



VERSATEK 100 CLEAR COAT - PART A

MATERIAL SAFETY DATA SHEET

SECTION 1 – PRODUCT AND COMPANY IDENTIFICATION

GENERAL USE: Polymeric resin

PRODUCT DESCRIPTION: Aqueous blend of polyol resins and additives

MANUFACTURER'S NAME
JFB Hart Coatings, Inc.

DATE PREPARED: March 26, 2010
SUPERSEDES: September 8, 2009

ADDRESS
10210 Werch Drive, Suite 203
Woodbridge, IL 60517

TELEPHONE NUMBER FOR INFORMATION
(630) 633-6228

EMERGENCY TELEPHONE NUMBER
Infotrac (800) 535-5053 Outside USA (352) 323-3500

SECTION 2 – HAZARDS IDENTIFICATION

Emergency Overview: Mild liquid, contact with eyes may cause irritation, prolonged contact with skin may cause irritation. Ingestion may cause gastric distress.

Potential Health Effects

EYE: Contact may cause slight temporary irritation. Corneal injury is unlikely.

SKIN: Brief contact may cause slight irritation; prolonged contact may cause moderate irritation.

INGESTION: Small amounts ingested are not likely to cause injury. Ingestion of large amounts may cause headache, dizziness, diarrhea and general weakness.

INHALATION: Exposure to vapors not likely. High concentrations may be irritating to the respiratory tract; may cause headache, dizziness, nausea, vomiting and malaise.

Chronic Effects / Carcinogenicity

NTP Listed: No

IARC Group 1 or 2A: No

OSHA Regulated: No

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

<u>Hazardous Ingredients</u>	<u>CAS Registry No.</u>	<u>Percentage (wt/wt)</u>
Proprietary polyol resin	Not specified	40 – 45
Water	7732-18-5	40 – 45

OSHA Regulatory Status: While this material is NOT considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.

SECTION 4 – FIRST AID MEASURES

EYE: Remove contact lenses. Flush eyes with clear running water for 15 minutes while holding eyelids open; if irritation persists, seek medical attention.

SKIN: Remove contaminated clothing; wash affected area with soap and water; launder contaminated clothing before reuse; if irritation persists, seek medical attention.

INGESTION: DO NOT induce vomiting unless directed to do so by medical personnel; never give anything by mouth to an unconscious person; seek medical attention.

INHALATION: Remove affected person to fresh air; provide oxygen if breathing is difficult; if affected person is not breathing, administer CPR and seek emergency medical attention.



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SECTION 5 – FIRE FIGHTING MEASURES

Product is not considered flammable or combustible.

EXTINGUISHING MEDIA: Carbon dioxide, water fog, dry chemical, chemical foam
 MEDIA NOT TO BE USED: None known
 FIRE & EXPLOSION HAZARDS: None
 FIRE FIGHTING INSTRUCTIONS: Keep containers cool with water spray to prevent container rupture due to steam buildup; floor will become slippery if material is released.
 HAZARDOUS DECOMPOSITION PRODUCTS: Smoke, fumes, oxides of carbon

SECTION 6 – ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Small spills - wash to sanitary sewer with plenty of water. Large spills - confine spill, soak up with approved absorbent, shovel product into approved container for disposal. Wash area with plenty of water. Do not discharge into lakes, ponds, streams or public waters.

SECTION 7 – HANDLING AND STORAGE

HANDLING Keep away from food and drink. Wash hands before eating.
 STORAGE Keep container closed when not in use; protect containers from abuse; protect from extreme temperatures. Keep this and other chemicals out of reach of children.

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS The use of local exhaust ventilation is recommended. No other special controls are indicated.
 RESPIRATORY PROTECTION None required while threshold limits are kept below maximum allowable concentrations; if TWA exceeds limits, NIOSH approved respirator must be worn. Refer to 29 CFR 1910.134, CSA Z94.4-93, or European Standard EN 149 for complete regulations.
 SKIN PROTECTION Neoprene or rubber gloves with cuffs.
 EYE PROTECTION Goggles with side shields; safety eyebath nearby. Refer to 29 CFR 1910.133, CSA Z94.3-M1982, or European Standard EN166.
 OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Coveralls, apron, or other equipment should be worn to minimize skin contact.

