



MATERIAL SAFETY DATA SHEET

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PE80005 - PERMAX 800 URETHANE TOPCOAT - WHITE

1. Product And Company Identification	
Supplier HENRY COMPANY 909 N. Sepulvida Blvd., Suite 650 El Segundo, CA 90245-2724 Company Contact: Technical Services Telephone Number: (800) 486-1278 Web Site: www.henry.com www.bakor.com	Manufacturer HENRY COMPANY 909 N. Sepulvida Blvd., Suite 650 El Segundo, CA 90245-2724 Company Contact: Technical Services Telephone Number: (800) 486-1278 Web Site: www.henry.com www.bakor.com
Supplier Emergency Contacts & Phone Number CHEMTREC: (800) 424-9300 CHEMTREC: (703) 527-3887 CANUTEC: (613) 996-6666	Manufacturer Emergency Contacts & Phone Number CHEMTREC: (800) 424-9300 CHEMTREC: (703) 527-3887 CANUTEC: (613) 996-6666
Issue Date: 06/28/2010 Product Name: PE80005 - PERMAX 800 URETHANE TOPCOAT - WHITE Product Code: PE80005 Product/Material Uses Coating	

2. Composition/Information On Ingredients			
Ingredient Name	CAS Number		Percent Of Total Weight
aluminum hydroxide	21645-51-2		5 - 15
antimony trioxide	1309-64-4		1 - 2
benzene, 1-chloro-4-(trifluoromethyl)	98-56-6		15 - 25
decabromodiphenyl ether	1163-19-5		1 - 5
ethyl 3-ethoxypropionate	763-69-9		1 - 5
methylene bis(4-cyclohexylisocyanate)	5124-30-1		10 - 20
p-toluenesulfonyl isocyanate	4083-64-1		1 - 5
polymer blend	NA - Mixture		15 - 25
silica, quartz	14808-60-7		1 - 10
silicon dioxide	67762-90-7		1 - 5
titanium dioxide	13463-67-7		1 - 5
chlorinated phosphate ester	13674-84-5		1 - 5
xylene	1330-20-7		5 - 15
The ingredients listed above are for both Parts A and B.			

EMERGENCY OVERVIEW	
WARNING! Combustible liquid and vapor. Causes skin irritation. Causes eye irritation. Harmful if swallowed.	

EMERGENCY OVERVIEW - Continued

Harmful if inhaled.

Vapor and spray mist harmful. Causes nose and throat irritation. Overexposure may cause lung damage. May cause allergic skin and respiratory reaction. Effects may be permanent.

3. Hazards Identification

Primary Routes(s) Of Entry

Inhalation, ingestion, eye contact and skin absorption

Eye Hazards

Causes eye irritation.

Skin Hazards

Causes skin irritation. Sensitizer. Avoid exposure. If sensitized, repeated exposures will result in irritation, reddening, and rashes even for very low exposures.

Ingestion Hazards

Harmful if swallowed.

Inhalation Hazards

Repeated or prolonged exposure to vapors may cause respiratory tract irritation. May cause headaches, dizziness, anesthesia, drowsiness, unconsciousness and other central nervous system effects.

Subchronic (Target Organ Effects)

Central nervous system, Lungs, Eyes, Skin, Blood, Respiratory Tract

Chronic/Carcinogenicity Effects

Repeated or prolonged exposure to vapors may cause respiratory tract irritation. May cause headaches, dizziness, anesthesia, drowsiness, unconsciousness and other central nervous system effects.

Possible cancer hazard. Contains diantimony trioxide which may cause cancer based on animal data. (Risk of cancer depends on duration and level of exposure.) Possible cancer hazard. Contains silica and titanium dioxide which may cause cancer based on animal data. (Risk of cancer depends on duration and level of exposure.)

Inhalation: Isocyanate vapors or mist at concentrations above the TLV can irritate the mucous membranes in the respiratory tract causing runny nose, sore throat, coughing, chest discomfort, shortness of breath and reduced lung function. Exposure well above the TLV may lead to generally reversible bronchitis, bronchial spasm and pulmonary edema. Repeated overexposure causes sensitization in some individuals resulting in asthma-like symptoms on subsequent exposures below the TLV. Persons with preexisting bronchial hyperactivity can respond to concentrations below the

TLV with similar symptoms as well as an asthma attack. NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

Skin: Skin sensitization, characterized by redness, inflammation, itching and/or burning may result from prolonged or repeated contact with this material.

Conditions Aggravated By Exposure

- Skin allergies.
- Individuals with lung or breathing problems or prior reaction to isocyanates must not be exposed to vapor or spray mist.
- Lung disease
- Eye disorders.
- Respiratory disorders, including but not limited to asthma and bronchitis.

