

PRODUCT NAME: **Micro Topping Clear Sealer Part A**

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SKIN CONTACT: WASH GENTLY AND THOROUGHLY THE CONTAMINATED SKIN WITH RUNNING WATER AND NON-ABRASSIVE SOAP. IF IRRITATION PERSISTS, SEEK MEDICAL ATTENTION.

INHALATION: NO KNOWN EFFECT ACCORDING TO OUR DATABASE.

INGESTION: **DO NOT INDUCE VOMITING.** HAVE A CONSCIOUS PERSON DRINK SEVERAL GLASSES OF WATER OR MILK. SEEK IMMEDIATE MEDICAL ATTENTION.

SECTION VI

SUPPLEMENTAL HEALTH INFORMATION

CONTACT A POISON CONTROL CENTER FOR ADDITIONAL TREATMENT INFORMATION.

SECTION VII

PHYSICAL DATA

BOILING POINT (°F): 212F (100C) SPECIFIC GRAVITY (H₂O = 1): 1.06

VAPOR PRESSURE (mm Hg @ 20°C): 29.33 MM HG @ 68F

SOLUBILITY (IN WATER): DISPERSIBLE

VAPOR DENSITY (AIR = 1): .569 (AIR=1)

EVAPORATION RATE (N-BUTYL ACETATE = 1): .07

APPEARANCE AND ODOR: LIGHT STRAW COLORED LIQUID, AMMONIA ODOR

SECTION VIII

FIRE AND EXPLOSION HAZARDS

FLASH POINT AND METHOD: GREATER THAN 250 F (121 C) SETAFLASH

FLAMMABLE LIMITS /% VOLUME IN AIR:

UPPER EXPLOSIVE LIMIT (UEL) (%) 25

LOWER EXPLOSIVE LIMIT (LEL) (%) 16

EXTINGUISHING MEDIA: WATER, CARBON DIOXIDE, DRY CHEMICAL, FOAM

SPECIAL FIRE FIGHTING PROCEDURES AND PRECAUTIONS: FULL EMERGENCY EQUIPMENT WITH SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE CLOTHING SHOULD BE WORN BY THE FIRE - FIGHTERS. USE COLD WATER SPRAY TO COOL FIRE-EXPOSED CONTAINERS TO MINIMIZE RISK OF RUPTURE. MATERIAL SUPPORTS COMBUSTION. DURING A FIRE, IRRITATING AND TOXIC GASES SUCH AS CARBON MONOXIDE MAY BE GENERATED BY THERMAL DECOMPOSITION OR COMBUSTION. SEE SECTION VIII. DO NOT SPRAY FIRE DIRECTLY. A SOLID STREAM DIRECTED INTO THE HOT BURNING LIQUID COULD CAUSE FROTHING.

SECTION IX

REACTIVITY

STABILITY: THIS IS A STABLE MATERIAL

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

CONDITIONS AND MATERIALS TO AVOID: NONE FOUND

HAZARDOUS DECOMPOSITION PRODUCTS: BY FIRE: CO₂, CO, AND OTHER ALIPHATIC FRAGMENTS.

SECTION X

EMPLOYEE PROTECTION

EYE PROTECTION REQUIREMENTS: SAFETY GLASSES OR GOGGLES ARE RECOMMENDED

SKIN PROTECTION REQUIREMENTS: IMPERMEABLE GLOVES ARE RECOMMENDED

RESPIRATORY/VENTILATION REQUIREMENT: GENERAL DILUTION VENTILATION THAT MAINTAINS VAPOR LEVELS BELOW THE APPROPRIATE EXPOSURE LIMIT IS RECOMMENDED. RESPIRATORY PROTECTION IS NOT REQUIRED WHILE HANDLING THIS PRODUCT UNDER NORMAL CONDITIONS OF USE (SEE SECTION IV FOR THE TYPE OF RESPIRATORY PROTECTION NECESSARY IN A FIRE SITUATION). IF THIS PRODUCT IS USED IN CONJUNCTION WITH OTHER MATERIALS, CONSULT THE APPROPRIATE MATERIAL SAFETY DATA SHEETS FOR RECOMMENDED RESPIRATORY PROTECTION.

ADDITIONAL MEASURES SAFETY SHOWERS AND EYE WASH STATIONS SHOULD BE EASILY ACCESSIBLE TO THE WORK AREA. EMPLOYEE TRAINING AND EDUCATION IN THE SAFE HANDLING AND USE OF THIS PRODUCT IS ESSENTIAL.

SECTION XI**ENVIRONMENTAL PROTECTION**

SPILL OR LEAK PROCEDURES:

COVER SPILL WITH ABSORBENT MATERIAL, SUCH A SAND, SWEEPING COMPOUND OR DIATOMACEOUS EARTH; COLLECT MATERIAL FOR DISPOSAL. WASH SPILL AREA WITH HOT WATER.

