

**SAFETY DATA SHEET**

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**SECTION 1: IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY**

**MANUFACTURER'S NAME / ADDRESS**

**ARIZONA POLYMER FLOORING**  
 4565 W WATKINS ST.  
 PHOENIX, AZ 85043 .

**TRADE NAME: POLYURETHANE 500 PART B**  
**COLOR: CLEAR**  
**MAIN USE: SPECIALTY FLOORING CURATIVE**

**EMERGENCY TELEPHONE NUMBER: (800) 424-9300 (CHEMTREC)**

**SECTION 2: HAZARDS IDENTIFICATION**

**GLOBALLY HARMONIZED SYSTEM (GHS)**

**CLASSIFICATION:**

**FLAMMABLE LIQUIDS: CATEGORY 3**  
**ACUTE TOXICITY: CATEGORY 4 (INHALATION-MIST)**  
**EYE DAMAGE: CATEGORY 1**  
**RESPIRATORY SENSITIZATION: CATEGORY 1**  
**SKIN SENSITIZATION: CATEGORY 1**  
**ACUTE AQUATIC TOXICITY: CATEGORY 2**  
**CHRONIC AQUATIC TOXICITY: CATERGORY 3**

**GHS LABEL ELEMENTS**

**HAZARD PICTOGRAMS**



**SIGNAL WORD: DANGER!**

**HAZARD STATEMENTS:**

H226: FLAMMABLE LIQUID AND VAPOR  
 H332: HARMFUL IF INHALED  
 H318: CAUSES SERIOUS EYE DAMAGE  
 H334: MAY CAUSE ALLERGY OR ASTHMA SYMPTOMS OR BREATHING DIFFICULTIES IF INHALED  
 H317: MAY CAUSE AN ALLERGIC SKIN REACTION  
 H304: MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAY  
 H335: MAY CAUSE RESPIRATORY IRRITATION  
 H412: HARMFUL TO AQUATIC LIFE WITH LONG LASTING EFFECTS

**PRECAUTIONARY STATEMENTS:**

**PREVENTION**

P280: WEAR PROTECTIVE GLOVES/ PROTECTIVE CLOTHING/ EYE PROTECTION/ FACE PROTECTION  
 P271: USE ONLY OUTDOORS OR IN WELL VENTILATED AREA  
 P260: DO NOT BREATH MIST/VAPORS/SPRAY  
 P210: KEEP AWAY FROM HEAT, SPARKS, OPEN FLAMES, AND HOT SURFACES. NO SMOKING  
 P273: AVOID RELEASE TO THE ENVIRONMENT  
 P284: (IN CASE OF INADEQUATE VENTILATION) WEAR RESPIRATORY PROTECTION.  
 P240: GROUND/BOND CONTAINER AND RECEIVING EQUIPMENT  
 P241: USE EXPLOSION-PROOF ELECTRICAL, VENTILATING AND LIGHTING EQUIPMENT

**HIGH PERFORMANCE CONCRETE COATING SYSTEM**

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<b>SECTION 2: HAZARDS IDENTIFICATION CON'T.</b>
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P242: USE ONLY NON-SPARKING TOOLS  
 P243: TAKE PRECAUTIONARY MEASURES AGAINST STATIC DISCHARGE  
 P272: CONTAMINATED WORK CLOTHING SHOULD NOT BE ALLOWED OUT OF THE WORKPLACE

**RESPONSE**

P303+P361+353: **IF ON SKIN (OR HAIR):** REMOVE/TAKE OFF IMMEDIATELY ALL CONTAMINATED CLOTHING. RINSE SKIN WITH WATER/SHOWER  
 P333+P311: IF SKIN IRRITATION OR RASH OCCURS: 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 SO. CONTINUE RINSING.  
 P337+P313: IF EYE IRRITATION PERSISTS: GET MEDICAL ADVICE/ATTENTION  
 P304+P340: **IF INHALED:** REMOVE PERSON TO FRESH AIR AND KEEP COMFORTABLE FOR BREATHING  
 P362+P364: TAKE OFF CONTAMINATED CLOTHING AND WASH BEFORE REUSE.  
 P370+P378: IN CASE OF FIRE: USE DRY CHEMICAL, CARBON DIOXIDE (CO<sub>2</sub>), FOAM, OR WATER SPRAY (FOR LARGE FIRES) TO EXTINGUISH

