

# HTS EPX-100 Part B MSDS

## Section I

PRODUCT NAME: HTS EPX-100 Part B  
PRODUCT CLASS: Amine Curing Agent  
PRODUCT TYPE: Cycloaliphatic Amine Mixture  
D.O.T. CATEGORY: Corrosive Liquid N.O.S. UN 2289, Chemicals NOIBN

MANUFACTURER: Progressive Fastening  
1190 N Del Rio Pl. Ontario, CA 91764  
<http://www.htspoly.com/>  
800-454-5530

**EMERGENCY PHONE:** **INFOTRAC (24-hr/7 days): 1-800-535-5053**  
**Outside the United States: Call collect 1-352-323-3500**  
**For Medical Emergency: Call 1-800-535-5053**

## Section II – Emergency Overview

NFPA Hazard Ratings: Health 3, Flammability 1, Reactivity 0

PHYSICAL FORM: Clear Liquid

COLOR: Colorless

ODOR: Mild Ammonia

HAZARDS: Corrosive to eyes. Corrosive to respiratory system. Corrosive to skin. Severe eye irritant. Severe respiratory tract irritant. Severe skin irritant. May cause skin sensitization.

**EXTINGUISHING MEDIA:** Ignition will give rise to a Class B fire. In case of large fire use: alcohol foam, water spray. In case of small fire use: carbon dioxide (CO<sub>2</sub>), dry chemical, dry sand or limestone.

## Section III - Ingredients

Isophoronediamine - CASRN 2855-13-2 ->50%

Benzyl Alcohol - CASRN 100-1-6 - >30%

OSHA (ACGIH) EXPOSURE LIMITS: Not Established

## Section IV – Health Information

### **ROUTES OF EXPOSURE:**

Eye Contact

Skin Contact

Ingestion

Inhalation

Skin Absorption

**EXPOSURE STANDARDS:** No standards established for the product. Maintain air contaminant concentrations in the workplace at the lowest feasible levels.

### **HEALTH HAZARDS:**

Corrosive to eyes.

Corrosive to respiratory system.

Corrosive to skin.

Severe eye irritant.

Severe respiratory tract irritant.

Severe skin irritant.  
May cause skin sensitization.

**TARGET ORGANS:**

Eye  
Skin  
Respiratory system

**SIGNS AND SYMPTOMS OF EXPOSURE (Acute effects):**

Product vapor in low concentrations can cause lacrimation, conjunctivitis and corneal edema when absorbed into the tissue of the eye from the atmosphere. Corneal edema may give rise to a perception of "blue haze" or "fog" around lights. The effect is transient and has no known residual effect. Burns of the eye may cause blindness. Contact with the skin may cause dryness (defatting), itching and/or rash. Contact of undiluted product with the eyes or skin quickly causes severe irritation and pain and may cause burns, necrosis and permanent injury. Inhalation of vapors may severely damage contacted tissue and produce scarring. Inhalation of aerosols and mists may severely damage contacted tissue and produce scarring. Risk of exposure to hazardous concentrations of vapor under normal working conditions in a well-ventilated space is minimal. However, conditions such as spraying, or sudden release of hot liquid, which generate an aerosol, mists or fog, should be avoided. Product is absorbed through the skin and may cause nausea, headache and general discomfort.

**SIGNS AND SYMPTOMS OF EXPOSURE (Possible Longer Term Effects):**

Repeated and/or prolonged exposure may cause allergic reaction/sensitization. Repeated and/or prolonged exposures may result in: adverse respiratory effects (such as cough, tightness of chest or shortness of breath), adverse eye effects (such as conjunctivitis or corneal damage), adverse skin effects (such as defatting, rash, or irritation), adverse skin effects (such as rash, irritation or corrosion).

Effects from inhalation of vapors may be delayed. Dryness of nasal passages may be experienced when material is inhaled over a long period of time. Repeated and/or prolonged exposure to low concentrations of vapor may cause sore throat, which is transient.

**MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:**

Asthma, chronic respiratory disease (e.g. bronchitis, emphysema), Eye disease, Skin disorders and Allergies.

**CARCINOGENS UNDER OSHA, ACGIH, NTP, IARC, OTHER**

This product contains no carcinogens in concentrations of 0.1 percent or greater.

**Section V – First Aid****EYE CONTACT:**

Hold eyelids apart and immediately flush eyes with plenty of water for at least 15 minutes. Seek medical advice.

**SKIN CONTACT:**

Remove product and immediately flush affected are with water for at least 15 minutes. Remove contaminated clothing and shoes. Destroy contaminated leather apparel. Cover the affected area with a sterile dressing or clean sheeting and transport for medical care. Do not apply greases or ointments. Control shock, if present. Launder contaminated clothing prior to reuse.

