

MATERIAL SAFETY DATA SHEET

NFPA RATING: Health = 1 Flammability = 0 Reactivity = 0
HMIS RATING: Health = 1 Flammability = 0 Reactivity = 0

SECTION I -- IDENTITY AND MANUFACTURER'S INFORMATION (568-177A)

Manufacturer's Name: HILLYARD INDUSTRIES **Product Name:** HTG Concrete Seal (Part A)

Address: 302 North Fourth Street

Date Prepared: September 17, 2013 (new)

St. Joseph, MO 64501

Prepared by: Regulatory Affairs Department

Emergency Telephone No.: (800) 424-9300 (Only in the event of chemical emergency involving a spill, leak, fire, exposure or accident involving chemicals.)

Other information calls: (816) 233-1321 (Ext. 8285)

<http://www.hillyard.com>

SECTION II -- INGREDIENTS/IDENTITY INFORMATION

Components

(Specific Chemical Identity:

Common Name(s)	CAS#	OSHA PEL	ACGIH TLV	OTHER LIMITS RECOMMENDED	%
Water	7732-18-5	none	none	N/A	---
Bisphenol A diglycidyl ether resin	25085-99-8	N/E	N/E	N/A	35-40
Titanium dioxide	13463-67-7	N/E	N/E	N/A	23-25
Dipropylene glycol n-propyl ether	29911-27-1	N/E	N/E	N/A	5-7

VOC < 160 g/l

N/A= Not Applicable N/E= Not Established

SECTION III -- PHYSICAL / CHEMICAL CHARACTERISTICS

Boiling Point: corr. 212°F **Specific Gravity (H₂O = 1):** 25°C = 1.367 **Density =** 11.39 lbs/gl.
Vapor Pressure (mm Hg.): 2.3 **Percent Volatile by Weight (%):** 43 – 45%
Vapor Density (AIR = 1): 0.62 **Evaporation Rate (ethyl ether = 1):** slower than 1
Solubility in Water: Complete **Appearance and Odor:** White liquid with mild odor
pH (concentrate)= 6 - 8

SECTION IV -- FIRE AND EXPLOSION HAZARD DATA

Flash point: >212°F **Flammable Limits:** LEL = not determined UEL = N/A

Extinguishing Media: Carbon dioxide, dry chemical, fog or water spray

Special Fire Fighting Procedures: Self-contained breathing apparatus with full face-piece operated in pressure demand or other pressure mode.

Unusual Fire and Explosion Hazards: May form carbon dioxide and carbon monoxide.

SECTION V -- PHYSICAL HAZARDS

Stability: Stable **Conditions to Avoid:** N/A

Incompatibility (Materials to Avoid): Oxidizing agents, peroxides, mineral acids and strong bases

Hazardous Decomposition Products or Byproducts: Carbon monoxide, carbon dioxide and products of combustion of organic material. Reaction with peroxides may result in violent decomposition.

Hazardous Polymerization: Will not occur **Conditions to Avoid:** N/A

SECTION VI -- HEALTH HAZARD DATA

Routes of entry: Inhalation? Yes Skin? Yes Ingestion? Yes

HEALTH HAZARDS (1. Acute and 2. Chronic)

1. Prolonged skin exposure may cause mild irritation.

2. Epoxy resins are capable of causing sensitization of skin; sensitivity varies from person to person.

Chemical listed as Carcinogen or Potential Carcinogen:

National Toxicology Program = No **I.A.R.C. Monographs =** No **OSHA =** No

This product has no carcinogens listed by IARC, NTP, NIOSH, or ACGIH as of this date, greater than or equal to 0.1%.

SECTION VI -- HEALTH HAZARD DATA cont.

Signs and Symptoms of Exposure: Prolonged exposure may cause skin irritation.

Medical Conditions Generally Aggravated by Exposure: Epoxy resins are capable of causing sensitization of skin; sensitivity varies from person to person.

Emergency and First Aid Procedures: In case of contact immediately wash skin with soap and water. Remove contaminated clothing and wash clothing before reuse; if symptoms occur call a physician.

SECTION VII -- PRECAUTIONS FOR SAFE HANDLING AND USE

Steps To Be Taken In Case Material Is Released Or Spilled: Dike spill area and add absorbent earth, sand or sawdust to spilled liquid. Keep out of sewers.

Waste Disposal Method: Collect absorbent/spilled mixture into metal containers. Dispose of in accordance with local, state and federal regulations. Incinerate in approved facility.