**STORAGE**

P403+P235: STORE IN A WELL-VENTILATED PLACE. KEEP COOL  
 P233: KEEP CONTAINER TIGHTLY CLOSED

**DISPOSAL**

P501: DISPOSE OF CONTENTS/CONTAINER TO AN APPROVED WASTE DISPOSAL PLANT

**OTHER HAZARDS**

NO DATA AVAILABLE

**EMERGENCY OVERVIEW:**

DANGER!  
 HARMFUL IF INHALED  
 RESPIRATORY SENSITIZER  
 MAY CAUSE RESPIRATORY TRACT, EYE AND SKIN IRRITATION  
 CONTAINS MATERIAL WHICH CAUSES DAMAGE TO THE FOLLOWING  
 ORGANS: BLOOD, KIDNEYS, LIVER, GASTROINTESTINAL TRACT,  
 RESPIRATORY TRACT, SKIN, NERVOUS SYSTEM, EYE, LENS OR CORNEA  
 FLAMMABLE LIQUID AND VAPOR  
 VAPOR MAY CAUSE FLASH FIRE  
 SKIN SENSITIZER

<b>SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS</b>
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<b>HAZARDOUS INGREDIENTS</b>	<b>Wt. %</b>	<b>CAS Number</b>
HOMOPOLYMER OF HEXAMETHYLENE DIISOCYANATE	40-70	028182-81-2
HOMOPOLYMER OF ISOPHORONE DIISOCYANATE	7-15	053880-05-0
DIPROPYLENE GLYCOL MONOMETHYL ETHER ACETATE	7-15	088917-22-0
BUTYL ACETATE	5-10	000123-86-4
POLYOXYETHYLENE TRIDECYL ETHER PHOSPHATE	1-5	009046-01-9
DIMETHYLCYCLOHEXYLAMINE	1-5	000098-94-2
2,2'-ETHYLENEDIOXYEHTYL BIS(2-ETHYLHEXANOATE)	1-5	000094-28-0
HEXAMETHYLENE-1,6- DIISOCYANATE	0.1-1.0	000822-06-0
ISOPHORONE DIISOCYANATE	0.1-1.0	004098-71-9

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### SECTION 4: FIRST AID MEASURES

**GENERAL:** REMOVE PERSON FROM AFFECTED AREA AND MAKE COMFORTABLE. TREAT SYMPTOMATICALLY.

**EYES:** FLUSH WITH WATER FOR 15 MINUTES. GET MEDICAL ATTENTION.

**SKIN:** REMOVE PRODUCT AND FLUSH AFFECTED AREA WITH WATER FOR 15 MINUTES. IF IRRITATION PERSISTS GET MEDICAL ATTENTION.

**INHALATION:** MOVE TO FRESH AIR. GIVE ASSISTED RESPIRATION IF BREATHING HAS STOPPED OR IS LABORED (CALL A PHYSICIAN).

**INGESTION:** GIVE 3 – 4 GLASSES OF WATER OR MILK IF PERSON CONSCIOUS. **DO NOT INDUCE VOMITING!** OBTAIN MEDICAL CARE AND TREATMENT.

**NOTES TO PHYSICIAN:**

**EYES:** STAIN FOR EVIDENCE OF CORNEAL INJURY. IF CORNEA IS BURNED, INSTILL ANTIBIOTIC/STEROID PREPARATION AS NEEDED. WORKPLACE VAPORS COULD PRODUCE REVERSIBLE CORNEAL EPITHELIAL EDEMA IMPAIRING VISION.

**SKIN:** THIS COMPOUND IS A 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 COMPOUND.

**INHALATION:** TREATMENT IS ESSENTIALLY SYMPTOMATIC. AN INDIVIDUAL HAVING A DERMAL OR PULMONARY SENSITIZATION REACTION TO THIS MATERIAL SHOULD BE REMOVED FROM FURTHER EXPOSURE TO ANY ISOCYANATE.