**PE80005 - PERMAX 800 URETHANE TOPCOAT -
WHITE****4. First Aid Measures****Eye**

In case of contact, hold eyelids apart and immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately if irritation develops and persists.

Skin

Remove contaminated clothing and shoes. Wash affected areas with soap and water. Consult a physician if irritation persists.

Ingestion

DO NOT INDUCE VOMITING. Never give anything by mouth to an unconscious victim. Call a physician or poison control center immediately.

Inhalation

Remove the person from the contaminated area to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention immediately. Asthmatic-type symptoms may develop and may be immediate or delayed several hours. Treatment is essentially symptomatic. Seek medical attention.

Note To Physician

Eyes - stain for evidence of corneal injury. If cornea is burned, instill antibiotic/steroid preparation frequently. Workplace vapors could produce reversible corneal epithelial edema impairing vision.

Skin - this compound is a potent skin sensitizer. Treat symptomatically as for contact dermatitis or thermal burn.

Ingestion - Treat symptomatically. There is no specific antidote. Inducing vomiting is contraindicated because of the irritating nature of the compound.

Inhalation - treatment is essentially symptomatic. An individual having a dermal or pulmonary sensitization reaction to this material should be removed from any exposure to Isocyanates. Throughout a symptomatic victim's treatment course, monitor the ECG, chest x-ray, pulse oximetry, peak airflows, arterial blood gases, serum electrolytes, and renal and hepatic function.

5. Fire Fighting Measures

Flash Point: 106 °F 41 °C

Flash Point Method: TCC

Autoignition Point: 932 °F 500 °C

Lower Explosive Limit: 1.0%

Upper Explosive Limit: 10.5%

Fire And Explosion Hazards

Thermal decomposition (burning) may release irritating, corrosive and/or toxic gases and vapors including carbon monoxide, carbon dioxide, hydrogen cyanides, ammonia, nitrogen oxides and irritating and toxic gases.

Extinguishing Media

Use alcohol resistant foam, carbon dioxide, dry chemical, or water spray when fighting fires. Water or foam may cause frothing if liquid is burning but it still may be a useful extinguishing agent if carefully applied to the fire. Do not direct a water stream directly into the hot burning liquid.

Fire Fighting Instructions

Do not enter fire area without proper protection including self-contained breathing apparatus and full protective equipment. Fight fire from a safe distance and a protected location due to the potential of hazardous vapors and decomposition products. Flammable component(s) of this material may be lighter than water and burn while floating on the surface.

**PE80005 - PERMAX 800 URETHANE TOPCOAT -
WHITE****6. Accidental Release Measures**

Evacuate non-emergency personnel. Isolate the area and prevent access. Remove ignition sources. Notify management. Put on protective equipment. Control source of the leak. Ventilate. Contain the spill to prevent spread into drains, sewers, water supplies, or soil. Major Spill or Leak (Standing liquid): Released material may be pumped into closed, but not sealed, metal container for disposal. Process can generate heat. Minor Spill or Leak (Wet surface): Cover spill area with suitable absorbent material (Kitty Litter, Oil-Dri®, etc). Saturate absorbent material with neutralization solution and mix. Wait 15 minutes. Collect material in open-head metal containers. Repeat applications of decontamination solution, with scrubbing, followed by absorbent until the surface is decontaminated. Check for residual surface contamination. Swype® test kits have been used for this purpose. Apply lid loosely and allow containers to vent for 72 hours to let carbon dioxide (CO₂) escape.

Notify applicable governmental authorities if release is reportable.

Additional Spill Procedures/Neutralization:

Neutralization solutions:

- (1) Colorimetric Laboratories Inc. (CLI) decontamination solution.
- (2) A mixture of 75% water, 20% non-ionic surfactant (e.g. Poly-Tergent SL-62, Tergitol TMN-10) and 5% n-propanol.
- (3) A mixture of 80% water, 20% non-ionic surfactant (e.g. Poly-Tergent SL-62, Tergitol TMN-10).
- (4) A mixture of 90% water, 3-8% ammonium hydroxide or concentrated ammonia, and 2% liquid detergent.

7. Handling And Storage**Handling And Storage Precautions**

Keep containers tightly closed. Store in a cool, dry, well-ventilated area away from heat, sparks, strong oxidizers, and open flames. Do not cut, puncture, grind, weld, braze, solder or drill on or near this container, as container may explode and/or emit toxic vapors. Use only with adequate ventilation.

8. Exposure Controls/Personal Protection**Engineering Controls**

Use with adequate general and local exhaust ventilation. When used outdoors, stay well away from building air intakes or close and seal the intakes to prevent product from entering building.

