

MATERIAL SAFETY DATA SHEET

FP250BREG00

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

MANUFACTURER'S NAME / ADDRESS

ARIZONA POLYMER FLOORING
7731 N. 68TH AVE.
GLENDALE, AZ 85303

TRADE NAME: POLYURETHANE 250 PART B
COLOR: CLEAR
MAIN USE: SPECIALTY FLOORING CURATIVE

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

SECTION 2: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: DANGER!
HARMFUL OR FATAL IF SWALLOWED
HARMFUL IF INHALED
RESPIRATORY SENSITIZER
CAUSES 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
MAY BE HARMFUL IF ABSORBED THROUGH SKIN
SKIN SENSITIZER
POSSIBLE CANCER HAZARD
CONTAINS MATERIAL WHICH CAN CAUSE CANCER

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.

SKIN ABSORPTION:

ACUTE—ND

CHRONIC—ND

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SECTION 2: HAZARDS IDENTIFICATION (CON'T)

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

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENTS	Wt. %	CAS Number
HOMOPOLYMER OF HEXAMETHYLENE DIISOCYANATE	60-100	028182-81-2
AROMATIC PETROLEUM DISTILLATES	15-40	064742-95-6
ETHYL-3-ETHOXYPROPIONATE	15-40	000763-69-9

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.

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SECTION 4: FIRST AID MEASURES CON'T.

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: 43.3°C (110°F) TCC (SC #100)

CONDITIONS OF FLAMMABILITY: NA

FLAMMABLE LIMITS: **LEL:** 1.0%

UEL: 7.0%

AUTO IGNITION TEMP.: 487.7°C (910°F)

OSHA CLASS: FLAMMABLE LIQUID, PACKING GROUP III

HAZARDOUS COMBUSTION PRODUCTS: CO, CO₂, 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 LEAST 15 MINUTES. COLLECT MATERIAL IN OPEN CONTAINERS WITH FURTHER AMOUNTS OF DECONTAMINATION SOLUTION. WASH DOWN SPILL AREA WITH DECONTAMINATION SOLUTION.

DECONTAMINATION SOLUTIONS: COLORIMETRIC LABORATORIES INC. (CLI) DECONTAMINATION SOLUTION OR 20% NON-IONIC SURFACTANT (TERGITOL TMN-10) WITH 80% WATER.

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SECTION 7: HANDLING AND STORAGE

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.

SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION

INGREDIENTS (CAS)	<u>EXPOSURE LIMITS (ppm)</u>				OTHER
	OSHA		ACGIH		
	TWA	STEL	TWA	STEL	
028182-81-2	NE	NE	NE	NE	
064742-95-6	NE	NE	NE	NE	
000763-69-9	50	100	50	100	

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.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT: >168°C (335°F)

SPECIFIC GRAVITY: 1.10-1.20

VAPOR PRESSURE: 2.1mmHg @ 20°C (68°F)

MELTING POINT: ND

VAPOR DENSITY: 4.50
(AIR = 1)

EVAPORATION RATE: 0.19 (SC #100)
(BUTYL ACETATE = 1)

SOLUBILITY IN WATER: INSOLUBLE, REACTS SLOWLY WITH WATER TO LIBERATE CO2 GAS

COEFFICIENT of WATER/OIL DISTRIBUTION: ND

ODOR THRESHOLD: ND

APPEARANCE AND ODOR: CLEAR LIQUID, AROMATIC SOLVENT ODOR

% VOLATILES BY VOLUME: 68.1%

% SOLIDS BY WEIGHT: 37.8%

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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, CO2, 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

CARCINOGENIC DATA: NTP: NONE
TERATOGENICITY: NO
EMBRYOTOXICITY: NO

OSHA: NONE

IARC: NONE
MUTAGENICITY: NO
SYNERGISTIC MATERIAL: NO

OVEREXPOSURE EFFECTS: LACRIMATION OF EYES, SKIN IRRITATION, DIZZINESS.

IRRITANCY: YES
SENSITIZER: YES

ACUTE TOXICITY EFFECTS: ORAL LD₅₀: >10,000mg/kg (Rats); INHALATION: LOWER RESPIRATORY IRRITANT LC₅₀: 137-1150 mg/m³ (RAT) EYE EFFECTS: SEVERE IRRITANT, 20mg (rabbit),

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.

SECTION 12: ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION: NOT READILY BIODEGRADABLE. **ECOTOXICITY:** ND

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHODS: INCINERATION IS PREFERRED. COMPLY WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS. RCRA CLASSIFIED HAZARDOUS WASTE WITH CHARACTERISTIC OF IGNITABILITY.

SECTION 14: TRANSPORT INFORMATION

DOT PROPER SHIPPING NAME: UN1866, RESIN SOLUTION, FLAMMABLE, (CONTAINS SC #100), 3, PG III

PACKAGING GROUP: III

DOT PRODUCT RQ LBS (KGS): NA

HAZARD LABEL: FLAMMABLE LIQUID

HAZARD PLACARD: FLAMMABLE LIQUID

IMO SHIPPING DATA: UN1866, RESIN SOLUTION, FLAMMABLE, (CONTAINS SC #100), 3, PG III

ICAO/IATA SHIPPING DATA: UN1866, RESIN SOLUTION, FLAMMABLE, (CONTAINS SC #100), 3, PG III

PASSENGER AIR MAX QUANTITY: 60L

PASSENGER PACKING INSTRUCTION: 309

CARGO AIR- MAX QUANTITY: 220L

CARGO AIR INSTRUCTION NUMBER: 310