### SECTION 5: FIRE FIGHTING MEASURES

**FLASH POINT:** 40°C (104°F) TCC (BUTYL ACETATE)

**CONDITIONS OF FLAMMABILITY:** NA

**FLAMMABLE LIMITS:** **LEL:** 1.7%

**UEL:** 7.6%

**AUTO IGNITION TEMP.:** ND

**OSHA CLASS:** FLAMMABLE LIQUID, PACKING GROUP III

**HAZARDOUS COMBUSTION PRODUCTS:** CO, CO<sub>2</sub>, ALDEHYDES, ACIDS

**SENSITIVITY TO IMPACT:** ND

**SENSITIVITY TO STATIC DISCHARGE:** ND

**EXTINGUISHING MEDIA:** IGNITION MAY GIVE RISE TO A CLASS B FIRE. IN CASE OF FIRE USE: WATER FOG, CARBON DIOXIDE, DRY CHEMICAL, ALCOHOL FOAM.

**SPECIAL FIRE FIGHTING PROCEDURES:** WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING. WATER SPRAY IS USEFUL IN COOLING FIRE-EXPOSED VESSELS AND IN DISPERSING VAPORS.

**UNUSUAL FIRE AND EXPLOSIVE HAZARDS:** MAY GENERATE TOXIC OR IRRITATING COMBUSTION PRODUCTS. SUDDEN REACTION AND FIRE MAY RESULT IF PRODUCT IS MIXED WITH AN OXIDIZING AGENT. SOLVENT VAPORS MAY BE HEAVIER THAN AIR. UNDER CONDITIONS OF STAGNANT AIR, VAPORS MAY BUILD UP AND TRAVEL ALONG THE GROUND TO AN IGNITION SOURCE.

### SECTION 6: ACCIDENTAL RELEASE MEASURES

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:** EVACUATE NON-ESSENTIAL PERSONNEL. SHUT OFF SOURCES OF IGNITION. PUT ON PERSONAL PROTECTIVE EQUIPMENT. CONTROL SOURCE OF LEAK. VENTILATE. CONTAIN THE SPILL TO PREVENT SPREAD TO DRAINS, SEWERS, WATER SUPPLIES, OR SOIL. POUR DECONTAMINATION SOLUTION OVER SPILL AND ALLOW TO REACT FOR AT

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LEAST 15 MINUTES. COLLECT MATERIAL IN OPEN CONTAINERS WITH FURTHER AMOUNTS OF DECONTAMINATION SOLUTION. WASH DOWN SPILL AREA WITH DECONTAMINATION SOLUTION.

<b>SECTION 6: ACCIDENTAL RELEASE MEASURES CON'T.</b>
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DECONTAMINATION SOLUTIONS: COLORIMETRIC LABORATORIES INC. (CLI) DECONTAMINATION SOLUTION OR 20% NON-IONIC SURFACTANT (TERGITOL TMN-10) WITH 80% WATER.

<b>SECTION 7: HANDLING AND STORAGE</b>
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**GENERAL:** STORE IN COOL, WELL VENTILATED AREAS. KEEP AWAY FROM HEAT AND OPEN FLAMES. AVOID PROLONGED INHALATION OF HEATED VAPORS OR MISTS. AVOID PROLONGED SKIN CONTACT. USE NON-SPARKING TOOLS AND GROUNDING CABLES WHEN TRANSFERRING. CONTAINERS MAY BE HAZARDOUS WHEN EMPTY.

**STORAGE:** AVOID TEMPERATURE EXTREMES. STORE AWAY FROM EXCESSIVE HEAT, FROM SOURCES OF IGNITION AND FROM REACTIVE MATERIALS. MATERIAL CAN BURN; LIMIT INDOOR STORAGE TO AREAS EQUIPPED WITH AUTOMATIC SPRINKLERS. STORE OUT OF DIRECT SUNLIGHT IN A COOL PLACE. KEEP CONTAINERS TIGHTLY CLOSED. GROUND ALL METAL CONTAINERS DURING STORAGE AND HANDLING.

<b>SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION</b>
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**EXPOSURE LIMITS (ppm)**

INGREDIENTS (CAS)	OSHA		ACGIH		OTHER
	TWA	STEL	TWA	STEL	
028182-81-2	NE	NE	NE	NE	
053880-05-0	NE	NE	NE	NE	
088917-22-0	NE	NE	NE	NE	
000123-86-4	150	200	150	200	
009046-01-9	NE	NE	NE	NE	
000098-94-2	NE	NE	NE	NE	
000094-28-0	NE	NE	NE	NE	
000822-06-0	0.005	.02	0.005	NE	
004098-71-9	0.005	.02	0.005	NE	

**LEGEND:** (M) MAX. EXPOSURE LIMIT; (S) OCCUPATIONAL EXP. LIMIT; (R) SUPPLIERS REC. LIMIT, (+) PERCUTANEOUS RISK  
 NOTE 1: VALUES MEANINGFUL ONLY WHEN HARDENED PRODUCT IS ABRADED, GROUND, ETC.