Eye/Face Protection

Safety glasses with side shields are recommended. Additional protection such as goggles or faceshield may be used to protect the face from splash or spray, depending on conditions of use.

Skin Protection

Use with chemical-protective gloves to prevent skin contact. Wash hands with soap and water after handling this product. Gloves should be decontaminated or discarded after use.

Respiratory Protection

Airborne exposures to hazardous vapors or mists must be considered when using this product.

The level of respiratory protection needed should be based on the evaluation of chemical exposures by a health or safety professional. If required, use a NIOSH-approved full face piece air purifying respirator with organic vapor cartridge and R95 particulate filter or supplied air respirator.

Occupational Exposure Limits for individual ingredients (if available) are listed below.

Ingredient(s) - Exposure Limits

aluminum hydroxide

- ACGIH TLV-TWA: 10 mg/m³ (as aluminum metal)
- OSHA PEL-TWA: 15 mg/m³ (as aluminum metal) (total dust)
- OSHA PEL-TWA: 5 mg/m³ (as aluminum metal) (respirable dust)

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8. Exposure Controls/Personal Protection - Continued

Ingredient(s) - Exposure Limits - Continued

antimony trioxide

ACGIH TLV-TWA A2

OSHA PEL-TWA 0.5 mg/m³

decabromodiphenyl ether

AIHA WEEL TWA-TLV 5mg/m³

ethyl 3-ethoxypropionate

Mfr. limit for 8-hour TWA 50 ppm

Mfr. limit for STEL 100 ppm

methylene bis(4-cyclohexylisocyanate)

ACGIH TLV-TWA 0.005 ppm

silica, quartz

ACGIH TLV-TWA 0.025 mg/m³OSHA PEL-TWA 30mg/m³ / (%SiO₂+2) (total dust)OSHA PEL-TWA 10 mg/m³/ (%SiO₂+2) (respirable dust)

titanium dioxide

ACGIH TLV-TWA 10 mg/m³ (respirable)OSHA PEL-TWA 15 mg/m³ (total dust)

xylene

ACGIH TLV-STEL 150 ppm

ACGIH TLV-TWA 100 ppm

OSHA PEL-STEL 150 ppm

OSHA PEL-TWA 100 ppm

9. Physical And Chemical Properties

Appearance

Viscous pigmented liquid.

Odor

Aromatic odor

Chemical Type: Mixture**Physical State:** Liquid**Melting Point:** NE °F**Boiling Point:** 308-344 °F 153-173 °C**Specific Gravity:** 1.42**Molecular Weight:** NA**Percent Volatiles:** 16**Percent VOCs:** 200 g/L**Packing Density:** NA**Vapor Pressure:** NA**Vapor Density:** 4.15**pH Factor:** not available At a Concentration Of NA**Solubility:** slight with water (reacts slowly)**Viscosity:** 3000-5000 cps**Evaporation Rate:** 0.1 (n-BA = 1)

10. Stability And Reactivity

Stability: Stable**Hazardous Polymerization:** Not expected to occur

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10. Stability And Reactivity - Continued

Conditions To Avoid (Stability)

Avoid heat, sparks, open flame and other ignition sources, extreme heat conditions and water contact. Reaction with water can result with pressure buildup of the container resulting in rupture of the container.

Incompatible Materials

Avoid contact with water, alcohol, ammonia, amines, alkalis and acids. Some reactions can be violent.

Hazardous Decomposition Products

Products of combustion include isocyanate vapor and mist, carbon monoxide, carbon dioxide, hydrogen cyanide, nitrogen oxides and oxides and unidentified products in fumes and smoke.

Conditions To Avoid (Polymerization)

Polymerization may occur if contaminated or at elevated temperatures. Avoid contact with moisture or other materials which react with isocyanates, and which may cause polymerization.

11. Toxicological Information

Acute Studies

Chemical Name	CAS Number	LD50/LC50
Antimony trioxide	1309-64-4	Oral LD50 Rat > 34600 mg/kg Dermal LD50 Rabbit > 2000 mg/kg

Chronic/Carcinogenicity

IARC has concluded that the following chemicals in this product are possibly carcinogenic to humans (Group 2B): antimony oxide, titanium dioxide

Crystalline silica (quartz and cristobalite) is listed by IARC as a known human carcinogen, IARC Class 1).

Risk of cancer depends on duration and level of exposure to this product as a vapor, mist, other form of aerosol, or dust of dried product.

Carcinogenicity Indicators

IARC Carcinogen

Miscellaneous Toxicological Information

Toxicological testing has not been conducted for this product overall. Available toxicological data for individual ingredients are summarized below.


