



oxides of nitrogen, HCN, HDI, chlorine containing gases, fluorine containing gases.

Hazardous Polymerization: May occur; contact with moisture or other materials which react with isocyanates or temperatures above 400 F (204 C) may cause polymerization.

#### SECTION-6 HEALTH HAZARDS

##### **Acute Overexposure:**

Acute Inhalation: HDI vapors or mist at concentrations above the TLV or MGL can irritate (burning sensation) the mucous membranes in the respiratory tract (nose, throat, lungs) causing runny nose, sore throat, coughing, chest discomfort, shortness of breath and reduced lung function (breathing obstruction). Persons with a preexisting, nonspecific bronchial hyperactivity can respond to concentrations below the TLV or MGL with similar symptoms as well as an asthma attack. Exposure well above the TLV or MGL may lead to bronchitis, bronchial spasm and pulmonary edema (fluid in lungs). These effects are usually reversible. Chemical or hypersensitive pneumonitis, with flu-like symptoms (e.g., fever, chills) has also been reported. May produce symptoms of central nervous system depression including headache, dizziness, nausea, loss of balance and drowsiness.

Acute Skin Contact: Isocyanates react with skin protein and moisture and can cause irritation.

Symptoms of skin irritation may be reddening, swelling, rash, scaling or blistering. Some persons may develop skin sensitization from skin contact. Cured material is difficult to remove.

Acute Eye Contact: Liquid, aerosols and vapors of this product are irritating and can cause pain, tearing, reddening and swelling accompanied by a stinging sensation and/or a feeling like that of fine dust in the eyes.

Acute Ingestion: Can result in irritation and possible corrosive action in the mouth, stomach tissue and digestive tract.

**Notice:** Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal. Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage.

##### **Chronic Overexposure:**

Chronic Inhalation: As a result of previous repeated overexposures or a single large dose, certain individuals will develop isocyanate sensitization (chemical asthma) which will cause them to react to a later exposure to isocyanate at levels well below the TLV or MGL. These symptoms, which include: Chest tightness, wheezing, cough, shortness of breath or asthmatic attack, could be immediate or delayed up to several hours after exposure. Similar to many non-specific asthmatic responses, there are reports that, once sensitized, an individual can experience these symptoms upon exposure to dust, cold air or other irritants. This increased lung sensitivity can persist for weeks and, in severe cases, for several years. Chronic overexposure to isocyanates has also been reported to cause lung damage, including decrease in lung function, which may be permanent.

Sensitization may be either temporary or permanent. May cause liver and kidney damage.

Chronic Skin Contact: Prolonged contact with the isocyanate can cause reddening, swelling, rash, scaling or blistering. In those who have developed a skin sensitization, these symptoms can develop as a result of contact with very small amounts of liquid material or even as a result of vapor only exposure.

Chronic Eye Contact: May result in corneal opacity (clouding of the eye surface).

Chronic Ingestion: Prolonged or repeated swallowing of large amounts may cause liver and kidney damage based on animal studies.

**Carcinogenicity:** NTP: Not listed, IRAC: Not listed, OSHA: Not regulated.

**Medical Conditions Aggravated By Exposure:** Asthma and other respiratory disorders

(bronchitis, emphysema, hyperreactivity), skin allergies, eczema.

#### SECTION-7 FIRST AID

**Inhalation:** Remove to fresh air. Give artificial respiration if necessary. Asthmatic-type symptoms may develop and may be immediate or delayed up to several hours. Treatment is essentially symptomatic. Consult a physician.

**Eye Contact:** Flush with water for at least 15 minutes. Consult a physician.

**Skin Contact:** Wash with soap and water. If irritation persists, consult a physician. Wash contaminated clothing thoroughly before reuse.

**Ingestion:** DO NOT induce vomiting. Call a physician immediately. Have the names of ingredients available.

**Note to Physician: Eyes:** Stain for evidence of corneal injury. If cornea is burned, instill antibiotic/steroid preparation frequently. Workplace vapors could produce reversible corneal epithelial edema impairing vision. **Skin:** This product is a known skin sensitizer. Treat symptomatically as for contact dermatitis or thermal burn. **Ingestion:** Treat symptomatically. There is no specific antidote. Inducing vomiting is contraindicated because of the irritating nature of the product. **Inhalation:** This product is a known pulmonary sensitizer. Treatment is essentially symptomatic. An individual having a dermal or pulmonary sensitization reaction to this material must be removed from any further exposure to any isocyanate.