**ENGINEERING CONTROLS:** EXHAUST VENTILATION SUFFICIENT TO KEEP AIRBORNE CONCENTRATION OF THE SOLVENTS BELOW THEIR RESPECTIVE TLV'S. EXHAUST AIR MAY NEED TO BE CLEANED BY SCRUBBERS OR FILTERS TO REDUCE ENVIRONMENTAL CONTAMINATION.

**PROTECTIVE GLOVES:** NITRILE RUBBER

**EYE PROTECTION:** SPLASH-PROOF GOGGLES OR CHEMICAL SAFETY GLASSES

**RESPIRATORY PROTECTION:** A RESPIRATOR THAT IS RECOMMENDED FOR USE IN ISOCYANATE CONTAINING ENVIRONMENTS (AIR PURIFYING OR FRESH AIR SUPPLIED) MAY BE NECESSARY FOR SPRAY APPLICATIONS OR OTHER SITUATIONS SUCH AS HIGH TEMPERATURE USE WHICH MAY PRODUCE INHALATION EXPOSURES. A SUPPLIED AIR RESPIRATOR (EITHER POSITIVE PRESSURE TYPE OR CONTINUOUS FLOW TYPE) IS RECOMMENDED. BEFORE AN AIR PURIFYING RESPIRATOR CAN BE USED, AIR MONITORING MUST BE PERFORMED TO DETERMINE THE AIRBORNE CONCENTRATIONS OF HDI MONOMER, HDI POLYISOCYANATE AND ORGANIC SOLVENTS.

**OTHER PROTECTIVE EQUIPMENT:** LONG SLEEVED SHIRTS AND TROUSERS. EMERGENCY SHOWERS AND EYE WASH STATIONS SHOULD BE READILY ACCESSIBLE.

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### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

**BOILING POINT:** >127°C (260°F) **SPECIFIC GRAVITY:** 1.05-1.15  
**VAPOR PRESSURE:** 3.7mmHg @ 20°C (68°F) **MELTING POINT:** ND  
**VAPOR DENSITY:** ND **EVAPORATION RATE:** 1  
(AIR = 1) (BUTYL ACETATE = 1)  
**SOLUBILITY IN WATER:** INSOLUBLE, REACTS SLOWLY WITH WATER TO LIBERATE CO<sub>2</sub> GAS  
**COEFFICIENT of WATER/OIL DISTRIBUTION:** ND **ODOR THRESHOLD:** ND  
**APPEARANCE AND ODOR:** CLEAR LIQUID, SWEET SOLVENT ODOR  
**% VOLATILES BY VOLUME:** 22% **%SOLIDS BY WEIGHT:** 81%

### SECTION 10: STABILITY AND REACTIVITY

**STABILITY:** STABLE; HOWEVER MAY FORM PEROXIDES OF UNKNOWN STABILITY

**CONDITIONS TO AVOID:** NOT APPLICABLE (MATERIAL IS STABLE).

**INCOMPATIBILITY (MATERIALS TO AVOID)-** WATER, AMINES, STRONG BASES, ALCOHOLS, METAL COMPOUNDS AND SURFACE ACTIVE MATERIALS.

**HAZARDOUS DECOMPOSITION PRODUCTS:** BY HIGH HEAT AND FIRE; CO, CO<sub>2</sub>, OXIDES OF NITROGEN, HCN, HDI.

**HAZARDOUS POLYMERIZATION (REACTIVITY):** MAY OCCUR. CONTACT WITH MOISTURE OR OTHER MATERIALS THAT REACT WITH ISOCYANATES OR TEMPERATURES OVER 400F (204C) MAY CAUSE POLYMERIZATION.