EXPOSURE GUIDELINES	OSHA PEL		ACGIH TWA	
	ppm	mg/m3	ppm	mg/m3
None	Not applicable	Not applicable	Not applicable	Not applicable

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE Clear water-white liquid
 ODOR Characteristic odor
 BOILING POINT 212 °F (100° C)
 FREEZING POINT 32 °F (0° C)



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VAPOR PRESSURE	17 mm Hg @ 20 ° C
SOLUBILITY IN WATER	Emulsifies
SPECIFIC GRAVITY	1.066
PH	Not determined
VOLATILE ORGANIC COMPOUNDS	< 0.01 lbs/gal (<1.19 g/l)
VISCOSITY	Not determined
FLASH POINT [METHOD]	Does not flash
FLAMMABLE LIMITS	LEL: Not applicable UEL: Not applicable

SECTION 10 – STABILITY AND REACTIVITY

STABILITY	Stable
MATERIALS TO AVOID	Strong oxidizers, strong acids
CONDITIONS TO AVOID	Extreme temperatures
HAZARDOUS DECOMPOSITION PRODUCTS	Decomposition will not occur if handled and stored properly. In case of a fire, oxides of carbon, hydrocarbons, fumes, and smoke may be produced.
HAZARDOUS POLYMERIZATION	Will not occur.

SECTION 11 – TOXICOLOGICAL INFORMATION

<u>Component</u>	<u>LD50 Oral (rat)</u>	<u>LD50 Dermal (rabbit)</u>	<u>LC50 Inhalation (rat)</u>
Proprietary Polyol resin	> 2000 mg / kg	Not available	Not available

SECTION 12 – EXOLOGICAL INFORMATION

No data are available on the adverse effects of this material on the environment. Neither COD nor BOD data are available. Based on the chemical composition of this product it is assumed that the mixture can be treated in an acclimatized biological waste treatment plant system in limited quantities. However, such treatment should be evaluated and approved for each specific biological system. None of the ingredients in this mixture are classified as a Marine Pollutant.

SECTION 13 – DISPOSAL CONSIDERATIONS

Dispose of in accordance with Local, State, and Federal Regulations; this product is toxic to fish, do not discharge into lakes, ponds, streams or public waters. Product is classified as non - hazardous, however, non-hazardous materials may become hazardous waste upon contact with other products. Consult your local, state, Provincial or Federal Environmental Protection Agency before disposing of any chemicals.

SECTION 14 – TRANSPORT INFORMATION

US DOT	Not regulated
Proper Shipping Name:	
UN Number:	
Packing Group:	
Special Instructions:	



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IATA Not regulated

Proper Shipping Name:

UN Number:

Packing Group:

Special Instructions:

IMDG Not regulated

Proper Shipping Name:

UN Number:

Packing Group:

Special Instructions:

Note: Transportation information provided is for reference only. Client is urged to consult CFR 49 parts 100 - 177, IMDG, IATA, EC, Canadian TDG, and United Nations TDG information manuals for detailed regulations and exceptions covering specific container sizes, packaging materials and methods of shipping.

SECTION 15 – REGULATORY INFORMATION

TSCA (Toxic substance Control Act)

All components of this product are listed on the U.S. Toxic Substances Control Act Chemical Inventory (TSCA Inventory) or are exempted from listing because a Low Volume Exemption has been granted in accordance with 40 CFR 723.50.

SARA TITLE III (Superfund Amendments and Reauthorization Act)

311/312 Hazard Categories

None

313 Reportable Ingredients:

None

CERCLA (Comprehensive Response Compensation and Liability Act)

None

California Prop 65, Safe Drinking Water and Toxic Enforcement Act of 1986

There are no chemicals present known to the state of California to cause cancer or reproductive toxicity.

CANADA

CPR (Canadian Controlled Products Regulations)

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations. WHMIS Classification: Not controlled

DSL / NDSL (Canadian Domestic Substances List / Non-Domestic Substances List)

Components of this product identified by CAS number are listed on the DSL or NDSL, or are otherwise in compliance with the New Substances Notification (NSN) regulations. Only ingredients classified as "hazardous" are listed in Section 3 unless otherwise indicated.

