

Permatex, Inc.
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Material Safety Data Sheet

1. PRODUCT IDENTIFICATION

Product Name: 14600 COLD WELD BONDING COMPOUND 1 OZ. PART 1 RESIN
Item No: VC0075A
Product Type: Epoxy resin

2. COMPOSITION/INFORMATION ON INGREDIENTS

| Component | Weight% | ACGIH; TLV-TWA | OSHA PEL |
|-----------------------------------------------------------------------|---------|----------------------|----------------------|
| LIMESTONE 1317-65-3 | >50 | Not listed | 15 mg/m ³ |
| BISPHENOL A/EPICHLOROHYDRIN BASED EPOXY RESIN 25068-38-6 | 30-60 | Not listed | Not listed |
| TREATED SILICON DIOXIDE, SYNTHETIC, CRYSTALLINE-FREE 67762-90-7 | <5 | 10 mg/m ³ | Not listed |
| BENZYL ALCOHOL 100-51-6 | <5 | Not listed | Not listed |

3. HAZARDS IDENTIFICATION

Toxicity: May cause moderate eye irritation. May cause moderate skin irritation. May cause skin sensitization. May cause gastrointestinal irritation. Causes respiratory irritation..
Primary Routes of Entry: Eye and skin contact, ingestion, inhalation
Signs and Symptoms of Exposure: May cause pain, redness or swelling of the eyes and excessive blinking and tear production. Skin redness. Repeated skin contact may cause allergic skin reactions. Excessive accidental exposure may cause headache, dizziness, nausea and mild respiratory irritation.

| Component | Weight% | NTP | ACGIH Carcinogens | IARC |
|----------------------------|---------|-----------------------------------------------------------------------------------------------------------|-------------------|------|
| BENZYL ALCOHOL 100-51-6 | <5 | male rat-no evidence; female rat-no evidence; male mice- no evidence; female mice-no evidence | | |

Medical Conditions Recognized as Being Aggravated by Exposure: Preexisting eye, skin and respiratory disorders may be aggravated by overexposure to this product.

4. FIRST AID MEASURES

Ingestion: Do not induce vomiting. Slowly dilute with 1-2 glasses of water or milk and seek medical attention. Never give anything by mouth to an unconscious person.
Inhalation: Move to fresh air in case of accidental inhalation of vapors. Oxygen or artificial respiration if needed. Obtain medical attention.
Skin Contact: In case of contact, immediately flush skin with plenty of soap and water for at least 15 minutes. Get medical attention.
Eye Contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

5. FIRE FIGHTING MEASURES

Flash Point °F(C°): >400°F (204°C) PMCC
Recommended Extinguishing Media: Carbon Dioxide, Dry Chemicals, Foam.
Special Fire-Fighting Procedures: Firefighters should wear self-contained breathing apparatus and protective clothing to prevent all skin and eye contact. Cool closed containers exposed to fire with water spray.
Hazardous Products of Combustion: Oxides of carbon, Aldehydes, Acid vapours

5. FIRE FIGHTING MEASURES

| | |
|----------------------------------------|---------------------------------------------------------------------------------------------|
| Unusual Fire/Explosion Hazards: | Irritating or toxic gases or fumes may be generated by thermal decomposition or combustion. |
| Lower Explosive Limit: | Not determined. |
| Upper Explosive Limit: | Not determined. |

6. ACCIDENTAL RELEASE MEASURES

| | |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Spill Procedures: | Maintain good ventilation. Take up with an inert absorbent. Store in a closed waste container until disposal. Prevent from entering waterways or sewers. |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|

7. HANDLING AND STORAGE

| | |
|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Storage: | Store away from heat. Store in a cool, dry area. |
| Handling: | Avoid contact with skin and eyes. Avoid contact with vapors from heated material. Wash thoroughly after handling. Discard contaminated leather gloves and shoes. |

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

| | |
|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Eyes: | Safety glasses. |
| Skin: | Neoprene or nitrile gloves recommended. Wash contaminated clothing before re-use. |
| Ventilation: | General; local exhaust ventilation as necessary to control any air contaminants to within their exposure limits (or to the lowest feasible levels when limits have not been established) during the use of this product. |
| Respiratory Protection: | An approved organic vapor respirator should be worn when exposures are expected to exceed the applicable limits. |

9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|-------------------------------|------------------------|
| Appearance: | Black liquid |
| Odor: | Slight |
| Boiling Point: | >500°F (260°C) |
| pH: | Neutral |
| Solubility in Water: | Negligible |
| Specific Gravity: | 1.9 |
| VOC(Wt.%): | 0 |
| Vapor Pressure: | 0.03 mmHg @ 171°F |
| Vapor Density (Air=1): | >1 |
| Evaporation Rate: | <1 (butyl acetate = 1) |

