

SAFETY DATA SHEET

UPC 7001 Hybrid Standard Part B

SDS REVISION DATE: 05/05/2016

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Hybrid Standard Part B

MANUFACTURER: Universal Polymer Coatings, Inc.
DIVISION: Floor Coating
ADDRESS: 737 W. Taft Avenue, Orange CA 92865

EMERGENCY PHONE: 800-255-3924
CHEMTEL PHONE: 800-255-3924
OTHER CALLS: 714-279-1199
FAX PHONE: 714-279-8070

PRODUCT USE: Floor Coating
PREPARED BY: Universal Polymer Coatings, Inc.

SECTION 2: HAZARDS IDENTIFICATIONS

CLASSIFICATION OF THE SUBSTANCE OR MIXTURE:

GHS-US CLASSIFICATION

Acute Toxicity – Inhalation 4
Resp Sens 1
Skin Sens 1
STOT-Single Exposure Resp 3
STOT-Repeated Exposure Inhalation (Lungs) 2

LABEL ELEMENTS:

GHS LABEL ELEMENTS

HAZARD PICTOGRAMS:



SIGNAL WORD: Danger

HAZARD STATEMENTS:

H317 May cause an allergic skin reaction.
H332 Harmful if inhaled
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335 May cause respiratory irritation
H373 May cause damage to organs (lungs) through prolonged or repeated exposure

PRECAUTIONARY STATEMENTS:

PREVENTION: P261 Avoid breathing dust/fume/gas/mist/vapors/spray
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/protective clothing/eye protection/face protection
P284 In case of inadequate ventilation, wear respiratory protection that meets the requirements in OSHA's Respiratory Protection Standard (29 CFR 1910.134) or regional standards.

RESPONSE: P370+P378 In case of fire, use water spray, carbon dioxide, dry chemical or foam for extinction
P303+P361+P353 IF ON SKIN (or hair), remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340 IF INHALED, remove victim to fresh air and keep at rest in a position comfortable for breathing.
P311 IF SWALLOWED, immediately call a POISON CENTER or doctor/physician
P305+P351+P338 IF IN EYES, rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P331 Do NOT induce vomiting.

P332+P313 If skin irritation occurs, get medical advice/attention.
P337+P313 If eye irritation persists, get medical advice/attention.
P362 Take off contaminated clothing and wash before reuse.

STORAGE: P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P403+P235 Store in a well-ventilated place. Keep cool

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	P405	Store locked up
DISPOSAL:	P501	Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

OTHER HAZARDS:

None known

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENTS:	CAS #	AMOUNT
• Homopolymer of Hexamethylene Diisocyanate	28182-81-2	90%
• Hexamethylene-1,6-Diisocyanate	822-06-0	<0.3%
• VOC Exempt Solvents	N/A	>10%

Any other remaining components are trade secret

SECTION 4: FIRST AID MEASURES

INHALATION:	If inhaled, remove to fresh air. If breathing is difficult, give oxygen. If not breathing give artificial respiration. Get medical attention.
SKIN:	In case of skin contact, wash affected areas with soap and water. Immediately remove contaminated clothing and shoes. Get medical attention if irritation develops and persists. Thoroughly clean shoes before reuse. Wash clothing and other apparel before reuse.
EYES:	In case of contact, flush eyes with plenty of lukewarm water. Use fingers to ensure that eyelids are separated and the eye is being irrigated. Get medical attention.
INGESTION:	If ingested, do not induce vomiting unless directed to do so by medical personnel. Get medical attention.
MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED:	No data available
NOTES TO PHYSICIANS/SPECIAL TREATMENT:	If seeking medical attention, provide SDS document to physician..

SECTION 5: FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA:	Dry chemical, carbon dioxide, foam. Use water spray to keep fire-exposed containers cool. Unsuitable Extinguishing Media: High volume water jet.
SPECIFIC (UNUSUAL) HAZARDS:	Firefighters should wear NFPA approved self-contained breathing apparatus and full protective clothing. Avoid contact with product. Decontaminate equipment and protective clothing prior to reuse. Toxic and irritating gases/fumes, including heated diisocyanate that is considered extremely dangerous, may be given off during burning or thermal decomposition. Hazardous Combustion Products: carbon dioxide, carbon monoxide, oxides of nitrogen, hydrogen cyanide, isocyanate, and isocyanic acid, dense black smoke, and other compounds unidentified.
ADVICE FOR FIRE-FIGHTERS:	Self-contained breathing apparatus and full protective clothing must be worn in case of fire, including self-contained breathing apparatus and NFPA compliant helmet, hood, boots and gloves. Vapors or mist may be a fire and explosion hazard when exposed to high temperature or ignition. Closed container may forcibly rupture under extreme heat. Use cold water spray to cool fire-exposed containers to minimize the risk of rupture. Toxic gases/fumes may be given off burning or thermal decomposition.