Precautions To Be Taken In Handling And Storing: Keep containers closed tightly when not in use. Store in cool, well ventilated areas away from heat and out of direct sunlight. Protect from freezing. **Notice:** Saw dust from freshly sanded floors or dust from wood floors that have been abraded between coats will spontaneously catch fire if improperly discarded. Immediately after abrading or sanding wood floors, place dust waste in a sealed, water-filled metal container and immediately remove from building. **Notice:** Rags or applicators soaked in a combustible liquid will spontaneously catch fire if improperly discarded. Immediately after using rags or applicators soaked in a combustible liquid, place waste in a sealed, water-filled metal container and immediately remove from building.

Other Precautions: Avoid prolonged breathing of vapor or spray mist. Avoid prolonged or repeated contact with skin. This product contains no reportable quantities of toxic chemicals subject to reporting requirements of Section 313 of SARA Title III Emergency Planning and Community Right to Know Act of 1986 and of 40 CFR Part 372.

SECTION VIII -- CONTROL MEASURES

Respiratory Protection (Specify Type): If sprayed, use respiratory MESA/NIOSH approved for mist and organic vapor. None normally needed.

Ventilation:

Local Exhaust = N/A **Mechanical (General) =** Adequate ventilation required **Special =** N/A **Other =** N/A

Protective Gloves: Rubber gloves suggested **Eye Protection:** Wear eye/face protection

Other Protective Clothing or Equipment: To prevent repeated or prolonged contact, wear impervious clothing and boots.

Work / Hygienic Practices: Wash hands before eating or using washroom.

SECTION IX - TRANSPORTATION INFORMATION

Applicable regulations: 49 CFR = no; IMCO = no; IATA = no.

Proper shipping name: Varnish.

UN No.: not applicable; **Limited Qty.:** not applicable; **Hazard Class:** not applicable.

Labels required: not required **DOT Exception:** not applicable

EPA Hazardous waste number / code: not listed

Hazardous waste characteristics:

Ignitability = not applicable; **Corrosivity =** not applicable; **Reactivity =** not applicable.

DISCLAIMER OF WARRANTIES

NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR OF ANY NATURE ARE MADE WITH RESPECT TO THE PRODUCT(S) OR INFORMATION CONTAINED IN THIS MATERIAL SAFETY DATA SHEET.

The information and recommendations contained in this Material Safety Data Sheet are supplied pursuant to 29 CFR 1910.1200 of the Occupational Safety and Health Standards Hazard Communication Rule. All information contained herein is presented in good faith and is believed to be appropriate and accurate.

THE BUYER OR USER ASSUMES ALL RISKS ASSOCIATED WITH THE USE, MISUSE OR DISPOSAL OF THIS PRODUCT. THE BUYER OR USER IS RESPONSIBLE TO COMPLY WITH ALL FEDERAL, STATE OR LOCAL REGULATIONS CONCERNING THE USE, MISUSE OR DISPOSAL OF THESE PRODUCTS.

MATERIAL SAFETY DATA SHEET

NFPA RATING: Health = 1 Flammability = 0 Reactivity = 0
 HMIS RATING: Health = 1 Flammability = 0 Reactivity = 0

SECTION I -- IDENTITY AND MANUFACTURER'S INFORMATION (568-177B)

Manufacturer's Name: HILLYARD INDUSTRIES **Product Name:** HTG Concrete Seal (Part B)
Address: 302 North Fourth Street **Date Prepared:** September 17, 2013 (new)
 St. Joseph, MO 64501 **Prepared by:** Regulatory Affairs Department
Emergency Telephone No.: (800) 424-9300 (Only in the event of chemical emergency involving a spill, leak, fire, exposure or accident involving chemicals.) **Other information calls:** (816) 233-1321 (Ext. 8285)
<http://www.hillyard.com>

SECTION II -- INGREDIENTS/IDENTITY INFORMATION

Components

(Specific Chemical Identity:

Common Name(s)	CAS#	OSHA PEL	ACGIH TLV	OTHER LIMITS RECOMMENDED	%
Water	7732-18-5	none	none	N/A	
Polyamine Polymer	Unknown to Hillyard	N/E	N/E	N/E	25 - 35
O,O'-Bis(2-aminopropyl)polypropylene glycol	9046-10-0	N/E	N/E	N/A	2 - 4
Tetraethylenepentamine ⁽¹⁾	112-57-2	5 mg/m ³	N/E	N/A	1 - 3