10. STABILITY AND REACTIVITY

| | |
|------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| Chemical Stability: | Stable |
| Hazardous Polymerization: | Will not occur |
| Incompatibilities: | Strong Lewis or mineral acids, strong oxidizing agents, strong mineral and organic bases (especially primary and secondary aliphatic amines) |
| Conditions to Avoid: | Heat. Incompatible products. |
| Hazardous Products of Combustion: | Oxides of carbon, Aldehydes, Acid vapours |

11. TOXICOLOGICAL INFORMATION

See Section 3

12. ECOLOGICAL INFORMATION

No data available

13. DISPOSAL CONSIDERATIONS

| | |
|----------------------------------------|----------------------------------------------------------------------------------|
| Recommended Method of Disposal: | Disposal should be made in accordance with federal, state and local regulations. |
| US EPA Waste Number: | NH - Not a RCRA Hazardous Waste Material |

14. TRANSPORTATION INFORMATION

DOT (49CFR 172)

Ground Transport (DOT)

| | |
|---------------------------|---------------|
| DOT Shipping Name: | Not regulated |
| Hazard Class: | None |

Product Name: 14600 COLD WELD BONDING
COMPOUND 1 OZ. PART 1 RESIN

Item No: VC0075A

14. TRANSPORTATION INFORMATION

UN/ID Number: None

IATA

Proper Shipping Name: Not regulated
Class or Division: None
UN/ID Number: None

IMDG

Proper Shipping: Not regulated
Hazard Class: None
UN Number: None

Marine Pollutant: None

15. REGULATORY INFORMATION

SARA 313 Chemicals: The following component(s) is listed as a SARA Section 313 Toxic Chemical.

NONE

California Proposition 65: WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm

TSCA Inventory Status: All components of this product are listed (or exempt) on the EPA TSCA inventory.

16. OTHER INFORMATION

Estimated NFPA Rating: HEALTH 2, FLAMMABILITY 1, REACTIVITY 1.

Estimated HMIS Classification: HEALTH 2, FLAMMABILITY 1, PHYSICAL HAZARD 0

NFPA is a registered trademark of the National Fire Protection Assn.

HMIS is a registered trademark of the National Paint and Coatings Assn.

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Revision Date: February 08, 2011
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Material Safety Data Sheet

1. PRODUCT IDENTIFICATION

Product Name: 14600 COLD WELD BONDING COMPOUND 1 OZ. PART 2 HARDENER
Item No: VC0076A
Product Type: Curing agent

2. COMPOSITION/INFORMATION ON INGREDIENTS

| Component | Weight% | ACGIH; TLV-TWA | OSHA PEL |
|-----------------------------------------------------------------------|---------|-------------------------|----------------------|
| LIMESTONE 1317-65-3 | 50-70 | Not listed | 15 mg/m ³ |
| MERCAPTAN AMINE BLEND MIXTURE | 30-60 | Not listed | Not listed |
| BENZYL ALCOHOL 100-51-6 | <10 | Not listed | Not listed |
| TREATED SILICON DIOXIDE, SYNTHETIC, CRYSTALLINE-FREE 67762-90-7 | <10 | 10 mg/m ³ | Not listed |
| SILICA, QUARTZ 14808-60-7 | 0.1-1.0 | 0.025 mg/m ³ | Not listed |

3. HAZARDS IDENTIFICATION

Toxicity: The aminophenol can cause severe irritation and may be corrosive on prolonged contact. It may be a sensitizer. It can also be corrosive to eye tissue, leading to permanent injury including blindness. It may irritate the respiratory tract and may cause delayed lung damage upon overexposure to fumes or vapors. It can cause fatigue, muscular weakness, labored breathing or gastrointestinal irritation if swallowed .

Primary Routes of Entry: Eye and skin contact, ingestion, inhalation

Signs and Symptoms of Exposure: Eyes: Exposure to liquid or vapor causes mild eye irritation. Symptoms may include burning, tearing, redness, stinging, blurred vision and corneal injury. Repeated skin contact may cause allergic skin reactions. Ingestion may cause nausea and vomiting. Inhalation of mist or vapor can cause damage to the upper respiratory tract and to the tissue depending on severity of exposure. Effects can range from mild irritation of mucous membranes to severe pneumonitis and destruction of lung tissue.

| Component | Weight% | NTP | ACGIH Carcinogens | IARC |
|------------------------------|---------|-----------------------------------------------------------------------------------------------------------|------------------------------------|-----------------------------|
| BENZYL ALCOHOL 100-51-6 | <10 | male rat-no evidence; female rat-no evidence; male mice- no evidence; female mice-no evidence | | |
| SILICA, QUARTZ 14808-60-7 | 0.1-1.0 | | A2 - Suspected Human Carcinogen | Group 1; Monograph 68, 1997 |

Medical Conditions Recognized as Being Aggravated by Exposure: Preexisting eye, skin and respiratory disorders may be aggravated by overexposure to this product.