**INHALATION:**

Move patient to fresh air. If breathing has stopped or is labored, give assisted respiration (e.g. mouth-to-mouth). Supplemental oxygen may be indicated. Prevent aspiration of vomit. Turn victim's head to the side. Seek medical advice.

**INGESTION:**

In the event of ingestion, administer 3 – 4 glasses of milk or water. Do not induce vomiting. Seek medical advice.

**Section VI – Fire and Explosion Data**

FLASH POINT (Closed cup): >500°F

UPPER EXPLOSION LIMIT: No data

LOWER EXPLOSION LIMIT: No Data

AUTOIGNITION TEMPERATURE: No data

FIRE HAZARD CLASSIFICATION (OSHA/NFPA): Class IIIB

**EXTINGUISHING MEDIA:**

Ignition will give rise to a Class B fire. In case of large fire use: water spray, alcohol foam. In case of small fire use: carbon dioxide (CO<sub>2</sub>), dry chemical, dry sand or limestone.

**SPECIAL FIRE FIGHTING PROCEDURES:**

A face shield should be worn. Firefighters should wear butyl rubber boots, gloves, and body suit and a self-contained breathing apparatus.

Retain expended liquids from fire fighting for later disposal.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:**

May generate toxic or irritating combustion products. Contact of liquid with skin must be prevented. Sudden reaction and fire may result if product is mixed with an oxidizing agent. May generate carbon monoxide gas. May generate toxic nitrogen oxide gases. May generate ammonia gas. Personnel in vicinity and downwind should be evacuated.

**Section VII – Accidental Release Measures****CONTAINMENT TECHNIQUES**

Stop the leak, if possible. Ventilate the space involved. Reduce vapor spreading with a water spray. Shut off or remove all ignition sources. Construct a dike to prevent spreading (includes molten liquids until they freeze).

**CLEAN UP PROCEDURES:**

If recovery is not feasible, admix with dry soil, sand or non-reactive absorbent and place in an appropriate chemical waste container. Transfer to containers by suction, preparatory for later disposal. Flush area with water spray. Clean-up personnel must be equipped with self-contained breathing apparatus and butyl rubber protective clothing. For large spills, recover spilled material with a vacuum truck.

**OTHER EMERGENCY ADVICE:**

Open closed spaces to outside atmosphere. Wear protective clothing, boots, gloves, and eye protection.

**Section VIII – Storage and Handling**

**STORAGE:** Keep away from acids and oxidizers. Keep in cool, dry, ventilated storage and in closed containers. Do not store in reactive metal containers.

**HANDLING:** Avoid contact with skin or eyes. Avoid breathing of vapors. Handle in well-ventilated workspace.

**OTHER PRECAUTIONS:** Emergency showers and eye wash stations should be readily accessible. Adhere to work practice rules established by government regulations (e.g. OSHA).

**Section IX - Personal Protection/Exposure Controls**

**EYE PROTECTION:** Full-face shield with goggles underneath.

**HAND PROTECTION:** Neoprene rubber gloves. Impermeable gloves. Cuffed butyl rubber gloves. Nitrile rubber gloves.

**RESPIRATORY PROTECTION:** Not required under normal conditions in a well-ventilated workplace. An organic vapor respirator National Institute for Occupational Safety and Health (NIOSH) approved for organic vapors is recommended under emergency conditions.

**PROTECTIVE CLOTHING:** Impervious clothing. Slicker suit. Rubber boots. Full rubber suit (rain gear). Butyl or latex protective clothing.

**ENGINEERING CONTROLS:** No specific controls needed.

**WORK AND HYGIENIC PRACTICES:** Provide readily accessible eye wash stations and safety showers. Wash at the end of each workshift and before eating, smoking or using the toilet. Promptly remove clothing that becomes contaminated. Use appropriate hand and skin lotions to protect the skin. Discard contaminated leather articles.

**Section X – Chemical Properties**

Physical Form: liquid

Color: Colorless

Odor: Slight Ammonia

PH: 9.00  
Boiling Point: >500F  
Melting Point: No Data  
Specific Gravity: 1.02  
Vapor Density: No Data

### **Section XI – Stability and Reactivity**

**CHEMICAL STABILITY:** Stable

**CONDITIONS TO AVOID:** Excessive heat

#### **INCOMPATIBILITY (Materials to Avoid):**

Mineral acids (i.e. sulfuric, phosphoric, etc.), Organic acids (i.e. acetic acid, citric acid, etc.), Oxidizing Agents (i.e. perchlorates, nitrates, etc.), Reactive metals (i.e. calcium, zinc, etc.), Sodium or Calcium Hypochlorite. Product slowly corrodes copper, aluminum, zinc and galvanized surfaces. Reaction with peroxides may result in violet decomposition of peroxide possibly creating an explosion. A reaction accompanied by large heat release occurs when the product is mixed with acids.