⁽¹⁾Regulated by OSHA, MA and PA

VOC = 0%

N/A= Not Applicable N/E= Not Established

SECTION III -- PHYSICAL / CHEMICAL CHARACTERISTICS

Boiling Point: corr. 212°F **Specific Gravity (H₂O = 1):** 25°C = 1.054 **Density =** 8.78 lbs/gl.
Vapor Pressure (mm Hg.): 2.3 **Percent Volatile by Weight (%):** 57 - 58%
Vapor Density (AIR = 1): 0.62 **Evaporation Rate (ethyl ether = 1):** slower than 1
Solubility in Water: Complete **Appearance and Odor:** Yellow liquid, amine odor
pH (concentrate)= 9 - 11

SECTION IV -- FIRE AND EXPLOSION HAZARD DATA

Flash point: >212°F **Flammable Limits:** LEL = not determined UEL = N/A**Extinguishing Media:** Carbon dioxide, dry chemical, fog or water spray**Special Fire Fighting Procedures:** Self-contained breathing apparatus with full face-piece operated in pressure demand or other pressure mode.**Unusual Fire and Explosion Hazards:** May form carbon dioxide and carbon monoxide.

SECTION V -- PHYSICAL HAZARDS

Stability: Stable **Conditions to Avoid:** N/A**Incompatibility (Materials to Avoid):** Oxidizing agents, peroxides, mineral acids and strong bases**Hazardous Decomposition Products or Byproducts:** Carbon monoxide, carbon dioxide and products of combustion of organic material. Reaction with peroxides may result in violent decomposition.**Hazardous Polymerization:** Will not occur **Conditions to Avoid:** N/A

SECTION VI -- HEALTH HAZARD DATA

Routes of entry: Inhalation? Yes Skin? Yes Ingestion? Yes

HEALTH HAZARDS (1. Acute and 2. Chronic)

1. Prolonged skin exposure may cause mild irritation.

2. Epoxy resins are capable of causing sensitization of skin; sensitivity varies from person to person.

Chemical listed as Carcinogen or Potential Carcinogen:**National Toxicology Program =** No **I.A.R.C. Monographs =** No **OSHA =** No

This product has no carcinogens listed by IARC, NTP, NIOSH, or ACGIH as of this date, greater than or equal to 0.1%.

SECTION VI -- HEALTH HAZARD DATA cont.

Signs and Symptoms of Exposure: Prolonged exposure may cause skin irritation.

Medical Conditions Generally Aggravated by Exposure: Epoxy resins are capable of causing sensitization of skin; sensitivity varies from person to person.

Emergency and First Aid Procedures: In case of contact immediately wash skin with soap and water. Remove contaminated clothing and wash clothing before reuse; if symptoms occur call a physician.

SECTION VII -- PRECAUTIONS FOR SAFE HANDLING AND USE

Steps To Be Taken In Case Material Is Released Or Spilled: Dike spill area and add absorbent earth, sand or sawdust to spilled liquid. Keep out of sewers.

Waste Disposal Method: Collect absorbent/spilled mixture into metal containers. Dispose of in accordance with local, state and federal regulations. Incinerate in approved facility.

Precautions To Be Taken In Handling And Storing: Keep containers closed tightly when not in use. Store in cool, well ventilated areas away from heat and out of direct sunlight. Protect from freezing. **Notice:** Saw dust from freshly sanded floors or dust from wood floors that have been abraded between coats will spontaneously catch fire if improperly discarded. Immediately after abrading or sanding wood floors, place dust waste in a sealed, water-filled metal container and immediately remove from building. **Notice:** Rags or applicators soaked in a combustible liquid will spontaneously catch fire if improperly discarded. Immediately after using rags or applicators soaked in a combustible liquid, place waste in a sealed, water-filled metal container and immediately remove from building.

Other Precautions: Avoid prolonged breathing of vapor or spray mist. Avoid prolonged or repeated contact with skin. This product contains no reportable quantities of toxic chemicals subject to reporting requirements of Section 313 of SARA Title III Emergency Planning and Community Right to Know Act of 1986 and of 40 CFR Part 372.

SECTION VIII -- CONTROL MEASURES

Respiratory Protection (Specify Type): If sprayed, use respiratory MESA/NIOSH approved for mist and organic vapor. None normally needed.