WASTE DISPOSAL METHOD.....WASTE MUST BE DISPOSED OF OR INCINERATED IN COMPLIANCE WITH FEDERAL, STATE OR LOCAL ENVIRONMENTAL CONTROL REGULATIONS.

SECTION XII**SPECIAL PRECAUTIONS**

GROUND ALL TRANSFER EQUIPMENT. TAKE PRECAUTIONARY MEASURES AGAINST STATIC DISCHARGE. HANDLE AS AN INDUSTRIAL CHEMICAL. KEEP CONTAINER TIGHTLY CLOSED WHEN NOT IN USE. PRACTICE GOOD CAUTION AND PERSONAL CLEANLINESS TO AVOID SKIN AND EYE CONTACT. HOLD BULK STORAGE UNDER NITROGEN BLANKET. STORE IN A COOL, DRY PLACE WITH ADEQUATE VENTILATION. KEEP AWAY FROM OPEN FLAMES AND HIGH TEMPERATURES.

SECTION XIII**TRANSPORTATION REQUIREMENTS**

TECHNICAL SHIPPING NAME: POLYACRYLATE DISPERSION

FREIGHT CLASS BULK: SYNTHETIC RESIN

FREIGHT CLASS PACKAGE: RESIN, COAL TAR OR PETROLEUM

PRODUCT LABEL: WATERBORNE URETHANE

DOT DOMESTIC SURFACE

HAZARD CLASS OR DIVISION.....NON-REGULATED

IMO / IMDG CODE (OCEAN)

HAZARD CLASS DIVISION NUMBER....NON-REGULATED

ICAO / IATA (AIR)

HAZARD CLASS DIVISION NUMBER.....NON-REGULATED

SECTION XIV**OTHER REGULATORY CONTROLS**

NOT MEANT TO BE ALL-INCLUSIVE. SELECTED REGULATIONS PRESENTED.

- A. SARA TITLE III SECTION 311/312 HAZARDS: NON-HAZARDOUS UNDER 311/312
- B. SARA TITLE III SECTION 313: TOXIC CHEMICALS: NONE
- C. WHMIS CLASSIFICATION:
- D. TSCA STATUS: ON TSCA INVENTORY
- E. OSHA HAZARD COMM. STD.:

ANIMAL TOXICITY DATA.....NO ANIMAL TOXICITY INFORMATION AVAILABLE

FEDERAL REGULATORY INFORMATION...

OSHA STATUS....THIS PRODUCT IS NOT HAZARDOUS UNDER THE CRITERIA OF THE FEDERAL OSHA HAZARD COMMUNICATION STANDARD 29 CFR 1910.1200

TSCA STATUS... ON THE TSCA INVENTORY

CERCLA REPORTABLE QUANTITY NONE

OTHER REGULATORY INFORMATION

COMPONENT NAME

/CAS NUMBER

POLYACRYLATE RESIN

APPROX. 60-70 %

PA3, NJ4

NJ4=NEW JERSEY OTHER-INCLUDED IN 5 PREDOMINANT INGREDIENTS >1%

PA3=PENNSYLVANIA NON-HAZARDOUS PRESENT AT 3% OR GREATER.

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RCRA STATUS....IF DISCARDED IN ITS PURCHASED FORM, THIS PRODUCT WOULD NOT BE BE A HAZARDOUS WASTE EITHER BY LISTING OR BY CHARACTERISTIC. HOWEVER, UNDER RCRA, IT IS THE RESPONSIBILITY OF THE PRODUCT USER TO DETERMINE AT THE TIME OF DISPOSAL, WETHER A MATERIAL CONTAINING THE PRODUCT OF DERIVED FROM THE PRODUCT SHOULD BE CLASSIFIED AS A HAZARDOUS WASTE. (40CFR 261.20-24)

SECTION XV

STATE REGULATORY INFORMATION

NONE KNOWN

CA = CALIFORNIA HAZ. SUBST. LIST; CA65 = CALIFORNIA SAFE DRINKING WATER AND TOXICS ENFORCEMENT ACT LIST; CT = CONNECTICUT TOX. SUBST. LIST; FL = FLORIDA SUBST. LIST; IL = ILLINOIS TOX. SUBST. LIST; LA = LOUISIANA HAZ. SUBST. LIST; MA = MASSACHUSETTS SUBST. LIST; ME = MAINE HAZ. SUBST. LIST; MN = MINNESOTA HAZ. SUBST. LIST; NJ = NEW JERSEY HAZ. SUBST. LIST; PA = PENNSYLVANIA HAZ. SUBST. LIST; RI = RHODE ISLAND HAZ. SUBST. LIST.
POLYESTER RESIN

SECTION XVI

SPECIAL NOTES

NEW MSDS.

THE INFORMATION CONTAINED HEREIN IS BASED ON THE DATA AVAILABLE TO US AND IS BELIEVED TO BE CORRECT. HOWEVER, MULTICOAT PRODUCTS, INC. MAKES NO WARRANTY, EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF. MULTICOAT PRODUCTS, INC. ASSUMES NO RESPONSIBILITY FOR INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN.