EUROPE

EINECS (European Inventory of Existing Commercial Chemical Substances)

Components of this product identified by CAS numbers are on the European Inventory of Existing Commercial Chemical Substances.

EU CLASSIFICATION ACCORDING TO DIRECTIVE 67/548/EEC AND DIRECTIVE 199/45/EC

Not dangerous

Risk Phrases



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None

Safety Phrases
None

SECTION 16 – OTHER INFORMATION

HMIS HAZARD RATINGS	
Health	1
Flammability	0
Physical hazard	0
Personal Protection	C

HMIS SYSTEM

0 = Insignificant hazard 3 = High
1 = Slight 4 = Extreme
2 = Moderate * = Chronic health hazard
C=Safety Glasses, Gloves, Apron

MSDS Changes: Revised format.

To the best of our knowledge, the information contained herein is accurate. However, JFB Hart Coatings, Inc. does not assume any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.



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MATERIAL SAFETY DATA SHEET

SECTION 1 – PRODUCT AND COMPANY IDENTIFICATION

GENERAL USE: Aliphatic polyisocyanate curing agent
PRODUCT DESCRIPTION: Yellow liquid, practically odorless

MANUFACTURER'S NAME
JFB Hart Coatings, Inc.

ADDRESS
10210 Werch Drive, Suite 203
Woodbridge, IL 60517

DATE PREPARED: August 23, 2010
SUPERSEDES: March 26, 2010

TELEPHONE NUMBER FOR INFORMATION
(630) 633-6228

EMERGENCY TELEPHONE NUMBER
Infotrac (800) 535-5053 Outside USA (352) 323-3500

SECTION 2 – HAZARDS IDENTIFICATION

Emergency Overview: Yellow liquid, nearly odorless. May cause eye and skin and respiratory tract irritation. May cause allergic respiratory reaction. Harmful if inhaled or swallowed. May cause lung damage. As a result of previous overexposures by inhalation, or a single large dose, certain individuals may develop isocyanate sensitization which will cause them to react to a later exposure to isocyanate at levels well below the TLV. Prolonged skin contact can cause skin sensitization. Individuals who have developed skin sensitization can develop symptoms as a result of contact with very small amounts of liquid material or as a result of exposure to vapor. Toxic gases are emitted during burning or thermal decomposition.

Potential Health Effects

- EYE: Contact causes severe irritation and pain associated with redness and swelling of the conjunctiva.
- SKIN: Brief contact may cause slight irritation; prolonged contact may cause moderate reddening. Swelling and possible necrosis. Chronic exposure may result in skin sensitization, which can cause symptoms as a result of contact with very small amounts of liquid material or as result of exposure to vapor. Cured material is hard to remove.
- INGESTION: Moderately toxic; may cause headache, dizziness, diarrhea and general weakness; large doses may result in red blood cell hemolysis.
- INHALATION: High concentrations are irritating to the respiratory tract; may cause headache, dizziness, nausea, vomiting and malaise. Chronic overexposures, or a single large dose, may cause isocyanate sensitization and subsequent reaction to a later exposure to isocyanate at levels well below the TLV

Chronic Effects / Carcinogenicity

NTP Listed: No

IARC Group 1 or 2A: No

OSHA Regulated: No

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

<u>Hazardous Ingredients</u>	<u>CAS Registry No.</u>	<u>Percentage (wt/wt)</u>
Homopolymer of hexamethylene diisocyanate	28182-81-2	100
Hexamethylene diisocyanate (monomer)	822-06-0	< 0.2

OSHA Regulatory Status: This material is classified as hazardous under OSHA regulations.

SECTION 4 – FIRST AID MEASURES

- EYE: Remove contact lenses. Flush eyes with clear running water for 15 minutes while holding eyelids open; if irritation persists, seek medical attention.
- SKIN: Remove contaminated clothing; wash affected area with soap and water; launder contaminated clothing



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before reuse; if irritation persists, seek medical attention.