### SECTION 11: TOXICOLOGICAL INFORMATION

**PRIMARY ROUTES OF ENTRY:** EYE CONTACT, SKIN CONTACT, INHALATION, INGESTION.

**HEALTH HAZARDS (ACUTE AND CHRONIC EXPOSURES)**

**EYES:**

**ACUTE** –VAPORS ARE IRRITATING AND CAN CAUSE PAIN, TEARING, REDDENING AND SWELLING. IF LEFT UNTREATED, CORNEAL DAMAGE CAN OCCUR AND INJURY IS SLOW TO HEAL. HOWEVER DAMAGE IS USUALLY REVERSIBLE

**CHRONIC** – MAY RESULT IN CORNEAL OPACITY. PROLONGED VAPOR CONTACT MAY CAUSE CONJUNCTIVITIS.

**SKIN CONTACT:**

**ACUTE** – 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. REPEATED OR PROLONGED SKIN CONTACT WITH SOLVENTS CAN RESULT IN DRY, DEFATTED AND CRACKED SKIN CAUSING INCREASED SUSCEPTIBILITY TO INFECTION. IN ADDITION IRRITATION MAY DEVELOP INTO DERMATITIS. SOLVENTS CAN PENETRATE THE SKIN AND MAY CAUSE EFFECTS SIMILAR TO THOSE IDENTIFIED UNDER ACUTE INHALATION SYMPTOMS.

**CHRONIC** – PROLONGED CONTACT WITH ISOCYANATES 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 OR EVEN AS A RESULT OF VAPOR-ONLY EXPOSURE. SOLVENTS CAN PENETRATE THE SKIN AND MAY CAUSE SYSTEMIC EFFECTS SIMILAR TO THOSE IDENTIFIED UNDER CHRONIC INHALATION EFFECTS.

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**SECTION 11: TOXICOLOGICAL INFORMATION CON'T.**

**SKIN ABSORPTION:**

**ACUTE**—ND

**CHRONIC**-- ND

**INHALATION:**

**ACUTE** –HDI AEROSOLS OR VAPORS AT CONCENTRATIONS ABOVE THE APPLICABLE EXPOSURE LIMITS CAN IRRITATE THE MUCOUS MEMBRANES IN THE RESPIRATORY TRACT CAUSING RUNNY NOSE, SORE THROAT, COUGHING, CHEST DISCOMFORT, SHORTNESS OF BREATH AND REDUCED LUNG FUNCTION. PERSONS WITH PRE-EXISTING NONSPECIFIC BRONCHIAL HYPER REACTIVITY CAN RESPOND TO CONCENTRATIONS BELOW THE EXPOSURE LIMITS WITH SIMILAR SYMPTOMS AS WELL AS AN ASTHMA ATTACK. EXPOSURE WELL ABOVE THE EXPOSURE LIMITS MAY LEAD TO BRONCHITIS, BRONCHIAL SPASM AND PULMONARY EDEMA. CHEMICAL OR HYPERSENSITIVE PNEUMONITIS HAS ALSO BEEN REPORTED. SOLVENT VAPORS ARE IRRITATING TO THE EYES NOSE AND THROAT. SYMPTOMS OF IRRITATION MAY INCLUDE RED, ITCHY EYES, DRYNESS OF THE THROAT AND A FEELING OF TIGHTNESS IN THE CHEST. OTHER POSSIBLE SYMPTOMS OF OVEREXPOSURE INCLUDE: HEADACHE, DIZZINESS, NAUSEA, NARCOSIS, FATIGUE AND LOSS OF APPETITE.

**CHRONIC** – AS A RESULT OF PREVIOUS REPEATED OVEREXPOSURES OR A SINGLE LARGE DOSE, CERTAIN INDIVIDUALS WILL DEVELOP ISOCYANTE SENSITIZATION (CHEMICAL ASTHMA) WHICH WILL CAUSE THEM TO REACT TO A LATER EXPOSURE TO ISOCYANATES AT LEVELS WELL BELOW APPLICABLE EXPOSURE LIMITS. 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 ISOCYANTES HAS ALSO BEEN REPORTED TO CAUSE LUNG DAMAGE, INCLUDING DECREASE IN LUNG FUNCTION, WHICH MAY BE PERMANENT. SENSITIZATION MAY BE EITHER TEMPORARY OR PERMANENT. CHRONIC EXPOSURE TO ORGANIC SOLVENTS HAS BEEN ASSOCIATED WITH VARIOUS NEUROTOXIC EFFECTS INCLUDING PERMANENT BRAIN AND NERVOUS SYSTEM DAMAGE. SYMPTOMS INCLUDE LOSS OF MEMORY, LOSS OF INTELLECTUAL ABILITY AND LOSS OF COORDINATION.