DATED PREPARED: SEPTEMBER 13, 2011
MANUFACTURED FOR: MULTICOAT PRODUCTS, INC.
 2922 WINFIELD ROAD
 WINFIELD, WV 25213

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RUNNY NOSE, SORE THROAT, COUGHING, CHEST DISCOMFORT, SHORTNESS OF BREATH AND REDUCED LUNG FUNCTION (BREATHING OBSTRUCTION). PERSONS WITH PREEXISTING, NONSPECIFIC BRONCHIAL HYPERACTIVITY CAN RESPOND TO CONCENTRATIONS BELOW THE TLV WITH SIMILAR SYMPTOMS AS WELL AS AN ASTHMA ATTACK. EXPOSURE WELL ABOVE THE TLV 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.

CHRONIC: 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. 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.

INGESTION:

ACUTE: CAN RESULT IN IRRITATION AND POSSIBLE CORROSIVE ACTION IN THE MOUTH, STOMACH TISSUE AND DIGESTIVE TRACT.

CHRONIC: NONE FOUND.

AGGRAVATED MEDICAL CONDITIONS:

BY EXPOSURE: ASTHMA AND ANY OTHER RESPIRATORY DISORDERS (BRONCHITIS, EMPHYSEMA, HYPERREACTIVITY), SKIN ALLERGIES, ECZEMA.

SECTION IV		OCCUPATIONAL EXPOSURE LIMITS			
	OSHA		ACGIH		OTHER
No.	PEL/TWA	PEL/CEILING	TLV/TWA	TLV/STEL	
NOT ESTABLISHED FOR THIS PRODUCT AS A WHOLE, REFER TO SECTION II FOR EXPOSURE LIMITS OF HAZARDOUS CONSTITUENTS.					

SECTION V **EMERGENCY AND FIRST AID PROCEDURES**

EYE CONTACT: FLUSH WITH CLEAN, LUKEWARM WATER (LOW PRESSURE) FOR AT LEAST 15 MINUTES WHILE LIFTING EYELIDS. REFER INDIVIDUAL TO PHYSICIAN OR OPHTHALMOLOGIST FOR IMMEDIATE FOLLOW-UP.

SKIN CONTACT: REMOVE CONTAMINATED CLOTHING IMMEDIATELY. WASH AFFECTED AREAS THOROUGHLY WITH SOAP (GREEN TINCTURE SOAP IS RECOMMENDED) AND WATER. WASH CONTAMINATED CLOTHING THOROUGHLY BEFORE REUSE. FOR SEVERE EXPOSURES, GET UNDER SAFETY SHOWER AFTER REMOVING CLOTHING, THEN GET MEDICAL ATTENTION. FOR LESSER EXPOSURES, SEEK MEDICAL ATTENTION IF IRRITATION DEVELOPS OR PERSISTS.

INHALATION: MOVE TO AN AREA FREE FROM RISK OF FURTHER EXPOSURE. ADMINISTER OXYGEN OR ARTIFICIAL RESPIRATION AS NEEDED. OBTAIN MEDICAL ATTENTION. ASTHMATIC-TYPE SYMPTOMS MAY DEVELOP AND MAY BE IMMEDIATE OR DELAYED UP TO SEVERAL HOURS. TREATMENT IS ESSENTIALLY SYMPTOMATIC. CONSULT PHYSICIAN.

INGESTION: **DO NOT INDUCE VOMITING.** GIVE 1 TO 2 CUPS OF MILK OR WATER TO DRINK. DO NOT GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS OR CONVULSING PERSON. CONSULT PHYSICIAN.

NOTE TO PHYSICIAN:

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EYES: STAIN FOR EVIDENCE OF CORNEAL INJURY. IF CORNEA IS BURNED, INSTILL ANTIBIOTIC /STERIOD PREPARATION FREQUENTLY. WORKPLACE VAPORS COULD PRODUCE REVERSIBLE CORNEAL EPITHELIAL EEMA IMPAIRING VISION.

SKIN: HDI IS A KNOWN SKIN SENSITIZER. TREAT SYMPTOMATICALLY ALS FOR CINTACT 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: HDI 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 VI

SUPPLEMENTAL HEALTH INFORMATION

CONTACT A POISON CONTROL CENTER FOR ADDITIONAL TREATMENT INFORMATION.