Ingredient(s) - Carcinogenicity

- antimony trioxide
 - Listed In The IARC Monographs
- silica, quartz
 - NTP - Listed On The National Toxicology Program
 - Listed In The IARC Monographs

Ingredient(s) - Toxicological Data

- silica, quartz
 - LD50 (iv-rat): 500 mg/kg bw/Quartz (10-200 um)
- titanium dioxide
 - LD50 (oral, mouse): >10,000 mg/kg
 - LD50 (oral, rat): >25,000 mg/kg
 - LD50 (dermal, rabbit): >10,000 mg/kg
 - LC50 (inhalation,rat): >6820 mg/m3 (4 Hr)
- chlorinated phosphate ester
 - oral-rat LD50: 2800 mg/kg

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11. Toxicological Information - Continued
<p><u>Ingredient(s) - Toxicological Data - Continued</u> inhal-rat LC50: 4.6 mg/L / 4H xylene LD50 (oral, rat): 5400 mg/kg LD50 (dermal, rabbit): 12180 mg/kg LC50 (rat): 6350 ppm (4-hour exposure)</p>
12. Ecological Information
<p><u>Ecotoxicological Information</u> Data not available. None identified.</p>
13. Disposal Considerations
Dispose in accordance with applicable federal, state and local government regulations.
14. Transport Information
Ground Not restricted in packages of 450 L (119 Gal) or less
IATA UN1263, Paint, 3, III
IMDG UN1263, Paint, 3, III
<u>DOT (Pictograms)</u>

15. Regulatory Information
<p><u>U.S. Regulatory Information</u> Warning: This product contains a substance known to the State of California to cause cancer, birth defects or other reproductive harm.</p> <p><u>SARA Hazard Classes</u> Acute Health Hazard Chronic Health Hazard Fire Hazard</p> <p><u>Ingredient(s) - U.S. Regulatory Information</u> antimony trioxide SARA Title III - Section 313 Form "R"/TRI Reportable Chemical decabromodiphenyl ether SARA Title III - Section 313 Form "R"/TRI Reportable Chemical methylene bis(4-cyclohexylisocyanate) SARA Title III - Section 313 Form "R"/TRI Reportable Chemical xylene SARA Title III - Section 313 Form "R"/TRI Reportable Chemical</p> <p><u>Ingredient(s) - State Regulations</u> antimony trioxide New Jersey - Workplace Hazard New Jersey - Environmental Hazard</p>

15. Regulatory Information - Continued

Ingredient(s) - State Regulations - Continued

Pennsylvania - Workplace Hazard
Pennsylvania - Environmental Hazard
California - Proposition 65
Massachusetts - Hazardous Substance
New York City - Hazardous Substance

decabromodiphenyl ether
New Jersey - Workplace Hazard
New Jersey - Environmental Hazard
Pennsylvania - Workplace Hazard
Pennsylvania - Environmental Hazard
Massachusetts - Hazardous Substance
New York City - Hazardous Substance

methylene bis(4-cyclohexylisocyanate)
New Jersey - Workplace Hazard
New Jersey - Environmental Hazard
Pennsylvania - Workplace Hazard
Massachusetts - Hazardous Substance
New York City - Hazardous Substance

silica, quartz
New Jersey - Workplace Hazard
Pennsylvania - Workplace Hazard
California - Proposition 65
Massachusetts - Hazardous Substance

titanium dioxide
New Jersey - Workplace Hazard
Pennsylvania - Workplace Hazard
Massachusetts - Hazardous Substance
New York City - Hazardous Substance

xylene
New Jersey - Workplace Hazard
New Jersey - Environmental Hazard
New Jersey - Special Hazard
Pennsylvania - Workplace Hazard
Pennsylvania - Environmental Hazard
California - Proposition 65
Massachusetts - Hazardous Substance
New York City - Hazardous Substance

Canadian Regulatory Information

This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR. WHMIS Classification: Class B3 - Combustible material, Class D2A - Materials Causing Other Toxic Effects, Very Toxic Material

Ingredient(s) - Canadian Regulatory Information

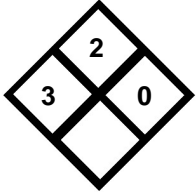
silica, quartz
WHMIS - Ingredient Disclosure List

titanium dioxide
WHMIS - Ingredient Disclosure List

WHMIS - Canada (Pictograms)



NFPA



HMIS

HEALTH	3
FLAMMABILITY	2
REACTIVITY	0
PERSONAL PROTECTION	

16. Other Information

Revision/Preparer Information

This MSDS Supersedes A Previous MSDS Dated: 06/28/2010

Disclaimer

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