4. FIRST AID MEASURES

Ingestion: Do not induce vomiting. Slowly dilute with 1-2 glasses of water or milk and seek medical attention. Never give anything by mouth to an unconscious person.

Inhalation: Move to fresh air in case of accidental inhalation of vapours. Oxygen or artificial respiration if needed. Obtain medical attention.

Skin Contact: In case of contact, immediately flush skin with plenty of soap and water for at least 15 minutes. Get medical attention.

Eye Contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

5. FIRE FIGHTING MEASURES

| | |
|------------------------------------------|----------------------------------------------------------------------------------------------------------|
| Flash Point °F(C°): | >200°F (93.3°C) PMCC |
| Recommended Extinguishing Media: | Dry chemical, Carbon dioxide, Foam |
| Special Fire-Fighting Procedures: | Firefighters should wear self-contained breathing apparatus. Use water spray to cool exposed containers. |
| Hazardous Products of Combustion: | Oxides of carbon, Oxides of nitrogen, Sulfur dioxide |
| Unusual Fire/Explosion Hazards: | Irritating or toxic gases or fumes may be generated by thermal decomposition or combustion. |
| Lower Explosive Limit: | Not determined. |
| Upper Explosive Limit: | Not determined. |

6. ACCIDENTAL RELEASE MEASURES

| | |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Spill Procedures: | Maintain good ventilation. Take up with an inert absorbent. Store in a closed waste container until disposal. Prevent from entering waterways or sewers. |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|

7. HANDLING AND STORAGE

| | |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Storage: | Store in a cool, dry area. Store away from heat. Keep away from acids and oxidizers. |
| Handling: | Avoid prolonged skin contact. Keep away from eyes. Avoid contact with vapors from heated material. Wash thoroughly after handling. Discard contaminated leather gloves and shoes. |

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

| | |
|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Eyes: | Safety glasses. |
| Skin: | Neoprene or nitrile gloves recommended. |
| Ventilation: | General; local exhaust ventilation as necessary to control any air contaminants to within their exposure limits (or to the lowest feasible levels when limits have not been established) during the use of this product. |
| Respiratory Protection: | An approved organic vapor respirator should be worn when exposures are expected to exceed the applicable limits. |

9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|-------------------------------|--------------------------------------|
| Appearance: | Amber liquid |
| Odor: | Mercaptan |
| Boiling Point: | Not determined |
| pH: | 9.5 (5% solution or slurry in water) |
| Solubility in Water: | Negligible |
| Specific Gravity: | 1.13 |
| VOC(Wt.%): | 0 |
| Vapor Pressure: | <1 mmHg @ 70°F |
| Vapor Density (Air=1): | >1 |
| Evaporation Rate: | Not determined |

10. STABILITY AND REACTIVITY

| | |
|------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| Chemical Stability: | Stable |
| Hazardous Polymerization: | Will not occur |
| Incompatibilities: | Strong oxidizers, Acids, Peroxides, Reactive metals (e.g. Na, Ca, zinc), Sodium/calcium hypochlorite, Materials reactive with hydroxyl compounds |
| Conditions to Avoid: | Heat. |
| Hazardous Products of Combustion: | Oxides of carbon, Oxides of nitrogen, Sulfur dioxide |

11. TOXICOLOGICAL INFORMATION

See Section 3

12. ECOLOGICAL INFORMATION

No data available

13. DISPOSAL CONSIDERATIONS

| | |
|----------------------------------------|----------------------------------------------------------------------------------|
| Recommended Method of Disposal: | Disposal should be made in accordance with federal, state and local regulations. |
| US EPA Waste Number: | NH - Not a RCRA Hazardous Waste Material |

Product Name: 14600 COLD WELD BONDING
COMPOUND 1 OZ. PART 2
HARDENER

Item No: VC0076A

14. TRANSPORTATION INFORMATION

DOT (49CFR 172)

Ground Transport (DOT)

DOT Shipping Name: Not regulated
Hazard Class: None
UN/ID Number: None

IATA

Proper Shipping Name: Not regulated
Class or Division: None
UN/ID Number: None

IMDG

Proper Shipping: Not regulated
Hazard Class: None
UN Number: None

Marine Pollutant: None

15. REGULATORY INFORMATION

SARA 313 Chemicals: The following component(s) is listed as a SARA Section 313 Toxic Chemical.

NONE

California Proposition 65: WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm

TSCA Inventory Status: All components of this product are listed (or exempt) on the EPA TSCA inventory.

16. OTHER INFORMATION

Estimated NFPA Rating: HEALTH 3, FLAMMABILITY 1, REACTIVITY 1.

Estimated HMIS Classification: HEALTH 3, FLAMMABILITY 1, PHYSICAL HAZARD 0

NFPA is a registered trademark of the National Fire Protection Assn.

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