**INGESTION:**

**ACUTE** – CAN RESULT IN IRRITATION AND POSSIBLE CORROSIVE ACTION IN THE MOUTH, STOMACH TISSUE AND DIGESTIVE TRACT. SYMPTOMS CAN INCLUDE SORE THROAT, ABDOMINAL PAIN, NAUSEA, VOMITING AND DIARRHEA. VOMITING MAY CAUSE ASPIRATION OF SOLVENT RESULTING IN CHEMICAL PNEUMONITIS

**CHRONIC** -- ND

**CONDITIONS AGGRAVATED BY EXPOSURE:** ASTHMA AND OTHER RESPIRATORY DISORDERS, SKIN ALLERGIES, ECZEMA

**ACUTE TOXICITY:** NO DATA ON THE PRODUCT ITSELF

**ACUTE ORAL TOXICITY- COMPONENTS**

HOMOPOLYMER OF HEXAMETHYLENE-1,6- DIISOCYANATE	LD50: >2500mg/kg	SPECIES: RAT
HOMOPOLYMER OF ISOPHORONE DIISOCYANATE	LD50: >14000 mg/kg	SPECIES: RAT
DIPROPYLENE GLYCOL MONOMETHYL ETHER ACETATE	LD50: >5000 mg/kg	SPECIES: RAT
N BUTYL ACETATE	ND	
CYCLOHEXYLDIMETHYLAMINE	LD50: 272 mg/kg	SPECIES: RAT
HEXAMETHYLENE-1,6-DIISOCYANATE	LD50: 746 mg/kg	SPECIES: RAT
ISOPHORONE DIISOCYANATE	LD50: 4814 mg/kg	SPECIES: RAT

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### SECTION 11: TOXICOLOGICAL INFORMATION CON'T.

#### ACUTE DERMAL TOXICITY- COMPONENTS

HOMOPOLYMER OF HEXAMETHYLENE-1,6- DIISOCYANATE	LD50: >2000mg/kg	SPECIES: RAT
HOMOPOLYMER OF ISOPHORONE DIISOCYANATE	ND	
DIPROPYLENE GLYCOL MONOMETHYL ETHER ACETATE	LD50: >2000mg/kg	SPECIES: RAT
N BUTYL ACETATE	LD50: >5000 mg/kg	SPECIES: RAT
CYCLOHEXYLDIMETHYLAMINE	LD50: 370 mg/kg	SPECIES: RAT
HEXAMETHYLENE-1,6-DIISOCYANATE	LD50: >7000 mg/kg	SPECIES: RAT
ISOPHORONE DIISOCYANATE	LD50: >7000 mg/kg	SPECIES: RAT

#### ACUTE INHALATION TOXICITY- COMPONENTS

HOMOPOLYMER OF HEXAMETHYLENE-1,6- DIISOCYANATE	LC50/4H: 0.390 mg/l	SPECIES: RAT
HOMOPOLYMER OF ISOPHORONE DIISOCYANATE	LC50/4H: 50 mg/l	SPECIES: RAT
DIPROPYLENE GLYCOL MONOMETHYL ETHER ACETATE	LC50/4H: 5.7 mg/l	SPECIES: RAT
N BUTYL ACETATE	LC50/4H: >21mg/l	SPECIES: RAT
CYCLOHEXYLDIMETHYLAMINE	LC50/4H: 4.45 mg/l	SPECIES: RAT
HEXAMETHYLENE-1,6-DIISOCYANATE	LC50/4H: 0.124 mg/l	SPECIES: RAT
ISOPHORONE DIISOCYANATE	LC50/4H: 0.03 mg/l	SPECIES: RAT
	OECD TEST GUIDELINE 403	

#### SKIN CORROSION/IRRITATION

DOT SKIN CORROSION STUDY: CORROSIVE IN ALL RABBITS AT 3 MINUTES EXPOSURE

#### SERIOUS EYE DAMAGE/EYE IRRITATION

SEVERE EYE IRRITATION

#### SENSITIZATION

PULMONARY AND DERMAL SENSITIZER IN ANIMALS AND HUMANS. EVIDENCE EXISTS THAT CROSS SENSITIZATION BETWEEN HDI AND OTHER ISOCYANATES, PARTICULARLY HYDROGENATED MDI AND TDI, CAN OCCUR.