SECTION VII

PHYSICAL DATA

BOILING POINT (°F): NOT ESTABLISHED

SPECIFIC GRAVITY (H₂O = 1): 1.16

VAPOR PRESSURE (mm Hg @ 20°C): NOT ESTABLISHED

SOLUBILITY (IN WATER):

RESIN IS INSOLUABLE - REACTS SLOWLY WITH

WATER TO LIBERATE CO₂ GAS

VAPOR DENSITY (AIR = 1): NOT ESTABLISHED

EVAPORATION RATE (N-BUTYL ACETATE = 1):

APPEARANCE AND ODOR: CLEAR/PALE YELLOW SLIGHT

SECTION VIII

FIRE AND EXPLOSION HAZARDS

FLASH POINT AND METHOD: GREATER THAN 200° F (93.3 C) PENSKY-MARTENS CLOSED CUP

FLAMMABLE LIMITS /% VOLUME IN AIR:

EXTINGUISHING MEDIA: DRY CHEMICAL; CARBON DIOXIDE; FOAM; WATER SPRAY FOR LARGE FIRES.

SPECIAL FIRE FIGHTING PROCEDURES AND PRECAUTIONS: FULL EMERGENCY EQUIPMENT WITH SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE CLOTHING SHOULD BE WORN Y FIRE FIGHTERS. DURING A FIRE, HDI VAPORS AND OTHER IRRITATING, HIGHLY TOXIC GASES MAY BE GENERATED BY THERMAL DECOMPOSITION OR COMBUSTION (SEE REACTIVITY DATA SECTION).

UNUSUAL FIRE AND EXPLOSION HAZARDS: CLOSED CONTAINER MAY CXPLODE WHEN EXPOSED TO EXTREME HEAT OR BURST WHEN CONTAMINATED WITH WATER (CO₂ EVOLVED).

SECTION IX

REACTIVITY

STABILITY: THIS IS A STABLE MATERIAL.

HAZARDOUS POLYMERIZATION: MAY OCCUR; CONTACT WITH MOISTURE OR OTHER MATERIALS WHICH REACT WITH ISOCYANATES OR TEMPERATURES OVER 400° F (204 C) MAY CAUSE POLYMERIZATION.

CONDITIONS AND MATERIALS TO AVOID: WATER, AMINES, STRONG BASES, ALCOHOLS, MITAL COMPOUNDS AND SURFACE ACTIVE MATERIALS.

HAZARDOUS DECOMPOSITION PRODUCTS: BY HIGH HEAT AND FIRE: CARBON DIOXIDE, CARBON MONOXIDE, OXIDES OF NITROGEN, TRACES OF HCN, HDI.

SECTION X

EMPLOYEE PROTECTION

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RESPIRATORY PROTECTION: A RESPIRATOR THAT IS RECOMMENDED OR APPROVED 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 OR CONTINUOUS FLOW TYPE) IS RECOMMENDED. BEFORE AN AIR-PURIFYING RESPIRATOR CAN BE USED, AIR MONITORING MUST BE PERFORMED TO MEASURE AIRBORNE CONCENTRATIONS OF HDI MONOMER, HDI POLYISOCYANATE AND ORGANIC SOLVENT(S). SEE THE OUTLINE BELOW FOR THE SPECIFIC CONDITIONS UNDER WHICH AIR-PURIFYING RESPIRATORS CAN BE USED. OBSERVE OSHA REGULATIONS FOR RESPIRATOR USE (29 CFR 1910.134).

SPRAY APPLICATION:

A. GOOD INDUSTRIAL HYGIENE PRACTICE DICTATES THAT WHEN ISOCYANATE BASED COATINGS ARE SPRAY APPLIED, SOME FORM OF RESPIRATORY PROTECTION SHOULD BE WORN. DURING THE SPRAY APPLICATION OF ORGANIC SOLVENT CONTAINING COATINGS SYSTEMS, THE USE OF A SUPPLIED-AIR (EITHER POSITIVE PRESSURE OR CONTINUOUS FLOW TYPE) RESPIRATOR IS MANDATORY WHEN ONE OR MORE OF THE FOLLOWING CONDITIONS EXISTS:

- THE AIRBORNE ISOCYANATE CONCENTRATIONS ARE NOT KNOWN; OR
- THE AIRBORNE ISOCYANATE MONOMER CONCENTRATIONS EXCEED 0.05 PPM (10 TIMES THE TLV); OR
- THE AIRBORNE POLYISOCYANATE (POLYMERIC, OLIGOMERIC) CONCENTRATIONS EXCEED 5 MG/M³ AVERAGED OVER 8 HOURS OR 10 MG/M³ AVERAGED OVER 15 MINUTES (10 TIMES THE MGL); OR
- NO AIRBORNE SOLVENT CONCENTRATION EXCEEDS ITS ODOR THRESHOLD; OR
- SPRAYING IS PERFORMED IN A CONFINED SPACE (SEE OSHA CONFINED SPACE STANDARD 29 CFR 1910.146).