SECTION 6: ACCIDENTAL RELEASE MEASURES

**PERSONAL PRECAUTIONS,
PROTECTIVE EQUIPMENT
AND EMERGENCY**

PROCEDURES:

Wear appropriate personal protective equipment. Evacuate surrounding areas and isolate the area. Keep unnecessary and unprotected personnel from entering. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Implement site emergency response plan.

**ENVIRONMENTAL
PRECAUTIONS:**

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers. Inform authorities if the product has caused environmental pollution (sewers, drains, waterways or soil).

**METHODS AND MATERIAL
FOR CONTAINMENT AND
CLEANING UP:**

Cleanup personnel must use appropriate personnel protective equipment. Evacuate and keep unnecessary personnel out of spill area. Remove all sources of ignition, including flames, heat and sparks. Stop leak if without risk. Move containers from spill area. Dike or dam spilled material with non-combustible, absorbent material (e.g. sand, earth, vermiculite or diatomaceous earth) and control further spillage, where possible. Make certain the absorbent material soaks up all liquids.

Collect and place spilled material in container (e.g., 55-gal salvage drum) for proper disposal according to appropriate local, state and federal regulations. Repeat application of absorbent material until all liquid has been removed from the surface. Do not fill the salvage container more than two-thirds full to allow for any expansion, and do not tighten the lid on the container. Store salvage container (make certain lid is loose to allow release of carbon dioxide) in a well ventilated, isolated, and cool area for at least 72 hours. Properly dispose of the waste material and any contaminated equipment in accordance with existing federal, state and local regulations.

Decontaminate the spill surface area with a neutralization solution. A neutralization solution can be prepared with a combination of two solutions mixed 1:1 by volume: (Solution1): Mineral Spirits (80%), VVM&P Naptha (15%) and Household Detergent (5%); (Solution 2): Monoethanolamine (50%) and water (50%). Other neutralization solutions include: ZEP® Commercial Heavy-Duty Floor Stripper, EASY OFF® Grill and Oven Cleaner, a solution of Simple Green® Pro HD Heavy-Duty Cleaner (50%) and Household Ammonia (50%), and a solution of Fantastic® Heavy Duty All Purpose Cleaner (90%) and Household Ammonia (10%). Check for residual contamination using Swype® test kits from Colorimetric Laboratories, Inc. (Telephone 847-803-3737) and follow directions provided by the test kits. Repeat decontamination as necessary.

Do not allow spilled material or wash water to enter sewers, surface waters or groundwater systems.

SECTION 7: HANDLING AND STORAGE

**PRECAUTIONS FOR
SAFE HANDLING:**

Do not breathe vapors or spray mist. Avoid contact with eyes or skin. Avoid contact with clothing. Use only with adequate ventilation and personal protection. Remove contaminated personal protective equipment (PPE), and then wash hands and face thoroughly after handling and before eating and drinking. Keep container closed when not in use. Empty containers retain product residue and can be hazardous. Do not get in eyes, on skin or on clothing. Do not ingest. Avoid release to the environment. Either single inhalation exposure to a relatively high concentration or repeated inhalation exposures to a relatively lower contamination can produce asthmatic sensitization. Individuals with lung or breathing problems or prior allergic reactions to isocyanates must not be exposed to vapor or spray mist. Store in tightly closed containers to prevent moisture contamination. Do not reseal if contamination with moisture is suspected.

**CONDITIONS FOR SAFE
STORAGE, INCLUDING
ANY INCOMPATIBILITIES:**

Storage period is 6 months after delivery. Maximum storage temperature is 50°C. (122°F). Keep away from food products during use and storage. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled, unapproved or reactive containers. Use appropriate containment to avoid environment contamination. Personnel education and training in the safe use and handling of this product are required under OSHA Hazard Communication Standard 29 CFR 1910.1200.

**INCOMPATIBLE MATERIALS
OR IGNITION SOURCES:**

Hazardous polymerization does not occur. Avoid water, amines, strong bases, alcohols and copper alloys.