- INGESTION:** DO NOT induce vomiting; if vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into lungs; seek immediate medical attention. Vomiting may be induced only under the supervision of a physician.
- INHALATION:** Remove affected person to fresh air; provide oxygen if breathing is difficult; if affected person is not breathing, administer CPR and seek emergency medical attention.

SECTION 5 – FIRE FIGHTING MEASURES

- EXTINGUISHING MEDIA:** Carbon dioxide, water fog, dry chemical, chemical foam
- MEDIA NOT TO BE USED:** None known
- FIRE & EXPLOSION HAZARDS:** Closed containers can explode due to buildup of pressure when exposed to extreme heat. Do not use direct stream of water on pool fires as product may reignite on water surface. Caution - Material will support combustion!
- FIRE FIGHTING INSTRUCTIONS:** Firefighters must wear full facepiece self - contained breathing apparatus in positive pressure mode. Do not use solid stream of water since stream will scatter and spread fire. Fine water spray can be used to keep fire - exposed containers cool.
- HAZARDOUS DECOMPOSITION PRODUCTS:** Smoke, fumes, oxides of carbon

SECTION 6 – ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: CAUTION - WILL SUPPORT COMBUSTION. Do not wash to sanitary sewer. All spills - confine spill, soak up with approved absorbent, shovel product into approved container for disposal. Flush area with water, recover flush for proper disposal.

SECTION 7 – HANDLING AND STORAGE

- HANDLING** Keep away from food and drink. Wash hands before eating.
- STORAGE** Keep container closed when not in use; protect containers from abuse; protect from extreme temperatures, open flames. CAUTION - This material will support combustion. Keep this and other chemicals out of reach of children.

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

- ENGINEERING CONTROLS** The use of local exhaust ventilation is recommended to control emissions near the source. Provide mechanical ventilation of confined spaces. Use explosion-proof ventilation equipment. See Section 3 for Component Exposure Guidelines.
- RESPIRATORY PROTECTION** None required while threshold limits are kept below maximum allowable concentrations; if TWA exceeds limits, NIOSH approved respirator approved for use in isocyanate - containing environments must be worn. Refer to 29 CFR 1910.134, CSA Z94.4-93, or European Standard EN 149 for complete regulations.
- SKIN PROTECTION** Neoprene or rubber gloves with cuffs.
- EYE PROTECTION** Chemical splash goggles; safety eyebath nearby. Refer to 29 CFR 1910.133, CSA Z94.3-M1982, or European Standard EN166.
- OTHER PROTECTIVE CLOTHING OR EQUIPMENT:** Coveralls, apron, or other equipment should be worn to minimize skin contact.



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EXPOSURE GUIDELINES	OSHA PEL		ACGIH TWA	
	ppm	mg/m3	ppm	mg/m3
Homopolymer of hexamethylene diisocyanate	-	0.5 TWA	-	0.5 STEL
Hexamethylene diisocyanate (monomer)	0.005	-	0.005	-

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	Yellow liquid,
ODOR	Practically odorless
BOILING POINT	Not measured
FREEZING POINT	Not determined
VAPOR PRESSURE	< 0.01 mm Hg @ 20 ° C
SOLUBILITY IN WATER	Insoluble
SPECIFIC GRAVITY	1.160
PH	Not applicable
VOLATILE ORGANIC COMPOUNDS	None
VISCOSITY	Approx 3500 mPa's @ 74° F (23.3° C)
FLASH POINT [METHOD]	> 450 ° F (232.2° C) [UNKNOWN]
FLAMMABLE LIMITS	LEL: Not applicable UEL: Not applicable

SECTION 10 – STABILITY AND REACTIVITY

STABILITY	Stable
MATERIALS TO AVOID	Strong oxidizers, water, amines
CONDITIONS TO AVOID	Extreme temperatures, open flames
HAZARDOUS DECOMPOSITION PRODUCTS	Decomposition will not occur if handled and stored properly. In case of a fire, oxides of carbon and nitrogen, HCN, HDI, hydrocarbons, fumes, and smoke may be produced.
HAZARDOUS POLYMERIZATION	May occur. Contact with moisture may cause polymerization