A PROPERLY FITTED AIR-PURIFYING (COMBINATION ORGANIC VAPOR AND PARTICULATE) RESPIRATOR, PROVEN BY TEST TO BE EFFECTIVE IN ISOCYANATE-CONTAINING SPRAY PAINT ENVIRONMENTS, AND USES IN ACCORDANCE WITH ALL RECOMMENDATIONS MADE BY THE MANUFACTURER, CAN BE USED WHEN ALL OF THE FOLLOWING CONDITIONS ARE MET:

- THE AIRBORNE ISOCYANATE MONOMER CONCENTRATIONS ARE KNOWN TO BE BELOW 0.05 PPM (10 TIMES THE TLV); AND
- THE AIRBORNE POLYISOCYANATE (POLYMERIC, OLIGOMERIC) CONCENTRATIONS ARE KNOWN TO BE BELOW 5 MG/M³ AVERAGED OVER 8 HOURS OR 10 MG/M³ AVERAGED OVER 15 MINUTES (10 TIMES THE MGL); AND
- AT LEAST ONE SOLVENT HAS A PUBLISHED ODOR THRESHOLD*; AND
- AT LEAST ONE AIRBORNE SOLVENT CONCENTRATION EXCEEDS ITS ODOR THRESHOLD AND THAT SOLVENT'S ODOR THRESHOLD IS LOWER THAN ITS TLV.

B. DURING THE SPRAY APPLICATION OF A COATINGS SYSTEM NOT CONTAINING ORGANIC SOLVENTS A SUPPLIED-AIR (EITHER POSITIVE PRESSURE OR CONTINUOUS FLOW TYPE) RESPIRATOR IS MANDATORY WHEN ONE OR MORE OF THE FOLLOWING CONDITIONS EXISTS:

- THE AIRBORNE ISOCYANATE CONCENTRATIONS ARE NOT KNOWN; OR
- THE AIRBORNE ISOCYANATE MONOMER CONCENTRATION EXCEEDS THE TLV OF 0.005 PPM; OR
- THE AIRBORNE POLYISOCYANATE (POLYMERIC, OLIGOMERIC) CONCENTRATION EXCEEDS THE MGL OF 0.5 MG/M³ AVERAGED OVER 8 HOURS OR 1 MG/M³ AVERAGED OVER 15 MINUTES; OR
- SPRAYING IS PERFORMED IN A CONFINED SPACE (SEE OSHA CONFINED SPACE STANDARD 29 CFR 1910.146)

UNDER ANY OTHER CIRCUMSTANCES, DURING SPRAY APPLICATION OF A COATINGS SYSTEM NOT CONTAINING SOLVENTS, GOOD INDUSTRIAL HYGIENE PRACTICE AIR-PURIFYING RESPIRATOR SHOULD BE WORN.

NON-SPRAY OPERATIONS:

A. DURING NON-SPRAY OPERATIONS SUCH AS MIXING, BATCH MAKING, BRUSH OR ROLLER APPLICATION, ETC., AT ELEVATED TEMPERATURES (FOR EXAMPLE, HEATING OF MATERIAL OR APPLICATION TO A HOT SUBSTRATE), IT IS POSSIBLE TO BE EXPOSED TO AIRBORNE ISOCYANATE VAPORS. THEREFORE,

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WHEN THE COATINGS SYSTEM HT AIRBORNE ISOCYANATE VAPORS. THEREFORE, WHEN THE CAOTINGS SYSTEM CONTAINS SOLVENTS AND WILL BE APPLIED IN A NON-SPRAY MANNER, A SUPPLIED-AIR (EITHER POSITIVEPRESSURE OR CONTINUOUS FLOW THPE) RESPIRATOR IS MANDATORY WHEN ONE OR MORE OF THE FOLLOWING CONDITIONS EXISTS:

- THE AIRBORNE ISOCYANTE CONCENTRATIONS ARE NOT KNOWN; OR
- THE AIRBORNE ISOCYANATE MONOMER CONCENTRATIONS EXCEED 0.05 PPM (10 TIMES THE TLV); OR
- THE POLYISOCYANATE (POLYMERIC, OLIGOMERIC) CONCENTRATIONS EXCEED 5 MG/M³ AVERAGED OVER 8 HOURS OR 10 MG/M³ AVERAGED OVER 15 MINUTES (10 TIMES THE MGL) ; OR
- NO AIRBORNE SOLVENT CONCENTRATION EXCEEDS ITS ODOR THRESHOLD; OR
- OPERATIONS ARE PERFORMED IN A CONFINED SPACE (SEE OSHA CONFINED SPACE STANDARD 49 CFR 1910.146).

A PROPERLY FITTED AIR PURIFYING (COMBINATION ORGANIC VAPOR AND PARTICULATE) RESPIRATOR, PROVEN BY TESTTO BE EFFECTIVE IN ISOCYANATE-CONTAINING PAINT ENVIROMENTS, AND USED IN ACCORDANCE WITH ALL RECOMMENDATIONS MADE BY THE MANUFACTURER, CAN BE USED WHEN ALL OF THE FOLLOWING CONDITIONS ARE MET:

- THE AIRBORNE CONCENTRATIONS OF THE ISOCYANATE MONOMER ARE BELOW 0.05 PPM (10 TIMES THE TLV) ; AND
- THE AIRBORNE POLYISOCYANATE (POLYMERIC, OLIGOMERIC) CONCENTRATIONS ARE KNOWN TO BE BELOW 5 MG/M³ AVERATED OVER 8 HOURS OR 10 MG/M³ AVERAGED OVER 15 MINUTES (10 TIMES THE MGL); AND
- AT LEAST ONE SOLVENT HAS A PUBLISHED ODOR THRESHOLD*; AND
- AT LEAST ONE AIRBORNE SOLVENT CONCENTRATION EXCEEDS ITS ODOR THRESHOLD AND THAT SOLVENT'S ODOR THRESHOLD IS LOWER THAN ITS TLV.