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

CONTROL PARAMETERS:

Chemical Name	Result	ACGIH/OSHA
Homopolymer of Hexamethylene Diisocyanate	STEL	0.001 pm
	TWA	0.005 pm
	PEL	No data available
Hexamethylene-1,6-Diisocyanate	STEL	No data available
	TWA	0.005 ppm
	PEL	No data available

ENGINEERING MEASURES:

General dilution and local exhaust as necessary to control airborne vapors, mists, dusts, and thermal decomposition products below appropriate airborne concentration standards and guidelines. Exhaust air may need to be cleaned by scrubbers or filters to reduce environmental contamination. Curing ovens must be ventilated to prevent the build-up of explosive atmospheres and to prevent off-gases from entering the work place.

ENVIRONMENTAL EXPOSURE CONTROLS:

Avoid release to the environment. Construct a dike to prevent spreading of spills. Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

HYGIENE MEASURES:

Wash hands, forearms and face thoroughly after handling chemical products, before eating and drinking, smoking or using the lavatory and at the end of the working period. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are closed to the workstation location.

PERSONAL PROTECTION



EYE PROTECTION:

Use chemical resistant goggles. Chemical safety goggles in combination with a full face shield must be used if a splash hazard exists.

SKIN PROTECTION:

Wear rubber or plastic apron and permeation resistant clothing, chemical-resistant gloves, and long-sleeved shirts and pants. Remove and wash contaminated clothing before re-use.

HAND PROTECTION:

Use permeation resistant gloves such as butyl rubber, nitrile rubber or neoprene.

RESPIRATORY PROTECTION:

In case of inadequate ventilation, wear respiratory protection. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Use positive pressure supplied air respirator when airborne concentrations are not known, when airborne levels are 10 times the appropriate TLV, and when spraying is performed or product is applied by aerosol in a confined space or area with limited ventilation. If respirators are used, a program should be instituted to assure compliance with OSHA Standard 63 FR 1152, January 8, 1998. Contact health and safety professional or manufacturer for specific information.

A respirator that is recommended or approved for use in isocyanate-containing environments, including air-purifying or fresh air-supplied, may be necessary for spray applications or other situations such as high temperature use that may produce unacceptable inhalation exposures. A supplied air respirator (either positive pressure or continuous flow-type) is recommended. Before an air-purifying respirator can be used, air monitoring must be performed to measure airborne concentrations of HDI monomer and HDI polyisocyanate. Specific conditions under which air-purifying respirators can be used are provided herein. Observe OSHA regulations for respirator use (29 CFR 1910.134).

When coatings containing isocyanates are spray applied, good industrial safety practice requires the use of some form of respiratory protection. During spray application of coatings containing this product, the use of a supplied-air (either positive pressure or continuous flow-type) respiratory is mandatory when one or more of the following conditions exist:

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1. The airborne isocyanate concentrations are not known.
2. The airborne isocyanates monomer concentrations exceed 0.05 ppm averaged over eight (8) hours. This is 10 times the 8 hour TWA or the 15 minute STEL exposure limits.
3. The airborne polyisocyanate (polymeric, oligomeric) concentrations exceed 5 mg/m³ averaged over 8 hours or 10 mg/m³ averaged over 15 minutes. This is 10 times the 8 hour TWA or the 15 minute STE'L exposure limits.
4. Operations are performed in a confined space (see OSHA Confined Space Standard, 29 CFR 1910.146)

A properly fitted air-purifying (combination organic vapor and particulate) respirator, proven by test to be effective in isocyanate-containing spray paint environments, and used in accordance with all recommendations made by the manufacturer, can be used when all of the following conditions are met:

1. The airborne isocyanate monomer concentrations are not known
2. The airborne isocyanate monomer concentrations exceed 0.05 ppm averaged over eight (8) hours. This is 10 times the 8 hour TWA or the 15 minute STEL exposure limits.
3. The airborne polyisocyanate (polymeric, oligomeric) concentrations exceed 5 mg/m³ averaged over 8 hours or 10 mg/m³ averaged over 15 minutes. This is 10 times the 8 hour TWA or the 15 minute STE'L exposure limits.
4. A NIOSH-certified End-Of-Service-Life indicator or a change schedule based upon objective information or data is used to ensure that cartridges are replaced before the end of their service life. In addition, pre-filters should be changed whenever breathing resistance increases due to particulate buildup.