#### **HAZARDOUS DECOMPOSITION PRODUCTS (from burning, heating, or reaction with other materials):**

Nitrogen oxide can react with water vapors to form corrosive nitric acid (TLV=2 ppm). Carbon monoxide in a fire. Carbon Dioxide in a fire. Ammonia when heated. Nitrogen Oxides in a fire. Irritating and toxic fumes at elevated temperatures. Nitric acid in a fire. Aldehydes. The oxides of nitrogen gases (except nitrous oxide) emitted on decomposition are highly toxic.

**HAZARDOUS POLYMERIZATION:** Will not occur.

### **Section XII – Toxicological Properties**

Acute Oral Toxicity (LD50, Rat) – 2300.00 mg/kg  
Acute Dermal Toxicity (LD50, Rabbit) - >2800.00 mg/kg (estimate)  
Acute Inhalation Toxicity (LC50, Rat) - >10.00 mg/L /1 hr. (no deaths) (Estimate)

#### **OTHER DATA:**

Toxicity data from similar products. Industrial chemicals such as this material with acute toxicity values shown above and whose vapors or mists are not likely to be encountered by humans when used in any reasonably foreseeable manner would not require a toxic label according to U.S. domestic and international transport regulations.

OTHER ACUTE EFFECTS: No data

IRRITATION EFFECTS DATA: Corrosive to the skin of a rabbit.

CHRONIC/SUBCHRONIC DATA: No delayed, subchronic or chronic test data are known.

### **Section XIII – Ecological Data**

ECOTOXICITY: No data

ENVIRONMENTAL FATE: 2855-13-2 Isophoronediamine; biodegradable

### **Section XIV – Disposal Information**

WASTE DISPOSAL: Comply with all Federal, State and Local Regulations

### **Section XV – Transportation Information**

DOT NON-BULK SHIPPING NAME: Isophoronediamine solution // 8 // UN2289 // PG III  
DOT BULK SHIPPING NAME: Refer to Bill of Lading.  
IMO SHIPPING DATA: Refer to Bill of Lading.  
ICAO/IATA SHIPPING DATA: Isophoronediamine solution // 8 // UN2289 // III // Shipment per 49 CFR 171.11

**Section XVI – Regulatory Information**

## US FEDERAL REGULATIONS

Toxic Substances Control Act (TSCA) – All components are included in the EPA Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

OSHA HAZARD COMMUNICATION STANDARD (29CFR1910.1200) HAZARD CLASSES:

Corrosive; Sensitizer

EPA SARA TITLE III SECTION 312 (40CFR370) HAZARD CLASS:

Immediate Health Hazard; Delayed Health Hazard

EPA SARA TITLE III SECTION 313 (40CFR372) TOXIC CHEMICALS ABOVE “DE MINIMIS” LEVEL ARE:

None

## STATE REGULATIONS

PROPOSITION 65 SUBSTANCES (components known to the State of California to cause cancer and/or reproductive toxicity and subject to warning and discharge requirements under the “Safe Drinking Water and Toxic Enforcement Act of 1986”):

None

NEW JERSEY TRADE SECRET REGISTRY NUMBER

05995500-

## CANADA

DSL – Included in Inventory

WHMIS HAZARD CLASSIFICATION: Class D Division 2 B, Class E Corrosive

WHMIS TRADE SECRET REGISTRY NUMBERS: None

WHMIS HAZARDOUS INGREDIENTS: Isophoronediamine (IPD); Benzyl Alcohol

WHMIS SYMBOLS: Test tube/hand, Stylized T

EUROPEAN ECONOMIC COMMUNITY (EEC)

EINICS/ELINCS MASTER INVENTORY -included on inventory.

EEC SYMBOL: Corrosive ( C )

EEC RISK ( R ) PHRASES: May cause sensitization by skin contact (R43) Causes burns (R34). Harmful by inhalation and in contact with skin (R20/21).

EEC SAFETY PHRASES: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice (S26). Wear suitable protective clothing, gloves and eye/face protection (S36/37/39). In case of accident or if you feel unwell, seek medical advice immediately (show label where possible) (S45).

AUSTRALIA – AICS – Included on Inventory.

JAPAN MITI – Not determined

PHILIPPINES PICCS – Included on Inventory.

KOREA ECLL - Included on Inventory.

CHINA SEPA - Included on Inventory.