B. DURING NON-SPRAY OPERATIONS USING A SOLVENT-FREE COATINGS SYSTEM, A SUPPLIED-AIR (EITHER POSITIVE PRESSURE OR CONTINUOUS FLOW TYPE) RESPIRATOR IS MANADATORY WHEN ONE OR MORE OF THE FOLLOWING CONDITOINS EXISTS:

- THE AIRBORNE ISOCYANATE CONCENTRATIONS ARE NOT KNOWN; OR
- THE AIRBORNE ISOCYANATE MONOMER CONCENTRATIONS EXCEED THE T. V OF 0.005 PPM; OR
- THE AIRBORNE PLOYIOSCYANTE (POLYMERIC, OLIGOMERIC) CONCENTRATIONS EXCEED THE MGL OF 0.5 MG/M³ AVERAGED OVER 8 HOURS, OR 1.0 MG.M³ AVERAGED OVER 15 MINUTES; OR
- OPERATIONS ARE PERFORMED IN ACONFINED SPACE (SEE OSHA CONFINED SPACE STANDARD 49 CFR 1910.146).

VENTILATION REQUIRMENTS: GOOD INDUSTRIAL HYGIENE PRACTICE DICTATES THAT WORKER PROTECTION SHOULD BE ACHIEVED THROUGH ENGINEERING CONTROLS SUCH AS VENTILATION WHENEVER FEASIBLE. WHEN SUCH CONTROLS ARE NOT FEASIBLE TO ACHIEVE FULL PROTETION, THE USE OF RESPIRATORS AND OTHER PERSONAL PROTECTIVE EQUIPMENT IS MANDATED (SEE RESPIRATOR REQUIREMENTS). EXHAUST AIR MAY NEED TO BE CLEANED BY SCRUBBERS OR FILTERS TO REDUCE ENVIROMENTLA CONTAMINATION. CURING OVENS MUST BE VENTILLATED TO PREVENT EMISSIONS INTO THE WORKPLACE. IF OVEN OFF-GASES ARE NOT VENTED PROPERLY (I.E. THEY ARE RELEASED INTO THE WORK AREA), IT IS POSSIBLE TO BE EXPOSED TO AIRBORNE MONOMERIC HDI

MONITORING: REFER TO PATTY'S INDUSTRIAL HYGIENE AND TOXICOLOGY-VOLUME 1 (3RD EDITION) CHAPTER 17 AND VOLUME III (1ST EDITION) CHAPTER 3-FOR GUIDANCE CONCERNING APPROPRIATE AIR SAMPLING STRATEGY TO DETERMINE AIRBORNE CONCENTRATIONS OF ISOCYANATES AND SOLVENT.

MEDICAL SURVEILLANCE: MEDICAL SUPERVISION OF ALL EMPLOYEES WHO HANDLE OR COME IN CONTACT WITH THIS PRODUCT IS RECOMMENDED. THIS SHOULD INCLUDE PREEMPLOYMENT AND PERIODIC MEDICAL EXAMINATOINS WITH RESPIRATORY FUNCTION TESTS (FEV, FVC AS A MINIMUM). PERSONS WITH ASTHMA-TYPE CONDITIONS, CHRONIC BRONCHITIS, OTHER CHRONIC RESPIRATORY DESEASES OR RECURRENT SKIN ECZEMA OR SENSITIZATION SHOULD BY EXCLUDED FROM WORKING WITH ISOCYANATES.

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ONCE A PERSON IS DIAGNOSED AS SENSITIZED TO AN ISOCYANATE, NO FURTHER EXPOSURE CAN BE PERMITTED.

ADDITIONAL PROTECTIVE MEASURES: SAFETY SHOWERS AND EYEWASH STATIONS SHOULD BE AVAILABLE. EDUCATE AND TRAIN EMPLOYEES IN SAFE USE OF PRODUCT. FOLLOW ALL LABEL INSTRUCTIONS. FOR ADDITIONAL INFORMATION, SEE BAYER'S "HEALTH AND SAFETY INFORMATION FOR HEXAMETHYLENE DIISOCYANATE BASED POLYISOCYANATES".