#### SECTION-8 SPECIAL PRECAUTIONS

Observe label precautions. Keep away from heat, sparks and flame. Close container after each use. Ground containers when pouring. Wash thoroughly after handling and before eating or smoking. Do not store above 120 degrees F. Do not flame cut, saw, braze or weld containers. Store in tightly closed containers to prevent moisture contamination. Do not reseal if contamination is suspected. HDI reacts slowly with water to form CO<sub>2</sub> gas. This gas can cause sealed containers to expand and possibly rupture explosively. If container is exposed to high heat, it can be pressurized and possibly rupture explosively.

#### SECTION-9 SPILL OR LEAK PROCEDURES

Evacuate nonessential personnel. Remove all sources of ignition and ventilate the area. Notify appropriate authorities if necessary. Put on personal protective equipment (see Section 10). Dike or impound spilled material and control further spillage if feasible. Cover the spilled material with sawdust, cerniculite, Fuller's earth or other absorbent material. Pour decontamination solution over spill area and allow to react for at least 10 minutes. Collect material in open containers and add further amounts of decontamination solution. Remove containers to a safe place, cover loosely, and allow to stand for 24 to 48 hours. Wash down spill area with decontamination solutions.

Decontamination solutions: nonionic surfactant Union Carbide's Tergitol TMN-10 (20%) and water (80%); concentrated ammonia (3-8%), detergent (2%) and water (90-95%).

#### SECTION-10 SPECIAL PROTECTION INFORMATION/CONTROL MEASURES

Do not breathe vapors or mists. Wear a positive pressure supplied air respirator (NIOSH/MSHA TC-19C) while mixing activator with paint or clear, during application and until all vapors and spray mists are exhausted. Individuals with a history of lung or breathing problems or prior reaction to isocyanates should not use or be exposed to this product. Do not permit anyone without protection in the painting area. Follow respirator manufacturer's directions for respirator use.

**Ventilation:** Provide sufficient ventilation to keep vapor concentration below the given TLV and/or PEL.

**Protective clothing:** Solvent resistant gloves are required for to prevent contact. Refer to safety equipment supplier for effective glove recommendations.

Use safety goggles or safety glasses with splash guards or side shields to protect against splash of liquids.

Other protective equipment such as eye bath and shower should be available. Use chemical resistant apron, boots or other clothing if needed to avoid contact. Liquid may penetrate shoes and leather causing delayed irritation.

#### SECTION-11 REGULATORY INFORMATION

**OSHA:** This product is considered hazardous under the Federal OSHA Hazard Communication Standard.

**SARA Title III Section 302 Extremely Hazardous Substances:**None

**SARA Title III Section 311/312 Hazard Categories:**Immediate health, delayed health, fire hazard, reactive hazard.

**Section 313 Supplier Notification:** The chemicals listed below with percentages are subject to the reporting requirements of Section 313 of the Emergency Planning and Right-To-Know Act of 1986 and of 40 CFR 372:

<u>CAS Number</u>	<u>Chemical Name</u>	<u>% by Weight</u>
822-06-0	Hexamethylene Diisocyanate	less than 1

**Hazardous Air Pollutants:** none

**Hazardous Waste:** When discarded in its supplied form, this product must be considered a hazardous waste.

**TSCA status:** All ingredients are TSCA registered.

**CEPA status:** All ingredients are listed on the DSL or NDSL.

**Proposition 65 Warning:** This product does not contain chemicals known to the State of California to cause cancer or birth defects or other reproductive harm.

**DOT Proper Shipping Name:** Resin Solution; **Hazard Class or Division:** 3; **ID #:** UN1866; **Packing Group:** III

#### SECTION-12 OTHER INFORMATION

While Precision Coatings, Inc. believes that the data contained herein are accurate and derived from qualified sources, the data are not to be taken as a warranty or representation for which Precision Coatings, Inc. assumes legal responsibility. They are offered solely for your consideration, investigation, and verification. Any use of these data and information must be determined by the user to be in accordance with applicable federal, state and local laws and regulations.