Ventilation:

Local Exhaust = N/A **Mechanical (General) =** Adequate ventilation required **Special =** N/A **Other =** N/A

Protective Gloves: Rubber gloves suggested **Eye Protection:** Wear eye/face protection

Other Protective Clothing or Equipment: To prevent repeated or prolonged contact, wear impervious clothing and boots.

Work / Hygienic Practices: Wash hands before eating or using washroom.

SECTION IX - TRANSPORTATION INFORMATION

Applicable regulations: 49 CFR = no; IMCO = no; IATA = no.

Proper shipping name: Varnish.

UN No.: not applicable; **Limited Qty.:** not applicable; **Hazard Class:** not applicable.

Labels required: not required **DOT Exception:** not applicable

EPA Hazardous waste number / code: not listed

Hazardous waste characteristics:

Ignitability = not applicable; **Corrosivity =** not applicable; **Reactivity =** not applicable.

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SECTION I -- IDENTITY AND MANUFACTURER'S INFORMATION (568-177)

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 St. Joseph, MO 64501 **Prepared by:** Regulatory Affairs Department

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Components

(Specific Chemical Identity:

Common Name(s)	CAS#	OSHA PEL	ACGIH TLV	OTHER LIMITS RECOMMENDED	%
Bisphenol A diglycidyl ether resin	25085-99-8	N/E	N/E	N/A	19-21
Titanium dioxide	13463-67-7	N/E	N/E	N/A	10-12
Polyamine Polymer	Unknown to Hillyard	N/E	N/E	N/A	16-18
O,O'-Bis(2-aminopropyl)polypropylene glycol	9046-10-0	N/E	N/E	N/A	1-2
Dipropylene glycol n-propyl ether	29911-27-1	N/E	N/E	N/A	2-4
VOC < 130 g/l					

N/A= Not Applicable N/E= Not Established

SECTION III -- PHYSICAL / CHEMICAL CHARACTERISTICS

Boiling Point: corr. 212°F **Specific Gravity (H₂O = 1):** 25°C = 1.304 **Density =** 10.87 lbs/gl.
Vapor Pressure (mm Hg.): 2.3 **Percent Volatile by Weight (%):** 45 - 47%
Vapor Density (AIR = 1): 0.62 **Evaporation Rate (ethyl ether = 1):** slower than 1
Solubility in Water: Complete **Appearance and Odor:** Gray liquid, mild odor
pH (concentrate)= 7 - 9

SECTION IV -- FIRE AND EXPLOSION HAZARD DATA

Flash point: >212°F **Flammable Limits:** LEL = not determined UEL = N/A

Extinguishing Media: Carbon dioxide, dry chemical, fog or water spray

Special Fire Fighting Procedures: Self-contained breathing apparatus with full face-piece operated in pressure demand or other pressure mode.

Unusual Fire and Explosion Hazards: May form carbon dioxide and carbon monoxide.

SECTION V -- PHYSICAL HAZARDS

Stability: Stable **Conditions to Avoid:** N/A

Incompatibility (Materials to Avoid): Oxidizing agents, peroxides, mineral acids and strong bases

Hazardous Decomposition Products or Byproducts: Carbon monoxide, carbon dioxide and products of combustion of organic material. Reaction with peroxides may result in violent decomposition.

Hazardous Polymerization: Will not occur **Conditions to Avoid:** N/A

SECTION VI -- HEALTH HAZARD DATA

Routes of entry: Inhalation? Yes Skin? Yes Ingestion? Yes

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SECTION VI -- HEALTH HAZARD DATA cont.

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Ventilation:

Local Exhaust = N/A **Mechanical (General) =** Adequate ventilation required **Special =** N/A **Other =** N/A

Protective Gloves: Rubber gloves suggested **Eye Protection:** Wear eye/face protection

Other Protective Clothing or Equipment: To prevent repeated or prolonged contact, wear impervious clothing and boots.

Work / Hygienic Practices: Wash hands before eating or using washroom.

SECTION IX - TRANSPORTATION INFORMATION

Applicable regulations: 49 CFR = no; IMCO = no; IATA = no.

Proper shipping name: Varnish.

UN No.: not applicable; **Limited Qty.:** not applicable; **Hazard Class:** not applicable.

Labels required: not required **DOT Exception:** not applicable

EPA Hazardous waste number / code: not listed

Hazardous waste characteristics:

Ignitability = not applicable; **Corrosivity =** not applicable; **Reactivity =** not applicable.

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