SAFETY DATA SHEET

Product Name: **EPIC Part B**

SECTION 1 – PRODUCT AND COMPANY IDENTIFICATION

Manufacturer/Distributor Name: Ultra Durable Technologies, Inc.
1415 5th St N
St. Cloud, MN 56303
1-800-722-2998 www.ultradt.com

Emergency Phone Numbers: CHEMTREC within the United States 1-800-424-9300
CHEMTREC within Canada +1-703-527-3887

Product Name: EPIC Part B

SECTION 2 – HAZARDS IDENTIFICATION

GHS Classifications:

Health: Category 3
Flammability: Category 4
Reactivity: Category 4

Signal Words:
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.
Precautionary statements:
Prevention:
P261: Avoid breathing dust/fumes/gas/mist/vapors/spray.
P271: Use only outdoors or in a well-ventilated area.
P272: Contaminated work clothing should not be allowed out of the workplace.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P284: [In case of inadequate ventilation] wear respiratory protection.
Response:
P302+352: If on skin, wash with plenty of water.
P304: If inhaled move to an area free from further exposure.
P332+313: If skin irritation occurs get medical advice/attention.
P342+311: If experiencing respiratory symptoms: Call a poison center or a doctor.
P352: Wash with plenty of water.
P363: Wash contaminated clothing before reuse.
Storage:
P403+233: Store in a well ventilated place. Keep container tightly closed.
P405: Store locked up.
Disposal:
P501: Dispose of contents/ container to an approved disposal plant.

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

EMERGENCY OVERVIEW

Clear, odorless liquid. Toxic gases/fumes may be given off during burning or thermal decomposition. Closed container may forcibly rupture under extreme heat or when contents have been contaminated with water. Use cold water spray to cool fire-exposed containers to minimize the risk of rupture. Causes respiratory tract irritation. May cause allergic respiratory reaction. Harmful if inhaled. Respiratory sensitizer. Lung damage and respiratory sensitization may be permanent. Causes skin irritation. May cause allergic skin reaction. Skin sensitizer. Animal tests and other research indicate that skin contact with diisocyanates can play a role in causing isocyanate sensitization and respiratory reaction. Causes eye irritation. May cause lung damage.

POTENTIAL HEALTH EFFECTS

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.
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 a result of exposure to vapor. Cured material is hard to remove.
EYES: Contact causes sever irritation and pain associated with redness and swelling of the conjunctiva.
INGESTION: Moderately toxic; may cause headache, dizziness, diarrhea and general weakness; large doses may result in red blood cell hemolysis.

Carcinogenicity: No carcinogenic substances as defined by IARC, NTP and/or OSHA

INGREDIENT:	Homopolymer of hexamethylene diisocyanate*	Hexamethylene-1,6-diisocyanate
CAS No.	28182-81-2	822-06-0
% by WEIGHT:	>95%	<.15%
OSHA PEL:	Not Established	Not Established
OSHA TWA:	0.5 TWA	0.005
ACGIH TWA:	Not Established	Not Established
ACGIH STEL:	0.5 STEL	0.005

(*) The ACGIH Threshold Limit Value (TLV) has not been established nor has OSHA established the Permissible Exposure Limit (PEL) for this product, therefore the limits described have been established as guidelines by the manufacturer.
(a) Monomer content is less than 0.2% based on resin solids at the time of manufacture
(b) A "yes" in the SARA TITLE III column in Section 2 indicates a toxic chemical subject to annual reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372.
(c) The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) has notification requirements for releases or spills to the environment of the Reportable Quantity (RQ for this mixture > 24,000 lbs.) or greater amounts, according to 40 CFR 302.

SECTION 4 – FIRST AID MEASURES

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.
SKIN: Remove contaminated clothing; wash affected area with soap and water; launder contaminated clothing before reuse; if irritation persists seek medical attention.
EYES: Remove contact lenses. Flush eyes with clear running water for 15 minutes while holding eyelids open; 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 supervision of a physician.

SECTION 5 – FIREFIGHTING MEASURES

Flash Point: Nonflammable.
Flash Point: >450 deg. F.
Method Used: Not available.
Flammability limits:
LFL Not applicable, UFL Not applicable, Auto-ignition temp Not determined. NFPA Class IIIB

GENERAL HAZARDS: Product will support combustion. Products of combustion include compounds of carbon, hydrogen and oxygen including carbon monoxide.
EXTINGUISHING MEDIA: Carbon dioxide, dry chemical, chemical foam.
FIRE FIGHTING PROCEDURES: Firefighters must wear full face piece 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.
UNUSUAL FIRE AND 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!
HAZARDOUS COMBUSTION PRODUCTS: Smoke, fumes, oxides of carbon

SECTION 6 – ENVIRONMENTAL 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

Storage Temperature: Minimum -34 °C (-29.2 °F). Maximum 50 °C (122 °F).
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Keep containers closed when not in use; protect containers from abuse; protect from extreme temperatures and open flames. Keep this and other chemicals out of reach of children. CAUTION: This material will support combustion!