#### SPECIFIC TARGET ORGAN SYSTEMIC TOXICITY (SINGLE EXPOSURE)

CATEGORY 3 (IRRITATING TO RESPIRATORY SYSTEM)

**CARCINOGENIC DATA:** NTP: NONE

OSHA: NONE

IARC: NONE

TERATOGENICITY: NO

MUTAGENICITY: NO

EMBRYOTOXICITY: NO

SYNERGISTIC MATERIAL: NO

### SECTION 12: ECOLOGICAL INFORMATION

#### TOXICITY

**AQUATIC TOXICITY:** NO DATA ON THE PRODUCT ITSELF. BASED ON THE COMPONENTS THE PRODUCT IS ACUTELY HARMFUL FOR AQUATIC ORGANISMS.

#### ACUTE TOXICITY TO FISH- COMPONENTS

HOMOPOLYMER OF HEXAMETHYLENE-1,6- DIISOCYANATE	LC50 (96 HRS): 100 mg/l
	SPECIES: FATHEAD MINNOW
HOMOPOLYMER OF ISOPHORONE DIISOCYANATE	LC50 (96 HRS): 1.51 mg/l
	SPECIES: FISH
DIPROPYLENE GLYCOL MONOMETHYL ETHER ACETATE	LC50 (96 HRS): 151 mg/l
	SPECIES: FATHEAD MINNOW
N BUTYL ACETATE	LC50 (96 HRS): 18 mg/l
	SPECIES: FISH
CYCLOHEXYLDIMETHYLAMINE	LC50 (96 HRS): 22-46 mg/l
	SPECIES: FISH

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**SECTION 12: ECOLOGICAL INFORMATION CON'T.**

**ACUTE TOXICITY TO FISH- COMPONENTS**

HEXAMETHYLENE-1,6- DIISOCYANATE	LC50 (96 HRS): ≥82.8 mg/l
	SPECIES: BRACHYDANIO RERIO
ISOPHORONE DIISOCYANATE	LC50 (96 HRS): >72 mg/l
	SPECIES: BRACHYDANIO RERIO

**ACUTE TOXICITY TO AQUATIC INVERTEBRATES: COMPONENTS**

HOMOPOLYMER OF HEXAMETHYLENE-1,6- DIISOCYANATE	EC50 (48 HRS): 127 mg/l
	SPECIES: DAPHNIA MAGNA
HOMOPOLYMER OF ISOPHORONE DIISOCYANATE	EC50 (48 HRS): 3.36 mg/l
	SPECIES: DAPHNIA MAGNA
DIPROPYLENE GLYCOL MONOMETHYL ETHER ACETATE	EC50 (48 HRS): 2701 mg/l
	SPECIES: DAPHNIA MAGNA
N BUTYL ACETATE	ND
CYCLOHEXYLDIMETHYLAMINE	EC50 (48 HRS): 75 mg/l
	SPECIES: DAPHNIA MAGNA
HEXAMETHYLENE-1,6- DIISOCYANATE	EC50 (48 HRS): ≥ 89.1 mg/l
	SPECIES: DAPHNIA MAGNA
ISOPHORONE DIISOCYANATE	LC50 (48 HRS): 27 mg/l
	SPECIES: DAPHNIA MAGNA

**ACUTE TOXICITY TO ALGAE/AQUATIC PLANTS: COMPONENTS**

HOMOPOLYMER OF HEXAMETHYLENE-1,6- DIISOCYANATE	EC50 (72 HRS): >1000 mg/l
	SPECIES: DESMODESMUS SUBSPICATUS
HOMOPOLYMER OF ISOPHORONE DIISOCYANATE	EC50 (72 HRS): >10000 mg/l
	SPECIES: DESMODESMUS SUBSPICATUS
DIPROPYLENE GLYCOL MONOMETHYL ETHER ACETATE	EC50 (72 HRS): >1000 mg/l
	SPECIES: GREEN ALGAE
N BUTYL ACETATE	EC50 (72 HRS): 674.7 mg/l
	SPECIES: DESMODESMUS SUBSPICATUS
CYCLOHEXYLDIMETHYLAMINE	EC50 (72HRS): >2 mg/l
	SPECIES: ALGAE
HEXAMETHYLENE-1,6- DIISOCYANATE	EC50 (72HRS): >77.4 mg/l
	SPECIES: DESMODESMUS SUBSPICATUS
ISOPHORONE DIISOCYANATE	LC50 (72 HRS): >70 mg/l
	SPECIES: DESMODESMUS SUBSPICATUS