During non-spray operations such as mixing, batch-making, brush, or roller application, etc., at elevated temperatures (such as in the case where material is heated or material is applied to a hot substrate), exposure to airborne isocyanates vapors is possible. In this case, when the coatings system is applied in a non-spray manner, a supplied-air (either positive pressure or continuous flow-type) respiratory is mandatory when one or more of the following conditions exists:

1. The airborne isocyanates concentrations are not known
2. The airborne isocyanates monomer concentrations exceed 0.05 ppm averaged over eight (8) hours (10 times the 8 hour TWA exposure limit)
3. The airborne polyisocyanate (polymeric, oligomeric) concentrations exceed 5 mg/m³ averaged over 8 hours or 10 mg/m³ averaged over 15 minutes (10 times the 8 hour TWA or the 15 minute STEL exposure limits)
4. A NIOSH-certified End-Of-Service-Life indicator or a change schedule based upon objective information or data is used to ensure that cartridges are replaced before the end of their service life. In addition, pre-filters should be changed whenever breathing resistance increases due to particulate buildup.

SPECIAL INSTRUCTIONS:

All applicants who are assigned to an isocyanate work area should undergo a pre-placement medical evaluation. A history of eczema or respiratory allergies such as hay fever, are possible reasons for medical exclusion from isocyanate work areas. Applicants with a history of prior isocyanate sensitization should be excluded from further work with isocyanates. A comprehensive annual medical surveillance program should be instituted for all employees who are potentially exposed to diisocyanates. Once a worker has been diagnosed as sensitized to any isocyanate, no further exposure should be permitted.

GENERAL HYGIENE CONSIDERATIONS:

Keep away from food and drink. Wash hands and face after use. Educate and train workers in the safe use and handling of this product. Emergency showers and eye wash stations should be available. Follow all label instructions.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:

Physical state	Liquid
Color	Colorless to pale yellow

ODOR: Minimal or no odor

ODOR THRESHOLD: No data available

pH: No data available

MELTING POINT: No data available

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BOILING POINT:	Decomposes
FLASH POINT:	@ 338 ° F, (170 ° C)
EVAPORATION RATE:	No data available
FLAMMABILITY (solid, gas):	No data available
FLAMMABILITY LIMIT IN AIR	
Upper:	No data available
Lower:	No data available
VAPOR PRESSURE:	No data available
WATER SOLUBILITY:	Reacts
RELATIVE VAPOR DENSITY:	No data available
RELATIVE DENSITY:	No data available
PARTITION COEFFICIENT:	No data available
AUTO-IGNITION TEMP:	No data available
DECOMP TEMP:	No data available
VISCOSITY:	No data available
MOLECULAR WEIGHT:	No data available
DENSITY:	No data available

SECTION 10: STABILITY AND REACTIVITY

CHEMICAL STABILITY:	Stable under normal conditions of use and storage.
POSSIBILITY OF HAZARDOUS REACTIONS:	Contact with moisture, other materials that react with isocyanates, or temperatures above 177°C (350°F) may cause polymerization
CONDITIONS TO AVOID:	Heat, flames and sparks
MATERIAL TO AVOID:	Water, amines, strong bases, alcohols, copper alloys
HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:	Carbon dioxide, carbon monoxide, oxides of nitrogen, dense black smoke, hydrogen cyanide, isocyanate, isocyanic acid, and other compounds unidentified

SECTION 11: TOXICOLOGICAL INFORMATION

INFORMATION ON TOXICOLOGICAL EFFECTS

LIKELY ROUTES OF EXPOSURE

Effects on Eye:	May cause eye irritation with symptoms of reddening, tearing, stinging and swelling. Particularly with product vapor, mists or aerosol. May cause temporary corneal injury.
Effects of Skin:	May cause skin irritation with symptoms of reddening, itching and swelling. Can cause sensitization with symptoms of reddening, itching, swelling and rash. Cured material is difficult to remove from the skin.
Inhalation Effects:	Isocyanate vapors or mist at concentrations above the exposure limits or guidelines can cause a burning sensation and irritate the mucous membranes in the nose, throat and lungs, resulting in symptoms of running nose, sore throat, coughing, chest discomfort, shortness of breath and difficulty in breathing. Persons with specific pre-existing as well as non-specific bronchial hyperreactivity can respond to concentrations of isocyanate below the exposure limit or guidelines with asthma or asthma-like symptoms. Exposure above these limits of guidelines may lead to bronchitis, bronchial spasm and fluid in lungs (pulmonary edema). Some persons may see a delay of these symptoms up to several hours after exposure, and these effects are usually reversible.
Ingestion Effects:	May cause irritation of the digestive tract with symptoms that include abdominal pain, nausea, vomiting, and diarrhea.

