

**Performance
Polymers**

4917 Dawn Avenue
East Lansing, MI 48823-5691

8:30am to 4:30pm Phone: (517) 351-5900
24-Hour Health/Environmental Emergency Phone: 1-800-873-1138



Value beyond chemistry

Effective Date: 3/18/99

Material Safety Data Sheet

MSDS No: 5841

1. PRODUCT IDENTIFICATION

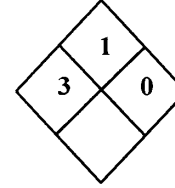
Trade Name: Hardener HW 5541

Chemical Family: Polyol

Synonyms:

RP 5541 HARDENER

Intended Use or Product Type: Polyurethane Adhesive Hardener.



NFPA RATING

| | |
|----------------------|---|
| HEALTH | 3 |
| FLAMMABILITY | 1 |
| REACTIVITY | 0 |
| PROTECTIVE EQUIPMENT | |

HMIS RATING

2. COMPOSITION / INFORMATION ON INGREDIENTS

| O S H A | CAS# | CHEMICAL IDENTITY | EXPOSURE LIMITS | | | | | CARCINOGEN STATUS | | | |
|------------------|------------|--|-------------------------|---------------|-------------|--------------|------|-------------------|-----|------|----|
| | | | ACGIH TWA | ACGIH STEL | OSHA PEL | OSHA STEL | MFR. | IARC | NTP | OSHA | |
| * | 14808-60-7 | Quartz (SiO ₂) Common Name: Crystalline Silica | .1 mg/m ³ | NE | NE | NE | NE | NE | Yes | Yes | NR |
| * | 3077-13-2 | 2-Propanol-1,1'-(phenylamino)bis Common Name: 2-Hydroxypropyl aniline | NE | NE | NE | NE | NE | NE | NR | NR | NR |
| * | 61788-32-7 | TERPHENYL, HYDROGENATED | .5 ppm | NE | NE | NE | NE | NE | NR | NR | NR |
| * | 694-83-7 | 1,2-Cyclohexanediamine Common Name: 1,2-Diaminocyclohexane | NE | NE | NE | NE | NE | NE | NR | NR | NR |
| | 94-96-2 | 2-Ethyl-1,3-hexanediol Common Name: 2-Ethyl-1,3-hexanediol | NE | NE | NE | NE | NE | NE | NR | NR | NR |

NE = Not Established NR = Not Reviewed * = OSHA Hazardous Ingredient

3. HAZARDS IDENTIFICATION

Emergency Overview: Danger! Corrosive - Causes eye burns and skin irritation.

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

Chronic: This product contains Crystalline silica. Repeated inhalation of respirable free Crystalline silica dust may cause delayed lung injury (silicosis) and cancer.

4. FIRST AID MEASURES

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

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: Danger! Corrosive. Causes eye burns and skin irritation.

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

| | |
|---|-----------------|
| Flash Point: | 205°F (96 °C) |
| Flash Point Method Used: | PMCC |
| Flammable Limits in Air (Lower - % by volume): | Not established |
| Flammable Limits in Air (Upper - % by volume): | 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

Precautions: Danger! Corrosive. Causes eye burns and skin irritation. Do not get in eyes. Avoid contact with skin and clothing. Do not breathe dust. Avoid breathing vapor or mist. Keep container closed. Use with adequate ventilation. Wash thoroughly after handling. Notice! Contains crystalline silica. Breathing dust may cause cancer and delayed lung injury.

Other Handling Information: Crystalline silica may be generated when machining cured products. Overexposure may create possible cancer and silicosis hazard.

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: Full face shield.

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

9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|-----------------------------|----------------------------|
| Color: | Red |
| Odor: | Mild |
| Physical State: | Liquid |
| Solubility in Water: | Slight |
| Vapor Pressure: | 3.7 mm Hg at 95°C (203 °F) |
| Specific Gravity: | 1.35 (water = 1) |
| Boiling Point: | Not Determined |
| Evaporation Rate: | Not Determined |
| Vapor Density: | Not Determined |
| pH: | Not Determined |

Percent Volatile: Less than 1%.

10. STABILITY AND REACTIVITY

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

Stability: Stable.

Incompatibility: Strong oxidizing agents.

