



Material Safety Data Sheet Set
MatteTek™
Parts A-B



MATTETEK™ PART A

MATERIAL SAFETY DATA SHEET

SECTION 1 – PRODUCT AND COMPANY IDENTIFICATION

GENERAL USE: Polymeric resin
PRODUCT DESCRIPTION: Water reducible polyol

MANUFACTURER'S NAME
JFB Hart Coatings, Inc.

DATE PREPARED: May 18, 2014
SUPERSEDES: June 25, 2012

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: Polyol resin, whitish liquid; may cause slight eye irritation.

Potential Health Effects

EYE: Contact with eyes may cause slight irritation.
SKIN: None expected. However, prolonged contact may cause irritation or sensitization.
INGESTION: May cause gastric distress, vomiting and diarrhea.
INHALATION: None expected. However, prolonged contact may cause irritation

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>
None		

OSHA Regulatory Status: This product is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

SECTION 4 – FIRST AID MEASURES

EYE: Remove contact lenses. Flush eyes with clear running water for 5 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. If symptoms persist seek medical attention.

SECTION 5 – FIRE FIGHTING MEASURES

Product is not considered flammable or combustible.

EXTINGUISHING MEDIA: Carbon dioxide, dry chemical, chemical foam

MEDIA NOT TO BE USED: None known



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FIRE & EXPLOSION HAZARDS: None

FIRE FIGHTING INSTRUCTIONS: Keep containers cool with water spray to prevent container rupture due to steam buildup; contact with material may cause irritation to skin, eyes and respiratory tract.

HAZARDOUS DECOMPOSITION PRODUCTS: Smoke, fumes, oxides of carbon.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Shut off source of leak if safe to do so. Dike and contain product. Confine spill, soak up with clay, sand or other 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. If misting occurs, wear NIOSH approved respirator capable of removing particulate from air. Refer to 29 CFR 1910.134, CSA Z94.4-93, or European Standard EN 149 for complete regulations.

SKIN PROTECTION: Recommended for general protection

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: Practice safe workplace habits. Minimize body contact with this, as well as all chemicals in general.

EXPOSURE GUIDELINES Chemical	OSHA PEL		ACGIH TWA	
	ppm	mg/m ³	ppm	mg/m ³
None	Not applicable	Not applicable	Not applicable	Not applicable

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Whitish liquid

ODOR: Slightly sweet odor

BOILING POINT: 212 °F (100° C)

FREEZING POINT: 32 °F (0° C)

VAPOR PRESSURE: Not determined

SOLUBILITY IN WATER: Miscible

SPECIFIC GRAVITY: 1.05 – 1.25



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PH	8.5
VOLATILE ORGANIC COMPOUNDS	< 11 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	Can react vigorously with strong oxidizers, strong acids, mineral and organic bases, primary and secondary aliphatic amines.
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, nitrogen, hydrocarbons, fumes, and smoke may be produced.
HAZARDOUS POLYMERIZATION	May occur.

SECTION 11 – TOXICOLOGICAL INFORMATION

<u>Component</u>	<u>LD50 Oral (rat)</u>	<u>LD50 Dermal (rabbit)</u>	<u>LC50 Inhalation (rat)</u>
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. 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:	
IATA	Not regulated
Proper Shipping Name:	



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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)

Not determined

SECTION 16 – OTHER INFORMATION

HMIS HAZARD RATINGS	
Health	0
Flammability	0
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



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MSDS Changes: Product name revision. No other changes.

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.



MATTETEK™ PART B

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: May 18, 2014
SUPERSEDES: May 7, 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. May cause temporary corneal injury.

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. Other symptoms may include runny nose, coughing, chest discomfort, sore throat and shortness of breath. 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. Chemical or hypersensitivity pneumonitis has been reported. This is usually reversible. Asthmatic reactions can be life threatening.

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>
Poly-isocyanate	Proprietary	90 - 97
Dipropylene glycol methyl ether acetate	88917-22-0	3 - 10
Hexamethylene diisocyanate (monomer)	822-06-0	< 0.15

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



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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; 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

FLAMMABLE PROPERTIES

Product will support combustion

EXTINGUISHING MEDIA:	Carbon dioxide, water fog, dry chemical, chemical foam
MEDIA NOT TO BE USED:	Direct water stream
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. Avoid contact with product. Decontaminate equipment and protective clothing prior to reuse. Exposure to heated diisocyanate can be extremely dangerous.
HAZARDOUS DECOMPOSITION PRODUCTS:	Smoke, fumes, oxides of carbon and of nitrogen

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. Pump any free liquid into an appropriate closed container. Cover with suitable absorbent material (Kitty Litter, Oil-Dri®). Saturate absorbent material with a decontaminating solution made up of 90% water, 3-8% ammonium hydroxide or concentrated ammonia, and 2% liquid detergent (% by weight). The solution should cover the area for at least 15 minutes. Collect and repeat as necessary. Collect washings for disposal.

SECTION 7 – HANDLING AND STORAGE

HANDLING	Keep away from food and drink. Wash hands before eating.
STORAGE	Keep container closed until ready to use; protect containers from abuse; protect from extreme temperatures, open flames. Recommended container material: aluminum, steel. Container material to avoid: polystyrene, copper, tin. CAUTION - This material will support combustion. Keep this and other chemicals out of reach of children. Dispose of unused contents according to Section 13.



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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 8 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 nitrile 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 EN 166.
OTHER PROTECTIVE CLOTHING OR EQUIPMENT:	Coveralls, apron, or other equipment should be worn to minimize skin contact.

EXPOSURE GUIDELINES

Chemical	OSHA PEL		ACGIH TWA	
	ppm	mg/m ³	ppm	mg/m ³
Poly-isocyanate *	-	0.5 TWA	-	0.5 STEL
Hexamethylene diisocyanate (monomer)	0.005	-	0.005	-

* The ACGIH Threshold Limit Value (TLV) has not been established nor has OSHA established the Permissible Exposure Limit (PEL) for this material, therefore the limits described have been established as guidelines by the manufacturer.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	Colorless liquid
ODOR	Practically odorless
BOILING POINT	> 392 °F (> 200 °C)
FREEZING POINT	Not determined
VAPOR PRESSURE	Not available
SOLUBILITY IN WATER	Insoluble
SPECIFIC GRAVITY	1.145
pH	Not applicable
VOC (Part B)	80 g/l
VOC (combined Part A and B)	< 50 g/l
VISCOSITY	Approx 3500 mPa's @ 77° F (25° C)
FLASH POINT [METHOD]	> 482° F (> 250° C) [UNKNOWN]
FLAMMABLE LIMITS	LEL: Not applicable UEL: Not applicable

*VOC = VOLATILE ORGANIC COMPOUNDS

SECTION 10 – STABILITY AND REACTIVITY

STABILITY	Stable. Contact with moisture or other materials that react with isocyanates, or temperatures above 350° F (177°C) may cause polymerizations.
MATERIALS TO AVOID	Strong oxidizers, water, amines



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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

<u>Component</u>	<u>LD50 Oral (rat)</u>	<u>LD50 Dermal (rabbit)</u>	<u>LC50 Inhalation (rat)</u>
Poly-isocyanate (data based on similar product)	> 10,000 mg/kg	Not available	137 - 1150 mg/m ³ / 4H
Dipropylene glycol methyl ether acetate	> 5,000 mg/kg	> 2,000	Not available
Hexamethylene diisocyanate (monomer)	710 mg/kg	Not available	275 mg/m ³

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, 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:	



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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

UNITED STATES

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 and chronic 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)

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: D2A, 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

Xn; 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.)



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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 3. Product name revision.

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.