SECTION 11 – TOXICOLOGICAL INFORMATION

Component	LD50 Oral (rat)	LD50 Dermal (rabbit)	LC50 Inhalation (rat)
Homopolymer of hexamethylene diisocyanate	> 10,000 mg / kg	Not available	137 - 1150 mg/m3 / 4H
Hexamethylene diisocyanate (monomer)	710 mg / kg	Not available	275 mg / m3

SECTION 12 – EXOLOGICAL INFORMATION

No data are available on the adverse effects of this material on the environment. Neither COD nor BOD data are available. Based on the chemical composition of this product it is assumed that the mixture can be treated in an acclimatized biological waste treatment plant system in limited quantities. However, such treatment should be evaluated and approved for each specific biological system. None of the ingredients in this mixture are classified as a Marine Pollutant.



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SECTION 13 – DISPOSAL CONSIDERATIONS

Dispose of in accordance with Local, State, Provincial, and Federal Regulations. This product may produce concentrated hazardous vapors or fumes in a disposal container creating a dangerous environment. Consult your local, state, or Federal Environmental Protection Agency before disposing of any chemicals. Do not flush to sanitary sewer or waterway.

SECTION 14 – TRANSPORT INFORMATION

US DOT Not regulated

Proper Shipping Name:

UN Number:

Packing Group:

Special Instructions:

IATA Not regulated

Proper Shipping Name:

UN Number:

Packing Group:

Special Instructions:

IMDG Not regulated

Proper Shipping Name:

UN Number:

Packing Group:

Special Instructions:

Note: Transportation information provided is for reference only. Client is urged to consult CFR 49 parts 100 - 177, IMDG, IATA, EC, Canadian TDG, and United Nations TDG information manuals for detailed regulations and exceptions covering specific container sizes, packaging materials and methods of shipping.

SECTION 15 – REGULATORY INFORMATION

US – FEDERAL AND STATE

TSCA (Toxic substance Control Act)

All components of this product are listed on the U.S. Toxic Substances Control Act Chemical Inventory (TSCA Inventory) or are exempted from listing because a Low Volume Exemption has been granted in accordance with 40 CFR 723.50.

SARA TITLE III (Superfund Amendments and Reauthorization Act)

311/312 Hazard Categories

Immediate health

313 Reportable Ingredients:

None above 1%

CERCLA (Comprehensive Response Compensation and Liability Act)

Hexamethylene diisocyanate – RQ – 100 lbs (45 kg)

California Prop 65, Safe Drinking Water and Toxic Enforcement Act of 1986

There are no chemicals present known to the state of California to cause cancer or reproductive toxicity.

CANADA

CPR (Canadian Controlled Products Regulations)



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This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.
WHMIS Classification: D1A, D2B



DSL / NDSL (Canadian Domestic Substances List / Non-Domestic Substances List)

Components of this product identified by CAS number are listed on the DSL or NDSL, or are otherwise in compliance with the New Substances Notification (NSN) regulations. Only ingredients classified as "hazardous" are listed in Section 3 unless otherwise indicated.

EUROPE

EINECS (European Inventory of Existing Commercial Chemical Substances)

Components of this product identified by CAS numbers are on the European Inventory of Existing Commercial Chemical Substances.

EU CLASSIFICATION ACCORDING TO DIRECTIVE 67/548/EEC

Xi; R36/37/38 – R42/43



Risk Phrases

R36/37/38 Irritating to eyes, respiratory system and skin
R42/43 May cause sensitisation by inhalation and skin contact

Safety Phrases

S23 Do not breathe vapour.
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection
S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label whenever possible.)

SECTION 16 – OTHER INFORMATION

HMIS HAZARD RATINGS	
Health	2*
Flammability	1
Physical hazard	0
Personal Protection	B

HMIS SYSTEM

0 = Insignificant hazard 3 = High
1 = Slight 4 = Extreme
2 = Moderate * = Chronic health hazard
B=Safety Glasses, Gloves

MSDS Changes: Section 15.
Replaces version dated March 26, 2010

To the best of our knowledge, the information contained herein is accurate. However, JFB Hart Coatings, Inc. does not assume any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.