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 2 for Component Exposure Guidelines.
PERSONAL PROTECTION
RESPIRATORY PROTECTION: None required while threshold limits (section 2) are kept below maximum allowable concentrations; if TWA exceeds limits, NIOSH approved respirator approved for isocyanate-containing environments must be worn.
PROTECTIVE GLOVES: Neoprene or rubber gloves with cuffs.
EYE PROTECTION: Safety goggles with side shields, safety eyebath nearby
OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Coveralls, apron, or other equipment should be worn to minimize skin contact.
WORK / HYGIENIC PRACTICES: Practice safe workplace habits. Minimize body contact with this, as well as all chemicals in general.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

VAPOR PRESSURE (MM Hg):	17 mmHg @ 20° C
VAPOR DENSITY (AIR = 1):	> 1
SPECIFIC GRAVITY (WATER = 1):	1.080
EVAPORATION RATE (WATER = 1):	< 1
SOLUBILITY IN WATER:	Totally Miscible
FREEZING POINT:	Not determined
pH:	8.5
APPEARANCE AND ODOR:	Clear liquid, slightly sweet odor
BOILING POINT:	212° F (100° C)
PHYSICAL STATE:	Liquid
VISCOSITY:	Not specified
VOLATILE ORGANIC COMPOUNDS	None

SECTION 10- STABILITY AND REACTIVITY

STABILITY: Stable under normal conditions
CONDITIONS TO AVOID: Extreme temperatures
INCOMPABILITY (MATERIALS TO AVOID): Can react vigorously with strong oxidizers, strong acids, mineral and organic bases, primary and secondary aliphatic amines.
HAZARDOUS DECOMPOSITION OR BYPRODUCTS: 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 under abnormal conditions.
CONDITIONS TO AVOID: Hazardous polymerization may occur with excess of aliphatic amine curing agent.

SECTION 11– TOXICOLOGICAL INFORMATION

HAZARDOUS INGREDIENT:	Homopolymer of hexamethylene diisocyanate*	Hexamethylene-1,6- diisocyanate
CAS #:	28182-81-2	882-06-0
EINECS #:	Not found	212-485-8
LD50 of INGREDIENT:	>10,000 mg/kg	710 mg/kg
(Species and Route):	Oral-rat	Oral-rat
LC50 of INGREDIENT:	137-1150 mg / m3 / 4H	275 mg / m3
(Species and Route):	Oral-rat	Inhalation-rat

SECTION 12- ECOLOGICAL INFORMATION

No data 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

WASTE DISPOSAL METHOD: 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. Refer to "40 CFR Protection of Environment Parts 260-299" for complete waste disposal regulations. Consult your Local, State or Federal Environmental Protection Agency before disposing of any chemicals.

SECTION 14 –TRANSPORT INFORMATION

PROPER SHIPPING NAME: Not regulated
HAZARD CLASS / PACK GROUP: Not regulated
IATA HAZARD CLASS / PACK GROUP: Not regulated
REFERENCE: Not applicable
IMDG HAZARD CLASS: Not regulated
IDENTIFICATION NUMBER: None
RID/ADR DANGEROUS GOODS CODE: Not regulated
LABEL: None Required
CANADIAN TDG CLASS / DIVISION: Not regulated
HAZARD SYMBOLS: None
HAZARD IDENTIFICATION NUMBER (HIN): None
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 CFRR 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.
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.
IDL (Canadian Ingredient Disclosure List)
Components of this product identified by CAS number and listed on the Canadian Ingredients Disclosure List are shown in Section 2.
DSL / NDSL (Canadian Domestic Substances List / Non-Domestic Substances List)
Components of this product identified by CAS number are listed on the DSL or NDSLO and may or may not be listed in Section 2 of this document. Only ingredients classified as "hazardous" are listed in section 2 unless otherwise indicated.
EINECS (European Inventory of Existing Commercial Chemical Substances)
Components of this product identified by CAS number are on the European Inventory of Existing Commercial Chemical Substances.
EC Risk Phrases: Not Classified
EC Safety Phrases: S24/25 Avoid contact with skin and eyes
SYMBOLS REQUIRED FOR LABEL: None

SECTION 16 – OTHER INFORMATION

HMIS HAZARD RATINGS 0 = INSIGNIFICANT; 1 = SLIGHT; 2 = MODERATE; 3 = HIGH; 4 = EXTREME
HEALTH: 2
FLAMMABILITY: 1
PHYSICAL HAZARD: 1
PERSONAL PROTECTIVE EQUIPMENT: B (SAFETY GLASSES AND GLOVES)
REVISION DATE: 05/05/2017
REVISIONS SUMMARY
This SDS has been revised in the following sections: No changes noted.

The information contained herein is believed to be accurate but is not warranted to be so. Users are advised to confirm in advance of need that information is current, applicable and suited to the circumstances of use. Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, vendor assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed. Any questions regarding this product should be directed to Ultra Durable Technologies as described in Section 1.