eye Protection:** Wear splash-proof chemical goggles.

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**Engineering Controls:** General mechanical and local exhaust in accordance with ACGIH recommendations.

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Color:</b>	Red
<b>Physical State:</b>	Liquid
<b>Solubility in Water:</b>	Slight
<b>Specific Gravity:</b>	1.12 (water = 1)
<b>Boiling Point:</b>	Not Determined
<b>Evaporation Rate:</b>	Not Determined
<b>Vapor Density:</b>	Not Determined
<b>pH:</b>	Not Determined

**Percent Volatile:** Negligible.

## **10. STABILITY AND REACTIVITY**

**Conditions to Avoid:** Excessive heat for prolonged periods of time.

**Stability:** Stable.

**Incompatibility:** Strong oxidizers, acids and bases.

**Hazardous Decomposition Products:** Combustion may form toxic materials, such as carbon dioxide, carbon monoxide.

**Hazardous Polymerization:** Will not occur.

## **11. TOXICOLOGICAL INFORMATION**

**Acute Dermal Toxicity (LD50):** Component(s) are toxic, 200 - 1000 mg/kg (rabbit).

**Skin Irritation:** Corrosive. Causes burns.

**Eye Irritation:** Irritant.

**Mutagenicity:** Test for Benzenamine, 4,4'-methylenebis[2-ethyl-:

Ames Test - inactive without S9 and active with S9 activation

BALB/C3T3 Transformation Assay - inactive

BALB/C3T3 Transformation Assay with S9 activation - inactive

Chinese Hamster Ovary HGPRT Assay with activation - negative

Chinese Hamster Ovary Chromosomal Aberration:

without S9 activation - negative

with S9 activation - positive

Rat Hepatocyte DNA Repair Assay - positive

In Vitro Liver Microsome N-Hydroxylation Assay - positive

**Chronic Exposure Effects:** For Benzenamine, 4,4'-methylenebis[2-ethyl-:

There is experimental evidence that analogous substances have caused tumors in rodents.

Analogous substances have caused damage to liver and thyroid in test animals.

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**Additional Information:** This product contains dibutyl phthalate which may cause adverse reproductive effects in laboratory animals. The relevance to humans is not known.

## 12. ECOLOGICAL INFORMATION

## 13. DISPOSAL CONSIDERATIONS

**Waste Disposal Method:** Consult qualified local or corporate personnel for method that will comply with local, state and federal health and environmental regulations.

## 14. TRANSPORT INFORMATION

**DOT: Non-Bulk**

<b>Proper Shipping Name:</b>	Polyamines, liquid, corrosive, N.O.S.
<b>Technical Shipping Name (If n.o.s.):</b>	Polyoxypropylenediamine
<b>Hazard Class:</b>	8
<b>ID Number:</b>	UN 2735
<b>Packing Group:</b>	PG II
<b>Label:</b>	Corrosive

## 15. REGULATORY INFORMATION

### US Federal Regulations:

**Occupational Safety and Health Act (OSHA):** This Material Safety Data Sheet (MSDS) has been prepared in compliance with the federal OSHA Hazard Communication Standard 29 CFR 1910.1200. This product is considered to be a hazardous chemical under that standard.

**Resource Conservation and Recovery Act (RCRA):** Not a hazardous waste under RCRA (40 CFR 261).

**SARA Title III: Section 313 Toxic Chemical List (TCL):** This product contains a toxic chemical(s) for routine annual toxic chemical release reporting under section 313 (40 CFR 372). This information must be included in all MSDS's copied or distributed for this material.

Chemical Name: Aluminum Oxide (Al<sub>2</sub>O<sub>3</sub>)

Common Name: Alumina

Percent in Composition: 3.1314 % by wt

Comment:

Chemical Name: 1,2-Benzenedicarboxylic acid, dibutyl ester

Common Name: Dibutyl phthalate

Percent in Composition: 1.02 % by wt

Comment:

**TSCA Section 8(b) - Inventory Status:** All chemical components of this product are in compliance with TSCA inventory requirements.

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**TSCA Section 12(b) - Export Notification:** This product does not contain any chemical(s) that are subject to a Section 12(b) export notification.

### State Regulations:

**California Proposition 65:** This product does not contain any chemicals currently on the California list of Known Carcinogens and Reproductive Toxins.

**Pennsylvania Right-to-Know:** The following is required composition information:

Chemical Name: Poly[Oxy(Methyl-1,2-Ethanediy)], .alpha.-Hydro-.omega.-Hydroxy-, Ether with B-D-Fructofuranosyl .alpha.-D-Glucopyranoside

Common Name: Sucrose based polyether polyol

CAS Number: 9049-71-2

Comment: Not on Pennsylvania Hazardous Substance List

Chemical Name: Poly[oxy(methyl-1,2-ethanediy)], .alpha.,.alpha.',.alpha."-1,2,3-propanetriyltris[.omega.-hydroxy-

Common Name: Polyether triol

CAS Number: 25791-96-2

Comment: Not on Pennsylvania Hazardous Substance List

Chemical Name: Poly[oxy(methyl-1,2-ethanediy)], .alpha.-hydro-.omega.-hydroxy-

Common Name: Polypropylene Glycol

CAS Number: 25322-69-4

Comment: Not on Pennsylvania Hazardous Substance List

Chemical Name: Oxirane, methyl-, polymer with oxirane, ether with 1,2,3-propanetriol

Common Name: Polyether triol

CAS Number: 9082-00-2

Comment: Not on Pennsylvania Hazardous Substance List

Chemical Name: Poly[Oxy(Methyl-1,2-Ethanediy)], .alpha.-(2-Aminomethylethyl)-.omega.-(2-Aminomethylethoxy)-

Common Name: Polyoxypropylenediamine

CAS Number: 9046-10-0

Comment: Not on Pennsylvania Hazardous Substance List

Chemical Name: Silica

Common Name: Fumed Silica

CAS Number: 7631-86-9

Comment: Hazardous Substance

Chemical Name: Aluminum Oxide (Al<sub>2</sub>O<sub>3</sub>)

Common Name: Alumina

CAS Number: 1344-28-1

Comment: Environmental Hazardous Substance

Chemical Name: 1,2-Benzenedicarboxylic acid, dibutyl ester

Common Name: Dibutyl phthalate

CAS Number: 84-74-2

Comment: Environmental Hazardous Substance

## 16. OTHER INFORMATION

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**MSDS No:** 30361  
**Approved By:** Dianne Blessing  
**Title:** EHS Specialist

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