* WE RECOMMEND USING THE GEOMETRIC MEAN AIR ODOR THRESHOLD FOUND IN TABLE 5.1 OF "ODOR THRESHOLDS FOR CHEMICALS WITH ESTABLISHED OCCUPATIONAL HEALTH STANDARDS," - AIHA

PROTECTIVE CLOTHING:

SECTION XI

ENVIRONMENTAL PROTECTION

SPILL OR LEAK PROCEDURES: EVACUATE NONESSENTIAL PERSONNEL. REMOVE ALL SOURCES OF IGNITION AND VENTILATE THE AREA. DIKE OR IMPOUND SPILLED MATERIAL AND CONTROL FURTHER SPILLAGE IF FEASIBLE. NOTIFY APPROPRIATE AUTHORITIES IF NECESSARY. COVER THE SPILL WITH SAWDUST, VERMICULITE, 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%). RESPIRATORY PROTECTION IS RECOMMENDED DURING SPILL CLEANUP (SEE RESPIRATORY PROTECTION RECOMMENDATIONS).

WATER DISPOSAL METHOD: WASTE MUST BE DISPOSED OF IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL ENVIRONMENTAL CONTROL REGULATIONS. INCINERATION IS THE PREFERRED METHOD. EMPTY CONTAINERS MUST BE HANDLED WITH CARE DUE TO PRODUCT RESIDUE. DECONTAMINATE CONTAINERS PRIOR TO DISPOSAL. DO NOT HEAT OR CUT EMPTY CONTAINER WITH ELECTRIC OR GAS TORCH (SEE FIRE AND EXPLOSION DATA AND REACTIVITY DATA SECTIONS)

SECTION XII

SPECIAL PRECAUTIONS

GROUND ALL TRANSFER EQUIPMENT. TAKE PRECAUTIONARY MEASURES AGAINST STATIC DISCHARGE. HANDLE AS AN INDUSTRIAL CHEMICAL. KEEP CONTAINER TIGHTLY CLOSED WHEN NOT IN USE. PRACTICE GOOD CAUTION AND PERSONAL CLEANLINESS TO AVOID SKIN AND EYE CONTACT. HOLD BULK STORAGE UNDER NITROGEN BLANKET. STORE IN A COOL, DRY PLACE WITH ADEQUATE VENTILATION. KEEP AWAY FROM OPEN FLAMES AND HIGH TEMPERATURES.

STORAGE TEMPERATURE (MIN/MAX): -33° F (-36 C)/122 °F (50 C)

SHELF LIFE: 12 MONTHS

SPECIAL SENSITIVITY: IF CONTAINER IS EXPOSED TO HIGH HEAT, IT CAN BE PRESSUREIZED AND POSSIBLY RUPTURE EXPLOSIVELY. HDI REACTS SLOWLY WITH WATER TO FORM CO₂ GAS. THIS GAS CAN CAUSE SEALED CONTAINERS TO EXPAND AND POSSIBLY RUPTURE EXPLOSIVELY.

HANDLING/STORAGE PRECAUTIONS: KEEP AWAY FROM HEAT, SPARKS AND OPEN FLAME. GROUND CONTAINERS DURING STORAGE AND TRANSFER OPERATIONS. STORE IN TIGHTLY CLOSED CONTAINERS TO PREVENT MOISTURE CONTAMINATION. DO NOT RESEAL IF CONTAMINATION IS SUSPECTED. AT MAXIMUM STORAGE TEMPERATURES NOTED MATERIAL MAY SLOWLY POLYMERIZE WITHOUT HAZARD. IDEAL STORAGE TEMPERATURE RANGE FOR EASE OF HANDLING IS 50-81°F (10-27 C). AVOID CONTACT WITH SKIN AND EYES. EMPLOYEE EDUCATION AND TRAINING IN THE SAFE USE AND HANDLING OF THIS COMPOUND ARE REQUIRED UNDER THE OSHA HAZARD COMMUNICATION STANDARD.

OTHER NOTES: WHEN WORKING WITH A TWO-COMPONENT WATERBORNE POLYURETHANE SYSTEM, TAKE PRECAUTIONS TO ASSURE THAT CONTAINERS OF MIXED MATERIAL ARE WELL VENTED. POLYISOCYANATES WILL REACT WITH THE WATER IN THE SYSTEM TO FORM CO₂ GAS WHICH CAN BE RELEASED BY VENTING THE CONTAINER. IT IS RECOMMENDED TO OCCASIONALLY AGITATE THE COATING

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SYSTEM WHEN IN USE TO PREVENT POTENTIAL OVERFLOW. THE FORMATION OF CO₂ WILL GENERATE PRESSURE IN A SEALED CONTAINER CAUSING THE CONTAINER TO EXPAND AND POSSIBLY RUPTURE EXPLOSIVELY. WHEN WORKING WITH A PRESSURE POT, INSURE THAT PRESSURE RELEASE VALVES ARE CLEAN AND PROPER WORKING CONDITION.