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

Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Carcinogenicity: Notice! Contains crystalline silica. Breathing dust may cause cancer and delayed lung injury.

Skin Irritation: Irritant.

Eye Irritation: Regard as corrosive.

12. ECOLOGICAL INFORMATION

Effective Date: 3/18/99

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.

Additional Information: Disposal of Cured Product: This product when cured may contain very small quantities of organic mercury compounds. It is the responsibility of the user to determine if the selected disposal method complies with applicable regulations.

14. TRANSPORT INFORMATION**DOT: Non-Bulk****Proper Shipping Name:** Resin compounds, N.O.I.

Department of Transportation: Not regulated as a hazardous material by the U.S. Dept. of Transportation (DOT) 49 CFR 172.101 hazardous materials table.

15. REGULATORY INFORMATION

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): D 009 contains mercury.

SARA Title III: Section 313 Toxic Chemical List (TCL): This product does not contain a toxic chemical for routine annual 'Toxic Chemical Release Reporting' under Sec. 313 (40 CFR 372).

TSCA Section 8(b) - Inventory Status: Chemical components listed on TSCA Inventory.

TSCA Section 12(b) - Export Notification: This product contains the following chemicals that are subject to Section 12(b) export notification:

Chemical Name: CYCLOTETRASILOXANE, OCTAMETHYL-
CASRN: 556-67-2

California Proposition 65: The following is required composition information. This product contains the following chemical(s) which are currently listed on the California list of Known Carcinogens and Reproductive Toxins:

Chemical Name: Quartz (SiO₂)
Common Name: Crystalline Silica
CAS Number: 14808-60-7
Percent in Composition: 22.2799 % by wt
Comment: Warning! This chemical is known to the State of California to cause cancer.

Chemical Name: Phenyl Mercury Acetate
Common Name: Organomercury Catalyst
CAS Number: 62-38-4
Percent in Composition: 0.3 % by wt
Comment: Warning! This chemical is known to the State of California to cause birth defects or other reproductive harm.

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Chemical Name: Benzene, methyl-
Common Name: Toluene
CAS Number: 108-88-3
Percent in Composition: 0.0013 % by wt
Comment: Warning! This chemical is known to the State of California to cause birth defects or other reproductive harm.

Chemical Name: 1,3- BUTADIENE
CAS Number: 106-99-0
Percent in Composition: 0.0002 % by wt
Comment: Warning! This chemical is known to the State of California to cause cancer.

Chemical Name: Lead
CAS Number: 7439-92-1
Percent in Composition: 0.0001 % by wt
Comment: Warning! This chemical is known to the State of California to cause birth defects or other reproductive harm.

Chemical Name: Cadmium
CAS Number: 7440-43-9
Percent in Composition: 0 % by wt
Comment: Warning! This chemical is known to the State of California to cause cancer.

Chemical Name: Arsenic
CAS Number: 7440-38-2
Percent in Composition: 0 % by wt
Comment: Warning! This chemical is known to the State of California to cause cancer.

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

Chemical Name: Homopolymer, hydroxy terminated 1,3-butadiene
Common Name: Polybutadiene polyol
CAS Number: 69102-90-5
Comment: Not on Pennsylvania Hazardous Substance List

Chemical Name: Limestone
Common Name: Calcium Carbonate
CAS Number: 1317-65-3
Comment: Hazardous Substance

Chemical Name: Quartz (SiO₂)
Common Name: Crystalline Silica
CAS Number: 14808-60-7
Comment: Hazardous Substance

Chemical Name: 2-Propanol-1,1'-(phenylamino)bis
Common Name: 2-Hydroxypropyl aniline
CAS Number: 3077-13-2
Comment: Not on Pennsylvania Hazardous Substance List

Chemical Name: 1,3- HEXANEDIOL, 2-ETHYL-
CAS Number: 94-96-2
Comment: Not on Pennsylvania Hazardous Substance List

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Chemical Name: TERPHENYL, HYDROGENATED
CAS Number: 61788-32-7
Comment: Hazardous Substance

Chemical Name: Silica
Common Name: Fumed Silica
CAS Number: 7631-86-9
Comment: Hazardous Substance

16. OTHER INFORMATION

MSDS No: 5841
Approved By: Kenneth L. Payne
Title: E,H&S Manager

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