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ACUTE TOXICITY

Acute Toxicity – Component(s):

Oral:	-Homopolymer of Hexamethylene Diisocyanate -Hexamethylene-1,6-Diisocyanate	LD50: $\geq 2,500$ mg/kg LD50: 746 mg/kg	Species: Rat (female) Species: Rat (female)
Inhalation:	-Homopolymer of Hexamethylene Diisocyanate -Hexamethylene-1,6-Diisocyanate	LD50: 0.390–0.543 mg/l, 4h LD50: 0.124 mg/l, 4h	Species: Rat (female) Species: Rat (female)
Dermal:	-Homopolymer of Hexamethylene Diisocyanate -Hexamethylene-1,6-Diisocyanate	LD50: $> 2,000$ mg/kg LD50: $> 2,000$ mg/kg LD50: $> 7,000$ mg/kg	Species: Rabbit Species: Rat Species: Rat

**Skin corrosion/
irritation:**

Slight skin irritation / corrosive (Rabbit)

**Eye damage/
irritation:**

Slight irritant / corrosive (Rabbit)

**Sensitization to
respiratory:**

Respiratory sensitizer

CHRONIC TOXICITY OR EFFECTS FROM LONG TERM EXPOSURES

Carcinogenicity: No data available

Reproductive toxicity: No data available

Germ cell mutagenicity: No data available

**Specific target organ
systemic toxicity:**

Single exposure: May cause respiratory irritation

Repeated exposure: No data available

Aspiration hazard: No data available

SECTION 12: EGOLOGICAL INFORMATION

ECOTOXICITY EFFECTS

Aquatic toxicity:

Toxicity to Fish – Component(s): LC50 100 mg/l, 96h Species: Danio rerio (zebra fish)

Toxicity to Aquatic Invertebrates – Component(s): EC50 100 mg/l, 48h Species: Daphnia magna (water flea)

Toxicity to Aquatic Plants – Components(s): No data available

Toxicity to other organisms – Components(s): No data available

PERSISTENCE AND DEGRADABILITY

Biodegradability: Not readily degradable

Mobility in soil: No data available

Bioaccumulation: Accumulation is not expected

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL

METHOD:

Dispose in accordance with Federal, State, and Local laws and regulations. The generation of waste should be avoided or minimized wherever possible. Empty containers should be taken to an approved waste handling site for recycling or disposal incineration or landfill should only be considered when recycling is not feasible. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Do not heat or cut container with electric or gas torch. Recondition or dispose of empty container in accordance with governmental laws and regulations. Do not reuse empty container without proper cleaning. Label precautions also apply to this container when empty.

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SECTION 14: TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION

DOT: Not regulated
IATA: Not regulated
IMDG: Not regulated

SECTION 15: REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS

TSCA (TOXIC SUBSTANCE CONTROL ACT): None

Country	Regulatory List	Notification
USA	TSCA	Included on Inventory
EU	EINECS	Included on EINECS inventory or polymer substance, monomers included on EINECS inventory or no longer polymer.
CANADA	DSL	Included on Inventory
AUSTRALIA	AICS	Included on Inventory
JAPAN	ENCS	Included on Inventory
SOUTH KOREA	ECL	Included on Inventory
CHINA	SEPA	Included on Inventory
PHILIPPINES	PICCS	Included on Inventory

EPA SARA Title III Section 311/312 Hazard Classification: Acute Health Hazard, Chronic Health Hazard

EPA SARA Title III Section 313 (40 CFR 372) Component(s): None

EPA SARA Title III Section 302 Extremely Hazardous Substances TPQs: None

EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A and 40 CFR 372.65) Component(s): None

US California Safe Drinking Water & Toxic Enforcement Act (Proposition 65): None

State Right-To-Know: Massachusetts, New Jersey, Pennsylvania

SECTION 16: DISCLAIMER

OTHER INFORMATION

HMIS Rating:
Health: 2
Flammability: 2
Physical Hazard: 0

DISCLAIMER: The information herein is given in good faith, but no warranty expressed or implied is made. Universal Polymer Coatings, Inc. urges suppliers and users of this product to evaluate its suitability and compliance with local regulations as Universal Polymer Coatings, Inc. cannot foresee the nature of the final application or final location of usage.