SECTION XIII **TRANSPORTATION REQUIREMENTS**

IMPORTANT NOTE: SHIPPING DESCRIPTIONS MAY VARY BASED ON MODE OF TRANSPORT, QUANTITIES, PACKAGE SIZE, AND/OR ORIGIN AND DESTINATION. CONSULT YOUR COMPANY'S HAZARDOUS MATERIALS/DANGEROUS GOODS EXPERT FOR INFORMATION SPECIFIC TO YOUR SITUATION.

GROUND (DOT): NOT REGULATED, LIMITED QUANTITY

AIR (IATA) : NOT REGULATED, LIMITED QUANTITY

OCEAN (IMDG) : NOT REGULATED, LIMITED QUANTITY

SECTION XIV **OTHER REGULATORY CONTROLS**

NOT MEANT TO BE ALL-INCLUSIVE. SELECTED REGULATIONS PRESENTED.

- A. SARA TITLE III SECTION 311/312 HAZARDS: IMMEDIATE HEALTH HAZARD; DELAYED HEALTH HAZARD; REACTIVE HAZARD
- B. SARA TITLE III SECTION 313: TOXIC CHEMICALS: NONE
RCRA STATUS: IF DISCARDED IN ITS PURCHASED FORM, THIS PRODUCT WOULD NOT BE A HAZARDOUS WASTE EITHER BY LISTING OR BY CHARACTERISTIC. HOWEVER, UNDER RCRA, IT IS THE RESPONSIBILITY OF THE PRODUCT USER TO DETERMINE AT THE TIME OF DISPOSAL, WHETHER A MATERIAL CONTAINING THE PRODUCT OR DERIVED FROM THE PRODUCT SHOULD BE CLASSIFIED AS A HAZARDOUS WASTE. (40 CFR 261.20-24)
- C. WHMIS CLASSIFICATION:
- D. TSCA STATUS: ON TSCA INVENTORY
- E. OSHA HAZARD COMM. STD.: THIS PRODUCT IS HAZARDOUS UNDER THE CRITERIA OF THE FEDERAL OSHA HAZARD COMMUNICATION STANDARD 29 CFR 1910.1200.

OTHER REGULATORY INFORMATION: THE FOLLOWING CHEMICALS ARE SPECIFICALLY LISTED BY INDIVIDUAL STATES; OTHER PRODUCT SPECIFIC HEALTH AND SAFETY DATA IN OTHER SECTIONS OF THE MSDS MAY ALSO BE APPLICABLE FOR STATE REQUIREMENTS. FOR DETAILS ON YOUR REGULATORY REQUIREMENTS YOU SHOULD CONTACT THE APPROPRIATE AGENCY IN YOUR STATE.

COMPONENT NAME /CAS NUMBER	CONCENTRATION	STATE CODE
ALIPHATIC POLYISOCYANATES NJTSRN (31765300002)-7684P	15-25%	PA3, NJ4
HEXAMETHYLENE DIISOCYANATE (HDI) 28182-81-2	75-85%	PA1, MA, NJ1

MA = MASSACHUSETTS HAZARDOUS SUBSTANCE LIST

NJ1 = NEW JERSEY HAZARDOUS SUBSTANCE LIST

NJ4 = NEW JERSEY OTHER - INCLUDED IN 5 PREDOMINANT INGREDIENTS > 1%

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NJTSRN = NEW JERSEY TRADE SECRET REGISTRY NUMBER

PA1 = PENNSYLVANIA HAZARDOUS SUBSTANCE LIST

PA3 = PENNSYLVANIA NON-HAZARDOUS PRESENT AT 3% OR GREATER.

*LESS THAN 0.05% BASED ON RESIN SOLIDS AT THE TIME OF MANUFACTURE.

SECTION XV**STATE REGULATORY INFORMATION**

NONE KNOWN

CA = CALIFORNIA HAZ. SUBST. LIST; CA65 = CALIFORNIA SAFE DRINKING WATER AND TOXICS ENFORCEMENT ACT LIST; CT = CONNECTICUT TOX. SUBST. LIST; FL = FLORIDA SUBST. LIST; IL = ILLINOIS TOX. SUBST. LIST; LA = LOUISIANA HAZ. SUBST. LIST; MA = MASSACHUSETTS SUBST. LIST; ME = MAINE HAZ. SUBST. LIST; MN = MINNESOTA HAZ. SUBST. LIST; NJ = NEW JERSEY HAZ. SUBST. LIST; PA = PENNSYLVANIA HAZ. SUBST. LIST; RI = RHODE ISLAND HAZ. SUBST. LIST.

SECTION XVI**SPECIAL NOTES**

NEW MSDS.

THE INFORMATION CONTAINED HEREIN IS BASED ON THE DATA AVAILABLE TO US AND IS BELIEVED TO BE CORRECT. HOWEVER, MULTICOAT PRODUCTS, INC. MAKES NO WARRANTY, EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF. MULTICOAT PRODUCTS, INC. ASSUMES NO RESPONSIBILITY FOR INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN.

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MANUFACTURED FOR: MULTICOAT PRODUCTS, INC.
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