**TOXICITY TO BACTERIA: COMPONENTS**

HEXAMETHYLENE-1,6- DIISOCYANATE	EC50: > 880mg/l	ACTIVATED SLUDGE
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**CHRONIC AQUATIC TOXICITY**

**CHRONIC TOXICITY TO AQUATIC INVERTEBRATES**

LONG LASTING ADVERSE EFFECTS TO AQUATIC ORGANISMS

**PERSISTANCE AND DEGRADABILITY**

**BIODEGRADABILITY:** NOT READILY BIODEGRADABLE (BY OECD CRITERIA)

**BIOACCUMULATIVE POTENTIAL**

**BIOACCUMULATION:** ND

**PARTITION COEFFECIENT: N-OCTANOL/WATER(LOG Pow):** ND

**MOBILITY IN SOIL**

ND



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### SECTION 13: DISPOSAL CONSIDERATIONS

**WASTE DISPOSAL METHODS:** INCINERATION IS PREFERRED. THIS PRODUCT SHOULD NOT BE ALLOWED TO ENTER DRAINS, WATER COURSES OR THE SOIL. PLACE IN AN APPROPRIATE DISPOSAL FACILITY IN COMPLIANCE WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS.

### SECTION 14: TRANSPORT INFORMATION

**DOT PROPER SHIPPING NAME:** UN1866, RESIN SOLUTION, FLAMMABLE, (CONTAINS BUTYL ACETATE), 3, PG III

**HAZARD LABEL:** FLAMMABLE LIQUID

**HAZARD PLACARD:** FLAMMABLE LIQUID

**IMO SHIPPING DATA:** UN1866, RESIN SOLUTION, FLAMMABLE, (CONTAINS BUTYL ACETATE), 3, PG III,

**ICAO/IATA SHIPPING DATA:** UN1866, RESIN SOLUTION, FLAMMABLE, (CONTAINS BUTYL ACETATE), 3, PG III

**PASSENGER AIR MAX QUANTITY:** 60L

**PASSENGER PACKING INSTRUCTION:** 309

**CARGO AIR- MAX QUANTITY:** 220L

**CARGO AIR INSTRUCTION NUMBER:** 310

### SECTION 15: REGULATORY INFORMATION

**VOC:** COMPONENT = 207 gms/Liter

**AS APPLIED** (Part of a multi-component system) = 50 gms/Liter

**TSCA (TOXIC SUBSTANCE CONTROL ACT):** ALL COMPONENTS ARE LISTED IN THE TSCA CHEMICAL SUBSTANCE INVENTORY.

**CERCLA (COMPREHENSIVE RESPONSE COMPENSATION and LIABILITY ACT):** REPORTABLE QUANTITY, BUTYL ACETATE 5000 LBS., HDI 100 LBS., IPDI 500 LBS.

#### SARA TITLE III

**SECTION 312 HAZARD CLASS:** IMMEDIATE (ACUTE) HEALTH HAZARD, DELAYED HEALTH HAZARD; FIRE HAZARD.

**SECTION 313 LISTED INGREDIENTS:** CAS# 822-06-0 HEXAMETHYLENE DIISOCYANATE, CAS # 4098-71-9 ISOPHORONE DIISOCYANATE

**CALIFORNIA PROPOSITION 65:** The below list of compounds is known to the State of California to cause cancer, birth defects or other reproductive harm: NONE.

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<b>SECTION 16: OTHER INFORMATION</b>
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**PREPARED BY:** J.W. ESSIG

**HAZARD RATING**

**HMIS:**                                      **HEALTH**    **2**                      **FLAMMABILITY**    **2**                      **REACTIVITY**    **1**

**LEGEND**

**ACGIH:**                      AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS

**OSHA:**                      OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION

**STEL:**                      SHORT TERM EXPOSURE LIMIT

**TWA:**                      TIME WEIGHTED AVERAGE

**PEL:**                      PERMISSIBLE EXPOSURE LIMIT

**TLV:**                      THRESHOLD LIMIT VALUE

**NA:**                      NOT APPLICABLE

**NE:**                      NOT ESTABLISHED

**ND:**                      NO DATA

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